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# CONSUMERS' DIGEST



*Automobiles of 1938*

*Automobile Radios*

*The Tax Illusion*

*Vitamins In Cosmetics*

*Keeping Cut Flowers*

*Linoleum*

*Vinegar*

JULY, 1938

Vol. 4

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Ratings of  
Motion Pictures

25<sup>c</sup>

# CONSUMERS' DIGEST

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**All these articles will appear in early forthcoming issues of CONSUMERS' DIGEST. Watch for them on your local newsstand the 25th of each month.**

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# CONSUMERS' DIGEST



*The enlightened consumer is a necessary  
encouragement to merchandising integrity.*



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# Automobiles of 1938

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THE main talking points in selling automobiles this year have been the improved safety provided by steel construction, the increased roominess afforded by new body and seat designs, and the supposed economy afforded by automatic transmissions and related complicated devices. The latter, please note, will be made to appear to afford much greater economy in oil and gas consumption than such devices can in practice. To many, indeed, the actual savings through the overdrive and automatic transmission arrangements will be surprisingly little, even though engine wear will be somewhat reduced, and for many users they will be insignificant or negligible, in comparison to the considerable extra first cost and maintenance cost which these features impose on the car buyer. (There was a discussion of the automobile overdrive and indication that its possibilities for economy in gasoline consumption are but slight, in the Consumers' Research *Bulletin*, January, 1938.)

## Operating Costs: Gasoline and Oil Consumption

Tests of the gasoline and oil consumption of four of the low-priced cars — *Chevrolet*, *Ford "85"*, *Plymouth*, and *Willys* — were, for 1938, carried out, as briefly reported in the May, 1938, *Consumers' Digest*. The *Ford "60"* was omitted this year since there have been no significant changes in engine design over the 1937 model and therefore operating costs should not have changed to any extent. The *Willys* was substituted in its place. It was found that there were only insignificant differences between the gasoline consumptions of the corresponding models of 1938 and

1937 cars. It is important to note that the findings which follow are based on the actual mileage run and speeds attained during the tests and not on the speedometer and odometer readings, which were found to be inaccurate. The worst offender in this respect was the *Willys* which indicated speeds 5 per cent higher than actual, and 3.5 per cent greater mileage than traveled. Consumers' Research has previously reported that the setting of speedometers and odometers "fast" by the automobile manufacturers was a common procedure. The practice of setting odometers fast is to be condemned, as it gives the driver the impression of obtaining more mileage per gallon of gas than is actually the case. A "fast" speedometer, on the other hand, does little practical harm; it may even save a life by giving the driver the thrill of traveling, as he supposes, at fifty miles per hour when he really is doing a bit less.

### Gasoline Consumption

Nominal speed in miles per hr.	<i>Chevrolet De Luxe Touring Sedan</i> miles per gal. of gas	<i>Ford "85"</i> Fordor Sedan miles per gal. of gas	<i>Plymouth</i> Touring Sedan miles per gal. of gas	<i>Willys</i> Sedan miles per gal. of gas
10	17.25	17.88	16.52	19.42
20	19.71	19.42	19.92	27.00
30	19.69	19.61	20.26	28.57
40	18.98	18.92	19.57	28.42
50	17.60	17.66	17.98	26.93
60	15.84	15.97	16.21	22.09

A chart based on the above figures was given in the May, 1938, *Consumers' Digest*.

### Oil Consumption in Consumers' Research Test Run

<i>Willys</i>	1050 miles per qt. of oil
<i>Plymouth</i>	830 miles per qt. of oil
<i>Chevrolet</i>	740 miles per qt. of oil
<i>Ford "85"</i>	610 miles per qt. of oil

Calculating the gasoline consumption on a basis of 10,000 miles per year at a speed close to 30 miles per hour and assuming gasoline at 20 cents per gallon for convenience

of calculation, it is found that a *Plymouth, Chevrolet, or Ford "85"* would cost its owner \$29 to \$32 more annually for gasoline than the *Willys*.

The lowest-priced four-door sedans have been given a Recommendation or a Qualified Recommendation. In the cases of the *Plymouth, Chevrolet, and Ford*, it was thought necessary, for the information of the consumer, to include also the de luxe models. The delivered price quoted for each car was secured in New York City and should be representative of the prevailing prices for a large part of the United States. Consumers' Research has taken pains to be accurate, but the prices, and in some cases the details of specifications, cannot be guaranteed on some makes and models because of changes which occurred, often without announcement to consumers, after production was under way and during the preparation and the printing of the report.

The following data are listed after the name of each car: model or other designating number, number of cylinders, factory delivery price, extra cost for delivery in New York City, maximum horsepower, engine speed at which maximum horsepower is developed, wheelbase length, overall length (when available), weight, brake factor, estimated depreciation to be expected the first year. Due to price shifts and the fact that some of last year's comparable cars are being sold at appreciably different prices this year, the depreciation figures quoted alone might sometimes be somewhat misleading; accordingly a percentage depreciation figure, which comes nearer to expressing correctly the real depreciation relationship, is also given. Depreciation represents the difference between the original New York delivered price of the most nearly comparable 1937 car and the retail sales value on that car turned in as a used car, as given in the *Blue Book, National Used Car Market Report* of November-December, 1937.

The following special features have also been included

when they occur in a car: independent wheel suspension (indicated only by the name of one of the three types, i. e., *Sisaire*, *Dubonnet*, and *Delage*, automatic choke, voltage regulation, transmission control and semi-centrifugal clutch. Failure to list a feature means that, so far as our information went, the particular car in question lacked it at the time this part of our compilations was prepared.

The "brake factor" included in the data quoted in car listings is calculated by dividing the total number of square inches of brake lining area by the weight of the car plus 750 pounds, representing the average added load for five passengers, and multiplying by 1000 (to avoid decimal fractions). The brake factor is indicative of the life of comparable linings, an important factor in the maintenance of the car.

#### Brake Torque

Link or radius rod equipment, to prevent front axle rotation when the brakes are applied hard, is necessary for maximum safety. The caster, i. e., the number of degrees that the top of the king pin and front axle are tilted toward the rear of the car, tends to keep the wheels of the car in the straight ahead position and returns them to that position after a turn. When the springs alone are relied upon to maintain this caster angle, an application of the brakes will rotate the front axle as much as ten degrees. As most cars have only three or four degrees positive caster angle, it will be seen that a ten-degree change would give a negative caster angle of six or seven degrees and that the wheels would have almost twice the force tending to turn them to either side as they normally should have to return them to the forward direction. In other words, the front wheels on a car whose front axle is given a negative caster angle caused, for example, by hard application of brakes, tend to turn sharply to the left or right instead of maintaining a straight forward course. This is an important element in causation of accidents.

Apparently there has been little improvement made in reducing the tire loadings. Computations made, using the weights of 1938 automobiles as given by the manufacturers (and adding 750 pounds for five passengers) show that one-third of them exceed the desirable maximum tire load quoted by the Tire and Rim Manufacturers' Association. Figuring on a load of 950 pounds (five passengers with forty pounds of baggage each), more than  $\frac{3}{4}$  of the 1938 cars will exceed the maximum safe tire load. Thus most of the cars are equipped with tires which either have too few plies, or are too small. If the car is to be heavily loaded, especially on long trips, oversize tires, tires with more plies, or tires of the best possible grade are recommended.

\* \* \*

It is important to bear in mind that this report on 1938 automobiles is based not on exhaustive tests, but on the opinions of qualified automotive engineers; however, the ability of such engineers to judge cars without bias and with a high degree of engineering accuracy and reliability has been repeatedly evident in judgments and listings of past years.

#### Price Group 1—\$439 to \$685

Group 1 is the economy group, where the greatest amount of transportation per dollar may be obtained. A large number of automobile "fleet owners" buy from this group. It is believed there will be a larger number of cars in it next year because the public has bought considerably from this group, as suggested by Consumers' Research last year.

The average depreciation for this group is \$172, which is \$20 less than the previous year. The average depreciation in per cent of 1937 delivered price is 27, which is higher than that of the next group (26 per cent); thus the resale value is not quite as favorable to the consumer as in Group 2. The generators in cars of this group are

judged inadequate to provide necessary current for special equipment, such as extra lights, horns, radios, etc., and care will need to be exercised so as not to run the batteries down.

#### RECOMMENDED

*Ford V-8 60* (\$685 factory del'd plus \$63 del'd N.Y.C.) 60 hp at 3500 rpm. 112-inch wheelbase. Over-all length 180 inches. Weight approximately 2440 pounds. Brake factor (as computed from this weight) 58, highest of any car; therefore, brakes should give exceptionally long life. Generator not fully adequate, but heavy-duty generators with regulators available at extra cost. Depreciation \$182 (27 per cent), which is higher than the *Plymouth Business* in the next group.

*Willys 4, 38* (\$589 factory del'd plus \$40 del'd N.Y.C.) 48 hp at 3200 rpm. 100-inch wheelbase. Over-all length 178 inches. Weight 2300 pounds. Brake factor 44, average. Generator not fully adequate. Depreciation \$161 (27 per cent), \$21 less than the *Ford, 60*. This is very good considering the fact it was a new car last year, which was being tried out on the public. The public received it very well as 45,121 of these cars were registered during the first eleven months of 1937, which was 276 per cent increase over the year before, the largest percentage increase of any car. It is very interesting to note that the over-all length of this car is only 2 inches shorter than the *Ford V-8, 60*, and that it weighs almost as much. The initial price of the *Ford V-8, 60*, is \$748, and that of the *Willys* is \$629, or a saving of \$119. Depreciation: *Ford* \$182, *Willys* \$161—or a saving of \$21. In gasoline consumption—assuming 22 miles per gallon on *Ford* and 28.5 on *Willys*, and that 10,000 miles is driven—with gasoline at 20 cents per gallon, a saving of \$20 will be realized. These figures add up to \$41 (excluding difference in initial cost) as the probable compensation for driving a *Willys* instead of a *Ford 60*.

## Price Group 2—\$710 to \$735

Group 2 is the competition group and contains only the "big three"—*Ford*, *Plymouth*, and *Chevrolet*—all at practically the same price. The following items are common to all three: all-steel bodies, full-length water jackets, 112-inch wheelbase, and approximately the same horsepower. The weights differ by less than 200 pounds. More detailed differences will be brought out in the listings. It should be noted that these cars with the same engines appear also in Group 3 as "de luxe" models with various accessories and gadgets. (Exception: *Ford V-8 De Luxe*, which has a different body also, this year.) Any of the cars in this group, it is believed, will give comparatively satisfactory and economical transportation. The average depreciation for the group is \$181 (26 per cent), which is less than last last year. It will be noted that in this group the depreciation is a smaller part of the 1937 delivered price than in any other group.

## RECOMMENDED

*Plymouth 6, Business P5* (\$730 factory del'd plus \$43 del'd N.Y.C.) 82 hp at 3600 rpm. 112-inch wheelbase. Over-all length 195 inches, longest in group. Weight 2770 pounds. Brake factor 39, lowest in group. Depreciation \$169 (24 per cent), lowest in group. Generator not fully adequate. If a radio is used, a generator and voltage regulator (as on the *De Luxe*) should be installed. This is the only car in this group with tires heavily loaded (5.50 x 16); also lacks brake torque equipment. Compression ratio 6.7 to 1. First choice for the moderate, careful driver, especially the city driver.

*Ford V-8 Standard, 85* (\$710 factory del'd plus \$64 del'd N.Y.C.) 85 hp at 3800 rpm. 112-inch wheelbase. Over-all length 180 inches. Weight 2710 pounds. Brake factor 54 (only the *Ford 60* is higher). Depreciation \$192 (27 per cent), highest in group. Generator not fully ade-



quate, but heavy duty generators with regulators are available at extra cost. Only car in group with brake torque equipment (see *Brake Torque*). Semi-centrifugal clutch. First choice for the hard driver, and the owner who tours, and drives hard and fast.

*Chevrolet Master 6* (\$730 factory del'd plus \$39 del'd N.Y.C.) 85 hp at 3200 rpm. 112-inch wheelbase. Overall length 188 inches. Weight 2845 pounds. Brake factor 44, average. Depreciation \$182 (26 per cent), about average. Voltage regulation; the lowest-priced car having this desirable feature. Fully adequate generator equipment (same as *Chevrolet Master De Luxe*). Lacks brake torque equipment (see *Brake Torque*). The new *Chevrolet* clutch is quite an improvement (although some of them grab) over the previous clutch. One of the automobile industries' confusing claims is seen in the engine of this car, rated as 85 hp at 3200 rpm, but listed in motor truck literature as 78 hp at 3200 rpm. Third choice.

### Price Group 3—\$755 to \$850

The cars in Group 3 are the "de luxe" models of lower-priced cars, with the exception of *Hudson 112*. The *Ford De Luxe* is much more a different car than some other de luxe models in higher-priced groups that are sold under distinctive names. These de luxe models have been included in order to list all cars in direct competition within this price range. The cars in this group, except the *Hudson 112*, have 6.00 x 16 tires, two have voltage regulators, one has independent front wheel suspension, and two (*Ford De Luxe* and *Chevrolet Master De Luxe*) have brake torque equipment. The average depreciation is \$221 (28 per cent), which is substantially lower than the \$257 last year.

#### RECOMMENDED

*Plymouth De Luxe 6*, P6 (\$803 factory del'd plus \$69 del'd N.Y.C.) 82 hp at 3600 rpm. 112-inch wheelbase.

Over-all length 195 inches. Weight 2840 pounds. Brake factor 39, lowest in group. Depreciation \$188 (24 per cent), lowest in group. High output generator with voltage regulator. First or second choice, but see comment on *Plymouth* in Group 2.

*Ford V-8 De Luxe*, 85 (\$770 factory del'd plus \$66 del'd N.Y.C.) 85 hp at 3800 rpm. 112-inch wheelbase. Over-all length approximately 190 inches. Weight approximately 2820 pounds. Brake factor 52, highest in group. Depreciation \$221 (29 per cent), average. Semi-centrifugal clutch. Has new body this year. The main differences are the sloping beetle back and the larger luggage compartment, which is due to the increased over-all length. Second or first choice, but see comment on *Ford* in Group 2.

*Chevrolet Master De Luxe 6* (\$796 factory del'd plus \$39 del'd N.Y.C.) 85 hp at 3200 rpm. 112-inch wheelbase. Over-all length 188 inches. Weight 2935 pounds. Brake factor 43, which is about average. Depreciation \$195 (25 per cent), below average. Voltage regulation. *Dubonnet*. The lowest-priced car with independent suspension. This car has a new generator which will supply better than 25 amperes, with automatic voltage control, which is an improvement over the 1937 generator, the average of which was about 15 amperes with no automatic control. Numerous mechanical refinements in details have been made this year on this car.

#### QUALIFIED RECOMMENDATION

*Hudson 6*, 112 (\$755 factory del'd plus \$37 del'd N.Y.C.) 83 hp at 4000 rpm. 112-inch wheelbase. Over-all length 188 inches. Weight 2585 pounds. Brake factor unknown, braking area not available. Brake drums are one inch smaller than those on the *Hudson Terraplane*. No depreciation figure, as this is a new car. The other cars built by this company have radius rods to take the braking

torque, but they have been omitted on this car (see *Brake Torque*). This engine is the *Terraplane* engine with a  $\frac{7}{8}$ -inch less stroke. Only car in this group with the small 5.50 x 16 tires. The front seat (55 inches) and rear (54 inches) are both exceptionally wide.

#### Price Group 4—\$864 to \$967

This is the plutocrat group of the lower price range, the group for those with an extra \$200 to pay for their conviction that some conveniences and gadgets beyond those of the economy cars are worth the sizable increase in initial price for which they account. In addition to the \$200 extra price, the average depreciation is \$251 as compared with \$221 in Group 3.

Each car in this group has voltage control and hydraulic brakes. All except the two *Hudson Terraplanes* have adequate generators and full-length water jackets. Three have independent suspension. All but one (*Hudson Terraplane 6*, 81) have automatic chokes. Brake factors are nearly all below average. All have 117-inch wheelbases, except the 115-inch *Dodge* and the 119-inch *De Soto*. They all weigh between 2800 and 3300 pounds, approximately. All but one (*Dodge*) have brake torque equipment; all but two have some form of remote control transmission available as optional equipment.

#### RECOMMENDED

*Pontiac 6*, 26 DA (\$916 factory del'd plus \$44 del'd N.Y.C.) 85 hp at 3600 rpm. 117-inch wheelbase, average. Over-all length 192 inches. Weight 3285 pounds. Brake factor 40. Depreciation \$229 (26 per cent), below average. Voltage regulation. *Sizaire*. Automatic choke. This is a good car, but the usual equipment will add about \$50 to the nominal price. Tires heavily loaded. The remote control of the transmission, which is only \$10 as compared with \$30 and up for others, is believed to be

worth while. Considered a relatively good buy. First choice.

*Dodge 6, D8* (\$898 factory del'd plus \$72 del'd N.Y.C.) 87 hp at 3600 rpm. 115-inch wheelbase, shortest in group. Over-all length 197 inches. Weight 2977 pounds. Brake factor 40. Depreciation \$207 (24 per cent), lowest in group. Voltage regulation. Automatic choke. This car lacks desirable brake torque equipment (see *Brake Torque*). Very similar to *Plymouth*, with engine  $\frac{1}{8}$ -inch larger bore. Second choice for the moderate, careful driver.

*De Soto 6, S5* (\$958 factory del'd plus \$71 del'd N.Y.C.) 93 hp at 3600 rpm. 119-inch wheelbase, longest in group. Over-all length 200 inches, longest in group. Weight 3134 pounds. Brake factor 39. Depreciation \$256 (28 per cent). Voltage regulation. *Sizaire*. Automatic choke. Very similar to the *Chrysler Royal*; \$23 cheaper and \$29 less depreciation. Considered a good car.

#### QUALIFIED RECOMMENDATION

*Hudson Terraplane 6, 81* (\$864 factory del'd plus \$49 del'd N.Y.C.) 96 hp at 3900 rpm. 117-inch wheelbase, about average. Over-all length 194 inches. Weight 2885 pounds. Brake factor 43, highest in group. Depreciation \$254 (30 per cent). Voltage regulation, but generator not fully adequate. This and the *Hudson Terraplane 6, 82* in this group do not have full-length water jackets.

*Hudson Terraplane 6, 82* (\$915 factory del'd plus \$67 del'd N.Y.C.) 101 hp at 4000 rpm. 117-inch wheelbase, average. Over-all length 194 inches. Weight 2925 pounds. Brake factor 42. Depreciation \$270 (30 per cent), above average. Voltage regulation, but generator not fully adequate. Automatic choke. Brake torque equipment (see *Brake Torque*).

*Oldsmobile 6*, F38 (\$967 factory del'd plus \$120 del'd N.Y.C.) 95 hp at 3400 rpm. 117-inch wheelbase. Over-all length 191 inches. Weight 3285 lbs. Brake factor 37, lowest in group. Depreciation \$291 (30 per cent), highest in group. Voltage regulation. *Sisaire*. Automatic choke. Note the high equipment cost, which makes this car sell for more than any car in the next group; also that the depreciation is higher than that of cars in the next group as well as this.

#### Price Group 5—\$980 to \$998

Group 5 is, in the language of the automobile advertisement writer, the "de luxe, plutocrat" group, and the remainder of the groups are in the adman's "super de luxe" class. The average depreciation in this group is about \$100 higher than in Group 1, and the price is over \$300 higher. All of the cars in this group have automatic chokes, brake torque equipment, and adequate generators with automatic charging control. All but one (*Hudson 6*, 83) have independent front suspension and full length water jackets. There isn't a car in the group with a brake factor as high as average. The average depreciation is \$275 (29 per cent).

#### RECOMMENDED

*Studebaker 6*, 7A (\$995 factory del'd plus \$53 del'd N.Y.C.) 90 hp at 3400 rpm. 116½-inch wheelbase. Over-all length 194 inches. Weight 3190 pounds. Brake factor 38. Depreciation \$266 (28 per cent), next to lowest. Voltage regulation. *Delage*. Automatic choke. Lowest delivered price in group. This car has exceptionally good roadability. First choice.

*Chrysler Royal 6* (\$998 factory del'd plus \$54 del'd N.Y.C.) 95 hp at 3600 rpm. 119-inch wheelbase. Over-all length 200 inches, longest in group. Weight 3170 pounds. Brake factor 38. Depreciation \$285 (30 per cent), next

to highest in group. Voltage regulation. *Sizaire*. Automatic choke. Second choice.

#### QUALIFIED RECOMMENDATION

*Pontiac 8*, 28 DA (\$980 factory del'd plus \$93 del'd N.Y.C.) 100 hp at 3800 rpm. 122-inch wheelbase. Over-all length 197 inches. Weight 3380 pounds. Brake factor 39, below average. Depreciation \$241 (26 per cent, lowest in group. Voltage regulation. *Sizaire*. Automatic choke. Though an 8-cylinder engine, has not changed to a dual carburetor.

*Hudson 6*, 83 (\$984 factory del'd plus \$69 del'd N.Y.C.) 101 hp at 4000 rpm. 122-inch wheelbase. Over-all length 199 inches. Weight 3005 pounds. Brake factor 41, highest in group but still below average. Depreciation \$304 (31 per cent), which is highest in group. Voltage regulation. Automatic choke. Cheapest car in the *Hudson* line with fully adequate generator.

#### Price Group 6—\$1022 to \$1078

##### RECOMMENDED

*Studebaker Commander 6* (\$1040 factory del'd plus \$53 del'd N.Y.C.) 90 hp at 3400 rpm. 116½-inch wheelbase, shortest in group. Over-all length 194 inches, shortest in group. Weight 3215 pounds. Brake factor 38. Depreciation figure not available as there was no comparable car last year. Voltage regulation. *Delage*. Automatic choke. Exceptional roadability. This is the lowest-priced car in this group and is believed to be the best buy. First choice.

*Buick Special 8*, 47 (\$1022 factory del'd plus \$80 del'd N.Y.C.) 107 hp at 3400 rpm. 122-inch wheelbase. Over-all length 200 inches. Weight 3560 pounds. Brake factor 37. Depreciation \$298 (29 per cent). Voltage regulation. *Sizaire*. Automatic choke. A very good car. Second choice.

*Packard 6*, 1600 (\$1070 factory del'd plus \$72 del'd

N.Y.C.) 100 hp at 3600 rpm. 122-inch wheelbase, about average. Over-all length 197 inches, one of shortest. Weight 3525 pounds. Brake factor 39. Depreciation \$325 (31 per cent). (The resale value is good.) Voltage regulation. *Sizaire*. Automatic choke. Semi-centrifugal clutch. Parts and service will be expensive.

*Oldsmobile 8* (\$1078 factory del'd plus \$123 del'd N.Y.C.) 110 hp at 3600 rpm. 124-inch wheelbase. Over-all length 198 inches. Weight 3490 pounds. Brake factor 38. Depreciation \$336 (31 per cent), next to largest in group. Voltage regulation. *Sizaire*. Automatic choke.

#### QUALIFIED RECOMMENDATION

*Hupmobile 6, E* (\$1045 factory del'd plus \$53 del'd N.Y.C.) 101 hp at 3600 rpm. 122-inch wheelbase. Over-all length 204 inches, longest in group. Weight 3370 pounds. Brake factor 40. Depreciation figure not available as there was no comparable car last year. Voltage regulation. Automatic choke. Lacks brake torque equipment (see *Brake Torque*).

*Nash Ambassador 6* (\$1050 factory del'd plus \$59 del'd N.Y.C.) 105 hp at 3400 rpm. 121-inch wheelbase. Over-all length 201 inches. Weight 3500 pounds. Brake factor 41. Depreciation \$283 (28 per cent). Inadequate generator without automatic control. Lacks brake torque equipment (see *Brake Torque*).

*Graham Standard 6* (\$1065 factory del'd plus \$30 del'd N.Y.C.) 90 hp at 3600 rpm. 120-inch wheelbase. Over-all length 197 inches. Weight 3315 pounds. Brake factor 40. Depreciation \$253 (31 per cent). Generator not fully adequate. Lacks brake torque equipment (see *Brake Torque*).

*Hudson 8, 84* (\$1060 factory del'd plus \$70 del'd N.Y.C.) 122 hp at 4200 rpm. 122-inch wheelbase. Over-all length 199 inches. Weight 3155 pounds. Brake factor 43, highest in group. Depreciation \$338 (33 per cent), highest in group. Voltage regulation. Automatic choke.

### Price Group 7—\$1155 to \$1200

#### RECOMMENDED

*Chrysler Imperial 8*, C19 (\$1198 factory del'd plus \$47 del'd N.Y.C.) 110 hp at 3400 rpm. 125-inch wheelbase. Over-all length 206 inches, longest in group. Weight 3565 pounds. Brake factor 40. Depreciation \$368 (32 per cent). Both are below average. Voltage regulation. *Sizaire*. Automatic choke.

*Studebaker President 8* (\$1195 factory del'd plus \$80 del'd N.Y.C.) 110 hp at 3600 rpm. 122-inch wheelbase. Over-all length 200 inches. Weight 3455 pounds. Brake factor 41, next to highest in group. Depreciation \$493 (39 per cent), highest in group. Voltage regulation. *Delage*. Automatic choke. Semi-centrifugal clutch. This car is very similar to the *Commander*.

#### QUALIFIED RECOMMENDATION

*Nash Ambassador 8*, 3880 (\$1200 factory del'd plus \$65 del'd N.Y.C.) 115 hp at 3400 rpm. 125-inch wheelbase. Over-all length 205 inches. Weight 3790 pounds. Brake factor 48, highest in group. Depreciation \$405 (34 per cent), above average. Voltage regulation.

### Price Group 8—\$1272 to \$1380

#### RECOMMENDED

*Buick Century 8*, 67 (\$1272 factory del'd plus \$51 del'd N.Y.C.) 141 hp at 3600 rpm. 126-inch wheelbase. Over-all length 204 inches. Weight 3780 pounds. Brake factor 40. Depreciation \$381 (31 per cent), below average. Voltage regulation. *Sizaire*. Automatic choke. This is a good buy even for the consumer who does not require high performance. This comparatively small car, with exceptionally high horsepower, is one of the outstanding "performers" this year.

*Packard 8*, 1601 (\$1325 factory del'd plus \$75 del'd N.Y.C.) 120 hp at 3800 rpm. 127-inch wheelbase, long-



est in group. Over-all length 201 inches. Weight 3650 pounds. Brake factor 41. Depreciation \$388 (32 per cent). Voltage regulation. *Sizaire*. Automatic choke. Semi-centrifugal clutch.

*La Salle V8*, 50 (\$1380 factory del'd plus \$145 del'd N.Y.C.) 125 hp at 3400 rpm. 124-inch wheelbase. Over-all length 201 inches. Weight 3830 pounds. Brake factor 48, highest in group. Depreciation \$382 (29 per cent). Resale value very good. Voltage regulation. Reliable remote control transmission. *Sizaire*. Automatic choke. Semi-centrifugal clutch. This car is very similar to the *Cadillac 60*, and over \$700 cheaper.

*Lincoln Zephyr V-12* (\$1375 factory del'd plus \$106 del'd N.Y.C.) 110 hp at 3900 rpm. 125-inch wheelbase. Over-all length 213 inches, longest in group. Weight 3560 pounds. Brake factor 39. Depreciation \$450 (33 per cent), above average. Voltage regulation. Semi-centrifugal clutch. Probably the safest passenger car design in production. Unusually good roadability. One consultant would rate this car second choice.

#### QUALIFIED RECOMMENDATION

*Graham Supercharger* (\$1290 factory del'd plus \$50 del'd N.Y.C.) 116 hp at 4000 rpm. 120-inch wheelbase. Over-all length 197 inches. Weight 3375 pounds. Brake factor 39. Depreciation \$405 (34 per cent), above average. Voltage regulation. Semi-centrifugal clutch.

*Hupmobile 8* (\$1325 factory del'd plus \$60 del'd N.Y.C.) 120 hp at 3600 rpm. 125-inch wheelbase. Over-all length 207 inches. Weight 3955 pounds. Brake factor 43. No comparable car, therefore no depreciation figure. Voltage regulation. Automatic choke. Semi-centrifugal clutch.

#### Price Group 9—\$2085 to \$2295

##### RECOMMENDED

*Cadillac V-8*, 60 (\$2085 factory del'd plus \$175 del'd N.Y.C.) 135 hp at 3400 rpm. 124-inch wheelbase. Over-

all length 208 inches. Weight approximately 4000 pounds. Brake factor 46. Depreciation \$550 (32 per cent). Voltage regulation. Reliable remote control transmission. *Sizaire*. Automatic choke. Semi-centrifugal clutch.

QUALIFIED RECOMMENDATION

*Chrysler Custom Imperial 8* (\$2295 factory del'd plus \$70 del'd N.Y.C.) 130 hp at 3400 rpm. 144-inch wheelbase. Over-all length 225 inches. Weight 4865 pounds. Brake factor 40. Depreciation \$805 (38 per cent). Voltage regulation. *Sizaire*. Automatic choke.

Price Group 10—\$2790 to \$3375

RECOMMENDED

*Cadillac V-8, 75* (\$3075 factory del'd plus \$64 del'd N.Y.C.) 140 hp at 3400 rpm. 141-inch wheelbase. Over-all length 221 inches. Weight 4865 pounds. Brake factor 46. Depreciation figure not available as there was no comparable car last year. Voltage regulation. Reliable remote control transmission. *Sizaire*. Automatic choke. Semi-centrifugal clutch. First choice.

*Packard Super 8* (\$2790 factory del'd plus \$295 del'd N.Y.C.) 130 hp at 3200 rpm. 127-inch wheelbase. Over-all length 217 inches. Weight 4530 pounds. Brake factor 49. Depreciation \$1057 (39 per cent). Voltage regulation. *Sizaire*. Automatic choke. Second choice.

Price Group 11—\$3895 to \$5135

RECOMMENDED

*Lincoln V-12* (\$4900 factory del'd plus \$182 del'd N.Y.C.) 150 hp at 3400 rpm. 136-inch wheelbase. Over-all length 213 inches. Weight 5840 pounds. Brake factor 51. Depreciation \$2074 (45 per cent). Voltage regulation. Only car above Group 7 with a not fully adequate generator. First choice.

*Packard 12, 1606* (\$4155 factory del'd plus \$340 del'd N.Y.C.) 175 hp at 3200 rpm. 134-inch wheelbase. Over-

all length 224 inches. Weight 5525 pounds. Brake factor 53. Depreciation \$2027 (51 per cent). Voltage regulation. *Sizaire*. Automatic choke. Second choice.

*Cadillac V-16*, 90 (\$5135 factory del'd plus \$635 del'd N.Y.C.) 175 hp at 3600 rpm. 141-inch wheelbase. Overall length 221 inches. Weight not available. Brake factor not known at time of writing. Depreciation \$4305 (57 per cent), highest of all cars. Voltage regulation. Remote control transmission. *Sizaire*. Automatic choke. Semi-centrifugal clutch. Third choice.



### Foody-Woodsies

I stopped at the grocery counter and took out the list my wife had given me. "I want," I said to the clerk, "a loaf of Mumsie's Bread, a package of Krunchies, some Goody Sanny Spread, Ole Mammy's 'Lasses, Orange Puddy, Bransie Buns, and a pound of Aunty Annie's Sugar Can'y, Bitsey-bite size."

"Sorry, no Krunchies. How about Krinkly Krisps, Oatsies, Maltsey Wheats, Ricelets, Cornsie Ponesies, or Wheetums?"

"Wheetums, then."

"Anything else? Tootsies, Tatory Chips, Cheesie Weesies, Gingie Bits, Itsey Cakes, Sweetie Toofums, or Dramma's Doughnies?"

"Tan't det anysin' else," I said, toddling toward the meat department to look for teensy weenies and a leg of lambikins.

—National Petroleum News

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# Choosing Your Pictures

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THE first ratings of motion pictures appeared in the November, 1937, issue of *Consumers' Digest*. The entire list has been revised monthly by recording the opinions of additional reviewers.

The ratings of pictures given herewith are based upon an analysis of the reviews published in the following periodicals:

*Boston Transcript, Box Office, Christian Century, Christian Science Monitor, Commonwealth, Cue, Film Weekly, Harrison's Reports, Hollywood Spectator, Judge, Liberty, Minneapolis Journal, The Nation, The New Republic, New York Herald Tribune, New York Sun, New York Times, New York World-Telegram, New Yorker, News Week, Philadelphia Exhibitor, Stage, Time, Variety, Variety (Hollywood), Weekly Guide to Selected Pictures*, and the bulletins of the American Legion Auxiliary, Daughters of the American Revolution, General Federation of Women's Clubs, National Council of Jewish Women, National Legion of Decency, National Society of New England Women, Women's University Club of Los Angeles.

Films are rated "AA," "A," "B," and "C," which designate them as *strongly recommended, recommended, intermediate,* and *not recommended* respectively. The figures preceding each picture indicate the range of critical opinion regarding that picture as determined by an analysis of the reviews published in the aforementioned periodicals. Thus, "The Good Earth" is *strongly recommended* by twenty-five of these judges, *recommended* by four, and rated *intermediate* by one.

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

*adv*—adventure  
*biog*—biography  
*com*—comedy  
*cr*—crime and capture of criminals  
*f*—foreign language  
*hist*—founded on historical incident  
*mcl*—melodrama

*mus-com*—musical comedy  
*mys*—mystery  
*nov*—dramatization of a novel  
*rom*—romance  
*soc*—social-problem drama  
*trav*—travelogue  
*wes*—western

AA	A	B	C	
—	5	11	5	Accidents Will Happen ..... <i>cr A</i>
—	1	5	6	Adventure's End ..... <i>adv AY</i>
5	12	2	—	Adventures of Chico ..... <i>trav AYC</i>
4	6	5	5	Adventures of Marco Polo ..... <i>adv-com A</i>
19	7	—	—	Adventures of Robin Hood ..... <i>adv AYC</i>
7	12	3	1	Adventures of Tom Sawyer ..... <i>adv AY</i>
—	—	6	2	Affairs of Maupassant ..... <i>biog f A</i>
—	—	—	9	Air Devils ..... <i>mel A</i>
—	4	9	8	Alcatraz Island ..... <i>cr A</i>
—	3	—	—	Alexander's Ragtime Band ..... <i>mus-com A</i>
4	15	6	2	Ali Baba Goes to Town ..... <i>mus-com A</i>
10	8	—	—	All Quiet on Western Front ..... <i>nov AY</i>
—	—	1	7	All-American Sweetheart ..... <i>cr AY</i>
3	11	9	6	Angel ..... <i>rom A</i>
—	—	3	4	Arizona Gunfighter ..... <i>wes AY</i>
—	11	4	—	Arsene Lupin Returns ..... <i>mys AY</i>
—	—	6	—	Arson Gang Busters ..... <i>cr A</i>
—	—	5	9	Atlantic Flight ..... <i>adv AY</i>
1	5	1	—	Ave Maria ..... <i>mus-rom AY</i>
20	9	—	—	Awful Truth ..... <i>com A</i>
—	17	11	3	Back in Circulation ..... <i>cr A</i>
1	8	8	4	Bad Man of Brimstone ..... <i>wes AY</i>
—	5	—	—	Ballad of Cossak Golota ..... <i>adv f A</i>
—	4	7	3	Bar 20 Justice ..... <i>wes AY</i>
1	10	7	2	Barrier ..... <i>adv AY</i>
1	11	8	2	Baroness and the Butler ..... <i>com A</i>
—	6	13	3	Battle of Broadway ..... <i>com A</i>
—	15	5	2	Beg, Borrow or Steal ..... <i>com AYC</i>
—	5	10	4	Beloved Brat ..... <i>com AY</i>
1	7	11	7	Big Broadcast of 1938 ..... <i>mus-com AY</i>
—	4	7	5	Big Town Girl ..... <i>mel A</i>
—	2	2	2	Blazing Barriers ..... <i>com-rom AY</i>
—	6	6	3	Blind Alibi ..... <i>mys AY</i>
—	5	2	—	Blondes at Work ..... <i>mys AY</i>
—	—	3	13	Blossoms on Broadway ..... <i>com AY</i>
2	13	6	—	Bluebeard's Eighth Wife ..... <i>com A</i>
—	13	5	1	Border Cafe ..... <i>wes AYC</i>
—	—	1	4	Border Wolves ..... <i>wes AY</i>
—	2	4	9	Born Reckless ..... <i>cr A</i>
—	—	2	3	Born To Be Wild ..... <i>adv A</i>
—	1	5	3	Born To the West ..... <i>wes AY</i>
—	9	4	—	Borrowing Trouble ..... <i>com AYC</i>
1	11	6	2	Boy of the Streets ..... <i>soc AY</i>
1	9	11	3	Breakfast for Two ..... <i>com Y</i>
—	—	4	3	Bride for Henry ..... <i>com Y</i>
3	6	10	9	Bride Wore Red ..... <i>com A</i>
7	13	5	1	Bringing Up Baby ..... <i>com AYC</i>
11	13	3	—	Buccaneer ..... <i>adv AYC</i>
—	3	9	4	Bulldog Drummond's Peril ..... <i>mys AY</i>
—	3	8	6	Bulldog Drummond's Revenge ..... <i>mys A</i>

AA	A	B	C	
—	—	3	6	Call ..... <i>biog f AY</i>
1	2	7	2	Call of the Yukon ..... <i>adv AY</i>
—	—	2	3	Call the Mesquiteers ..... <i>wes AY</i>
26	4	—	—	Captains Courageous ..... <i>nov AYC</i>
—	—	8	5	Cassidy of Bar 20 ..... <i>wes AYC</i>
—	2	5	6	Change of Heart ..... <i>rom AY</i>
1	16	5	—	Charlie Chan at Monte Carlo ..... <i>mys AY</i>
—	5	5	2	Checkers ..... <i>com AYC</i>
—	3	8	3	City Girl ..... <i>cr A</i>
—	7	6	—	Club de Femmes ..... <i>com f A</i>
—	4	7	—	Cocoanut Grove ..... <i>mus-com AY</i>
—	2	10	13	College Swing ..... <i>mus-com A</i>
—	4	8	8	Condemned Women ..... <i>mel A</i>
16	11	3	1	Conquest ..... <i>rom A</i>
8	20	—	—	Count of Monte Cristo ..... <i>adv AY</i>
—	2	3	1	Courage of the West ..... <i>wes AY</i>
—	3	13	6	Crashing Hollywood ..... <i>com AY</i>
—	4	7	5	Crime of Dr. Hallet ..... <i>mel A</i>
1	13	6	1	Crime School ..... <i>mel A</i>
—	2	3	—	Crime Takes a Holiday ..... <i>cr AY</i>
3	21	7	—	Damsel in Distress ..... <i>mus-rom AY</i>
—	10	8	—	Danger, Love at Work ..... <i>com A</i>
—	5	6	4	Danger Patrol ..... <i>adv A</i>
1	1	6	4	Dangerous to Know ..... <i>cr A</i>
—	—	5	11	Dangerously Yours ..... <i>mys A</i>
—	—	4	3	Dare-Devil Drivers ..... <i>mel A</i>
1	3	5	3	Dark Eyes ..... <i>rom f A</i>
—	2	7	11	Daughter of Shanghai ..... <i>mel A</i>
23	7	—	—	David Copperfield ..... <i>nov AYC</i>
—	—	2	3	Dawn Over Island ..... <i>adv AY</i>
14	6	—	—	Dead End ..... <i>soc AY</i>
9	19	1	1	Devil Is a Sissy ..... <i>youth AYC</i>
—	1	1	2	Devil's Party ..... <i>mel A</i>
—	9	3	—	Divorce of Lady X ..... <i>com A</i>
3	11	7	1	Doctor Rythm ..... <i>mus-com AY</i>
—	—	6	11	Double Danger ..... <i>mys A</i>
1	9	13	7	Double Wedding ..... <i>com A</i>
—	2	2	2	Dybbuk ..... <i>rom f A</i>
1	18	9	1	Easy Living ..... <i>com AY</i>
2	16	8	3	Ebb Tide ..... <i>adv AY</i>
1	15	12	2	Emperor's Candlesticks ..... <i>mys AY</i>
—	4	2	—	En Saga ..... <i>rom f AY</i>
—	6	10	9	Every Day's a Holiday ..... <i>com A</i>
—	10	9	2	Everybody Sing ..... <i>mus-com AY</i>
—	—	5	3	Exiled to Shanghai ..... <i>mel A</i>
—	—	2	3	Extortion ..... <i>mys A</i>
5	11	4	—	Farewell to Arms ..... <i>nov A</i>
—	—	2	6	Female Fugitive ..... <i>mel A</i>
1	5	5	—	Fight for Peace ..... <i>trav AY</i>

AA	A	B	C	
—	10	7	5	Fight for Your Lady .....com AY'
1	14	6	—	First Hundred Years .....com A
4	13	6	—	First Lady .....rom A
—	10	5	2	Fit for a King .....com AYC
—	1	9	15	Fools for Scandal .....com A
—	2	3	2	Forbidden Valley .....wes AY'
—	11	7	2	45 Fathers .....com AYC
1	11	9	1	Four Men and a Prayer .....mel A
—	11	5	—	Gaiety Girls .....mus-com AY'
—	—	6	—	Gangs of New York .....cr A
5	9	—	—	Generals Without Buttons .....com f AY'
14	13	—	—	Ghost Goes West .....mys AYC
—	—	—	3	Girl in the Street .....rom A
4	9	7	2	Girl of the Golden West .....mus-rom AY'
2	11	7	2	Girl Said No .....mus-rom AY'
2	4	2	3	Girl Was Young .....mys AY'
—	2	7	7	Go Chase Yourself .....com A
25	4	1	—	Good Earth .....nov A
—	—	3	4	Goodbye Broadway .....com AY'
—	2	4	1	Gold Diggers in Paris .....mus-com A
3	14	7	4	Gold Is Where You Find It .....hist AY'
10	9	8	1	Goldwyn Follies .....mus-com AY'
7	18	5	1	Great Garrick .....biog AY'
—	5	1	1	Great John Erickson .....hist f AY'
1	3	3	2	Green Fields .....soc f AY'
—	1	4	—	Gun Law .....wes AY'
7	7	5	2	Happy Landing .....rom AYC
—	2	5	—	Harlem on the Prairie .....wes A
—	6	9	3	Hawaii Calls .....adv AYC
—	4	5	—	Headin' East .....wes AYC
—	3	7	3	Heart of Arizona .....wes AYC
9	19	1	—	Heidi .....rom AYC
—	3	2	1	Helene .....rom f A
—	1	11	8	Her Jungle Love .....adv A
—	5	3	—	Hideout in the Alps .....mys AY'
—	3	3	4	High Flyers .....com AY'
4	17	7	2	History Is Made at Night .....rom AY'
1	9	14	5	Hitting a New High .....mus-com AY'
—	11	6	1	Hold 'Em Navy .....com AY'
—	5	4	3	Hold That Kiss .....com AY'
4	3	1	—	Holiday .....rom AY'
5	13	8	2	Hollywood Hotel .....com AY'
—	3	2	1	Hollywood Roundup .....com AY'
—	—	4	2	Hollywood Stadium Mystery .....mys AY'
—	1	4	—	House of Mystery .....mys AY'
—	4	6	—	Hunted Men .....cr AY'
9	13	2	—	Hurricane .....adv AY'
—	12	5	—	I Cover the Waterfront .....rom A
—	5	9	5	I Met My Love Again .....rom AY'

AA	A	B	C	
—	1	6	3	Idol of the Crowds .....adv AYC
1	12	8	—	I'll Take Romance .....mus-rom AY
15	12	—	—	In Old Chicago .....hist AYC
—	3	4	—	Inspector General .....com f A
1	2	2	—	Intermezzo .....rom f A
—	2	8	1	International Crime .....mys A
—	9	3	3	International Settlement .....mys A
—	4	4	4	Invisible Enemy .....mys AY
—	2	5	1	Invisible Menace .....mys AY
—	10	7	—	Island in the Sky .....mys A
—	—	5	—	It's All in Your Mind .....soc A
14	7	—	—	It's Love I'm After .....com AY
6	10	7	3	Jezebel .....mel A
1	17	9	1	Joy of Living .....rom AY
—	14	8	—	Judge Hardy's Children .....com AY
—	4	8	4	Jury's Secret .....soc A
—	—	2	3	Karl Frederick Reigns .....rom f A
—	3	5	1	Kathleen .....rom A
2	9	4	3	Kentucky Moonshine .....com AY
—	2	12	7	Kid Comes Back .....com AY
—	1	4	1	Kidnapped .....adv AY
—	—	5	4	King of the Newsboys .....rom A
—	—	10	5	Lady Behave .....rom A
—	2	7	5	Lady Fights Back .....com AY
—	8	5	1	Lady in the Morgue .....mys AY
1	10	6	—	Lady Tubbs .....com AYC
2	11	2	5	Lancer Spy .....adv AY
—	9	11	4	Last Gangster .....cr AY
—	3	3	1	Last Stand .....ves A
—	1	9	10	Law of the Underworld .....cr A
3	4	1	—	Lenin in October .....hist f AY
—	1	1	2	Let's Make a Night of It .....mus-com A
—	—	5	2	Lie of Nina Petrovna .....rom f A
3	4	3	—	Life and Loves of Beethoven ....biog f A
1	7	8	3	Life Begins in College .....mus-com A
—	—	2	3	Life Begins with Love .....com AY
5	—	4	—	Life Dances On .....rom f A
16	4	—	—	Life of Emile Zola .....biog AYC
—	4	5	10	Life of the Party .....mus-com A
4	13	5	—	Little Miss Marker .....com AY
—	1	5	4	Little Miss Roughneck .....com AY
—	10	9	3	Live, Love, and Learn .....com AY
—	—	3	11	Living on Love .....com A
19	10	1	—	Lloyds of London .....hist AY
—	—	3	1	Lone Wolf in Paris .....mys AY
—	5	4	—	Lonely White Sail .....hist f AY
—	1	3	1	Look Out for Love .....rom A
—	—	2	10	Look Out, Mr. Moto .....mel A
23	5	1	1	Lost Horizon .....nov AYC
—	14	9	3	Love and Hisses .....com A



AA	A	B	C	
—	3	14	8	Love, Honor, and Behave .....com AY
—	3	8	7	Love Is a Headache .....com AY
—	—	5	8	Love Is on the Air .....cr A
—	5	3	—	Love on a Budget .....com AYC
—	—	1	14	Love on Toast .....com A
16	10	—	—	Mad About Music .....mus-rom AYC
1	2	2	1	Madam Bovary .....soc f A
—	9	14	2	Madam X .....mel A
—	—	1	5	Maid's Night Out .....com AYC
—	1	4	5	Making the Headlines .....mys AY
—	—	—	5	Man Hunters of Caribbean .....adv A
—	6	11	—	Man-Proof .....rom A
—	5	6	2	Manhattan Merry-Go-Round ..mus-com A
—	10	10	1	Mannequin .....rom AY
6	9	1	—	Mayerling .....rom f A
15	12	1	—	Maytime .....mus-rom AYC
—	4	1	1	Meet Miss Mozart .....com f A
—	1	2	1	Men Are Such Fools .....rom A
1	4	2	1	Merlusse .....youth f AY
—	16	5	—	Merrily We Live .....com AYC
—	13	8	6	Merry-Go-Round of '38 .....mus-com A
—	5	5	3	Midnight Intruder .....mys A
—	4	6	4	Missing Witness .....cr A
28	2	—	—	Mr. Deeds Goes to Town .....com AYC
—	5	7	4	Mr. Moto's Gamble .....mys A
—	5	—	—	Monastery .....trav AY
3	7	3	1	Moonlight Sonata .....mus-rom AY
—	—	4	7	Murder in Greenwich Village .....cr A
—	1	5	4	Murder on Diamond Row .....mys A
5	6	12	9	Music for Madam .....mus-rom AY
30	—	—	—	Mutiny on the Bounty .....adv AY
—	3	5	3	My Dear Miss Aldrich .....com AY
—	—	3	3	My Old Kentucky Home .....rom A
24	6	—	—	Naughty Marietta .....mus-rom AYC
4	24	5	—	Navy Blue and Gold .....rom AY
—	10	5	3	Night Club Scandal .....mys A
—	1	4	5	Night Spot .....mel A
—	2	5	6	No Time to Marry .....com A
—	4	17	2	Non-Stop New York .....mel A
8	18	2	—	Nothing Sacred .....com AY
—	—	3	3	Numbered Woman .....mel A
—	4	12	—	Nurse from Brooklyn .....mel A
8	17	4	—	Of Human Hearts .....hist A
—	—	4	4	One Wild Night .....mys A
19	2	—	—	100 Men and a Girl .....mus-rom AY
—	6	2	—	Orphan Boy of Vienna .....mel f AYC
—	2	3	—	Outlaws of Sonora .....wes AYC
—	—	5	—	Outlaws of the Prairie .....wes AYC
—	1	3	1	Outside of Paradise .....mus-com A

AA	A	B	C	
—	3	5	6	Over the Wall .....mel AY
1	5	1	—	Overland Express .....wes AYC
—	—	5	1	Painted Trail .....wes AYC
—	12	7	—	Paradise for Three .....com AY
—	—	4	3	Paroled to Die .....wes AYC
1	7	5	—	Pearls of the Crown .....hist f AY
1	6	4	1	Penitentiary .....soc A
—	6	8	—	Penrod & Twin Brother .....cr AY
—	6	3	—	Penrod's Double Trouble .....com AY
—	—	1	3	People of France .....soc AY
2	16	3	—	Perfect Specimen .....com AYC
3	6	2	1	Peter the First .....nov f AY
10	13	5	2	Plough and the Stars .....hist AY
—	—	1	6	Port of Missing Girls .....mel A
—	4	3	—	Port of Seven Seas .....rom A
11	19	—	—	Prince and the Pauper .....nov AYC
—	2	6	3	Prison Nurse .....mel A
21	9	—	—	Prisoner of Shark Island .....biog AY
20	6	—	—	Prisoner of Zenda .....mel AY
—	2	3	—	Public Cowboy No. 1 .....wes AYC
—	—	5	—	Purple Vigilantes .....wes AYC
—	2	6	5	Quick Money .....com AY
1	5	12	6	Radio City Revels .....mus-com AY
—	—	3	1	Rangers Roundup .....wes AY
—	1	5	5	Rascals .....com A
—	—	4	7	Rat .....mel A
—	8	7	2	Rawhide .....wes AYC
3	9	11	—	Rebecca of Sunnybrook Farm ..com AYC
—	2	3	2	Reckless Living .....com AY
—	—	2	2	Religious Racketeers .....cr AY
3	4	1	—	Return of Maxim .....soc f AY
1	8	5	3	Return of Scarlet Pimpernel .....adv AY
—	—	5	—	Riding the Lone Trail .....wes AY
8	8	1	—	River .....trav AY
5	13	6	6	Road Back .....mel AY
1	2	—	—	Robinhood .....adv Y
—	1	2	1	Roll Along, Cowboy .....wes AY
2	12	8	1	Romance in the Dark .....mus-rom AY
—	—	4	2	Romance on the Run .....mys-rom AY
24	5	1	—	Romeo and Juliet .....rom AY
1	7	8	7	Rosalie .....mus-rom AYC
—	1	5	2	Rose of the Rio Grande .....adv AY
15	14	—	—	Rosemarie .....mus-rom AY
—	5	7	1	Sailing Along .....mus-com AY
—	6	5	1	Saint in New York .....mys A
—	—	1	4	Saleslady .....rom A
—	4	11	1	Sally, Irene and Mary .....mus-com AY
23	7	—	—	San Francisco .....hist AY

AA	A	B	C	
—	4	4	6	Saturday's Heroes .....mel AY
—	2	2	—	Says O'Reilly to McNab .....com AY
—	1	3	10	Scandal Street .....com AY
—	5	3	2	Sergeant Murphy .....adv AY
—	10	11	—	Second Honeymoon .....com A
—	1	9	3	Sh! The Octopus .....adv A
—	4	6	1	She Loved a Fireman .....com AY
—	3	5	2	She Married an Artist .....com AY
—	13	12	—	Singing Marine .....mus-com AYC
—	2	9	6	Sinners in Paradise .....adv A
—	5	—	—	Ski Battalion .....mel f A
—	5	2	—	Ski Chase .....trav f AYC
5	12	5	1	Slight Case of Murder .....com AY
31	—	—	—	Snow White and Seven Dwarfs .adv AYC
—	—	—	10	Spirit of Youth .....mel A
—	2	4	—	Springtime in the Rockies .....wes AYC
—	1	7	9	Spy Ring .....mys A
—	—	2	2	Squadron of Honor .....mys A
25	7	1	—	Stage Door .....com AY
13	11	2	—	Stand-In .....com AY
8	18	3	1	A Star Is Born .....rom A
—	1	3	1	Stars Over Arizona .....wes AY
—	4	6	—	Start Cheering .....mus-com A
—	1	8	2	State Police .....cr A
12	8	2	—	Stella Dallas .....soc A
1	12	9	2	Stolen Heaven .....mel A
5	9	1	—	Storm in a Teacup .....com A
23	7	—	—	Story of Louis Pasteur .....biog AYC
2	17	6	—	Submarine D1 .....mel AY
—	—	2	3	Sudden Bill Dorn .....wes AY
1	8	12	1	Super Sleuth .....mys AY
—	—	3	5	Swiss Miss .....com AY
—	1	2	2	Tales from Vienna Woods ..mus-rom AY
—	—	5	9	Tarzan's Revenge .....adv AY
—	—	2	3	Telephone Operator .....mel AY
1	2	3	2	Tender Enemy .....rom f A
20	9	1	—	Test Pilot .....adv AY
—	—	3	4	Tex Rides with Boy Scouts .....wes AYC
—	5	5	3	Texas Trail .....wes AY
—	4	5	5	Thank You, Mr. Moto .....mys A
—	—	2	3	That's My Story .....mel AY
9	15	2	1	Theodora Goes Wild .....com AY
—	4	5	4	There Goes the Groom .....com A
6	11	4	—	There's Always a Woman .....mys A
7	17	3	—	They Won't Forget .....soc A
16	12	2	—	Thin Ice .....rom AY
—	11	2	1	Think Fast, Mr. Moto .....mys AYC
1	4	4	—	This Is China .....trav AY
5	20	5	—	This Is My Affair .....rom A
—	1	5	4	This Marriage Business .....com A
—	2	4	14	This Way Please .....mus-com A

AA	A	B	C	
1	11	9	2	Thoroughbreds Don't Cry .....com A
1	2	2	—	Three Comrades .....nov AY
10	18	2	—	Three Smart Girls .....rom-com AY
—	1	2	2	Thunder in the Desert .....wes AY
—	10	2	—	Thunder Trail .....wes AY
—	4	7	—	Tip-off Girls .....cr A
8	13	2	—	To the Victor .....adv AY
2	17	9	2	Toast of New York .....hist AY
3	18	3	1	Topper .....com AY
—	—	5	5	Torchy Blane in Panama .....mys A
13	12	1	—	Tovarich .....com AY
—	1	4	2	Trapped by G-Men .....cr AY
16	13	—	—	Treasure Island .....adv AY
—	11	3	—	Trip to Paris .....com AY
3	12	4	—	Troopship .....adv A
6	15	2	1	True Confession .....com A
—	1	4	2	Uncivilized .....adv A
—	10	4	1	Under Western Stars .....wes AY
10	10	7	—	Victoria the Great .....biog AY
—	2	3	3	Vienna Burgtheatre .....rom f A
7	8	1	—	Vivacious Lady .....rom AY
8	10	6	—	Vogues of 1938 .....mus-com AY
—	4	4	—	Wajan .....trav A
—	2	8	2	Walking Down Broadway .....com A
11	11	3	2	Wells Fargo .....hist-wes AY
—	1	4	4	When G-Men Step In .....cr AY
—	2	1	—	White Banners .....nov A
—	—	3	6	Who Killed Gail Preston? .....mys A
—	1	3	2	Wide Open Faces .....com AY
2	8	6	2	Wife, Doctor and Nurse .....rom A
—	3	5	4	Wife of General Ling .....mel AY
—	2	4	—	Wild Innocence .....adv AY
—	11	4	2	Wild Money .....com AY
—	3	5	4	Without Warning .....mys AY
12	16	2	2	Wings of the Morning .....rom AY
—	3	11	10	Wise Girl .....rom A
—	—	—	5	Woman Against the World .....mel A
—	—	3	9	Women Are Like That .....com A
—	—	3	6	Women in Prison .....mel A
—	5	4	4	Women Men Marry .....rom A
—	3	3	3	Wrong Road .....cr A
5	12	5	1	Yank at Oxford .....rom AY
7	5	1	—	Yellow Jack .....hist AY
—	2	1	2	Young Pushkin .....biog f AY
1	9	8	3	You're a Sweetheart .....com AY
7	7	5	2	You're Only Young Once .....rom AY

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## *Automobile Radio Sets*

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PROBABLY one of the best examples of modern man's ingenuity and constructional skill is exemplified in the automobile radio. Into a small metal box, eight inches or so on a side, has been compressed all of the equipment necessary to amplify and reproduce signals from stations several hundred miles away, with reasonable intelligibility, and power enough to override the roar of a speeding car. To do this, according to one authority, auto radios must have about forty times higher sensitivity than is needed for the average home set. Of course, since we live in a world far removed from Utopia, there are drawbacks. This tremendous sensitivity and small size which we have acquired at a fairly reasonable price has often been achieved at the expense of ruggedness and stability. So, in the normal course of events, the set will require periodic overhauls. Considering the extremes of temperature and humidity, and the incessant vibrations to which this type of radio is exposed, it is little wonder that such is the case.

In securing small size, we have also limited accessibility, however, so the periodic overhauls are likely to be expensive. Anyone who has ever seen a serviceman doubled up in the front seat of a car, attempting to make an adjustment on a balky set, can appreciate another of the reasons for the high cost of the service.

Another non-Utopian result of small size and great "gain" (or pick-up ability) is a decided loss of fidelity. Speakers must be small, and "high-gain" tubes must be used also, for compactness, so that in the end the set is at a decided disadvantage when used to reproduce music. It is therefore extremely unlikely that any music lover will be

satisfied with the quality of musical reproduction. On the other hand, many people (about fifty per cent according to a survey made by *Fortune*) get their news or supplement their newspaper reading by listening to news broadcasts. For this purpose and for this group of listeners, the auto radio will have its most satisfactory use. Of course, other non-musical programs can be reproduced with equal adequacy, in most locations. There are parts of the country where satisfactory reception can be had only at night, and in some places even night reception will be poor or uncertain. Travelers, especially during the summer, will encounter regions usually well removed from large cities, where reception will be almost non-existent or at best impracticable, because of static or other atmospheric conditions.

The push-button tuning with which some auto radios are equipped has helped to alleviate their tendency to interfere with safe driving to some extent, by eliminating the necessity for the driver's removing his eyes from the road while tuning. An efficiently working automatic volume control is also helpful in reducing the amount of attention and adjustment needed, by keeping the loudness at a fairly constant level over widely varying amounts of available signal strength or input. Unfortunately, the distraction caused by concentration on what is coming from the loud speaker is still there. Then, too, at high speeds when attention to the duties of driving should be greatest, the set will be used at highest volume and under those circumstances vitally important warning noises from outside the car (e.g., a truck approaching from the rear, or one side, or a train whistling for a crossing) are likely not to be noted.

Important conclusion: *don't ever drive fast or in heavy traffic with the radio going.* If the program is especially interesting, why not park off the road, shut down the engine, and listen comfortably? Most of us rush from place to place without knowing exactly why, anyhow, so that ten

or fifteen minutes of relaxation would probably be advantageous at times, enabling one to recover from the faint carbon monoxide intoxication that affects a surprisingly high percentage of drivers, particularly those who are on long trips. Such a rest, and recovery from a slightly dull feeling or perhaps even a faint gas-headache, will make for safer driving, too, and for better general health of the driver.

\* \* \*

An advance in the battery charging rate will need to go along with installation of a radio in one's car; the amount of the increase will depend upon the extent of use of the radio. Stepping up the charging rate by five amperes would probably be a good compromise to start with. The battery should then be checked occasionally and the charging rate adjusted until the smallest satisfactory increase can be determined. During the winter months when a large part of the driving is done after dark, when the car's lamps are lighted, difficulty may be encountered, if the radio is used extensively, in keeping the battery charged without having the charging rate and the voltage delivered to the set excessively high. (Excessive voltage to the set means frequent tube burn-outs and increases possibility of condenser or vibrator trouble.) A radio, if used much during the winter, may therefore prove to be more of a liability than an asset. Some of the later model cars have been equipped with heavy-duty generators and voltage regulators to solve this problem. Other makes have heavy-duty generators available at extra cost. In any event, it is well to keep a rather close check on battery conditions to avoid the embarrassment of suddenly finding oneself stalled in traffic (or in an isolated spot) with a dead battery—run down by swing music or a news commentator.

#### Antennas

Although most automobile sets will work on a ridiculously small antenna, for the best performance with the

least amount of background noise, a fair-sized aerial should be used. Aerials for cars with steel tops may be divided roughly into three groups: fish-pole or whip antennas, top antennas, and running-board or under-car antennas. Of these, the fish-pole type, consisting of a telescoping rod attached to the bumper or other convenient spot, is probably the most efficient. It can be set up on the rear bumper, where noise interference pickup from the engine is likely to be low (in some cases interference may be carried to the rear of the car by tail light wires, etc.), and has a fair length when extended. This length increases the ability of the set to bring in weak signals without excessive noise. Its chief disadvantage is its appearance, which may be objectionable to some motorists. A shorter type which partly overcomes this disadvantage attaches to the door hinge, but will probably have less signal pickup.

The roof-top antennas are generally mounted on stand-off insulators cemented to the top of the car. Many varieties of these are in use, ranging from the short type which extends into the air over the windshield to the type called the "towel-rack antenna" which traverses the full length of the top. While this kind of antenna does not, length for length, have as much pickup as the whip type, it is probably not so objectionable in appearance and a fair amount of pickup is to be expected. In general, it may be said that the longer this variety is, and the higher it stands above the car's roof, the more efficiently it will work. Noise pickup may be slightly less troublesome with this type than with the fish-pole antenna. Ford engineers are said to have recommended the roof-top antenna for *Ford* cars.

The running-board antenna (more properly, under-the-running-board antenna) has the advantage of being concealed from sight. It has only fair signal pickup, however, and is likely to be bothered by wheel or tire "static." Ignition noise is quite likely to be worse than with the fish-pole and towel-rack types previously described. During the win-



ter months, running-board antennas may be seriously affected, even rendered inoperative, by accumulations of ice or mud, and care must be used, especially in country driving, to make certain that the antenna is not torn off on a projecting chunk of ice or some other obstacle. Even a city curb may wreak havoc with this type of antenna at times.

Anyone fortunate enough to possess a car having a built-in aerial has no problem of antenna choice, of course. The older cars with fabric tops were often supplied with a built-in aerial (in the roof) which was quite efficient. Later models have insulated running boards, bumpers, spare wheels, etc., that can serve as an antenna, or provision is made for insulating some part and using it in that way. It would probably be well to investigate this possibility before purchasing an antenna.

The newer auto radios, when installed in late model cars, will usually not give a great deal of trouble with interfering noise originating in the car, but unfortunately no one can predict with certainty what the outcome will be as to completeness of noise elimination, and its cost. Even different makes of tires vary widely in the amount of noise they are likely to induce in the car's radio. Some have given serious trouble in this respect, almost impossible to correct satisfactorily.

The sets listed at the end of this article were first given a close and expert mechanical examination, after which judgment was passed on general construction, quality of workmanship, quality of parts, ease of installation, type of controls, size and kind of speaker, etc. In fact all considerations not covered by later electrical and acoustical tests were gone over during this examination. The sets were then tested for sensitivity, selectivity, fidelity,<sup>1</sup> inherent noise level, and freedom from various types of interference, including that generated by the average car. Measurements were also made of the undistorted output in watts (a

<sup>1</sup> Approximated by measurement of audio frequency range and degree of freedom from distortion.

measure of the "volume" delivered by the set), adequacy of action of the automatic volume control, current consumption (reflecting the load which the set imposes on the battery), and vibrator performance. The sets were next put through a severe vibration test as a measure of their ability to withstand the vibrations normally encountered in a car. After this test most of the previous test were repeated to determine the effects of the vibration. All receivers were also given life tests by running at full volume for extended periods.

In the following listings most sets were of satisfactory selectivity and did not differ widely in this respect. Exceptions are noted. All sets had tone controls of a satisfactory type. Costs of antennas are not included in prices given.

Since a very different set of standards was used in rating auto radios from that which would apply to sets for home use, it should be clearly understood that reference to "good audio range," etc., is not to be considered as implying, in any sense, a judgment of performance corresponding even approximately to that of any reasonably good home radio.

(The Radolek Co., 601 W. Randolph St., Chicago, is offering several of these sets at a considerable reduction in price. Consumers' Research has not investigated the service this firm provides.)

#### RECOMMENDED

*RCA Victor*, Model 8M3 (RCA Mfg. Co. Inc., Camden, N. J.) \$49.95. Sensitivity highest of all sets tested. Very selective. Had moderately good audio characteristics with fair freedom from distortion. Low-frequency response not so good as that of *Philco*, Model 927, *Motorola* Golden Voice, and *Sears-Roebuck*, Cat. No. 57—4600, but since auto radios are not recommended by Consumers' Research for realistic reproduction of music, this defect not considered serious. Shielding and freedom from noise pickup superior to others tested. Automatic

volume control action excellent. No apparent changes in operating characteristics resulted from vibration test. Very good mechanical and electrical design and construction. Considered one of the easiest sets to install.

#### QUALIFIED RECOMMENDATION

*Silvertone*, Cat. No. 57—4600 (Distrib. Sears, Roebuck & Co.) \$25.95 plus transportation. Moderate sensitivity. Very selective. Good audio characteristics with low amount of distortion. Shielding from noise pickup good. Automatic volume control action good. Not affected by vibration test. Mechanical construction and quality of parts fair. When this set was received the vibrator with which it was equipped was inoperative, which may have indicated deficient checking of finished sets at factory. This model was purchased in 1937 but is understood, on information from Sears, Roebuck & Co., to be similar to current model, Cat. No. 57—6100. Latter has provision for attaching push-button tuning device. Represents good value considering price.

*Delco*, Model R-665 (United Motors Service, Inc., Detroit) \$51.95. Sensitivity only slightly lower than *RCA Victor* 8M3. Moderate audio range with low amount of distortion. Shielding from noise pickup, and automatic volume control action good. Stood up well under vibration test. Quality of parts and mechanical construction good. Set was defective when received, having short-circuited tone control, causing serious reduction of frequency response. Set should be easy to install.

*Motorola*, Model 8-50 (Galvin Mfg. Corp., Chicago) \$49.95. Sensitivity only slightly lower than *RCA Victor* 8M3. Moderate audio range with fair freedom from distortion. Shielding from noise pickup, and automatic volume control action excellent. Not affected by vibration test. Mechanical construction and quality of parts good but considered somewhat inferior to *RCA Victor*

8M3 and *Philco* 927 in this respect. Not unlikely that wear in tuning control gears may cause trouble.

*Philco*, Model 927 (Transitone Automobile Radio Corp., Tioga and C Sts., Philadelphia) \$49.95. Moderate sensitivity. Comparatively broad-tuning (i.e., non-selective; interference might cause trouble in "crowded" regions). Had good audio range with exceedingly low amount of distortion. Shielding from noise pickup excellent. Automatic volume control action rated only fair. Set not affected by vibration test. Quality of parts and mechanical construction good. Only set not furnished with shielded antenna lead-in. This set with its somewhat better frequency response would probably be suitable for persons not having need for the better sensitivity and much better automatic volume control action furnished by *RCA Victor* 8M3 (which would be of value in regions where reception is weak, or uncertain).

*Motorola* Golden Voice (Galvin Mfg. Corp.) \$79.95. Moderate sensitivity. Best audio range of any set tested but with only fair freedom from distortion. Shielding from noise pickup excellent. Automatic volume control action excellent. Not affected by vibration test. Mechanical construction and quality of parts good but considered somewhat inferior to *RCA Victor* 8M3 and *Philco* 927 in this respect. This model was equipped with external speaker (permanent magnet dynamic) and push-button tuning. "Automatic tuning" feature judged to be of good type. Six stations can be tuned in by push-button. (See text for other comments on automatic tuning devices.) This set was capable of 10 to 15 watts output, several times more than can be used in the ordinary car, considering absence of good bass response (for which power handling capacity is mainly required in a home radio set). This model may be impracticable to install in some cars, due to its separate speaker.

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## *Linoleum and Linoleum-Like Floor Covering*

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THE home-owner of moderate means who has looked into all the possibilities, will almost invariably decide that some type of linoleum or linoleum-like product best meets his needs, when he is faced with the problem of recovering the bathroom or kitchen floor. Rubber tile is good looking but too expensive for the average household and besides it is apt to become slippery under some conditions. Asphalt tiles are inexpensive and are desirable for use where the underflooring gets damp, but they have a somewhat unpleasant feeling underfoot. Ceramic tile also has this last disadvantage. Linoleum, or some linoleum-like flooring, on the other hand, has a degree of resilience and "warmth" as well as attractive appearance, and is easy to clean. It is, therefore, highly suitable for bathroom and kitchen, and many find it acceptable for some other rooms as well.

The difficulties of the purchaser of linoleum are rendered unnecessarily great by the notable failure of the manufacturers to carry out standardization of types, qualities, thicknesses, finishes, etc. By reason of the lack of standard designations, it is very easy for the manufacturer or dealer to substitute one grade or type for another. It is also easy for the manufacturer or dealer with a habit of "cutting corners" to skimp in a way which would be wholly impossible were the consumer provided with carefully-defined type, quality, and thickness designations, simple and under-

standable by anyone, and plainly marked upon the product itself or upon a tag securely attached or sealed in position at intervals along an edge.

In the absence of such standards, and until the industry decides to put itself on the more rational basis which characterizes many other important industries—jellies and jams, and electrical appliances, for example—the consumer will do well to have manufacturers or dealers set down in writing any grade designations or other representations upon which he relies in purchasing. Requiring this will force the dealer in many cases to find out what he does not now know, and to make specific that which would otherwise have been left vague and uncertain.

At the end of a test recently completed by Consumers' Research, some inlaid linoleums showed as much wear as some of the felt-base floor coverings of the kind which often passes for linoleum but is not so in fact. This test showed, moreover, that there was great variation in the amount of wear resistance exhibited by different samples in the same price class. Linoleum, printed linoleum, and felt-base floorings are all marketed under diverse trade names which may confuse the consumer. It is the purpose of this article to give the prospective purchaser enough general information so that he may know the distinguishing characteristics of the most commonly sold types of floor coverings and thus can be sure of getting the one which he will decide upon as best suited to his needs. The same qualities determine the relative durability of whatever sort may be chosen: thickness or gauge, finish, pliability, and seasoning.

#### True Linoleum

True linoleum is made of finely ground cork mixed with oxidized linseed oil, gums, and coloring matter, pressed while soft onto a burlap backing. Occasionally, wood flour is added to the cork. This addition is said not to lessen the wearing quality of the finished product unless the pro-

portion is too great. Huge sheets of the flooring material from six to twelve feet wide and many feet long are hung up to dry and season for several weeks and are then sent out to the retailer to be sold to Mr. and Mrs. Consumer. Proper seasoning is a most important factor in the wearing quality of linoleum: well-seasoned linoleum is pliable and resilient; poorly seasoned linoleum is soft and easily deformed or dented—so soft, indeed, that flakes may be chipped out with a fingernail. There are four types of linoleum, each produced in a wide enough variety of colors and patterns to suit the taste of the most fastidious housewife.

The types of linoleum include:

1. Plain, made in solid colors without any patterns, hence not so expensive to produce. The heaviest thicknesses are called battleship linoleum since they were first used over the steel decks of battleships. Battleship linoleum comes in three gauges, the two thickest of which are heavier than the regular household type in so-called heavy gauge. Battleship linoleum is expensive and is thus used chiefly for floors of public buildings where the conditions of use are extremely severe. The two heaviest grades of battleship linoleum are not considered suitable for household use.

The medium and standard thicknesses of plain linoleum are called simply "plain" and are the common grades for household use including use as custom-laid floor coverings for which the designs are specially ordered. ("Standard" means the lightest gauge and is a misuse, common in trade terminology, of the term "Standard.") In all plain linoleums, the color goes all the way through to the burlap.

2. Jaspé, which has a two-tone striated or "marbled" effect but otherwise is similar to plain. The color goes all the way through to the burlap. Made in very heavy gauge, which is  $\frac{3}{16}$  inch thick, and in heavy and medium gauges.

3. Printed linoleum, which is made by enameling patterns on plain linoleum. This cheap form of pattern linoleum is

considered desirable for use only on floors where the wear is light and where great durability is not expected.

4. Inlaid linoleum, the most expensive of the linoleums for home use, usually comes in heavy, medium, and standard grades. In this type, the colors run through to the burlap back, and will therefore last as long as the linoleum lasts. The patterns available are of two kinds, straight-line and molded. In straight-line, the pattern pieces are cut from sheets of different colors, fitted together on the burlap and made to adhere to each other by squeezing under great pressure. In molded linoleum the mix of various colors is applied while soft to the burlap through a stencil, and the applied layer then pressed into a solid sheet. The surface of molded linoleum is sometimes varied by embossing—that is, some parts of the pattern are pressed down below the surface of other parts. This gives a pleasing effect but makes the linoleum hard to clean and the raised parts of the pattern wear off more quickly than the depressed parts. The appearance of the flooring is thereby in time impaired.

#### Felt Base Coverings

Besides the true linoleums, there are on the market various linoleum-like floorings with asphalt-saturated felt backs instead of burlap. There are two general classes of these recognized by the trade: (1) floorings surfaced with oil paint in various patterns and colors, and (2) floorings such as *Linoflor* with a linoleum mix applied as a surface, or *Kolorflor* which is surfaced with a fibrous cellulose sheet in patterns or plain colors. The first process makes a flooring which should differ little from printed linoleum in wearing quality (except that it may tear more easily); the other methods make a long-wearing floor covering which tears more easily than true linoleum but will prove practical for many households. Felt-base flooring may always be distinguished from linoleum by the absence of the burlap backing which makes all felt-base floorings more easily



torn than linoleum. Kerosene spilled so that it reaches the backing of any felt-base floor covering will cause softening, perhaps serious damage to the asphalt-impregnated layer. In kitchens where kerosene cookstoves are used, this might prove to be a practical disadvantage, though it is likely that no type of linoleum or linoleum substitute will effectively resist the action of oils and greases.

### Laying Floor Coverings

Linoleums and linoleum-like materials should be laid only over smooth floors. When this precaution is not taken, ridges in the underflooring soon appear as worn places in the surface of the floor covering and an expensive piece of linoleum may have an all too short wear-life. Linoleum should be cemented down, to ensure longer life, ease of cleaning, and better sanitary conditions. The cementing may be done either directly to the wood floors or over a layer of felt which has itself been cemented to a well-sanded, smooth, even floor. The linoleum should be cemented down firmly, using a cement resistant to dampness, with waterproof cement at the seams and edges so that water used in cleaning will not penetrate and loosen the adhesive. The method in which a layer of felt is used between the linoleum and wood floors is preferable, since, if it is necessary to remove the linoleum in order to apply it in another place, the felt paper will usually split before the linoleum tears, thus making removal practical. When linoleum is cemented directly to the wood floor, splinters are likely to be pulled away with the linoleum. Even when linoleum is cemented over felt, however, there will be some risk of tearing, and this makes the moving of linoleum a trying and difficult operation at best. When linoleum has worn out and is not needed again for use, it can be taken up by tearing off any that can be loosened and softening the cement under the rest with water. Most stores selling inlaid linoleum have men trained to do a good job of

laying it at only a moderate extra cost per square yard.

Five days after the linoleum has been put down, the adhesive should be thoroughly dry; the linoleum can then be washed with a mild soap, rinsed in clear water and allowed to dry thoroughly. If not already surfaced by the retailer or manufacturer, it should then be given a surface finish-coating of some kind. Consumers' Research has no actual test data as to which surfacing is best for linoleum, and thus for the present, no recommendations can be made on this point. In any event, avoid the use of every sort of shellac, varnish, or oil, and any finishing material of unknown composition, especially any of a kind whose performance has not been well established by a long period of experience and practical application. (A conservative attitude is wise in this connection, as in all building material problems, since there is much experimentation done with new materials, methods, and prices in floor surfacing and finishing materials at the consumer's expense, and the manufacturer himself has not established in any certain or definite way the suitability or lasting quality of his method or process.)

When a floor covering is to be laid down which is not expected to be permanent, many home-owners will prefer to lay the floor themselves rather than to incur the extra expense of professional services. As all prepared floorings are brittle when cold, no attempt should be made to flatten out a roll of flooring in cold weather until it has been warmed at least forty-eight hours at room temperature (at or near 70°F). The quarter-round or similar molding at the base of the floor board should be removed before starting to fit the flooring. In fitting and cutting, an allowance of one-quarter to one-half inch should be made at the edges to permit expansion. The edges should not be fastened down permanently for three or four weeks, or the flooring will buckle as it stretches. After that period, the job may be

finished permanently and the base molding put back in place.

### Cleaning

In cleaning any of the types of flooring under discussion, only mild soaps containing no free alkali or alkaline salts should be used. *Dif*, *Oakite*, tri-sodium phosphate and other similar kinds of cleaners, are all bad for linoleum and linoleum-like products. "Linoleum Cleaner," bought as a liquid soap, is used by some government departments, its only specification being that it must not contain alkali. Any alkali or alkaline salts such as are found in many of the commonly sold scouring powders and kitchen cleaners will have a seriously harmful effect on linoleum through their action on the oxidized linseed oil in the linoleum, and the abrasive materials usually present will tend to scratch the surface and facilitate the lodgment of particles of grit and dirt, which will quickly bring about the destruction of the flooring. Linoleum which has been cemented down should be wiped carefully, using as small an amount of water as possible. If flooded too heavily, the water may enter the seams and loosen the cement.

### General Conclusions

At the end of tests made by Consumers' Research, there were three samples of the inlaid linoleums which were outstanding in their resistance to wear; there were also three samples of felt-base coverings which showed very little surface wear—indeed, one sample, *Del Ware Kolor-flor*, showed less surface wear than even the best of the inlaid. Conclusions tentatively reached on the basis of the tests already mentioned are as follows:

1. For a flooring which is expected to last many years, one of the recommended inlaid linoleums should be chosen. They are more expensive, costing from two to four times as much, but their indicated life under most severe wear

conditions was, due to the pattern's extending through to the back, very much greater than that of the best felt-base flooring tested, *Del Ware Kolorflor*. (As a rule, the ratio of life was found to be much greater than the ratio of cost for the inlaid type as against the felt-base type.)

2. *Del Ware Kolorflor*, a special felt-base material, was outstanding in wearing qualities among the low- and medium-priced floor coverings tested and would undoubtedly give excellent service where conditions of wear are not too severe, particularly if it is to be used in a home or under conditions where it will be well cared for. The indicated wear-life of the other brands of felt-base and printed linoleum floorings was relatively very short in comparison with this one sample. *Linoflor*, a higher-priced felt-base covering, was not tested.

3. The only sample of printed linoleum purchased for test, tore less easily than any of the felt-base floor coverings but in other respects was, from the consumer's standpoint, about equal to the ordinary printed felt-base floorings. One sample of linoleum with an adhesive back proved unsatisfactory as to wearing qualities.

4. Beyond question, the choice of pattern has a great deal to do with determining the enduring good appearance of any flooring and with the amount of care required to keep it in proper condition. Patterns with darker shades predominating serve best; those with large light-colored areas need more frequent cleaning. Patterns of a muddy character lacking clean-cut color contrasts are apt to appear dingy at a rather early stage when wear first begins to show; whereas those with clear colors and bright contrasts retain their satisfactory appearance long after they have lost their original freshness.

During any test necessarily of long duration, patterns, and even types, may disappear from the consumer market. In the case of linoleum, attempting to match a three- or four-year-old piece of kitchen flooring is apparently as hopeless

a task as trying to purchase matching pieces for an "open stock" dinner set. Most of the tested types of floorings in patterns other than those used are, however, still available, though present prices may not be exactly the same as those in the listings which follow. Listings are in order of merit in each group as determined by tests. All the floorings listed came in six-foot widths.

### Inlaid Linoleum

#### RECOMMENDED

*Armstrong's* Inlaid Medium Gauge (Armstrong Cork Products Co., Lancaster, Pa.) \$1.47 per running foot. Condition good at end of test.

*Gibraltar* Heavy Inlaid, sold by Sears, Roebuck & Co., No. 37—1746. \$1.29 per running foot, plus transportation. This product, though discontinued in Sears' latest catalog, will prove a good buy if it can be found in one of the retail stores. Though called "heavy inlaid" and "extra heavy," the thickness of the wearing-layer was actually less than that of *Armstrong's* medium gauge.

*Pabco* Inlaid, Standard Gauge, No. F 374 (The Paraffine Companies, Inc., N.Y.C. and San Francisco) \$1.07 per running foot. Showed some surface wear but was still in good condition at end of test.

### Felt Base Floorings

#### RECOMMENDED

*Del Ware Kolorflor* (Delaware Floor Products Co., Wilmington, Del.) 60 cents per running foot. Surface in exceptionally good condition at end of wear test, but pattern, which was worked out in dull browns, cream, and black, looked dingy after use. This same pattern is obtainable in different color combinations.

*Bird's Neponset* (Bird & Son, Inc., East Walpole, Mass.) 40 cents per running foot. Surface only slightly scarred at end of test.

*Bird's Economy Felt* (Bird & Son, Inc.) 34 cents per running foot. Surface in good condition at end of test, but predominance of brown in pattern tended to make sample look dingy.

QUALIFIED RECOMMENDATION

*Duraflor*, Blue Jaspé, sold by Montgomery Ward & Co., No. 172—4165. 58 cents per running foot, plus transportation. A felt base, not to be confused with Jaspé linoleum. Surface showed considerable wear at end of test but was still in fairly good condition.

*Duraflor*, Plain Brown Heavy Grade, sold by Montgomery Ward & Co., No. 172—4166. 67 cents per running foot, plus transportation. Surface in fairly good condition at end of test. Not listed in latest catalog.

Felt-Base Floor Covering, sold by Sears, Roebuck & Co., Nos. 37—1216 and 37—1551. Samples of both these numbers were purchased for test, the first at 31 cents per running foot and the second (a 6 x 6 foot piece) at 33 cents per running foot plus postage. Both samples, though their identity was not even intimated in the catalog, were found, when delivered, to be labeled *Gold Seal Congoleum*. In a later catalog, the No. 37—1551 was omitted but the same pattern appeared as No. 37—1216 M under *Super Sear-O-Leum* at 29 cents per running foot. This, Sears advised by letter, was identical with No. 37—1551 R. The 37—1216 number appears in the latest Sears' catalog but neither of the patterns tested appears under it. This instance well illustrates the need for definite descriptions and nomenclatures—and incidentally, the need for some rationality (from the consumer's standpoint) in mail-order catalog item numbering. Only confusion can follow the identification of the same article at one time as felt-base floor covering, at another as *Super Sear-O-Leum*, and the goods "in person" as *Gold Seal Congoleum*, under a shifting catalog number.

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## Vitamins in Cosmetics

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OUR first knowledge of vitamins was surrounded by an unfortunate, but necessary, aura of mystery because their chemical nature was unknown. For this reason they were designated by letters. At the present time there are six recognized vitamins, A, B, C, D, E, and G. As a result of a vast amount of research, the chemical composition of all of these is definitely known, except that of E, and even for that a chemical formula has been suggested. The chemical names of the compounds are too unwieldy for practical usage, so that until other names proposed by the proper authorities have been generally accepted, the familiar letters will continue to be used.

It does seem like a long leap from food to cosmetics, but the writers of advertising copy possess an agility in this respect foreign to the simple scientist. Hence there appears the thrilling advertisement of *Pond's Cold Cream* that it "brings to women the active 'skin-vitamin,'" "helps women's skin more directly."

"When there is not enough of this 'skin-vitamin' in the diet, the skin may suffer—become undernourished, rough, and subject to infections. Skin faults would result."

Since the term "skin-vitamin" is unknown in scientific literature, one has to search further to see which of the six vitamins is referred to by this highly suggestive title. Reading on we find that this is "not the 'sunshine' vitamin. Not the 'orange-juice' vitamin. Not 'irradiated'." The first and last terms refer to the same thing, vitamin D, but evidently either the writer of the copy did not know that, or he thought that his readers didn't know it. The second term refers to vitamin C. Since the vitamin under discussion is

used in cold cream, it is pretty certainly a fat-soluble vitamin. Vitamin D being ruled out, this leaves the other fat-soluble vitamins, A and E, and since the former is sometimes described as the "anti-infective" vitamin, the latter the "anti-sterility" vitamin, it seems fairly certain that vitamin A is meant.

Just why Pond insists on being so uncommunicative isn't clear—perhaps because vitamin A is a fairly well-known food factor, while "skin-vitamin" is a new and unfamiliar term more in line with sales possibilities. It is an old principle of advertising technique that when you make claims you should be concrete. Tying the vitamin up to the skin directly is very practically following out this old principle of the advertising copy writer. With this method, the woman who reads the advertisement thinks that the product in question is somehow peculiarly and specifically related to the health and beauty of the skin.

The symptoms of vitamin A deficiency have been known for a long time. The eye is one of the first organs affected, and the condition is indicated by the symptom of night-blindness or inability to see in subdued light. The eyes later develop a disease condition called xerophthalmia, which results from a hardening of the surrounding membrane. Other epithelial membranes are also affected, particularly those lining the respiratory, alimentary, and genito-urinary tracts. The change in the structure of these membranes lowers resistance to infection at these points. Colds, sinus and ear infections, catarrh, and similar conditions have been attributed to this cause. While emphasis is placed on the hardening of these more delicate membranes, it is also true that the general skin surface may become dry and possibly develop defects. This latter condition resulting from a deficiency of vitamin A is evidently the basis for the selection of the term "skin-vitamin" for advertising purposes.

Proper treatment in such circumstances is naturally to incorporate in the diet, foods or concentrates rich in vitamin



A, such as carotene, cod-liver oil or other fish oils or concentrates, butter, broccoli, carrots, eggs, kale, liver, parsley, etc. Even fairly severe cases of vitamin A deficiency (and these are very rare) respond readily to proper food.

But why add vitamin A to a cosmetic cream? On the face of the evidence, for no good reason! The consensus of opinion is that the earliest sign of vitamin A deficiency is night-blindness, which indicates that the point where the need for vitamin A is the greatest is in the inner structure of the eye. There is some evidence to indicate that vitamin A can be absorbed through the skin, in which case the vitamin, applied to the skin, might conceivably reach the eye. However, the normal procedure of assimilating the vitamin via the digestive tract would appear to be much the safer and saner—and surer—method. If I knew I needed vitamin A, I wouldn't rub butter on my skin, I'd eat it with my bread or baked potato.

The fact that Pond uses the term "skin-vitamin" rather than vitamin A would tend to confuse the reader of their advertising rather than educate them in the properties of the vitamin. The reader might infer that here was a new vitamin which he had never heard of before and which for some unknown reason should be applied to the skin rather than taken internally. This is opposed to the fundamental nature of nutrition and the essential characteristics of vitamins.

Vitamin A is not the only one to be exploited in cosmetic products. *Woodbury's Cold Cream* is sold containing vitamin D. Listen to what this will do for you!

"Those tiny lines that say your skin is aging. What heartache they bring! For lines soon mummify your skin, blighting its youthful freshness. You can't hold back the years. But you can lubricate, soften and help your skin *breathe*. All with one scientifically perfected cold cream, *Woodbury's . . .* Today every jar of this famous beauty cream is rich in vitamin D."

Vitamin D is fat-soluble and is known as the antirachitic vitamin, since it aids in the prevention of rickets. Vitamin D may be supplied in the diet, or, unlike other vitamins, it may be synthesized by the body on exposure to the direct rays of the sun or to ultraviolet light. This is why it is referred to as the "sunshine" vitamin. The deficiency disease, rickets, is more prevalent in growing children than in adults. It is most likely to be found in tenement children or children whose poor health or economic conditions prevent them from getting out of doors or into the country. (Country sunshine is much more effective in the prevention of rickets than sunshine in smoky or dusty cities.)

While it is common for pediatricians to advocate for infants or small children a supplementary supply of vitamin D taken medicinally or in the diet, more recent evidence indicates that this practice is questionable. Rickets is characterized by improper bone formation, observed in the form of bowlegs, knock-knees, enlarged joints, etc. Abnormal tooth decay is also believed by many to be related to a deficiency in vitamin D, as well as to a number of other causes.

Rickets is said to be accompanied by a reduced respiratory action of the skin. This would appear to be of little significance compared to the lack of proper bone formation, which is the essential characteristic of the disease. One is convinced that Woodbury's has less interest in the disease condition which is caused by the deficiency of vitamin D than in building up a relationship of vitamin D to the skin. Vitamin D may have its place in the cure of rickets, as an aid in the prevention of tooth decay, and in bringing the respiratory action of the skin to normal, but it would be hard to make a case for the use of the substance in improving the respiration of the skin of those already in normal health.

The Vita-Ray Corporation appears to believe that if some companies put vitamin A in their creams, and others vitamin

D, they could make a still better appeal to the vitamin-uneducated public by putting in both vitamins A and D.

They say that a noted doctor "knew that dryness, lines, wrinkles, coarse pores might indicate lack of Vitamins A and D. No cosmetic could succeed until *both* vitamins were replaced. But *how?* Not by diet! Vitamins must be fed where needed—*through the skin.*"

Needless to say, the name of the "noted doctor" is omitted since any member of the medical profession who lent his name to the support of such statements would quite likely find himself in a very embarrassing position with his colleagues in the profession. The many and able scientists who have devoted long years to a disinterested study of the nature and functions of the vitamins surely do not deserve to have their work or any part of it laid open to such misinterpretation.

It is interesting to note the implications in Vita-Ray advertising that people who use only one vitamin in their face cream are not going nearly far enough in preventing or curing skin ailments. It will be easy for some other cosmetic advertiser to build on the ground so well established by Vita-Ray by pointing out in turn that three or four vitamins are required for a real job in skin deficiencies.

False and Misleading Says Federal Trade Commission are the claims asserting that:

*Pond's* cold cream is germ free, that it will wipe away and keep away facial lines, blemishes, and skin faults, that it nourishes the skin, or that the "skin vitamin" applied right to the skin aids the skin more directly.

*Woodbury's* cold creams are sterile, capable of killing germs, and preventing infection; *Woodbury's* facial soap contains "filtered sunshine," and releases an invigorating "filtered sunshine element," namely vitamin D, and that through the use of such soap, the skin absorbs a sufficient amount of vitamin D to produce a substantial effect.

These representations are false and misleading, charges the Commission, because the use of these products will not accomplish the results claimed. Moreover, the Commission alleges that the ingredients of the *Pond's* cold cream and of the *Woodbury* products are not absorbed by or through the skin.

—F. T. C. Releases

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## Vinegar

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GRANDFATHER'S cider mill was a substantial red building on the top of a hill, and on almost any day through the fall the put-put of the little gasoline engine which ran the grinder and cider presses could be heard. It was before the days when spraying trees became common, and people still felt that even washing apples rather spoiled their flavor. So grandfather just examined the apples to see that they were fit for cider and that there weren't too many rotten ones in the lot. They were then measured by bushels from the farmer's wagon into a bin from which they were shoveled into a hopper and ground mechanically into a mash.

The mash was spread about four inches deep on clean close-woven burlap which was laid out on the press platform in a square, measuring approximately five feet. The burlap was carefully folded over the top of the mash and three or four similar layers of mash were placed on top of the first one. The little engine again went to work and put enough pressure on the mash to force the juice out into a collecting trough from which it ran out of a spout into a barrel. Pulp, seeds, skins, and some of the dirt were all strained out by the burlap, and the cider was apparently clear when it came out of the spout where the big collie dog and I could sample it. After all the juice was extracted, the burlap cloths with their load of apple pomace were carried to the big pomace heap behind the cider mill and emptied. Then the cloths were washed, dried, and made ready for the next time they were needed. The pomace was considered pure waste in those days, and grandfather never dreamed of using it for the making of apple by-products—

vinegar, stock feed, apple jelly, commercial pectin, or what-have-you. Such pomace is now a regular article of commerce and has become a means of cheapening a number of apple products.

Often a neighbor or casual customer came up the hill with a jug or two for cider or vinegar. The cider jugs were filled from the spout at the press or from one of the barrels in the back of the mill. But to get the vinegar, grandfather would lead the way to the long loft over the wagon shed where the six great vinegar hogsheads were stored in an imposing black row. He used a small rubber hose to siphon the vinegar from the top bunghole, which was above even grandfather's head, down to the waiting jug. The vinegar was a clear brown mahogany color and was never tested for percentage of acidity, but by comparison, all modern store-bought vinegars seem mild. It had started on its sour way about a year before when grandfather had done something mysterious with some cider which had soured slightly and some bad-looking brown slimy stuff which he called vinegar "mother." The whole process was most puzzling to me and was somehow allied with the gloomy depths of the loft where the somber-looking casks were stored.

Grandfather sold most of his vinegar to grocery stores in Newark, though he had many customers who came to the mill for it too, and he usually made just about enough to keep them all supplied. But one winter, the cider vinegar business came to an end, and grandfather came home talking about the stupid women who, although they could buy real vinegar like his, purchased a cheaper but new product which he called chemical vinegar. At any rate, he couldn't make apple cider vinegar to sell at prices to compete with the manufactured product, and the big casks gradually dried out in their black attic while Newark housewives used acetic acid vinegar as a condiment (along with many other synthetic articles, from imitation vanilla extract to canning

compounds which were beginning to become regular articles of commerce in the decades around 1900).

In the thirty-odd years since then, much has been accomplished in the way of setting standards for food products, and vinegar made out of commercial acetic acid has been declared an adulterated product. However, vinegar labels should be read with care and intelligence by the housewife before buying, or perhaps she will be taking home a distilled vinegar artificially colored, when she meant to buy genuine cider vinegar, which in its best form is a product of the farm and not of the factory.

### Manufacturing Processes

Vinegar is one of the most widely used condiments and is a recognized food preservative all over the world. Its origin probably goes back nearly as far as the making of wine itself, from which its name is derived. Sour wine and vinegar are practically identical.

There are six types of vinegar defined by the United States Department of Agriculture: vinegar or cider vinegar made from the juice of apples; wine or grape vinegar made from grapes; malt vinegar made from barley malt and cereals; sugar vinegar made from sugar syrup, molasses, or refiners' syrup; glucose vinegar made from solutions of glucose; and spirit, grain, or distilled vinegar made from dilute distilled alcohol.

All vinegar production is accomplished by two basic fermentation processes: The first is the action of yeasts on the sugar in the fruit juices, malt wort, sugar syrup, molasses, etc., used in making the vinegar. This action changes the sugar or sugars into alcohol and carbon monoxide gas. The second is called acetic fermentation and is the result of the action of a commonly found group of bacteria, which helps the formation of acetic acid by bringing about the combination of the alcohol, formed during the first process, with oxygen.

Grandfather started his vinegar by adding vinegar mother to sour cider, the mother being colonies of yeast cells which started the alcoholic fermentation. This method is probably still used in many small cider mills throughout the country. In the big commercial mills, all processes are more carefully controlled, and whereas grandfather's vinegar probably had an acetic acid content of five to six per cent and was sold "straight," the present commercial product is usually reduced or diluted to a four or four-and-one-half per cent acetic acid content in order to bring it down as close as possible to the minimum acetic acid content of four per cent allowed by the government standard. Such a low standard makes it possible to dilute the vinegar produced from almost any given lot of apples and thus obtain a much larger quantity. The reduction process materially reduces flavoring strength, as well as acid content, and full-flavored, brown, strong vinegar is almost never found in stores today. The demand for fine products tends to disappear after the consumer has lost his ability to differentiate the good from the mediocre, and the savory and flavorful from the relatively unpalatable and insipid.

Vinegar may be made from a solution of any fermentable sugar and water, but the flavor and aroma of the finished product are naturally largely dependent on the type of material used in obtaining the alcohol solution for acetic fermentation. Although in the United States, apple vinegar is the recognized standard type in common use and is the kind preferred for army and navy use, vinegar made from almost any fruit juices will have a fairly good aroma and flavor. Wine or grape vinegar may be a very high-grade product and is practically the only kind used in continental Europe. It was being made for home use in France as early as the sixteenth century. Vinegars of this type which commercial interests consider to be of fine quality are now being produced and used extensively on the Pacific Coast in the United States. However, due to the heavy spraying of

vineyards, particularly in the West Coast states, wine vinegars produced in this area are apt to contain large quantities of spray residue. Malt vinegar was first made from sour ale and beer and was called *alear*—a name long since obsolete. It is still the standard vinegar in England but is now required to be made from malted barley with or without added cereal grain. Distilled or spirit vinegar is nearly colorless and lacks the aroma and flavor of the fruit juice vinegars; it is neither suitable nor commonly used as a condiment on the table but is used in the food industries that make such products as sweet pickles, piccalilli, chowchow, etc. Distilled vinegar is sometimes specified for certain army uses but must be carefully labeled to distinguish it from cider vinegar. Colored distilled vinegar is never specified, and compound vinegars (mixtures of cider and other vinegars) are not acceptable to the army commissariat. Synthetic vinegar, made from dilute commercial acetic acid (chemically produced from acetylene gas), should not be considered for use with foods. Apples, grapes, oranges, peaches, persimmons, pears, and berries of various sorts may be used in the making of fruit juice vinegars. (See *Farmers' Bulletin No. 1424*, available from the United States Department of Agriculture for methods.)

Apple cider vinegar should be made from the sound parts of fall or winter apples, as the summer varieties of apples has insufficient sugar content to make vinegar of the required strength. Windfall apples of proper maturity may be used, but care must be taken not to include dirty, spotted, or rotten apples nor bits of grass and leaves as these will give an objectionable taste to the finished product. Producers should wash all apples carefully, using hydrochloric acid or some other approved detergent in a proper procedure, not only to remove dirt, but also to remove the considerable quantities of arsenic, lead, fluorine, or manganese residues which may adhere to the fruit from the insecticidal sprays used in the orchards. Vinegar made from dried apples in-



stead of from the expressed juice of apples, is not properly called apple vinegar, and when it is sold over state lines, is supposed to be labeled in a way to show that it was not made from fresh apples.

### Adulterants and Labeling

Inasmuch as vinegar is used chiefly as a condiment, the tentative tolerances accepted by Consumers' Research for lead and arsenic content of ordinary food products may reasonably be doubled. This would allow vinegar to contain 0.6 parts per million of lead and 1.0 part per million of arsenic, these being the tentative tolerances allowed for baking powder and cocoa which are also used in small quantities in combination with other foods.

Labels on vinegar containers, in addition to giving the name of the manufacturer, quantity of contents, etc., should show the type of vinegar, whether or not it has been "reduced" (a way of saying diluted), should indicate per cent of acid content, presence of artificial color, if used, and whether apple by-products were used in manufacture. It would also be desirable for the consumer to know through specific labeling whether the fruit was thoroughly and expertly cleaned chemically to remove as much as possible of the spray residues.

If a vinegar is of high grade and made of strictly first-rate materials, the label will be very likely to declare that fact in unmistakable fashion. Be wary of vinegar labels which appear to be vague or general or do not state in clear and simple language the character and contents of the bottle or jug or cask.

The vinegars listed below were tested during 1937 in a western food laboratory and are more widely distributed in the West Central states than in the East. They were not tested for lead, but were tested for arsenic and none was found to contain an excessive amount. The absence of significant quantities of arsenic is at least indicative of a

fairly high degree of purity with respect to lead also, since lead and arsenic are commonly found together in spray residues.

#### RECOMMENDED

Cider Vinegar, Diluted (M. A. Cedney Co., Minneapolis)  
*Home* Cider Vinegar, Reduced (Distrib. Fargo Mercantile Co., Fargo, N. Dak.)

#### QUALIFIED RECOMMENDATION

Apple Ciger Vinegar (H. Bertrand Mfg. Co., Minneapolis)  
 Though a reduced vinegar, one sample was not so labeled.  
*18K* Pure Cider Vinegar (Winston & Newell Co., Fargo, N. Dak.) Though a reduced vinegar, one sample was not so labeled.  
*Our Family* (Nash Lewis Co., Fargo, N. Dak.) Though a reduced vinegar, one sample was not so labeled.  
*Minncopa* Pure Apple Cider Vinegar (Distrib. Bismarck Grocery Co., Bismarck, N. Dak.) Though a reduced vinegar, the sample tested was not so labeled.  
 Pure Cider Vinegar, Diluted to 4½% Acidity (Nash-Finch Co., 430 Oak Grove, Minneapolis) Label on one of samples tested was illegible.  
 White Distilled Vinegars, 45 grain (Made by M. A. Gedney Co., Winston & Newell Co., and H. Bertrand Mfg. Co.) All samples met government standard for this kind of vinegar but distilled vinegar is considered an inferior type. The Gedney sample showed a trace of arsenic; the others, none.



Dr.—I'd like to have a quart of blood for a transfusion; can you give it?

Stude—I can only give you a pint. I gotta shave tomorrow.

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# Pure Food Law a Travesty?

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**A**RE THE PURE FOOD LAWS A TRAVESTY?—We are just in receipt of the following letter, under date of March 7th, from a prominent canner in New Jersey. He is the sort of man who would feel outraged at such an approach, but there is no need to bring his name into it. Here is what he wrote:

*"We are inclosing herewith a letter we received this morning from a firm in Chicago who call themselves 'Hoover Food Products Corporation.'*

*Naturally, we are amazed to receive a communication of such character. For Jobbers to handle merchandise of such description is certainly a disgrace to the whole canning industry.*

*We are passing it on to you, for we feel sure you will be interested."*

And here is the letter in full, signed in ink. Doubtless many other canners received the same sort of letter:

Phone Monroe 1662

## **HOOVER FOOD PRODUCTS CORP.**

Jobbers of

Canned Foods, Rice, Beans, Dried Fruits and Nuts

1122 and 24 West Randolph Street

Chicago, Ill.

March 4, 1938.

\_\_\_\_\_  
New Jersey

Gentlemen:

*We are interested in buying straight carload shipments or less of Tomatoes, Beans, Peaches, Pears and Cherries*

Condensed and reprinted by permission of the *Canning Trade*, March 14, 1938.  
Baltimore, Md.

also Beets or any other variety of canned foods in all size cans, for immediate shipment.

We can use slack fills, substandards, off grades, off color, buckles and standards. Whatever the quality may be, we can handle it and will buy it either labeled or unlabeled.

How about rushing some samples, telling us how many there are in the lot, giving us your ideas as to price and a brief description.

We can furnish references from coast to coast and our best recommendation is any canner with whom we have done business. We guarantee that you will be satisfied with any deal that you may have with us.

Won't you please give this your attention before you lay this letter aside.

We do look forward to serving you, and your prompt response.

Yours very truly,

**HOOVER FOOD PRODUCTS CORP.**

S. Surkin

S. Surkin

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And they are not the only ones looking for such junk. There seems to be a rather general attempt to get such goods, as there doubtless always has been, but now they are growing bold enough to come out in public with their demands. And there are canners who jump at the chance to sell their "morgues." Not a very nice thing to say, but we know whereof we speak.

Mr. Campbell! How long are you going to permit this sort of flaunting of the pure food law? You are better acquainted with this loophole, this picket out of the fence, through which these goods escape to the public, than we are, but we both know how the thing could be stopped once and for all. Face the music and dare do the thing which you know even leaders among food manufacturers do not

want, and have steadily opposed, *but which they ought to be made to do*, and that is to PLACE THE NAME OF THE MANUFACTURER ON EVERY PACKAGE OF FOODS OR DRUGS: force them to father their products going to the public. Give the public this long needed, this moral protection, which the pure food law was first designed to do, and which was perverted by the same gentry who now refuse to allow it to be considered in the newly forming pure food law. Take this to Senator Copeland, who was once a food law officer, and demand that an amendment be made to his bill compelling this only fair and square way of dealing with the public, who have no protection under the present no-name, or under the name of the distributor or seller . . .

No, you will not get the endorsement of any canners association, nor of any other food or drug producing association, because they do not want to be compelled to put their names, and addresses, on products of which they are ashamed. But those are the very products that a pure food law should brand so that every consumer-buyer will know, and place the fault where it belongs. Those are the products which make it unfair for the decent producer; which break down all markets and make the business a shambles. What's a pure food law for, Mr. Campbell, and Senator Copeland, if not to stop this sort of traffic?

Take a scalpel and get under the skin of some of these big food producers, and of some of the big jobbers and distributors, and you will find: (a) that the producers do not want to brand their off-qualities with their names as producers, and (b) that buyers want the trade open to get "trading values" to meet competition, generally under some pseudo brand (fictitious entirely) of some canner or manufacturer, but among the cheaper jobbers, and junk dealers, over fancy labels of their own imaginations.

Dr. Wiley, and the early fathers of the pure food law, including the writer's father, foresaw this, and they wrote such a clause into the original draft of the pure food law;

but the lobby beat them, and had it thrown out. And that lobby has kept every effort void since. We dare Mr. Campbell and Senator Copeland to take this matter to the public; to make the public understand the danger of it, or to let Consumer Groups know what's what in it. What's the use of any pure food law with such loopholes as this?

Is the name of a reputable wholesaler or dealer all sufficient to give the public the protection it demands? Certainly, but when you give that permission to the reputable you also give it to the disreputable, as shown above. And do all the goods of these "reputable" distributors carry the name of the distributor? You know they do not. Only the top qualities invariably carry the name, and everything under those qualities—the very things which most need a pure food law—travel under all manner of false colors. In our own industry are all the goods packed by all the great and reputable canners labeled with the names of the canners, as are their finest, well-known brands? Don't be foolish. Anyone of them will tell you that they do not propose to put their names on a lot of seconds they could not help but get, due to the season. Yet they are the very foods, from the law's angle, that should be made to carry that name. And Mr. Campbell and Senator Copeland know it. This trick is not unknown to any large producer or distributor, much less to any association or pure food official. . . .

It is not nice to say, but nevertheless it is true, that it is not the so-called small producer who is mainly responsible for these tricks, but the very reverse. The small producer is suffering from the competition of indiscriminate brands put on to cover the parentage of the producers, and sold at or below cost to clean out. It constitutes the very acme of unfair competition, and which the pure food law was supposed to straighten out.

The State of Pennsylvania has always been in the forefront of pure food law enforcement, along with North Dakota under Dr. Ladd; and Pennsylvania has seen the

light, and had this name on the label worked into its law. But even there the enemy sowed cockle, and the law is not as strong as it was originally drawn. Is there no way in which the public can get an inning; are there no officers with an ear for the public? Can't our representatives in Congress ever hear anything but the voice of the bigwigs; are the people's lives and pocketbooks of no concern to our politicians? These Congressmen ask the industry what it wants in such new proposed laws as this pure food law, and who answers? The bigwigs, or possibly the whole industry. Is that the way the Government and all police treat their jobs? Is that the way any crookedness is banished? The pure food laws are supposed to protect the public. Why don't they do it? They know these dodges and worse; nobody knows them better. Stop writing laws on wet tissue paper, and get out some made of steel; and get enforcement or get a new set of enforcement officers, and while about it get some new representatives, if they will not act properly.



### Advertising Without the Hooey

Truthful advertising used to be that which was not definitely misleading. But advertising nowadays has arrived at a point where much of it, without being definitely misleading, cannot be believed. The professional advertising writer hunts day and night for new tricks to attract attention to his copy, with the result that many products are bought in spite of the hooey that advertises them rather than because of it.

—*The Model Railroader*

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# The Tax Illusion

By

CHARLES S. WYAND

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ONE morning a couple of months ago I was sitting in a Pullman smoker with a friend of mine who was leafing idly through his favorite newspaper. One of the items apparently bothered him, for he spent considerable time mulling it over. Finally he handed the paper to me and, pointing to one of the columns, burst out, "Can you imagine that! The British have raised their income tax to  $27\frac{1}{2}$  per cent."

After giving me a moment to glance at the item, he rumbled on, "What's the matter with the British people anyhow! Why, if we were ever taxed that way, the country would revolt! The Americans just wouldn't stand for it! I know I wouldn't!"

"In that case," said a stranger sitting nearby, "you might as well start revolting."

"What do you mean?" asked my friend.

"Only this—that the American people are paying more taxes now than the British."

"Fiddlesticks," snorted my friend. "Why my personal taxes amount to about \$300 a year, and I'm very sure that \$300 is not  $27\frac{1}{2}$  per cent of *my* income!"

And thus started an argument which raged from Newark to Harrisburg. When it ended each man was convinced the other was a fool. Certainly my friend still sympathized with the tax-ridden British and felt himself to be relatively much better off. Yet was he? Let us consult the well-known record by way of answer.

The total sum collected as taxes in this country by fed-



eral, state, and local agencies during 1937 was something in excess of \$12,500,000,000. This vast sum was about one fifth of the national income for that year. It is somewhat larger than the national food, clothing, or rent bill for the same period. It represents a levy of approximately \$100 on every man, woman, and child in the country or about \$400 per family. It is the biggest tax bill in the world. And what is more important, it is growing larger. The tax bill for the fiscal year 1938 has been estimated at \$15,000,000,000. If you wanted to borrow \$15,000,000,000 *for one day*, the interest alone, at 5 per cent, would be over two million dollars. Just borrowing it for an hour would cost you \$85,000. It is truly a prodigious sum. No other nation's tax bill approximates it in size.

However, by way of comparison we find in 1935, the latest year for which comparable international figures are available, that the total tax bill in the United States was about 19 per cent of the national income. During the same year, England collected in taxes 23 per cent of her total national income, Canada collected 16 per cent, and France, 28 per cent. In other words, while we collect in taxes a larger *total* sum than any other nation in the world, some of the European governments do take through taxation a slightly larger percentage of their national income than our governmental agencies collect from us. On the other hand some governments collect a smaller percentage. From this angle, therefore, our position might be called average.

But enough of comparative figures. The thing which interests us at the moment is the nature and extent of our own tax levies. Having read thus far, most people will probably say, "Well, if government in the United States costs \$400 per family, someone else is paying most of my share. It's probably the rich."

In this you are mistaken. There aren't anywhere near enough rich men in the United States to make up your apparent tax deficit. You are in fact paying your share of the

bill—only you do not know it. And the reason for this strange state of affairs lies in the fact that of every \$100 you pay out as taxes, about \$67 is paid in the form of more or less hidden levies on the everyday things you buy. The chances are you do not know you are paying them. But you are, just the same.

Much has been written about such taxes in recent years. We have, for example, been told again and again that there are 116 taxes on every gallon of gasoline we buy; that 53 taxes are paid in the process of producing a loaf of bread; and that this tax on bread exceeds the wages of the people who make and sell it. Everyone knows that the price of cigarettes is over half tax. And anyone could find out that the annual state and federal tax collections on liquor alone exceed \$800,000,000. Direct gasoline taxes yield another \$800,000,000, and cigarettes and tobacco bring in \$700,000,000 more. These three taxes alone carry more than a quarter of the federal tax load. And yet most of us ignore such levies entirely in computing our own tax burden. We add up our property and income taxes, compare the total with British tax figures, and then waste a lot of sympathy on the British taxpayer. I wonder if the English worry about us and our tax burden?

They easily could, of course, for our invisible taxes bring the average American's tax bill to a sizable figure. What these unseen levies mean to the consumer of specific items may be seen in an interesting set of figures compiled by the Northwestern National Life Insurance Company. After a twelve months' study of the tax and sales records of 206 manufacturers, it was estimated that the retail price of food-stuffs hides an average tax of 7.1 per cent. Clothing prices include an invisible 8 per cent levy. Fuel and light bills harbor a 9.5 per cent tax, and sundries bear a 10.2 per cent levy. Of each dollar spent for rent in 7,964 single and multiple family dwellings in 48 cities, 25½ cents constituted a hidden tax.

All of this means that something over half of the federal government's receipts last year came from sales taxes which were virtually unnoted by those who finally paid them. And it need hardly be mentioned that most of this sum was contributed not by the rich but by the families of moderate means who comprise the bulk of the buying public. This fact became apparent in a recent study by *The 20th Century Fund* in which it was found that a family living in New York State on an income of \$1000 a year pays in hidden sales taxes \$128 a year, which is 12.8 per cent of total income. Since such taxes are not graduated, families receiving larger incomes paid out a smaller percentage of total earnings in payment of these levies. However, all New York families were paying such taxes, although very few indeed recognized the real nature of the outlay, and virtually none counted such taxes as a part of his annual tax bill.

Nor is this an isolated situation. It exists everywhere in the United States. Thus the Providence (R.I.) *Journal* made a detailed study of the hidden taxes actually paid by three typical New England families and found that one family was thus taxed \$165.51 on a \$1,615.66 income; the second laid out \$267.05 of a total income of \$2,317.97; and the third was indirectly taxed \$77.99 on a \$1,209.79 income. In short, all evidence points to the fact that about 10 per cent of the average consumer's income goes to pay the hidden sales taxes that constitute somewhere between a quarter and a half of *all* governmental revenue. To this must apparently be added another per cent or two to cover the cost of keeping records and of making out the voluminous tax reports that are now required of all manufacturers and dealers. This means that a sum equal to at least one eighth of your income *must be added to your direct tax bill*, if you wish to know how much government really costs you each year.

The important and dangerous thing about hidden taxes is the fact that they *are* so obscure. Here are billions of dol-

lars being poured into governmental coffers without the taxpayer's realizing either the true cost of government or the size of the levy on himself. As a result, the average citizen tends to take far less interest in the expenditure of public funds than he possibly would if he really knew how much of the venture he himself was financing. The present arrangement is, of course, distinctly advantageous to the politician. As matters now stand the political party in power can, through careful manipulation of the tax program, increase governmental expenditures without arousing popular resentment. Thus a tax can be levied on manufacturers, and the yield spent where it will do the administration the most good. When this tax increase finally reaches the consumer in the form of higher retail prices, further political capital is made out of the so-called "rascality" or acquisitiveness of profit-seeking businessmen who are accused of raising prices without good and sufficient cause. Ironically, many of us swallow this story and vote the pseudo-trust-busting, billions-spending administration into another term in office.

During the past few years we have as a nation been playing with a variety of social and economic innovations that may or may not be worth what they have cost us. The significant thing is that very few of us realize just what the cost has been, in fact, for we have paid a large part of the bill in roundabout ways through hidden taxes. We have, therefore, got the erroneous notion that all of the spending is being financed by a group we vaguely refer to as "the rich." And feeling that the experimentation costs us personally very little, we tolerate whatever is done on the assumption that the outlay is small and the gain may be large. It certainly seems probable that, were the tax burden direct and open, the average citizen would realize how much he is investing in government and would thenceforth take a greater interest in what is being done. In short I am suggesting that there is no better way of arousing interest in

national, state, and local affairs than by way of calling open, public attention to their effects on the consumer's pocket-book.

It is, of course, possible that the politician has no desire to enlighten his constituents. I am ready to admit it might be great fun for politicians to spend other people's money with a minimum of let or hindrance. There certainly would be practical political difficulties in telling the truth about the present size of the tax burden. Mark Eisner, former chairman of the Board of Higher Education of the City of New York, says that any political dictator must employ hidden taxes to maintain his position. "For," he observes, "the dictator is safe only as long as the people cannot count the cost to them individually and collectively of such dictation." Whether this proposition applies to our own case or for example to New York City and State, and to the Nation, the reader may be left to judge for himself. But it does seem to be axiomatic that good government would be open and straightforward government and would tell the whole truth about all elements of its income and expenditures; and further, that outlays of public funds if strictly defensible could be made without hiding from the taxpayer the real cost of maintaining a political system which, according to the pronouncements of political leaders, is invariably of, by, and for the people.

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# Teaching Young Consumers

## How To Buy

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HOW to buy wisely and economically is everywhere becoming an important subject for study of adult groups and in schools and colleges. Although *Consumers' Digest* and *Consumers' Research Bulletin* are widely used for study and collateral reading, there has been great demand for a textbook, particularly for high school classes. *Consumer Goods, How to Know and Use Them*,\* was written to fill this growing need of the teacher. The authors, Edward Reich and C. J. Siegler, aim to provide a text that will supply compact descriptions of all the basic materials, most of the more common industrial processes, and most of the commodities which consumers meet in their everyday purchases—cotton, linen, wool, silk, rayon, blankets, rugs, fur, leather, wood, paper, rubber, glass, chinaware, precious metals, gems, oils, paints and varnish, cosmetics, and food. To deal with these subjects adequately or with technical exactness, however, would require a whole set of books—a veritable *Consumers' Encyclopedia*—and would involve the work of a corps of technicians and industrial process experts.

The expert will find Messrs. Reich and Siegler so sketchy in their treatment of certain topics as to be actually misleading. In discussing the cleaning of rayons, for example, the authors dispose of the problem of home dry cleaning with the much oversimplified statement, "Ordinary household cleaning fluids, however, are satisfactory for the

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\* *Consumer Goods, How to Know and Use Them*, by Edward Reich and Carlton John Siegler. \$1.96. American Book Co., New York. 1937.

cleaning of rayon fabrics." Now there are many hazards involved in using certain commonly available dry cleaning fluids in the home. While some may be satisfactory for cleaning certain types of rayon, their effect on the health of the person doing the cleaning is sometimes serious. In discussing vacuum cleaners, the authors state: "There are many types of cleaners available—suction cleaners, suction-and-brush cleaners, and suction-brush-agitator cleaners. The first merely sucks in the dust, whereas the latter two free dust and dirt in addition. The latter types are more costly." In Consumers' Research *Bulletin*, June, 1938, there appeared reports of laboratory tests on vacuum cleaners which showed that a vacuum cleaner of the straight suction type was among the most efficient in dirt-removing ability of a number of popular makes tested. It was also nearly twice as expensive as one of the other highly efficient recommended vacuum cleaners of the revolving brush type. These are examples picked at random. A careful study would undoubtedly bring to light many more because the task of putting into one volume such a mass of information requires more technical resources than the authors apparently had available.

There are two very interesting features of the book which teachers will undoubtedly find useful. In connection with several chapters there are listed numbers of tests that can be made on the particular topic under discussion. The tests for dyes suggested in the chapter on cotton are:

"1. *Fastness to light*. Expose a sample of the cloth to the sun for several weeks and notice any change in color at the end of this period. A machine, the Fadeometer, makes this test in a few hours.

"2. *Fastness to perspiration*. Wash a sample of the material in a 1% solution of acetic acid and compare it with the original.

"3. *Spotting*. Take a sample of the cloth, drop some lime water over it, and notice whether it spots.

"4. *Washing*. Wash a sample of the material and compare it with the original.

"5. *Crocking*. If the coloring matter rubs off, the cloth is said to *crock*. Rub a piece of white material over the dyed cloth and see whether any of the dye comes off."

At the end of each chapter is listed a number of projects some of which will add considerably to the pupil's sense of reality in his study of consumer's problems. Each chapter also has a glossary of terms and a list of supplemental readings.

While there is some misinformation in *Consumer Goods* and while such a book should only be written by technically qualified persons in collaboration with persons able to reflect correctly the needs of teachers and students, the book is valuable and useful in many ways. It is possible, of course, to argue that errors in a textbook for high school use—even serious errors such as the ones in connection with vacuum cleaners just cited—are of no great importance. It would seem far better to put into such a book only material that is accurate and reliable in the light of the best knowledge at the time of its writing. Nevertheless, it is only fair to say that the authors have done a pioneering job in attempting to bring together the background material and general information needed for a secondary school textbook on the subject.



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# *Keeping Cut Flowers Fresh Longer*

Tips on Preserving the Beauty of Indoor Flower Arrangements

By

ELIZABETH A. PULLAR

---

**D**URING the summer months when gardens are filled with colorful blooms, there is an abundance of showy material for indoor decoration. What a pleasure it is to gather freely all types of flowers for home bouquets and to arrange them gracefully in artistic containers. But too frequently a choice arrangement is marred by a sad drooping of stems and flowers. Such a disappointment may be avoided if as much attention is paid to the practical side of cutting and conditioning the flowers as is given to the aesthetic attempt to create a harmonious relationship between flowers and container. A little extra care in preparing flowers for display will be rewarded by their keeping in good condition for several days instead of less than one.

## **How to Cut and Prepare Flowers for Display**

Strange as it may seem there is a right and wrong time of day for picking flowers. They should never be taken from the garden in the heat of the sun. Early morning, when the air is cool and the plant tissues contain more water, is the best time. Cool evening also is an advantageous time to gather blossoms, since they may be left in water overnight before arranging in vases. The length of time a flower will keep fresh indoors will depend somewhat upon how old it is when picked. Most flowers keep best if gathered soon after they open when their colors are deep and the blossoms perhaps not quite full spread. Flowers

such as roses, poppies, and morning glories are often plucked as buds (not too tight) which will open later in water. In addition to being young, flowers for cutting should be in a strong healthy condition.

For cutting most flowers, a sharp knife is better than ordinary scissors which are apt to bruise the stems rather than to make a good clean cut. There are especially designed cutting scissors which may be used in place of a knife for gathering flowers. If there is to be any delay in the garden while cutting flowers, it is a good idea to carry a pail of water into which the stems may be placed when cut to avoid too much drying out. This precaution is not necessary, however, if the flowers are to be taken into the house for further treatment within a short while.

Indoors, for best keeping results, the stems should be cut again and this time under water to prevent bubbles of air forming in the stems. Cuts should be made on the slant in order to avoid their resting squarely on the bottom of the container which would tend to restrict a free passage of water up the stems. A very few flowers, such as chrysanthemums, carnations, and sweet peas, have been found to keep fresh longer if the ends of their stems are broken off under water rather than cut. Either the break or cut is best made just below a node (where the leaf stem joins). Oriental poppies are almost impossible to preserve as cut flowers unless either singed in a flame or dipped in boiling water. Cut off the end of the poppy stem and singe it or dip in boiling water, taking care that the petals are not injured by the steam. This process must be carried out each time part of the stem is cut off. Any other flower whose stems exude a milky juice and are difficult to keep will benefit by this type of singeing. The woody stems of some flowers and shrubs, such as roses or dogwood, will keep fresh longer if the ends of the stems are lightly mashed or crushed to help them absorb a greater amount of water.

Much of the success of keeping flowers fresh for a long period of time depends upon a very simple process known as hardening. The purpose of hardening is to allow the flower stems to be filled with water in order to keep them stiff. It overcomes practically all wilting and therefore is most important when the flower stems are to be placed in containers holding only a few inches of water. Place the stems deep in a pail of water or some such metal container so that all is submerged except the flower heads themselves. Leave them thus in the water in a cool place for at least two hours or when practical, overnight. After the flower stems have been hardened, they are ready for arrangement in appropriate containers.

### Arrangement in Containers

The selection of a container will be influenced by the color, size, and type of flowers which are to be placed in it. Flowers of all one color are effective in a container of another color, such as pink zinnias accentuated by a gray crock. Arrangements of flowers of two contrasting colors, such as blue cornflowers and yellow calendulas, are common and would be correct in a yellow pottery bowl. Harmonious colors, such as yellow and orange marigolds, will be pleasing in a blue or black container. In cases where three or more colors are used, the effect of the combination in the chosen container must be considered. Crystal is neutral and holds agreeably pink larkspur, blue ageratum, and white baby's breath. A congruous relationship between color of flowers and color of container is essential in producing a pleasing arrangement and offers many forms of self-expression and ingenuity.

A container should always be in pleasing proportion to the size of flowers used. Tall flowers usually are better suited to a vase type of container and smaller ones to bowls. Jardinieres, baskets, and often an odd piece from the pantry shelf, such as an old crock, discarded ginger jar, or even

a china tea pot, may be used to fill certain needs. Originality has no bounds in selecting the proper container for one's floral decorations. Care should be taken that the texture of flowers and vase do not conflict. If the blossoms are light, airy, and delicate, they demand a dainty bit of china or crystal. On the other hand, flowers of coarse texture, such as zinnias, would be out of the question in anything but a solid container as rugged as themselves.

Large heavy flowers are generally difficult to combine with more fragile types. Delicate white cosmos and stolid marigolds are not desirable as a combination since the difference in texture is too marked. Annual larkspur and scabiosa, the pin cushion flower, mingle well since their stems are nearly the same size and their flower textures are similar. In this example, the scabiosa being the smaller flower should form the lighter tone of this bouquet and be so placed as to offset the heavier effect of the larkspur.

In arranging some such flowers as roses, the full blown blossoms should be placed toward the base of the bowl, the half open roses near the center and the buds, smallest of all, should be near the top. This will avoid a possible top-heavy appearance. Of course there should be no definite line where the buds begin; they should all be gracefully blended together.

Harmony of line is important in a pleasing grouping of flowers. There should be a decorous relationship between the size of the container and the height and spread of the flowers. In a symmetrical arrangement, the tallest flowers should form the center. Never leave all the stems exactly the same length, as they often come from a florist. Shorten the stems of a few flowers and place them around the outside of the taller ones. Attractive foliage may be used to fill the space between the edge of the container and the stems. Or when the flowers are from the home garden and there is an unlimited supply, heads of some flowers may be placed at the edge of the container so that there will

be no break in the color line. Pendulous types of flowers can be dropped over the side of the vase or bowl to produce a pleasing naturalistic effect.

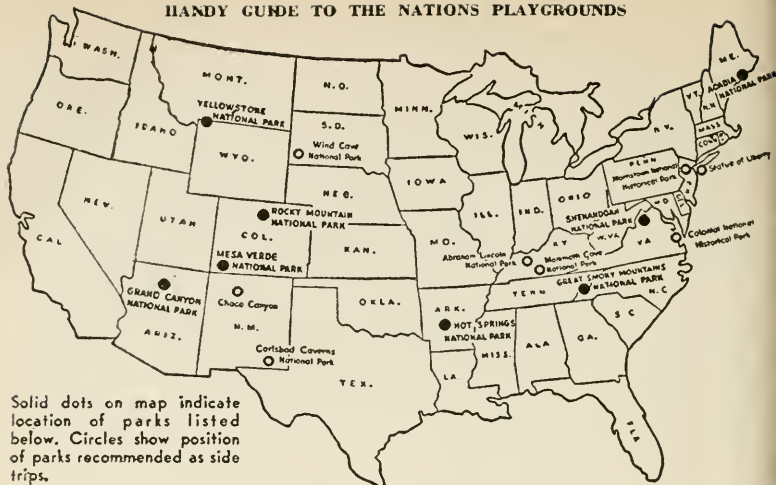
A good container should be deep enough to allow the stems to stand in sufficient water to keep them stiff. If a low bowl is to be used, flowers should be removed to deeper water at night if they are to be kept in good condition for several days. Likewise, a sensible container should have a neck wide enough to prevent the least suggestion of overcrowding. Too many stems in a container not only look awkward but cut off air which is so essential for prolonging the life of the flowers.

Before flowers are placed in the container it is best to remove all leaves from the lower part of the stems. This prevents their decay in water and is particularly important for the leaves of marigolds and zinnias. To prevent water from becoming foul in a container, a small piece of charcoal may be added to keep the water sweet. The adding of various chemical substances to water in the container is not recommended. Such substances as aspirin, sugar, salt, and boric acid have never been proved of scientific value. When the stem is cut properly, hardened, and kept in cool fresh water, the flowers will last as long as possible.

Each day fresh water should be provided for cut flowers, and a short piece from the ends of the stems cut off. The life of a flower arrangement will be lengthened considerably if it is kept away from direct sunlight, drafts, and radiators. A cool room in summer will be found more suitable for keeping cut flowers than an artificially heated room in winter.

When the simple procedures for caring for one's cut flowers properly are carried out a few times, they soon become a habit. In winter when blossoms are scarce and hence expensive, the practical skill of keeping flowers fresh for the longest possible time will be a welcome knowledge.

## HANDY GUIDE TO THE NATIONS PLAYGROUNDS



Solid dots on map indicate location of parks listed below. Circles show position of parks recommended as side trips.

### HOW MUCH WILL IT COST?

(expenses for one week for family of 4)

Where to go	House-keeping Cabin	Non-house-keeping Cabin	Camping site for Tent or Trailer	Cafeteria	Restaurant or Lunchrooms	Inns or Hotels	Auto Fee	Seasons
Acadia	None	\$20.00	No fee	None in Park but all types in nearby villages			None	All year
Grand Canyon	\$17.50	\$26.77	No fee	None	Yes	\$60.00 up	\$1.00	All year
Great Smoky Mountains	\$14.00	None	No fee	None	Hotels for meals	\$42.00 up	None	All year
Hot Springs	None*	None*	No fee	None	Yes	wide range	None	All year
Mesa Verde	None	\$35.00 Ten: \$21.00	No fee	Central dining hall surrounded by cabins		None	\$1.00	May 15 Oct. 15
Rocky Mountain	\$18.00	\$18.00	No fee	Yes	Yes	\$84.00 up†	None	June 15 Sept. 20
Shenandoah	None	Being built	No fee	At Sky-land	Yes	\$49.00 up	None	All year
Yellowstone	\$15.75	\$42.00	No fee	Several	Several	\$70.00 up	\$3.00	June 15 Sept. 9

\* In Hot Springs there are several hundred boarding houses from \$7 per week per person. Kitchenette apartments and cottages furnished and unfurnished from \$20 per week.

† Discount in June and September.

The rates given above were secured from the National Park Service and are correct as we go to press; however, we suggest that the prospective traveler confirm the rates and reserve accommodations before leaving home.

Reprinted from June issue of *WOMAN'S DAY* Magazine.

# DON'T BE A GUINEA PIG!



Which face powders do not contain tremolite or starch?



Which refrigerator is most economical to operate?



What laxatives are safe or least harmful to use?



Which 3 brands of Gillette-type razor blades were much superior to other brands tested?



What are good, and inexpensive, brands of toilet soap?

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The United States Government in its National Bureau of Standards has an agency for conducting tests before it purchases products for its own use. So do many big corporations. For you who may be without the technical resources or time required to conduct complicated tests in order to determine which brands of merchandise bring you the most value for the dollar expended, Consumers' Research performs a similar function. Skilled physicists, engineers, chemists work for you—supply you with confidential information which has saved present subscribers as much or more than \$200 yearly.

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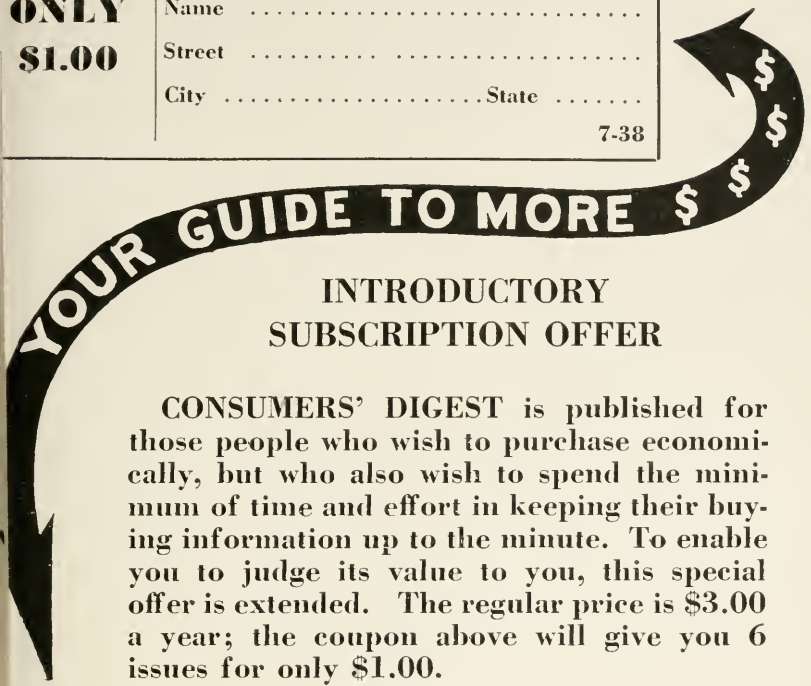
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Each copy will bring you authoritative articles dealing with consumers' problems, definite recommendations on things you buy — common household necessities, clothes, drugs, cosmetics, foods, razor blades, soaps, refrigerators, vacuum cleaners, etc. Material is reprinted from a number of sources, and new articles especially written for **CONSUMERS' DIGEST** appear each month. See inside front cover for a list of forthcoming features.

# CONSUMERS DIGEST



*A Handbook for  
Intelligent Buying*



# CONSUMERS' DIGEST



*Bath Salts*

*Mayonnaise*

*Advice on*

*Oil Burners and*

*Heating Equipment*

AUGUST 1938  
VOL. 4 NO. 2

MECHANICAL  
REFRIGERATORS

25<sup>c</sup>

# Coming!

**Which razor blades proved to be superior to other brands tested?**

*The results of a study of 41 different brands—29 Gillette-type, 12 other than Gillette-type.*

**RAZOR BLADES**

**Why do some lipsticks change color after application on the lips?**

*A discussion of ingredients of "natural" and "indelible" sticks and their probable effect on lips.*

**LIPSTICKS**

**What are the properties and advantages of these soap substitutes?**

*A chemist takes a critical look at these products with an eye to their value and economy.*

**DREFT and DRENE**

Watch for these articles in *Consumers' Digest*—on your local newsstands the 25th of each month.

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# CONSUMERS' DIGEST



*The enlightened consumer is a necessary  
encouragement to merchandising integrity.*

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## Mechanical Refrigerators

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IF sales organizations of refrigerator companies had made as much progress in serving consumers as engineers of refrigerator companies have made, there would now be much cause for rejoicing among buyers of refrigerators. By notably improving cabinets and refrigerating mechanisms, engineers have lowered the cost for the electric current required to operate a household refrigerator to a half or a third of what it was ten years ago. But sales organizations of refrigerator companies have not been infected by the same spirit of progress, for even in these times, they do very little to give satisfaction to the consumer who has bought a "lemon" or whose refrigerator requires servicing or overhauling. So far as repairs and servicing of electric refrigerators are concerned, even by the most reputable makers, the policy of *caveat emptor* seems to be carrying on securely.

The greatest immediate need and greatest opportunity in the household refrigerating field is for improvement by manufacturers in their treatment given consumers whose refrigerators have turned out to be "lemons." A liberal, prompt, and low cost replacement policy would work to the advantage of both manufacturer and consumer. To the manufacturer the problem is a minor one since the first cost of new units and parts is very small—perhaps one-fifth of the list price, or less. To the consumer the outlay required to get his refrigerator into shape may be almost a financial catastrophe.

### Operating Costs

One of the questions most frequently asked by the prospective purchaser is which is cheaper to operate—an electric or a gas refrigerator. The answer as to which is the cheaper will differ for different localities because it depends upon the rates charged for both electricity and gas. The answer will depend, moreover, upon the refrigerators, for some refrigerators are much more efficient than others. In most localities, nevertheless, a good electric refrigerator will cost less to operate than will a gas refrigerator and only where the gas rate is very low will the reverse be true.

In New York, the Consolidated Edison Company, in order to increase gas consumption, has lately been trying to boost the sale of gas refrigerators, while the Electric Refrigeration Association, to make more money for its members, has been trying to increase sales of electric refrigerators by claiming 30 per cent lower operating costs for them than for "any other kind." At the average rates for gas and electricity in New York City, this claim, on the basis of the tests reported, is conservative even for some of the electric refrigerators which are less efficient than the best; the savings in some cases might amount to considerably more, indeed.

One who wishes to compute more precisely the com-

TABLE I

A comparison giving approximate figures for refrigerator operating costs per month for electricity at 5 cents per kilowatt-hour at 70, 80, and 90°F.

	Room Temperature in Degrees Fahrenheit		
	70°	80°	90°
<i>Frigidaire</i> Special 5-38 .....	\$ .65	\$.90	\$1.20
<i>General Electric</i> JB5-38 .....	.70	1.05	1.45
<i>Westinghouse</i> HS-52 .....	.85	1.10	1.35
<i>Norge</i> S-52-8 .....	.90	1.35	1.75
<i>Kelvinator</i> KS6-38 .....	1.00	1.40	1.75

parative costs for his own particular circumstances can do so readily from the data given in the table above. It must, of course, be remembered that operating costs will vary in different homes depending upon how the refrigerator is used. For instance, keeping the inside temperature at 40°F instead of at 44°F (a more reasonable figure), may increase the cost of operation as much as 35 per cent. Operating cost also depends upon the amount of ice made—ten to twenty pounds of ice consuming about 5 cents' worth of electricity. The first figure given for monthly cost in the table is the experimentally determined cost for operating the refrigerator without opening its door, in a room maintained at the constant temperature of 70°F; the second figure is the cost for a month when the room temperature is raised to 80°F, and the third figure is the cost for a month when the room temperature is raised to 90°F. The temperature in the refrigerator was 38°F at 70°F room temperature and rose to 43°F at 90°F room temperature.

It has been learned by experience that the cost of operating a refrigerator loaded with food in a home and used under average conditions will often be close to the figures in the second column and usually will not exceed the figures in the third column, as shown in Table 1 (assuming 5 cents per kilowatt-hour for electric current). Refrigerators were 5 cubic foot models with the exception of *Kelvinator*, which was a 6 cubic foot model.

#### Other Considerations

Other questions which consumers have sometimes asked are: (1) Is it economical to stop the refrigerator during the winter months, or will it deteriorate so fast when not operating that the damage done to the refrigerator by being shut down will more than offset the saving in electricity costs? (2) Is it economical to use one of the defrosting clocks which are advertised to reduce current consumption?



The greatest probable saving in energy cost per month in shutting off any of the refrigerators listed here can be read in Table 1. Against this possible saving, the best evidence at present available indicates that there may be some leakage of refrigerant (with units which are not sealed), which leakage would not occur if the mechanism operated continuously; with sealed units, however, leaking or any other damage would be much less likely. With sealed units, therefore, there would surely be some saving by not running the refrigerator during the winter or whenever it is not needed; with open units, however, it is at least questionable whether there would be an actual long-run saving.

On the question of the economy of defrosting clocks, it is certain that advertising claims of 25 per cent savings are grossly exaggerated and that there would be little if any actual saving beyond that accomplished by the simple effect of raising the average temperature inside the refrigerator, which the clock does bring about. There is no need for a clock to turn the refrigerator off, to accomplish this; merely raising the temperature control could do this and at much less cost—if a higher average inside temperature is actually wanted.

### Test Methods and Results

The refrigerators in this report were tested according to the standard procedure described in *Household Electric Refrigerator Standards* of the National Electrical Manufacturers Association, published March, 1937, and were, besides, tested for safety of electrical insulation. In addition, with the exception of *Kelvinator*, they were subjected to an endurance test run under severe conditions of temperature and relative humidity, and to tests for comparative noise of operation, and for resistance of the interior porcelain enamel to food acids.

Efficiency was well maintained by the refrigerators during the endurance test. Refrigerating capacity (cold-main-

taining ability under severe conditions) was adequate in all cases. Staining of porcelain enamel did not occur in any of the models reported in the listings which follow. Thermostatic control was judged satisfactory in all cases. Shelves were tinned. (A much needed improvement is more durable shelves—ones which will not rust after a few years of service as will those which are tinned. This improvement would add but little to the cost of manufacture but would add greatly to the length of fully satisfactory service given by the refrigerator.)

Prices of electric refrigerators vary to some extent with the local competitive marketing situation and may, in some cases, differ somewhat from those given here. Of seven refrigerators tested, we recommend the six which follow.

#### RECOMMENDED

*Frigidaire* Special 5-38 (Frigidaire Corp., Dayton, Ohio) \$167. 5.1 cubic feet capacity, 10.2 square feet shelf area (0.7 square foot less than advertised). Sealed compressor, rotary type. Lowest in cost of operation of electric refrigerators tested. Quiet in operation except for a hum when starting up. Refrigerant was dichlorotetrafluoroethane. ¶The higher-priced model, *Frigidaire Master 5-38*, \$187, had same storage space, shelf area, and mechanism as model tested. It had four ice trays instead of three, froze eight pounds of ice instead of six, and had two sliding "hydrators" instead of one.

*General Electric* JB5-38 (General Electric Co., Cleveland) \$179.50. 5.2 cubic feet capacity, 10.8 square feet shelf area. Sealed compressor, reciprocating type. Second lowest in cost of operation of electric refrigerators tested. Quiet in operation. Refrigerant was sulphur dioxide. ¶The next higher-priced model, *General Electric B-5-38*, \$194, had same storage space, shelf area, and mechanism as the model tested. It had three ice trays

instead of two (although advertising literature claimed *JB5-38* had three aluminum ice trays), and two of the trays had quick release for ice cubes. Also had covered vegetable drawer instead of covered enameled pan.

*Westinghouse HS-52* (Westinghouse Electric & Mfg. Co., Mansfield, Ohio) \$167. 5.3 cubic feet capacity, 9.8 square feet shelf area. Sealed compressor, reciprocating type. Third lowest in cost of operation of electric refrigerators tested. Slight noise, but judged unobjectionable. Refrigerant was dichlorodifluoromethane (*Freon*). Temperature on coldest setting of control went excessively low (near to or below 0°F), so as to freeze everything in the refrigerator. ¶The next higher-priced model, *Westinghouse HDS-52*, \$187.50, had same cabinet, storage space, shelf area, mechanism, and ice trays. It had a covered drip tray instead of open drip tray, and two sliding drawers (one open and one closed), instead of covered enameled pan.

#### QUALIFIED RECOMMENDATION

*Electrolux J-500-A* (Serval, Inc., Evansville, Ind.) \$199.50. 5.1 cubic feet capacity, 11.0 square feet shelf area (0.5 square foot larger than advertised). Absorption machine driven by the heat from a gas flame. Cost of operation on average city gas much higher than for any of the electrical refrigerators tested at usual rates charged for electricity. Quiet in operation. Absence of moving parts does not guarantee refrigerator's freedom from servicing troubles. On the contrary, burners have needed occasional cleaning and adjustment. Refrigerant was ammonia and methyl chloride. ¶The next higher-priced model, *Electrolux J500*, \$229.50, had same mechanism, storage space, and shelf area; cabinet was higher, due to use of higher legs. It had door on evaporator and better ice trays with quick release for cubes. Also had two vegetable drawers instead of covered enameled bin.

*Kelvinator* KS6-38 (Nash-Kelvinator Corp., Detroit) \$182.95. 6.1 cubic feet capacity, shelf area 14.0 square feet. Sealed compressor, reciprocating type. Cost of operation about 50 per cent higher than for *Frigidaire Special* 5-38, a 5 cubic foot model. Refrigerant was dichlorodifluoromethane (*Freon*).

*Norge* S-52-8 (Norge Corp., Detroit) \$169.95. 5.1 cubic feet capacity, 11.8 square feet shelf area. Open compressor, rotary type. Cost of operation about 50 per cent higher than for *Frigidaire Special* 5-38. Slight noise, but judged unobjectionable. Refrigerant was sulphur dioxide. ¶The higher-priced model, *Norge* R51-8, \$189.95, had the same mechanism and number and kind of ice trays, and space and shelf area were claimed to be practically the same. It had two sliding vegetable drawers instead of one covered enameled bin, one sliding open basket, and a sliding tray.



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## Bath Salts

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WHEN the tremendous amount of "ballyhoo" for bath salts in advertisements and over the radio is analyzed, there appear to be three reasons why consumers use such a product. Some salts have been widely sold as medicinal agents having a variety of therapeutic properties similar to those claimed for natural springs. One brand, seized by the United States Food and Drug Administration, consisted of 87 per cent Epsom salt, 13 per cent rock salt, with a small proportion of aromatic oil. It was claimed to "reduce weight two to four pounds in each bath," to be very beneficial for rheumatism and gout, and to be helpful as a general tonic. It was condemned on the basis of false and fraudulent therapeutic claims. Indeed, that even the cosmetic industry recognizes the impossibilities of such assertions, is indicated by the following statement from the leading journal of the trade, *Drug and Cosmetic Industry*: "Various salt combinations, simulating natural springs, are reputed to have medicinal effects, but these effects are sharply limited by the fact that *the salts do not penetrate the skin.*" [Italics ours.] "Sharply limited," we may assume is the trade journal's way of saying that no one need be deceived by the claims.

The second reason for consumers' use of bath salts is for their service in carrying perfume. In many cases that is their only value, in spite of elaborate advertising claims to the contrary. One leading bath-salt manufacturer's advertising on the radio has gone to absurd limits in its utilization of these psychologic appeals. The lack of written record available to the listener of the radio program facilitates the advertiser's use of extreme and unrealistic claims.

Thirdly, and of practical value, bath salts are used to soften water. The "ring around the bath tub" is practically eliminated with the use of a proper water softener. Hard water contains chemical substances such as salts of calcium and magnesium which combine with soap to form an insoluble, sticky, non-cleansing compound. Because of its adhesiveness, this clings tenaciously to the side of the tub, leaves the hair dull and with a sticky coating, and the skin is not so clean and smooth as it would be if washed in soft water.

### Types of Bath Salts

The substances used to "soften" water are salts which will produce compounds which though insoluble will create no unpleasant deposit on either the tub or the skin. Many such substances are available, although some are too alkaline and caustic to be used freely. Sal soda (or soda ash) is an excellent water softener, but is quite caustic and, unless carefully used, will cause irritation and roughness of the skin, sometimes mentioned in advertising as "dishwater hands." Trisodium phosphate, likewise, is a good water softener, but it is also slightly caustic. Sodium sesquicarbonate is probably among the best of the water softeners suitable for the bath, because of its mild alkalinity, although it is not entirely satisfactory if hardness of water is chiefly caused by magnesium salts, as it is in some regions. Borax is a comparatively poor water softener, and an uneconomical one, and dissolves quite slowly. Silicates are excellent for water containing magnesium salts, but are quite alkaline and hence irritating.

A few types of bath salts cause an effervescence. This is due to ingredients similar in nature to those found in baking powder, i.e., an acid and a carbonate, which, when water is added, cause the formation of carbon dioxide gas, the same gas as is present in soda water and in the rising of bread, which produces small bubbles. Effervescing bath salts have no particular therapeutic property, but some

people think they do, or at least find the bubbles pleasant. Other types of bath salts contain a perborate which releases oxygen and upon this fact are based claims that the oxygen will "thoroughly cleanse your millions of pores of harmful acids which cause eruptions and body odors" and that it will "wondrously soothe your nerves and revitalize you." Needless to say, such claims are without scientific proof, and it would be hard to make any sort of convincing case for the laving of the body with a perborate solution.

### Home Preparations

Bath salts can be easily prepared in the home. Sodium sesquicarbonate readily lends itself to the making of a bath salt at home because of its attractive needle-like crystals and because it is readily soluble in water. The salt is spread on a piece of paper and sprayed with perfume by means of an atomizer until sufficient perfume has been applied to satisfy the person doing the blending. The sprayed salt is then allowed to stand exposed to the air. Only a small amount of perfume is required to be spread upon the salt; the latter is from time to time spread back and forth with a knife or spatula to give time for the alcohol or other solvent present in the perfume to evaporate, and is then ready for use. The cost of such salt is about 10 cents per pound plus a comparable amount to cover the cost of the perfume. One ounce of suitable perfume oil which sells for 30 to 75 cents depending upon the odor will be sufficient for 100 ounces ( $6\frac{1}{4}$  pounds) of bath salts.

Samples of the following brands of bath salts tested by Consumers' Research were found to have water-softening properties, and so would be useful or desirable additions to the bath in hard water regions.

### RECOMMENDED

Sodium Sesquicarbonate. (Purchasable from a large wholesale drugstore, or dealers in laundry materials and cleaning supplies for industrial use; or from Buffalo Chemical

Supply Co., Box 240, Buffalo, N. Y. at 25 cents plus postage for 2½ pounds. Perfumed oils also available.)

*Wrisley's* Perfumed Bath Crystals and Water Softener (Allen B. Wrisley Co., Chicago and N. Y. C.) 10 cents. Per pound, its price is 13.9 cents. Contained essentially sodium sesquicarbonate with perfume and coloring.

*St. Denis* Bath Crystals (Parfumerie St. Denis, 452 Fifth Ave., N. Y. C.) 27 cents. Per pound, its price is 41.5 cents. Contained essentially sodium sesquicarbonate with perfume and coloring.

*Boyer* Bath Crystals and Water Softener (Boyer, the Soc. Parfumeur, American Division, Chicago) 50 cents. Per pound, its price is 95 cents. Contained essentially sodium sesquicarbonate with perfume and coloring; the latter incompletely soluble in water.

*Sels pour le Bain Coty* Bath Salts (Coty, Inc., 423 W. 55 St., N. Y. C.) \$1. Per pound, its price is \$1.25. Contained essentially sodium sesquicarbonate with perfume and coloring.

#### QUALIFIED RECOMMENDATION

*Olde Lavender* Water Softener and Bath Crystals (Sold by F. W. Woolworth Co.) 10 cents. Per pound, its price is 13.2 cents. Contained essentially sodium sesquicarbonate and sodium chloride (common salt, which cannot be recommended as a desirable ingredient, for it interferes with the lathering of soap) with perfume.

*Bathasweet* (The C. S. Welsh Co., N. Y. C.) 45 cents. Per pound, its price is 81 cents. Contained a phosphate of sodium, sodium chloride (common salt), and a carbonate. Advertised to dissolve the impurities of the water; actually precipitated them. Some months ago, the company promised the Federal Trade Commission to discontinue claims that *Bathasweet* contained the secret of beautiful body skin and was of value in curing skin imperfections.



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# *The Service Man Will Get You If You Don't Watch Out!*

By

PERCIVAL WILDE

---

**M**Y wife said, "Don't you think I ought to have my car greased?" It is a little car, less than a year old, and it is the pride of her heart.

"By all means," I said.

"And Mrs. Stearns said I should tell them to lubricate the front wheel bearings," she went on.

"Isn't that part of the regulation job?"

"Mrs. Stearns says it isn't. She says if the front wheel bearings aren't lubricated, the car will get the heebie-jeebies, or the jitters, or something."

"Well, I wouldn't want that to happen," I agreed. "Send the car to Edam's."

"No; not Edam's."

"Why not?"

"It's a job for an Authorized Service Station."

I would not argue. "All right, if you feel that way about it. Send it to the Camembert Authorized Service Station<sup>1</sup>."

I drove the car a day or two later. My wife invariably suggests I do so whenever it needs gas. I had the tank filled. The attendant mentioned that the oil was low. That was queer, because the little car uses almost no oil; but it took more than a quart to bring the level to the proper

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<sup>1</sup> The names which appear in this article are entirely fictitious and any similarity to actual names is merely coincidence.

point, and I knew it had been correct before its visit to the Camembert Authorized Service Station.

I asked my wife, "Did you tell them to remove the oil?"

She said, "Heavens no! Why do you ask?"

"Because it has shrunk."

"I didn't tell them to do anything about the oil. I told them to grease the car and lubricate the front wheel bearings. It will cost a couple of dollars."

At the end of the month the bill came:

Lubricate car	\$1.00
Drain trans. & diff. & refill	.50
Tune motor—oil & adjust valves—set timing—install new plugs & points	2.00
Adjust service & emergency brakes	1.60
Focus headlamps—check front wheel alignment—check wipers & all lights for state inspection	1.50
Lubricate front wheel bearings & brake flange bushings	2.50
Adjust steering gear	1.00
3 lbs. Hypoid lubricant	.90
1½ lbs. gear compound	.38
5 qts. 20W oil	1.50
2 367015 brake locks	.10
1 set ignition points	.65
6 spark plugs	3.90
2 5.799-224704 covers	.15
	<hr/>
	\$17.68

I realize now that I should have remarked, "I don't know if it's a short short story or just a bill," but I lacked presence of mind, and said concisely, "Hell!"

My wife said, "I'm going to take it to the Camembert Service Station. I didn't order them to do half those things."

She said to the foreman, "I didn't tell you to tune the motor and throw away the perfectly good spark plugs and ignition points and put in new ones."

He replied, "No, but it ought to be done."

"I didn't tell you to check the alignment of the wipers or to focus the steering gear. They've always worked perfectly."

He remarked calmly, "No, but it ought to be done."

"I didn't tell you to take the nice goo out of the transmission and the differential—for fifty cents—and to put back four and a half pounds of fresh goo for a dollar twenty-eight."

His lips moved, and she guessed what he was saying.

"And I didn't tell you to throw away the oil in the crankcase and put in 5 quarts of 20W. My husband buys oil in bulk—at the same price as you do."

He shrugged his shoulders. "Lady, how was I to know that?"

"We've done business with you for sixteen years, and you've seen the tanks in which we keep oil in our garage."

He shrugged his shoulders that time without saying anything.

She told me of the conversation.

I said, "If you take the car there again, they'll remove the windshield and put in new glass."

"Because it ought to be done?"

"Exactly. And they'll rip out the gray upholstery and put in green—because it ought to be done. And they'll fill the radiator with anti-freeze—because it never freezes in August; and install fog-lamps—because we have so little fog; and they may change the license plates. Don't forget you've run five thousand miles on this set!"

"Quite," said my wife, slowly. "But about the bill: do you think it ought to be paid, and if so, who ought to pay it?"

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# Mayonnaise

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THE salad season is now upon us. Whether the men-folks like it or not, they are going to eat more salads than usual during the hot weather. It seems to be particularly timely, therefore, to consider one of the most important constituents in salad making.

Mayonnaise is one of those doubtful blessings brought to the busy housewife by mass production of food which may save her time, but also may not be so good for her family's stomachs as its homemade precursor. Making up a good batch of mayonnaise is no small feat. Indeed, in the early days of the popularity of this type of salad dressing, there was much earnest conferring between housewives as to ways and means of mixing it smoothly so that it would not curdle. Originally it was made by adding olive oil to the yolk of an egg until the desired consistency was achieved. The mixture was then seasoned with lemon juice or vinegar, and salt and pepper were added to taste.

Webster's dictionary as late as 1931 defined "mayonnaise" as made with olive oil, but during the World War all kinds of oil and fat substitutes came into vogue and displaced olive oil as an ingredient. Since both corn oil and cottonseed oil were much cheaper in price than olive oil (because of its high import duty) and since Americans have never become sufficiently accustomed to good olive oil to miss its fine and distinctive flavor, it was natural that both of these substitute oils should be used exclusively when mayonnaise began to be manufactured on a large scale. Besides the price differentiation, they kept better and had a blander flavor. The absence of flavor from the substitute oils now used in making mayonnaise was cov-

ered up by the use of somewhat more than the normal amount of spice until finally the public became completely accustomed to the change, and now only the old-fashioned cook, perhaps, would know that olive oil was once the principal and prized ingredient of mayonnaise.

Because corn oil and cottonseed oil are both domestic products, whereas olive oil is almost exclusively imported, it was only a natural following of governmental precedents that led the United States Department of Agriculture to write the official standard for mayonnaise in this country in terms of American-grown products. By its definition, mayonnaise or mayonnaise dressing or mayonnaise salad dressing is "the semi-solid emulsion of edible vegetable oil, egg yolk, or whole egg, a vinegar, and/or lemon juice, with one or more of the following: salt, other seasoning commonly used in its preparation, sugar, and/or dextrose. The finished product contains not less than 50 per cent of edible vegetable oil."

In a test of nine brands of mayonnaise made for Consumers' Research by a laboratory particularly well equipped to do food analysis, all samples were found to comply easily with the government definition (which technically is of such a primitive sort that it hardly deserves the name "standard"). Indeed, the fact that a particular mayonnaise has been found to comply with the government standard is of very little value to the consumer. It is chiefly a protection to the manufacturer of mayonnaise in that it prevents the manufacturer of salad dressing from selling a more cheaply produced product at mayonnaise prices. The standard says nothing whatever about the freshness of the particular mayonnaise or the freshness and quality of its ingredients, which may be anything from best to worst, and may be assumed unlikely to be comparable with the quality of ingredients used in the home for making a corresponding product. Chemical analyses, too, are of little value in determining the really important elements of quality of may-

Brand	Odor	Consistency	Taste	Per cent solids (approx.)	Per cent fat (oil + egg fat)	Per cent acidity referred to vinegar of 4% acidity	Test for cotton-seed oil	Test for seed oil	Test for corn oil
Vogeler's (Vogeler Bros., Newark, N. J.)	Fresh Slightly mustard	Medium	Balanced A	81.8	74.6	11.9	Positive		Indicated
Kraft (Kraft-Phenix Cheese Corp., N. Y. C.)	Fresh	Fairly heavy	Balanced A	84.3	78.5	10.0	Negative	Positive	Indicated
Red & White (Distrib. Red & White Corp., Chicago)	Fresh	Fairly heavy	Plain Slightly acid A	83.8	78.0	10.1	Positive		Indicated
Country Club (The Kroger Grocery & Baking Co., Cincinnati)	Fresh	Medium	Balanced A	80.9	73.6	10.7	Positive		Indicated
Durkee's (Durkee Famous Foods, Berkeley, Calif.)	Slightly oily	Fairly heavy	Rather flat B	86.2	83.1	6.2	Positive		Indicated
Best Foods (The Best Foods, Inc., N.Y.C.)	Fresh	Fairly heavy	Slightly oily B	84.2	81.1	6.5	Positive		Indicated
Hellman's (The Best Foods, Inc., N.Y.C.)	Fresh	Fairly heavy	Slightly oily B	84.8	81.1	6.0	Positive		Indicated
Premier (Distrib. Francis H. Leggett & Co., N. Y. C.)	Fresh	Light	Acid C	75.8	69.0 (low)	21.8	Negative		Indicated

onnaise which are too subtle for determination by the chemist, just as the qualities of roast beef and of first-class homemade ice cream elude laboratory measurement.

### Test Results

In all the brands tested, except *Premier*, the oil indicated was either cottonseed or some other seed oil mixed with corn oil. *Premier* was apparently made with corn oil alone. Tests for adulteration with starches or gums were negative in all cases and all the products showed a satisfactory percentage of edible vegetable oil. Indeed, so similar were the analyses, that after the first reading of the report, it seemed as though (with the exception of one sample not listed here which was found to have been made of rancid material or to have developed rancidity) it could be said: "These are typical mayonnaise dressings with little to choose between them." The opposite table (p.18) shows the findings of the analyst together with the taste preferences as expressed by a group of judges. The prices range from 27 to 33 cents when purchased in pint-sized jars and from 38 to 40 cents per pint in the half-pint sizes, indicating a distinct advantage in the larger-sized jars when suited to one's needs. Individual prices are not given because they seemed in several cases to represent regional differences. The lowest prices in the pint-sized jars were found in a southern chain store and a California self-service store; the highest, in a northern A & P store where three national brands were purchased.

### Labels

Consumers are accustomed to buying food which does not carry a declaration of contents on the label, though when a farmer buys fertilizer or chicken or stock feed, an elaborate and very complete statement of the contents, and even of their quality, is a regular part of the label in many states. In the case of mayonnaise, it is particularly im-

U.S. DEPARTMENT OF AGRICULTURE  
 U.S. BUREAU OF CHEMISTRY  
 For FEED  
 ANALYSIS  
 See also  
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25 LBS. NET

DAILY GROWTH GROWING MASH

DAILY GROWTH



GROWING MASH

REG. U. S. PAT. OFF.

## GUARANTEED ANALYSIS

CRUDE PROTEIN	MIN.	17.50%
CRUDE FAT	MIN.	4.00%
CRUDE FIBER	MAX.	7.00%
CARBOHYDRATES	MIN.	58.00%
NITROGEN FREE EXTRACT	MIN.	51.00%

## INGREDIENTS

Meat and Bone Scrap, Dried Buttermilk, Dried Skimmed Milk, Wheat Bran, Alfalfa Meal, Wheat Standard Middlings, Corn Feed Meal, Ground Oats, Ground Barley, Old Process Linseed Oil Meal, Corn Gluten Feed, Cod Liver Oil, Calcium Carbonate from Limestone 1%, Steamed Bone Meal  $\frac{1}{4}$  of 1%, Salt  $\frac{1}{4}$  of 1%.

PACKED ESPECIALLY FOR  
**THE GREAT ATLANTIC & PACIFIC TEA COMPANY**  
 NEW YORK, N. Y.



DAILY GROWTH GROWING MASH



portant to have a true statement of the ingredients used in preparation and the amount of acidity, printed where the buyer can easily see it, as well as a statement as to the kind of egg product used (fresh eggs, frozen eggs, or a proprietary egg-yolk product), to provide some clue as to quality and flavor-character. Information as to the *type* of egg used would be expecting too much, we fear, since a mayonnaise made with fresh eggs would unquestionably be preferred to one containing either frozen eggs or a well-known specially treated proprietary egg yolk which allows a 12 per cent decrease in egg yolk to be used with a corresponding increase in the content of oil, which is much cheaper than eggs.

The label on page 20 illustrates how much information is given the farmer when he buys certain products. It is a pity that more information is available on chicken food than on consumers' food.

An examination of the labels of the tested mayonnaises reveals not a word as to how much of any ingredient is used, and with the exception of *Durkee's*, no hint of the quality of the egg content is given. Instead, we find that *Kraft* is "Kitchen Fresh"; *Best Foods* is "Real Mayonnaise, containing nothing but finest salad oil, eggs, vinegar and spices" (does the "finest" refer to all these ingredients, and is the manufacturer prepared to offer evidence of this claim, or is it just a case of the adman's affection for adjectives whenever one can be gotten in?); *Vogeler's* is "Made of Real Eggs" (aside from candy, just what is an imitation egg—or does this distinguish *Vogeler's* eggs from a proprietary egg mixture and, anyway, isn't that too made from real eggs?); *Premier* is "made only from pure and wholesome materials, containing edible oil, vinegar, egg, salt and spice" (there is no claim that these are the only materials used); *Durkee's* "Certified Purity" is sworn to by an analytical chemist, complying with the recent ruling of the Federal Trade Commission that certification meant

little unless accompanied by the name of the certifier. This label also states that it is made of "strictly fresh eggs," the only statement of quality which appeared to be unequivocal; but, egg graders know that that term has been applied to a startlingly wide variety of actual grades of eggs.

As the oils commonly used in mayonnaise making (corn, cottonseed, and peanut) all contain only traces of vitamin A and practically no other vitamins, and since only a small amount of egg is used (often of questionable quality and freshness), the nutritive value of mayonnaise in the quantities used is very small.

Allergy to cottonseed oil is not uncommon. An unpleasant reaction to cottonseed oil in any family would necessitate buying a commercial mayonnaise made with some other oil if one of satisfactory flavor properly labeled to show the oil used, can be found. Failing that, one can make mayonnaise at home, using olive oil, preferably, or corn or peanut oil instead of cottonseed. For those homemakers who have the time and inclination, this is probably the most satisfactory method in any case. For even though no money may be saved, the ingredients will be of known and very good quality, and the flavor may be varied to suit the particular family's wishes. A homemade product will probably spoil more easily than the factory-made product, but it is well to remember that all good foods are more subject to spoilage than factory-processed or chemically modified foods.

### If Canada Can Do It, Why Can't We?

The Dominion Department of Agriculture [Canada] has launched an advertising program on graded farm products. The objective is to make consumers "quality conscious" regarding such products as poultry, meats, eggs, fruits and vegetables. Every advertisement carries the slogan: "Buy by Grade—Buy with Confidence." Each grade is clearly described and its corresponding grade mark or tag is illustrated. Grades A, B and C are designated by red, blue and yellow tags.

—U. S. Department of Commerce.

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# *Oil Burners and Equipment*

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THE cost of heating a house with an oil burner will depend largely upon the efficiency of the boiler and furnace in which it is installed, the adaptability of the furnace to oil fuel, and the general efficiency of the heating system which is served by the boiler and furnace. Boilers designed primarily for use with coal develop their maximum efficiency at from 50 to 60 per cent of their maximum rated capacity, at which point they operate during the major part of the heating season. The installation of a burner creates a firing condition equal to that which occurs when the boiler must be fired to carry a maximum load under severe conditions. Under these conditions, assuming the boiler is kept clean, the boiler's efficiency is only about 80 per cent of its maximum value with coal. Automatic operation, however, which stops the consumption of fuel when there is no demand, will often make the annual fuel cost of heating with oil comparable with and sometimes below that of anthracite coal, depending, of course, upon the relative price of the two fuels.

## **New and Old Boilers**

For new installations, or where replacement of the heating boiler is necessary, it is worth while to consider a combination oil-burner-and-boiler unit, of which there are several types and makes available. In comparison with an oil-burning boiler of efficient design and a separate oil burner, the cost of the combination unit may be higher, depending on the size of the installation. For the average small house, eight rooms or under, a combination oil-burner-

and-boiler unit will cost from 25 to 50 per cent more than a burner and boiler purchased separately.

Cast-iron coal burning boilers which have had more than twelve years of use should be replaced in order to obtain the greatest economy with oil, since the metal structure of these becomes embrittled with age. Installation of an oil burner has a tendency to accelerate deterioration of a boiler, and increases the expense when it is replaced since the oil burner must then be reinstalled.

Do not install oil burners in cast-iron warm-air furnaces particularly if fans are used to force air through the heating system. Most of the new so-called winter air-conditioning units for use with oil burners are made of steel in order to ensure gas-tight, and so safe, combustion chambers.

### Installation and Service

Proper installation and servicing, both dependent on the reliability and experience of the dealer, are particularly important factors if comparatively satisfactory and economical operation of an oil burner is to be assured. Dealer and service policies, of course, vary widely in different cities. Investigate general and financial reliability of the dealer, the number of installations in your vicinity, the kind of service furnished and the annual cost of such service, and the availability and uniformity of the grade of oil required for the burner. Remember that any period of "free" service is not free but paid for by purchaser in the original price of burner. Dealers with three or four years of successful operation with one make of burner can usually be relied upon to continue in business. However, changes in management and business policies have, in some cases, been disadvantageous to previous purchasers.

Service to be effective must include, in addition to repair service, keeping the burner and boiler clean. Soot formed through poor adjustment of the burner materially reduces the boiler efficiency and contributes to unnecessarily high

fuel cost. Service should be contracted for from year to year, unless it is advantageous to make the period longer as a part of a fuel contract. The service contract should include the complete cleaning of the boiler and burner at the beginning of the heating season, the checking of all safety devices and ignition system, and the repairing of the combustion chamber, with cleaning and adjustment of burner at regular and frequent intervals—either monthly or bi-monthly. The service contract should also provide for the replacement by the contractor of any parts of the burner or heating system which may be damaged by explosions or other results of failure of safety devices or ignition system due to faulty adjustment.

### Boiler Room Ventilation

Boiler rooms must be well ventilated either by a permanently opened window directly to the outside, or if a room in the center of a building, by positive gravity or forced ventilation. Serious explosions have resulted through lack of sufficient and continuous air supply. The general combustion efficiency, moreover, is seriously impaired when the air supply is inadequate due to a too restricted opening.

### Oil Companies

In many localities oil burners are sold and installed by oil companies, or oil is supplied by the oil burner dealer. Fuel oil contracts frequently are made on the basis of providing free service for the oil burner for the length of the oil contract, which is made for from one to five years with a maximum fuel price guaranty. Such a contract is to the purchaser's advantage provided:

1. The maximum oil price allowance is not over 1 cent per gallon above prevailing cost at the time the contract is made, and the purchaser is given the advantage of any future reduction in the market price.

2. The service is performed by efficient mechanics and

includes all adjustments previously described.

By fixing the responsibility for both burner and oil on one company, such a contract eliminates the difficulty experienced when the oil burner dealer blames faulty oil for poor operation or the oil dealer blames the burner.

Extreme caution must be exercised in contracting for fuel with an oil company which handles a make of burner different from the one being serviced. Instances are known where apparent sabotage on the part of service mechanics has finally led to a recommendation that it would be cheaper in the long run to replace the entire burner with a new one.

#### Replacement Parts

For some widely advertised burners, standard replacement parts can be purchased at prices well below those charged by the manufacturers of the burners. Investigate whether the burner you intend to purchase can be serviced with such parts, and whether the dealer with whom you are establishing relations can sell them to you.

#### Safety

Do not buy burners which have not been approved for safety by the National Board of Fire Underwriters and do not bear the Underwriters' Laboratories Label. With oil burners, particularly, proper flues and chimneys are especially important for safety.

#### Comparative Costs

In comparing cost of oil heating with that of other fuels, consider the following items which must be added to the cost of fuel consumed annually:

Depreciation (average life not over 10 years; and it may be much less) -----	10%
Interest on investment -----	6%
Cost of ignition (gas or electricity) and motor -----	\$25 per season
Service charges -----	\$15-\$25 per season

### Comparative Fuel Costs

COMPARATIVE COSTS OF FUELS PRODUCING EQUIVALENT HEATING TO THAT OBTAINED WITH \$100 WORTH OF SEMI-BITUMINOUS COAL

Fuel and Method of Use	Price	Heating Value	Average Efficiency for season	Comparative Cost
Semi-Bituminous Coal ..... Hand Fired	\$9.00/ton*	14,000BTU/lb.	47%	\$100
Natural Gas .....	.40/M cu. ft.	1,100BTU/cu. ft.	90%	59
Unvented direct heater.....			30-80%	66-176
Vented direct heater.....			75%	71
Gas designed furnace, boiler..			70%	77
Conversion burner .....				
Anthracite No. 2 Buckwheat... Automatic Stoker .....	8.00/ton*	12,000BTU/lb.	60%	82
Bituminous Coal .....	7.00/ton*	13,000BTU/lb.	45%	88
Hand Fired .....				
Anthracite No. 1 Buckwheat, using blower and automatic control .....	9.00/ton*	12,500BTU/lb.	54%	98
No. 3 Fuel Oil..... Oil burning boiler or unit....	.0675/gal.	141,000BTU/gal.	70%	100
No. 2 Fuel Oil..... Oil burning boiler or unit....	.075/gal.	139,000BTU/gal.	70%	113
No. 3 Fuel Oil..... Conversion of coal boiler.....	.0675/gal.	141,000BTU/gal.	60%	118
No. 2 Fuel Oil..... Conversion of coal boiler.....	.075/gal.	139,000BTU/gal.	60%	132
No. 1 Fuel Oil..... Oil burning boiler or unit....	.09/gal.	136,000BTU/gal.	70%	140
No. 1 Fuel Oil..... Conversion of coal boiler.....	.09/gal.	136,000BTU/gal.	60%	162
Anthracite, Stove sizes..... Hand Fired	15.00/ton*	13,500BTU/lb.	50%	163
Coke, Hand Fired.....	12.00/ton*	12,500BTU/lb.	47%	147
Manufactured Gas .....	.75/M cu. ft.	550BTU/cu. ft.	90%	221
Unvented direct heater.....			30-80%	250 to 660
Vented direct heater.....			75%	267
Gas designed furnace, boiler..			70%	287
Conversion burner .....				
Electricity with direct heaters..	.02/KWH	3412BTU/KWH	100%	860

The costs shown in the table are for fuel only and do not include interest on investment, depreciation and special charges for electricity, gas, etc., for auxiliary mechanisms of ignition.

\* Short ton 2,000 lbs.

## Heavy Oil

Many oil burners are advertised to operate efficiently with No. 4 fuel, which is available in certain localities. This grade of oil is frequently a mixture of No. 6 and No. 2, sells for the same price per gallon as No. 2, has little if any increased heat value, and usually contains large quantities of dirt, which forms a sediment in the bottom of tanks, requiring frequent cleaning. The greater quantity of sulphur contained in so-called No. 4 oil will attack copper tubing which is generally used between the tank and burner, requiring more frequent replacement and causing difficulty due to clogged nozzles.

The use of No. 4 fuel oil in any domestic burner is at present unreliable and sometimes unsafe. With automatic intermittent firing and particularly with electric ignition, the viscosity of the oil used should be fairly light. In extremely cold weather, oil will become heavier, will not flow readily, and will cause difficulty with ignition unless preheaters (not customary with domestic burners) are used.

## Types of Burners

Over 90 per cent of oil burners manufactured are of the pressure atomizing gun type with electric ignition. The rotary type is still being manufactured by a few companies who also manufacture burners of the gun type. The pot type burner has practically disappeared except where it is being used by manufacturers of cheap boiler-and-burner combinations.

Experience with rotary centrifugal burners has indicated that they are best suited for use in round or square boilers, preferably round, as they apply the heat to the base of the water leg of the boiler (bottom of water section directly above ash pit section) and a great deal of heat is transmitted by conduction through the metal sides of the boiler. Many makes of this type of burner burn with a bluish flame.



The gun type (pressure or mechanically atomizing), on the other hand, causes an intense orange suspended or diffused flame.

The rotary type does not work as efficiently under heavy load as the gun type and is not recommended for loads requiring over 4 gallons of oil per hour, although manufacturers claim that it can be worked at higher loads. Even the very high speed types do not do a very good job of breaking up oil heavier than No. 1 (38-40° Baumé); and although some are represented to burn No. 2 oil, many owners go to the No. 1 (about 20 to 25 per cent more per gallon in cost) after the first season. The usual dealer statement is: "Of course these burners are designed for, and will burn No. 2 oil, but the lighter oil is better and cleaner." This is the same tactic dealers use with cars designed to require premium gasoline.

Where quiet operation is a prime requisite, the rotary type burner will be found satisfactory. In isolated locations and where the electric power is apt to fail for periods of more than an hour or two, this type of burner is not desirable, as it is difficult to build a wood or coal fire on top of it without harming the burner, and sufficient draft can hardly be obtained without breaking up and removing the refractory bottom of the combustion chamber. These burners do not have a mechanical air supply; they depend only upon the stack draft, which should be controlled by a balancing device to maintain even combustion.

The mechanical atomizing gun type has a cup nozzle revolving in such a way as to break the oil into a spray. Oil pump and nozzle are directly operated at very high speed from the same motor. This type of burner is extensively used for industrial purposes and in marine boilers. United States Navy destroyers are equipped with this type. In small units it is usually more expensive than other types.

Pressure atomizing gun types use oil forced at high pressures through a small orifice with regulated supply of

air delivered around the oil by a fan nozzle, and direct the flame into a brick combustion chamber which is built in the ash-pit section of the boiler. They are not dependent upon the stack for draft, but only to carry off products of combustion. Both gun types use the heavier oils and atomize these very efficiently. As installations are outside the boiler, an emergency fire, in case of failure of the burner, may be made with solid fuels without injury to the burner. Oil burners themselves are easily removed, and when so removed, grates may be reinstalled by removing two courses of fire brick.

The majority of the gun type oil burners are merely assembled by the concern under whose name they are sold. The various parts are usually purchased from other manufacturers who specialize in the manufacture of particular parts, such as motors, fans, ignitions, and controls,

All burners make some noise which can be reduced by proper insulation. It is not sufficient merely to set the burner on a cork or felt base. It must be entirely isolated from direct rigid contact with the boiler or the piping of the heating system, which, when they touch the burner mechanism, will transmit sound throughout the entire system.

A direct current motor and any type of burner using electrical ignition will cause noisy interference with radio. The interference due to electrical ignition occurs with most burners only at the moment of starting.

### Ignition

Practically all oil burners have automatic electric ignition, although a few manufacturers still offer a choice of either electric or gas. On some burners a combination is provided, this being generally used for igniting the heavier oils, No. 4 to No. 6, used chiefly for industrial purposes and large buildings. An electric ignition has not proved satisfactory for the horizontal rotary atomizing type or for the rotary gun type burner, the chief difficulty being that the

spark ignition covers too small an area of the periphery of the flame. Electric ignition is, however, satisfactory for the small "fractional gallonage" models of the rotary atomizing burner, such as are used in domestic water heaters having a small fire pot and burning not heavier than No. 2 fuel oil. The rotary gun type requires gas ignition for practically all models available regardless of size.

Avoid (for house-heating use) oil burners using steam, compressed air, or hot plates, for atomizing oil. The first two are apt to be inefficient and noisy, and the last will clog from soot unless used with uniform light distillates or kerosene; further, they require a very tight flue and carefully balanced draft.

### Oil Burner Controls and Safety Devices

It is estimated that 70 per cent of all oil burner service calls and failures result from failure of the controls or electrical safety devices and wiring. This is largely due to the fact that most oil burner dealers were formerly plumbers and steam fitters and are not experienced in electrical work. A slipshod installation of controls may easily cause more damage than a failure of any other part of the installation. Twenty per cent of oil burner troubles may be traced to faulty or delayed ignition due to faulty installation of the controls, and in most cases this happens where ignition is electrical or controlled electrically. Control manufacturers guarantee their equipment only when it is properly installed in accordance with their instructions, and wherever possible, purchasers should insist on installation of controls by the control manufacturer's representative, if there is one in the vicinity.

Essential safety controls consist of a device to shut off the burner when the temperature of the heating medium—either water or air—reaches a set limit beyond ordinary operating requirements. For steam heating systems, this control is operated by the steam pressure and should be

supplemented with an additional control which will shut off the burner when the water in the boiler drops below a safe level.

### Room Temperature Controls

Temperature controls are necessary for economical operation of heating systems using oil fuel. A single thermostat operating directly upon an oil or gas burner is not satisfactory for uniform temperature control unless the rooms in the building are compactly arranged and the location of the thermostat is such as to represent accurately the temperature of the rest of the structure. For large houses with many exposures or spread out in several wings, several thermostats, operating for separate zones, are required, since one location may be affected by heat of the sun during part of the day while another side of the building is in the shade or cooled by wind. To compensate for having only one thermostat it would be necessary to carry higher temperatures throughout the building, thus causing waste of heat and discomfort in some parts.

A clock thermostat, permitting maintenance of a lower temperature at night and automatic reestablishing of a higher temperature at any predetermined time in the morning, is well worth the additional cost. A manually set thermostat is available at about one-third of the cost of a clock thermostat.

### Oil-Burner-and-Boiler Units

Combinations consisting of complete oil-burning boilers and oil burners as a unit were placed on the market during 1931. Such units are usually more efficient than the average installation of oil burner combined with a coal-fired-type heating boiler, but are more expensive and usually more difficult to clean. Specially designed units, which develop a very high efficiency, have set a new vogue in the industry which is being copied in appearance and superficialities by almost all oil-burner manufacturers in order to be in step

with competition. The result has been that in most cases, instead of having a well-designed, well-engineered product, the boiler-burner combination has all of the visual earmarks necessary to allure consumers, without materially increased efficiency over the old coal-fired boiler-installations converted to oil burning. The slight increase in efficiency in some units scarcely warrants the greater additional cost of burner and boiler combinations.

Year-round domestic water service is one of the much advertised features of these units. This is accomplished by means of a copper coil or horizontal tubular heater built into the boiler. Some boilers have a water jacketed heater attached to the outside but within the decorative jacket. The usual practice, though less efficient, is to install such a heater outside of the jacket on hot-water boilers and below the water line of steam boilers in such a manner as to secure continuous and adequate circulation. A water heater of this type, if of sufficient size and installed in a boiler of sufficient capacity to serve the load imposed by the heater as well as the heating system, will provide an adequate water supply. The economy of this method of water heating depends upon the efficiency of the unit, which is usually less when used for water heating alone unless the combustion rate is decreased in proportion to the lighter load imposed during the summer months.

With a hot water system heating water, the insulation of the boiler is likewise an important factor since all of the water must be maintained at a constant temperature—usually 180 to 200 degrees. In connection with steam boilers the problem of control is relatively simple since no steam will be generated at a temperature below 212 degrees. In the hot-water system, however, it is necessary to shut off the flow of water to the mains by means of an electrically operated valve, and the control becomes complicated and a potential source of trouble requiring servicing and attention. Little consideration has been given to ade-

quate insulation of the boilers either for steam or hot water, a matter of almost as important for the latter as for the former, because of the high temperatures that must be carried for the domestic water supply. The usual insulation consists of a one-inch thickness of corrugated asbestos board which has value in giving rigid support to the thin sheet metal jacket with which the boiler is given "eye" appeal, but which is inefficient in preventing loss of heat.

The selection of a unit of adequate size is very important and manufacturers' ratings on the combined units are vague. The total of the heating load plus the hot-water load, expressed in terms of square feet of radiation with an additional factor of 50 per cent of the total of these two, is the basis for a safe selection of units for residential use.

### **Forced Hot-Water Heating Systems**

In order to overcome some of the difficulties encountered in providing heat and domestic water service from a single unit, forced hot-water heating systems have become popular. In these the water is circulated through the system by means of an electrically operated pump which opens a weighted mechanical valve in the water outlet from the boiler when in operation. Boiler water temperature is maintained at a constant level the year round and is prevented from circulating through the system when the pump is shut off by thermostat control.

The sales argument put forth for such systems is that a saving is accomplished by the reduction of the size of pipe required to distribute water to radiators and by reduction of radiator sizes made possible by a higher water temperature. The gravity type of hot-water heating (now called "old fashioned"), while higher in first cost, is comparatively foolproof, is more satisfactory from the standpoint of even heating, and is less expensive to maintain due to the absence of moving parts. The lower water temperatures carried in such a system, temperatures varying with outdoor

demands, contribute to higher efficiency.

Piping smaller than  $\frac{3}{4}$ -inch size should not be used at any point in the system although  $\frac{1}{2}$ -inch and  $\frac{3}{8}$ -inch pipe is recommended by manufacturers of circulating equipment. The use of smaller piping simplifies the labor of installation so that less experienced mechanics can be used; oil burner dealers thus become sales outlets for forced-circulation heating specialties. Small piping has a tendency to clog from corrosion, and unless cut and reamed with the greatest care will have burrs which greatly constrict the area. Lack of free circulation due to restricted pipe area frequently does not become apparent until after two or three seasons' operation.

### Forms for Purchase Contracts

All purchase contracts for heating and ventilating systems or equipment should be carefully examined to assure protection of the purchaser's interest—and should clearly designate the following: The specific conditions of outdoor temperature, etc., under which the appliance or system will give a definite result, the cost of operation, the purchase price of the complete appliance or system and the manner of payment, the period during which the seller will agree to replace defective parts or workmanship without additional charge. Also such contracts should contain all of the representations and inducements originally made and offered by the seller in his original proposal as understood and relied upon by the purchaser, including all claims of special economy, convenience, etc. It is well to include the following clause in all contracts: *The complete proposal of the contractor, including all data, illustrations, representations, guaranties, and other items pertinent to performance, size and capacities of equipment, together with this agreement, form the contract and all are as fully a part of the contract as if hereto attached or herein repeated.* Frequently each item coming under the above is identified in

further detail and attached to the contract. This clause, however, will cover the current literature and advertising of the seller at the time the contract is made.

Avoid contracts for heating "systems" advertised by boiler, radiator, and heating specialty companies. Such companies are interested chiefly in selling their own equipment to the exclusion of others and their concern is not predominantly whether their equipment is well suited for the job or not. Their contracts are all too often drawn so as to be practically worthless, so far as protection of the consumer is concerned.

Insist on the inclusion of the following provisions in the contract (and on the exclusion of any and every sort of contrary statements) and insist that these provisions shall have been carried out before making final payment:

"The system shall be--(*give type*)--and shall be complete and ready for use in every detail, and in operation. It is guaranteed by the contractor--(*insert name*)--to heat all parts and every room in the structure identified as--(*state residence or otherwise*)--located at--(*give street, no., city, state*)--to a uniform inside temperature of--(*usually 70 degrees, bathrooms 80 degrees*)--at an outside temperature of -----  
(*usually 15 degrees above the lowest recorded for the locality—data obtainable from the U. S. Weather Bureau, Washington, D. C.*) The above results or their equivalent shall be obtained at a maximum rate of fuel consumption not exceeding--(*—lb. fuel per sq. ft. of grate area, gal. oil, or cu. ft. gas*)--per hr. The contractor--(*insert name*)--will replace free of charge to the owner any and all parts of the system which may fail through defective workmanship or material within a period of one year from date of accepted installation, which year shall entirely include one full heating season."



### Financing

The easy financing schemes and time payment plans of many contractors and heating equipment companies are questionable, and in practically all cases, money can be saved by using the facilities of a bank or a building and loan association and paying the contractor as the work proceeds. The rates of interest being no greater (they are usually less at a bank), a definite advantage lies in the possibility of retaining 15 per cent of the payments due the contractor until the system has been tested and proved satisfactory. Heating contractors customarily obtain cash on deferred payment contracts, secured by notes, by selling them outright to a "finance company." The proper functioning of the installation thereafter is a matter of no financial concern to the contractor, and the consumer, therefore, has no one to hold directly responsible for satisfactory operation of the plant and may have no recourse, except to go to law—a course made particularly difficult by the shrewd construction of most installment contracts. Above all, sign no paper or statement releasing the obligation of the contractor, or stating that you accept and declare the installation or system to be entirely satisfactory, unless you have thoroughly tried it out under severe conditions. Systems satisfactory in a mild season may be seriously deficient in a cold one.

### Guaranties

The words *guaranteed*, *approved*, and *serviced*, which are most frequently played up in heating appliance sales talks and literature, have practically no meaning and provide no consumer safeguard except when qualified by a *clear, written description* of the exact terms and limits of guaranty, approval (Underwriters' or other), and extent and duration of free servicing, repair, etc. Apparatus "guaranteed" for a given time in service is, as a common practice, "talked out" of the customer's possession and replaced by

the sale of new apparatus long before the expiration of the guaranty period; the consumer lacking competent, unbiased, technical advice, can but follow advice from the dealer, who naturally has a strong motivation towards selling a new appliance, since his profit from a sale would be much larger than would that from a repair. Usually some part of an appliance, perhaps a minor one, develops trouble; and after a few half-hearted attempts to repair it, the dealer sends a high-pressure salesman who, with the proper fanfare of technical phrases about "modern scientific developments," etc., recommends the purchase of a complete new appliance. In one such case an engineer who was consulted found that a storage type heater, which the salesman had said was completely worn out, would, with replacement of an inexpensive thermostatic control, probably give a full ten years' additional service.



### It Needn't Be True

Add now to the roster of slogans—"Potatoes eat—stay slim and neat."

Such is the couplet that has won first honors in the state-wide potato slogan contest staged by the Maine Potato Growers and Shippers Committee, Inc., here. It was written by Leon E. Goodwin of North Amity, Me. The committee's office here was fairly swamped with slogans.

All business and professional men throughout the Maine potato growing area are to be asked to stamp all of their mail with the new slogan. Later it is hoped to have the couplet used similarly in other states. The objective, of course, is to induce people to eat more potatoes.

—Food Field Reporter

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# *Radio Servicing Rackets*

Gyp Repairs Which The Set Owner Must Be Warned Against

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FROM the public's standpoint, radio repair rackets are probably the most vicious for they involve a device far beyond the knowledge of the layman. In fact, in some communities, servicing rackets are so prevalent that the radio owners let their sets remain defective or inoperative, rather than take a chance of calling in a "gyp artist." Fortunately the number of concerns so operating is very small; but even so, how can a person guard against the possibility of being charged excessive fees, unless he knows what is reasonable and what the prevalent rackets are?

## Wash Tubes

The easiest and most profitable racket of all is the charging for a new set of tubes—when in reality the new tubes are the old ones which have been merely washed and labelled with new stickers. Honest servicemen can instil confidence by testing the tubes and by breaking the seals on the new cartons in the customers' presence. And as manufacturers suggest, further emphasis can be put on the uselessness of the old tubes by breaking the envelopes before throwing them away.

Broken antenna and ground wires, or shorted lightning arrestors are often discovered when the gyp calls, but to effect a larger bill the chassis is yanked and brought to the shop for any combination of repairs that the serviceman feels will pay him most. And the charges net a tremendous profit since nothing is usually done to the set—although

there are shops that will change a resistor and by-pass condenser so as to have protection for themselves. Some servicemen are even bold enough to charge similarly for turning or polarizing the plug in a DC radio set.

### Loose Screws

Loose set-screws on the dial mechanism are the source of another racket. Since the set tunes in the stations at the wrong place and tuning is difficult, a cock-and-bull story is trumped up so as to make the set owner feel that there is serious trouble. Usually the charge is explained as "replacing the tuning condensers, and alignment."

Adjustment of improperly centered speaker cones may be charged for as replacing the cone—and with the bolder gyps, the bill is for a new speaker unit.

A can of black paint in some shops will make new power transformers out of the old ones in but a few minutes. Ordinarily the transformers are painted without removing the unit from the chassis.

In some instances the simple replacement of a defective power switch is billed as the replacement of some major parts costing many dollars.

### Noisy Controls

And a noisy volume control is charged as noisy tubes, burned-out loudspeaker, shorted filter-condensers. Likewise resoldering broken or open connections is faked as the repair of more expensive items.

One of the answers to the problem is for the serviceman always to return to the customer the parts that were defective and have been replaced. *Scar's Radio Clinic* in Boston has been making excellent progress with such a policy. By returning the old parts, the customer is then satisfied that they have been replaced and *are of no value*. Then too, why shouldn't the serviceman be expected to

return the old parts? Certainly they belong to the customer.

Servicemen everywhere can build up their prestige by acquainting their customers with what are proper charges, by explaining in what ways customers may be gyped, and by charging only for actual work done on a radio, for there is always the possibility of another serviceman exposing the gyp.

If the charge is for labor, bill it as such, rather than for some phony part or repair. After all, in almost every line of business, the labor charges are much greater than the charges for material, and this statement is particularly true in radio.



### More About Cosmetic Bargains

Re: Lipsticks, *Consumers' Digest*, June, 1938, page 27.

The calculations given in the table were based upon the total net contents of the lipsticks. A more suitable method of evaluating these sticks would be to base the calculations on the net available contents; figures on that basis are given below.

BRAND NAME OF COSMETICS	Price of Packages		Quantity of Contents (Grams)		Price Per Gram (Cents)*	
	Ten- Cent Size	Sec- ond Size	Ten- Cent Size	Sec- ond Size	Ten- Cent Size	Sec- ond Size
Kissproof .....	\$ .10	\$ .50	0.50	2.00	<b>*20.0</b>	25.0
New Tatoo .....	.10	1.00	0.50	2.60	<b>*20.0</b>	38.5
Outdoor Girl .....	.10	.25	0.70	1.50	<b>*14.3</b>	16.7
Tangee .....	.10	1.00	0.25	2.95	40.0	<b>*33.9</b>

\* Figures marked with an asterisk and bold face indicate the prices at which the products can be purchased most economically.

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# *Soft Drinks and Fruit Juices*

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## Soft Drinks

**T**WELVE billion bottles of soft drinks are consumed annually in this country. These carbonated waters, put up with synthetic flavor and color, sugar (about 3 teaspoonfuls to a 6-ounce bottle), a bit of organic acid, thickeners and fuzz or "bead" producers (gums and saponins, of which certain types in their commercial form are definitely poisonous even in minute quantities), and some benzoate of soda to prevent spoilage, are among the newer creations of "science."

Some prominent persons, including a president of the American Medical Association, a State Pure Food Commissioner, and even a Federal Government official, have gone so far as to recommend carbonated drinks for their health value. "Research" reports demonstrating that these drinks are important in aiding digestion by stimulating the flow of gastric juice and that they are very helpful in offsetting fatigue have been published by a director of a university psychological laboratory. Actually, however, while the few carbonated beverages which are made up of pure natural ingredients have some very low food value, mainly due to their sugar content (consumption of which is already too high in this country), the most that can be said of the best of them is that they provide a tasty, expensive way of drinking cold, sweet water. For example, it would require on the average 21 glasses of what is legally called orange beverage to give the same vitamin content as one glass of pure orange juice.

There is a brisk uncontrolled trade in beverage bottles, which may have contained almost anything from insect

poison to leaded gasoline. Where there is any reasonable degree of control of the public water supply, it may be trusted as safer than available soft drinks, on account of the greater degree of technical supervision under which it is handled. In some regions where the water supply is of dubious cleanliness, it may be a little safer to drink bottled beverages known to be free from harmful chemical substances. Certainly, however, no one can have any practical assurance of the sanitary purity of any particular bottled drink, as a careful reading of the *Notices of Judgment* from the United States Department of Agriculture (Washington, D. C.) will demonstrate. Government experts found, for example, that specimens of the product of a well-known mineral water bottling company contained "an organism indicative of the presence of sewage adulteration."

Bottlers, however, have been supplied with a well-constructed scientifically worded defense against any damage suits that may arise because of the accidental appearance in drinks of the remains of anything from flies killed with poison bait to dead scorpions and mice. The gallery of beverage damage suit defenders includes at least one professor-entomologist-consultant who is prepared to swallow publicly 20 dead flies along with his bottled drinks, in order to show the jury how unreasonable anyone would be to sue for damages because of a caged insect drunk with his soda pop.

The consumer should be assured that when a label says made of so-and-so and "fruit acid" it shall really be such, and not an acid like phosphoric made from old bones or phosphate rock instead, or an acid like tartaric which is indigestible and puts a serious burden on the kidneys besides. (A well-known laxative salt was once known as "fruit salts," but legal considerations brought a change to "effervescent salts.") The "cloud" or opacity which manufacturers manage to achieve in their beverages will frequently have been added by chemical means merely to give the impression

that fresh fruits and not merely extracts have been used to furnish the flavor. But if consumers intend to buy, for example, a lime rickey made of fresh limes, they should not have to pay for whatever kind of chemically spiked water the makers have determined deserves that name.

The say-so as to whether real fruit (and only that) must be used and as to whether any sort of potentially harmful or fraudulent ingredients, such as saponins, preservatives, mineral acids, and coal-tar color, may be allowed should not rest, as it does at present, entirely in the hands of manufacturers and food officials. Consumers—and farmers—will benefit if they can bring public opinion to demand natural and diluted fruit juices free from synthetic flavors, dyes, and other chemicals. The worst of the situation is that the methods of handling soft drink bottles in tanks and tubs of ice water make adequate labeling with paper labels very difficult; and of course the cap of the bottle, which in the great majority of cases never reaches the consumer's eye anyway, has extremely limited facilities for relaying essential information.

### Fruit Juices

Properly prepared and stored fruit juices, including tomato juice, may add a pleasant variety to the diet, but their food value is slight. The juices are usually extremely profitable to pack and distribute. Often they are a by-product costing little or nothing to produce. On this account their sale has been promoted by an undue amount of publicity and advertising which consumers should discount heavily—whether emanating from manufacturer, grocer, soda fountain clerk, restaurant keeper, or women's home magazines.

Improper processing, uncleanliness, incomplete sterilization, and the use of raw materials of poor quality, on the other hand, result in a product which is not appetizing, and which may, acting as a culture medium for bacteria, even be dangerous. Frozen fruit juices now coming on the



market are not without risk to the consumer, because they are frequently prepared under insanitary conditions and because they have a tendency to decompose when they are thawed.

Manufacturers have often made unwarranted and misleading claims concerning the vitamin values of fruit juices. A claim such as "contains all the vitamins," even if true, means nothing; there is no mention of the important point—the useful amount of each vitamin. Every sort of vitamin claims should be regarded with doubt.

### Tomato Juice

A scientist searching for a cheaper source of vitamin A and C than orange juice started the popularization of tomato juice. Today, tomato juice is believed to be much more satisfactory on the average than when it first appeared on the market. It provides a reasonably inexpensive, though variable, source of vitamins A and C, although the removal of the pulp by straining takes away most of the vitamin A as well as part of the energy value. But tomato juice is no more an essential or important article of diet than is orange or grapefruit juice. Tomato juice cocktails (spiced) are much less desirable than pure tomato juice (seasoned with salt only) because of the general tendency to overuse of spices and the digestive hazard they afford. Spices often serve to conceal low quality and poor flavor of the tomato juice itself.

### Citrus Fruit Juices

Excessive use of orange and lemon juice has been found to be the cause of considerable destruction of tooth enamel, according to recently published results of an investigation at a university college of dentistry. This finding should lead many to change their breakfast and soda fountain practices. Other investigation has shown that in remote places where almost no citrus fruit was used, and natural,

primitive, home-grown foods were eaten, sometimes almost all the members of a tribe or community were immune to tooth decay; whereas, in regions where citrus fruits were imported, no such immunity was found and tooth decay was rampant. The fact that tooth decay is increasing in spite of the increased use of orange juice and of citrus fruits generally, affords proof of its lack of value as a carrier of substances safeguarding teeth against decay.

Fresh orange juice contains from two to three times as much vitamin C as tomato juice. There is great vitamin C loss if either juice is allowed to stand for a few hours before using, as, for instance, if the breakfast orange juice is squeezed and put in the refrigerator the night before. But since many oranges are picked green and then ethylene ripened, it is probable that their much vaunted vitamin C content is far below what textbooks and dietetic teachers assume on the basis of tests on fully tree-ripened fruit.

Experiments with orange juice processed in various ways have indicated that vitamin C, for which oranges are valued, is rapidly lost when the juice is held in storage and frozen or bottled into carbonated drinks (true of non-citrus juices also). Vitamin C is so "perishable" that it is plain that under commercial methods of distribution it is far more often promised than delivered.

### Grape Juice

Trade paper reports show grape juice has been clarified by use of potassium ferrocyanide, a poisonous chemical implying a serious danger to health. The cult for drinking grape juice in large quantities (and other fruit juices also, in differing degrees depending upon the particular juice) is by no means one to be encouraged, as grapes contain small quantities of certain acids which may harm the liver or kidneys. People in wine-growing regions have known for many centuries of the practical advantages in having fermentation take place in jars and casks, *before* ingestion

into the human body, rather than in the intestines. Two brands of grape juice tested by a government research agency were found to be very poor in vitamins A, B, and C.

The claim of any grape juice that it has some special advantages as a weight-reducing agent, safeguarding health during the reducing process, should be regarded with the greatest skepticism. The mineral constituents supposed to provide the safeguard are contained in such small quantities that to consume them in the amount necessary for health, anyone wishing to reduce would also have to consume carbohydrate in the form of grape sugar in such quantity as to produce fat.

### Pineapple Juice

Pineapple juice is a good source of vitamins A and B, and a fair source of C with measurable quantities of Vitamin G. Commercial concerns, with the ready aid of professional "food scientists" and nutritionists, have ballyhooed its virtues as a health-saver and health-enhancer and recommended it for copious daily consumption. Pineapples, however, contain what the *Journal* of the American Medical Association has characterized as "strikingly high" amounts of oxalic acid, a substance which may tend to favor the formation of kidney stones, a very painful and often dangerous malady (the recommended treatment of which calls for the *elimination* of products high in oxalic acid, such as spinach, cabbage, etc.).

The production of intestinal fermentation such as is brought about by the overuse of fruit juices is believed to be a cause of formation of oxalic acid in the system. The presence of unusual amounts of oxalic acid in the diet, such as would be occasioned by overuse of certain foods and fruit juices, may be responsible indirectly in young people for defective bone and tooth formations, or directly in others for tooth decay and the formation of kidney stones. (Rhubarb, plums, tomatoes, and strawberries are other fruits

that are eliminated from diets of persons suffering from stones of the urinary tract.)

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Lest these observations on soft drinks and fruit juices seem unduly pessimistic, it should be pointed out that there is little objection from the standpoint of health, to *occasional* use of good quality soda pop, iced fruit drinks, and fruit juices. The dangers involved in their *frequent* use are emphasized to counteract in some measure the commercial pressure to begin every meal with a fruit juice and to assuage the thirst between meals with a swig of soda pop or a "cola" drink instead of water.

According to Dr. Neville, one has heard and read so much of Absorbine Junior that one naturally wonders who or what Absorbine Senior was. It appears that Senior is a horse liniment, and having lost its horse appeal, was brought out in a diluted form to try it on the human side. In either case it is an expensive form of an acetone extract of wormwood plus a little saffron and menthol.

Advertising might be spoken of as the "Modern Alchemy," because it appropriates scientific principles and interprets them to its own ends. Quite typical are the "scare campaigns" conducted by some agencies that claim to find some toilet papers dangerous because of alleged arsenic and mercury content. Of course, as you would suspect, their own product is "pure."

Mouth unhappiness also is claimed to be a vital problem in the welfare of the nation, and while it can be temporarily covered by the use of listerine, onions are just as effective. In fact, garlic will probably discourage more germs than listerine.

Dr. Neville said he was "debunking" purely as an amused and innocent bystander; but he proved, quite obviously, that we, the guinea pig, must do something about it.

—Bulletin of the Virginia Section of the American Chemical Society, reporting an address made by Dr. Harvey A. Neville.

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## Croquet Sets

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IF you are one of those people whose activity has been confined to spectator sports because you found tennis or badminton too strenuous, be of good cheer. Croquet is now coming into high fashion, and you can enjoy all the thrills of a hot contest with a minimum of exertion. As devotees of the game well know, a good mallet and ball are just as important to croquet as the proper racket and live ball are to tennis. With this in mind we report the results of a test made by Consumers' Research on several croquet sets, mainly low- and medium-priced, which were given a careful examination for workmanship and quality of materials, and were subjected to various tests to determine their durability and precision of construction.

Balls were measured to determine uniformity of weight, balance, and dimensions; the balance of the ball was determined by floating the ball in a tray of mercury. Balls and mallets were tested for resistance to impact by a number of successive blows on each, each blow having an energy value of 20 foot-pounds. Both balls and mallets were tested for resistance to deterioration by the weather, which is a factor of particular importance in determining how much "croquet service" one gets per dollar of expenditure in buying balls and mallets.

All sets had wooden stands for holding the balls, mallets, wickets, and stakes.

### RECOMMENDED

Sears, Roebuck & Co., Cat. No. 6—2578 (South Bend Toy Mfg. Co., South Bend, Ind.) \$4.79 plus postage. 6-ball set. 8-inch mallet heads, screw-in handles,  $3\frac{3}{8}$ -inch balls, wicket width  $5\frac{1}{4}$  inches. Quality of materials and work-

manship generally good, except for poor wood of handles. Resistance of finish to weather good for mallets, but poor for balls; wood remained sound. Ball weight very satisfactorily uniform.

South Bend Toy Mfg. Co., South Bend, Ind., Style No. 5979. \$7.95. 4-ball set. 9-inch mallet heads, screw-in handles,  $3\frac{3}{8}$ -inch balls, wicket width 6 inches. Wooden sockets which can be driven into ground provided for wickets. Quality of materials and workmanship generally good. Resistance of finish to weather for balls and mallets generally good, but steel non-split rings and screws on heads of mallets rusted; wood remained sound. Balls uniform in weight but not well balanced.

H. Rademaker & Son, Inc., Grand Rapids, Mich. \$13.75. 6-ball set. 8-inch mallet heads, handles not screwed in (judged less desirable than screw-in handle),  $3\frac{3}{8}$ -inch balls, wicket width  $5\frac{1}{4}$  inches. Small wooden sockets provided for wickets. Mallets faced with medium-hard rubber, which greatly deadens sound of blow. Quality of materials and workmanship very good. Resistance to weather of finish for balls and mallets good, but steel screws, holding the non-split rings on heads of mallets, rusted; wood remained sound. Balls varied considerably in weight.

#### QUALIFIED RECOMMENDATION

H. Rademaker & Son, Inc. \$6.95. 4-ball set.  $8\frac{3}{8}$ -inch mallet heads, handles not screwed in,  $3\frac{3}{8}$ -inch balls, wicket width  $5\frac{1}{8}$  inches. Small wooden sockets provided for wickets. Quality of materials and workmanship fair. Resistance of finish to weather for balls and mallets good; but wood of mallet heads cracked slightly on weathering. Weight of balls varied considerably and they were considerably out-of-round. Metal non-split rings on heads of two mallets were loose and rattled.

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## Constipation and Laxatives

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CONSTIPATION may be the result of not eating enough of foods containing proper quantities of substances contributing bulk to the intestinal contents. Some other types of constipation are due to too much or too harsh "roughage," or to some disease condition. Still another type is manifested as a *delayed* emptying (in spite of regularity of functioning of the large intestine) so that the food always completes its passage through the intestinal tract too slowly.

This common American ailment is more likely to occur in people past thirty, especially the obese, the skinny, and the sedentary, but it may occur even in children, especially those existing chiefly on a milk and starchy and sugary (carbohydrate) diet. Those who on account of limitations of income must subsist on low-cost diets are more likely, on account of the necessarily high starch content of such diets, to suffer from constipation than are persons who are able to choose their food without giving close consideration to cost.

When it exists without other symptoms and when it is known that the diet is deficient in bulk, the difficulty may be relieved by simple corrections in the diet. An increase in the consumption of leafy vegetables, fruits, and meat, and the substitution of whole-grain cereals and breads for white flour and other starchy products, especially those consisting in whole or in part of almost pure starches, is often recommended to correct this simple type of constipation. Prunes, figs, and rhubarb are especially likely to be helpful. Regularity of habits of eating and sleeping, and taking

adequate time for sleep—not some nights but *every* night; avoidance, by earlier rising, of the morning rush in getting ready for train or trolley, for the trip to school or office; and exercise, in moderation, particularly such as will exercise the abdominal muscles—all will help.

Raw fruits and vegetables are useful in ordinary types of constipation, but may increase the difficulty in the spastic type (characterized by continuing muscular contractions of the intestines), which is difficult to recognize with certainty except by X-ray studies. Excessive use of raw fruits and vegetables and other “rough” foodstuffs, such as bran, is undoubtedly responsible for the increasing prevalence of the spastic type of constipation—often among people entirely unaware of the exact nature of their difficulty. Chilled foods and frozen delicacies, which are coming into greater and greater use, and the excessive use of ice water increase the tendency to constipation and should be avoided by those who have this problem.

Constipation which persists in spite of these measures or which shows other symptoms calls for consultation with a physician. Certain diagnosis is often difficult and expensive. It is important to health, however, to discover and deal with the cause of the trouble since prolonged or severe constipation may result in very serious and even irreparable consequences, such as certain forms of arthritis (a kind of rheumatism), for example. It often interferes notably with one's capacity for mental and physical work and with the general feeling of well-being which in important ways conditions many of the victim's social and professional relationships.

#### Some Common Remedies and Their Faults

A great number of drugs and drug combinations and even more numerous proprietary preparations are advertised for the relief of constipation. It is helpful, however, both for the sake of health and pocketbook to remember that constipation is almost always a chronic condition due to a



faulty diet which may have been followed over a long period, or the malady may have come from emotional tension or strain, or from some definite disease condition. The continuance of the constipation may have created fairly extensive physiological disturbances. Thus it is clear that the emptying of the intestines by means of a drug does not cure constipation. Indeed, the use of drugs over a period of time—and that means practically any cathartic or laxative drug—tends to increase rather than improve the tendency to constipation, and in some persons may produce results as disastrous as the original complaint.

One group of remedies acts by softening the intestinal contents and by increasing their bulk. Such medicaments are: mineral oil (liquid petrolatum or paraffin, which may be used at the table as a substitute for olive or other salad oil), agar, flaxseed, and psyllium seed. Since mineral oil is not absorbed, it is not fattening, but animal experiments indicate that a portion of it may be carried by the body fluids to the liver and remain there. It also delays the digestion of proteins, and it may interfere with the utilization of vitamin A by the body so that a larger than normal quantity of this vitamin would be needed in the diet—a correction of habits of eating which might easily fail to be made by a person who did not realize that he was living close to the limit of safety of his body's requirements of vitamin A. Emulsified mineral oil is less likely to interfere with digestion than the plain type and is therefore to be preferred. Mineral oil when used should be of the best grade, especially refined for medicinal purposes. There is some evidence that certain elements of poorly refined mineral oils (perhaps, indeed, of any mineral oils commercially available) may, like other substances foreign to animal life and environment, cause serious harm when used over a long period of time by favoring the development of dangerous modifications of intestinal tissue.

Enemas or colonic irrigations increase the tendency to

constipation and may have other harmful effects. Except under a physician's direction, they should be used only on rare occasions.

### Bran and Other Bulk Producing Substances

Agar, sometimes written agar-agar, acts to furnish bulk by absorbing a large amount of water. It is a useful but expensive product. Agar when used should not be powdered. The amount of agar present in the agar emulsions with mineral oils is too small to have any discernible physiological effect.

Psyllium seed and flaxseed act similarly to agar, flaxseed being the least costly of the three. Psyllium seed is difficult to clean and, like flaxseed, should be examined for cleanliness before using. These two types of seeds may be irritating to some people, and their prolonged use without medical advice is inadvisable in any event. Practically no bulk-producing material can be used in treatment of constipation that does not bring difficulties of its own, in time.

Bran adds indigestible bulk to the diet but is thought also to have a direct stimulating action, placing it in the class of a vegetable laxative, with the corresponding disadvantage which inheres in any medication for the bowels. Occasionally bran forms large lumps which remain in the intestines and cause obstructions (the seed laxatives may also act in this way). Such balls have been found in cases of intestinal operations necessitated by blockage of the bowel, and indicate strongly that the user of harsh laxatives had best be quite sure his insides are suitable for so rough a type of bulk. Dr. W. Gerry Morgan, a past president of the American Medical Association, said in a United States Public Health Service broadcasts that about "a third of those eating bran are able to take it over an indefinite length of time without apparent harmful results." In any case, bran should be eaten only when well mixed with other foods.

It is certain that for many persons—perhaps a very considerable fraction of the population—bran is too concentrated a source of roughage to be free from danger of harm.

### Drugs and Their Limitations

If a drug is to be used for constipation over a period of time, cascara sagrada, available in various forms, is the least harmful. It may, however, produce unpleasant symptoms. The aromatic fluid extract of cascara sagrada, U. S. P., is one form which has been made pleasing at the expense of activity, and its efficiency compared to the plain fluid extract is about as 1 to 3 or 4. Cascara sagrada is particularly valuable when necessary during the latter half of pregnancy when dietary measures of relief may fail.

Castor oil is the most effective drug for emptying the intestines quickly and completely as when poisonous or infected food has been eaten, without unpleasant effects. But never take castor oil when there is any pain in the region of the appendix, since it may cause disastrous effects if an appendix inflammation is present. If a good grade is obtained and kept refrigerated and well corked so that other odors are not absorbed, and if it does not become rancid, castor oil is nearly tasteless. When taken, it may be layered between two portions of cold orange juice and the sense of oiliness thus avoided.

Magnesium sulphate (Epsom salts) may be used as an alternative, but it may cause unpleasant symptoms. A large quantity of water should always be drunk with this drug; its proper action and least unpleasant effect are dependent upon a large supply of water to the intestinal surface.

If a milder effect is desired, milk of magnesia (a suspension of magnesium hydroxide) may be used, but it should by no means be used constantly as a substitute for a proper sort of diet. Large doses of milk of magnesia may sometimes be modified in the intestines in such a way as to produce an obstruction. Citrate of magnesia is a good mild

saline laxative having somewhat the same action as milk of magnesia.

Calomel is not safe for laymen's use, as it may, when taken without certain special precautions, and particularly if used repeatedly, result in a dangerous mercurial poisoning.

Poisonous drugs, such as strychnine, are present in a number of the kinds of compound laxative pills. While one pill would usually do no harm to a healthy adult, children often eat a number of them, pleasant-flavored or otherwise, and many cases of fatal poisoning from this cause are reported each year.

#### Phenolphthalein—An Unsafe Remedy

Phenolphthalein is the principal ingredient of many of the proprietary laxatives, including the candy and chewing gum types. In all the various forms in which it is packaged and distributed, it, like nearly all proprietary drugs, is sold at a tremendous markup in price. Fatal poisonings have followed the consumption of several tablets containing phenolphthalein by children, and their constant use or over-use even by adults is not without danger of causing serious and, at the very least, most unpleasant effects, such as colic, rapid pulse, difficult breathing, damage to liver or kidneys, and even collapse. Susceptible persons may have peculiar eruptions of the skin, sometimes with definite injury to certain organs, following the use of phenolphthalein. Certain yeast products owe their laxative effect to a quantity of this drug which they contain (not, of course, mentioned in the advertising).

#### Saline Laxatives

Mineral waters depend on the presence of laxative salts for their effect. As many of these waters do not contain enough of these salts for the desired effect, they are "concentrated" by evaporation, or "fortified" by added chemicals. The repeated use of mineral waters has the

same objections as the similar use of any saline laxative. The excessive advertising claims and the quoted testimonials of physicians of European spas that such waters are somehow better or safer, or more natural, or well-proven by time or experience, may be safely judged to be a mark of ignorance or misrepresentation on the part of their promoters.

### General Comments

No laxative or cathartic should be used when abdominal pain or other significant abdominal symptoms are present.

Many obesity cures are merely saline laxatives in disguise. Laxatives are undesirable as a means of treatment for obesity because of the harm done the intestinal tract by the violent washing and contractions produced and by their drastic interference with general health and proper digestion.

It is always unsafe for anyone at any time to use any proprietary laxative which does not state on the label the full chemical and ordinary names of its ingredients, and the amounts of the constituents in each unit or dose. Do not allow your choice of laxation or purgation to be determined by the advertising of a patent medicine manufacturer (or even a neighbor or friend).

There is no justification for the combination of laxative and tonic in one preparation, and much harm may be done to the health of those who continue to use a drug combination for its "tonic" effect long after the need for its laxative ingredient has passed.

### Ways to Better Health

In concluding, it may be pointed out that constipation of a chronic functional type ("functional" implying derangement of the normal working of an organ without there being any evidence of alteration of its structure or physical condition by disease or injury) is often to be considered a neurosis—that is, an impairment of nervous

origin, rather than a condition calling for the use of drugs or other medical means of treatment. Frequently, in such cases, X-ray examinations reveal no substantial variation from the normal intestine, or from the normal rate of flow of the intestinal contents. The subjective difficulty arises largely from the wide popular misconception as to the necessity of a daily, or several-times-daily, bowel movement, but this oversimplified opinion ignores the very wide permissible variation of normal frequency of bowel movement in a particular person as compared with others. Such variation is in part a matter of personal idiosyncrasy and may depend also upon diet and habits of living.

It is very difficult for many to give up, even under close medical supervision, the habit of using cathartics. They fear unduly the results of a temporary constipation, and must often be given mineral oil or some other mild laxative as a psycho-therapeutic measure so that they may not continue to worry about their condition. It is astonishing how in many cases of constipation that have been treated by the victim with frequent doses of a laxative or cathartic over a long period, often one of several years, the condition will clear up in a fairly short time if normal bowel movement is just given a chance to reestablish itself and the neurotic fear of constipation can be banished during the period of readjustment. It is hoped that this brief article may help some persons to help themselves out of a difficulty which, though it may seem unimportant or imaginary to the medical adviser, is nonetheless a very real and practical problem for millions.

QUALIFIED RECOMMENDATION

(but read all of the foregoing discussion)

Liquid petrolatum [mineral oil], U.S.P.	} Either should, preferably, be the brand of a well-known national drug firm.
Cascara sagrada, U.S.P.	
Agar, U.S.P.	
Magnesium sulphate [Epsom salts], U.S.P.	
Milk of magnesia, U.S.P.	
Psyllium seed	

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## Tennis Balls

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**M**ORE people play tennis, according to one well-known sports authority, than any other outdoor game. *Consumers' Digest* is, therefore, glad to report new tests made by Consumers' Research on a number of brands of tennis balls.

In these tests the diameter, weight, and initial rebound of the balls were measured in order to determine if they conformed or not with corresponding specifications of the United States Lawn Tennis Association. The balls were also subjected to a period of artificial aging in a Geer oven designed for the accelerated aging of rubber goods. After this treatment they were again tested for rebound in order to give a measure of their durability apart from wearing out under conditions of use. Resistance of the covers to abrasion was also determined on a machine especially designed for this purpose. Besides these determinations, an additional test to measure the adhesion of the covers of the balls has been made because of complaints received from readers who had found that covers sometimes became loosened.

Most of the balls tested this year were found to be slightly lighter than the 2.00 to 2.06 ounces specified by the United States Lawn Tennis Association; however, with two possible exceptions this difference was so small as to be of negligible importance to most players. Diameters of all the balls fell within the range of  $2\frac{1}{2}$  to  $2\frac{5}{8}$  inches allowed by the Lawn Tennis Association.

Initial rebounds were generally a little above the speci-

fications, which call for a rebound of 53 to 58 inches when the ball is dropped onto concrete at a room temperature of sixty-eight degrees Fahrenheit; but a slightly excessive rebound would probably be given little weight as rebound would soon fall within the standard limits after the ball was put into play. Balls of different brands varied widely in the percentage loss of rebound which resulted from the aging test. For two balls the ratio was more than four to one, thus showing a wide difference in durability. Strength of adhesion of the cover of the ball varied for the different brands, with some ratios running over two to one.

The *variation* in rebound between balls of the same brand was often considerable; its range was from 0.4 inch to 2.8 inches. While the question of uniformity of rebound between balls used in play would seem to be of considerable practical importance to the player, it has not been taken account of in any way in the specifications for tennis balls by the United States Lawn Tennis Association except in so far as the rebound limits of 53 to 58 inches do also limit the variability of the rebound characteristics.

#### RECOMMENDED

*Dunlop* (Dunlop Tire & Rubber Corp., England; U. S. Office, 500 Fifth Ave., N.Y.C.) \$1.15 for three.\*

*Spencer-Moulton* (Made in England; distrib. Associated Selling Agencies, 82 Duane St., N.Y.C.) \$1.15 for three. Pressure-packed, three in a can. Slightly underweight. Rebound within standard limits before and after aging. Wear resistance of cover good. Adhesion of cover very good. Largest variation in rebound between samples of brands tested this year.

*Wilson* Championship Super Service Cover (Wilson Sporting Goods Co., Chicago) \$1.25 for three. Pressure-packed, three in silver, red, and blue can. Slightly underweight. Exhibited excess rebound before, and very good rebound after, aging. Wear resistance and adhesion of



cover excellent.

QUALIFIED RECOMMENDATION

*Pennsylvania Keystone* (Pennsylvania Rubber Co. of America, Inc., Jeanette, Pa.) \$1.15 for three.\*

*Spencer-Moulton Tournament* (Made in England; distrib. Associated Selling Agencies) \$1.25 for three. Fell within standard rebound limits before, and had somewhat low rebound after, aging. Wear resistance of cover good. Adhesion of cover satisfactory.

*Super-Tournament* (Made in England; distrib. Phillips Rubber Co.) \$1 for three. Slightly underweight. Exhibited slight excess rebound before, and good rebound after, aging. Wear resistance of cover very good. Adhesion of cover somewhat low. Third largest variation in rebound between samples, of brands tested this year.

*Wards Championship*, Cat. No. 60—4675 (Distrib. Montgomery Ward & Co.) 99 cents for three plus postage.\*

*X-pert Championship*, Cat. No. 6—1231 (Distrib. Sears, Roebuck & Co.) 95 cents for three plus postage.\*

\* The listings followed by an asterisk are based on tests made in 1937 and reported in *Consumers' Digest*, August, 1937. They are carried over in condensed form for the reader's convenience. It is not, of course, certain that in each case the balls at present made under these names will be identical in construction and quality with those tested last year.

### Don't Get Your Health Advice from Ads

You must explain to your families the real situation about advertising. They must know how to distinguish between the good and bad, the honest and the dishonest, the constructive and the criminal. We believe that advertising has its uses; but in certain lines it is being abused. How men of intelligence and character can write some of the liquor, cigarette, drug, and cosmetic advertising now being printed is beyond our comprehension. When in doubt trust your own conscience and judgment rather than what any advertisement says. Never make a purchase based on an advertisement unless approved by your physician, dentist, or local merchant. Never buy merchandise whose advertisers abuse testimonials.

*Consumer Protection, How It Can Be Secured*, by Roger W. Babson and C. W. Stone, Harper & Bros., New York.

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## *Hints on Saving Gas— and Dollars*

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CURIOSLY enough, much of the following information on ways of saving gas is based on a leaflet issued by a manufacturer of bottled gas. This particular company was selling its bottled gas in competition with electricity sold at low rates in a West Coast region, and in order to keep its product in wide distribution found it necessary to give consumers definite and useful information on how to operate a gas stove economically as well as conveniently. The suggestions are applicable to gas appliances of nearly all types.

1. Light match before turning on gas.
2. Place utensil on range before lighting the burner.
3. Turn off gas before lifting pan from stove.
4. Turn off gas during in-between periods. Matches are cheaper than gas.
5. Flame should never be high enough to curl up around sides of utensil; the tip of the flame should just touch the bottom of the vessel. If the flame is not so adjusted, or if it is wavering or "soft" rather than definite and well defined, or if it flashes back or is of a yellow color, call the gas company and ask for a mechanic with the necessary skill to make the needed adjustment.
6. For foods which should be covered in cooking, keep pans tightly covered to retain heat, saving gas and preventing juices from passing away in steam. Use well-fitting lids on all vessels and keep the lids ready to hand, so they will be regularly used.

7. Do not use a large burner when a small burner will do, or a regular burner when a simmering burner is all that is needed. The bottom of the utensil should be as large as or larger in diameter than the burner or flame.

8. Reduce flame when the boiling point is reached—water boils at 212 degrees Fahrenheit and is no hotter and cooks no better when boiling vigorously than when boiling slowly. High flame does not speed up cooking, but simply causes loss of flavor and vitamins and evaporation of liquid.

9. To avoid unnecessary waste of heat, do not open oven or remove lids from utensils or lift stove lids from closed-top stoves any oftener than necessary.

10. When using the oven, use it, if possible, to its capacity. Vegetables and other foods will cook in the oven while the meat is roasting, and there are many vegetables which can be cooked well by this method. Ask Bureau of Home Economics, Washington, D. C., for information and recipes.

11. Keep stove burners free from dirt, rust, boiled-over food materials, and other foreign matter, if you wish to save fuel and avoid risk of poisoning by carbon monoxide gas.

12. Big pots waste gas. Use containers only sufficiently large to hold the food to be cooked. But pans of *large diameter* save gas, because they catch more of the heat in the hot stream rising from the burner.

13. Most meats, fruits, and vegetables require just enough water to create steam and avoid necessity for constant watching; and when a small amount of water is used, a very small flame will do the work. Do not use a gallon of water for boiling potatoes or other vegetables when a pint or so will do the work. Eggs in the shell can be put in water drawn from the hot water faucet rather than started in cold water.

14. An alarm clock set to ring at end of cooking or baking period will help avoid useless waste of gas. "Re-

minder clocks" can be purchased for the purpose.

15. When the baking oven is going, a frying pan on the broiler rack is usable in some gas stoves without extra gas being consumed. A large, substantial pair of ten-cent-store pliers may be used to handle hot pans in the oven (or on open burners when handles get too hot to touch). Such pliers are a valuable kitchen tool in many uses.

16. Much gas is wasted by pre-heating the oven longer than necessary. A "heat control" or thermometer is economical for indicating the earliest moment at which the oven reaches the temperature desired.

17. Dutch ovens, food steamers, and waterless "whole-meal" or sectional cookers permit the entire meal to be cooked at one time, on one burner turned to a low flame as soon as the proper cooking temperature has been reached.

18. Eliminate any fuel leaks, however small, at once as leaks are dangerous to health, or even life, and cost money.

19. Given a suitable refrigerator or other storage space, depending upon the foods in question, one can save much gas and labor by cooking or baking some types of foods in sufficient quantities at one time to last for the coming meal or for the following day.

### **Saving Money by Proper Design and Use of Cooking Utensils**

The housewife who purchases kitchen utensils with some knowledge of the factors that determine their convenience and saving of time and energy and their efficiency in the use of heat, will not only reduce gas and electric bills but will eliminate some of the drudgery of housework. In summer she will moreover improve the comfort of the kitchen by preventing excessive use of fuel.

1. If utensils are of metal, their bottoms should be blackened. The bottoms of all shiny metal utensils now in use can be made to absorb heat more efficiently if given a coating of black lacquer. Lacquer finishes found on some new utensils are only slightly more durable than the

lacquer you can apply yourself. A more durable surface than lacquer is given by a black oxidized finish now found on some brands of aluminum-ware. A pan with the bottom covered with dirt or soot is much more efficient—i.e., it absorbs heat much more readily and with less waste of fuel—than one with a shiny bottom. It will not, therefore, pay to waste time and energy scrubbing the bottom of pans to keep them shiny and attractive; rather save fuel and time by allowing pans to become blackened on the bottom or give the bottoms a coat of black lacquer.

Another method for obtaining a black finish on aluminum-ware is to sandpaper the bottom of the pan and then apply a coat of olive oil. Heat the bottom of the empty pan until it turns a dark color; apply a second coating of oil and heat again. Continue the application of oil and heat until the desired density of color is achieved.

Glass, enamelware, and chinaware, even though having shiny, unblackened surfaces, absorb radiant energy very well, and therefore make efficient cooking utensils in uses to which they are suited.

2. The *sides* of cooking vessels should be kept clean and shiny. Less heat is reradiated and so lost to warm the room if the sides of pots and pans are brightly polished.

3. Pans with large diameter flat bottoms, large enough to extend out to the limit of or beyond the flame or burner, are more economical of heat energy than utensils with small or rounded bottoms. Straight-walled utensils, because of their smaller radiating surfaces, are more efficient than bulging or flaring ones.

4. The thickness of the utensil wall and the weight of a utensil have no significant effect on its efficiency in cooking operations. Heavy metalware has the advantage of greater durability and decreased likelihood of warping, as compared with light, cheap grades of metalware.

5. Combination pans (twin or triplicate) are, of course, much more efficient when used together than when used as

single utensils, and this limitation should be kept in mind when their purchase is considered.

6. Utensils which readily absorb radiant heat, such as rough iron pots, as well as enamelware or glassware, make the most efficient oven ware. Aluminum, tin, and stainless steel-ware with bright surfaces, because they absorb radiant heat poorly, are uneconomical for baking or roasting purposes.

7. In the United States, no standards have been set up as yet for cooking utensils, and as a result the housewife is confronted with an array of pans and kettles which are designed almost exclusively for their novelty of design and "eye appeal" on the retailer's shelves. But a little can be done to improve the situation; buy only utensils that really fit your electric plates or gas burners; avoid utensils that are not stable and safe under all conditions—when empty as well as when full (some have heavy handles which tip the utensil when it is empty or nearly so); avoid utensils which have grooves, projections, and sharp corners—all these add greatly to the difficulties of cleaning and drying. Square and rectangular pans particularly need to be examined critically. Few have such large, well-rounded corners that they may be cleaned quickly and well.



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## *Techniques in Teaching Consumer Courses*

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COURSES in consumer economics will, no doubt, in time be as much a part of the high school and college curricula as Mathematics and English. While the subject is new and unsanctioned by tradition, many teachers may find it a highly explosive subject as Biology and Zoölogy once were.

How community antagonisms are being avoided by practicing teachers was the subject of a questionnaire by Dr. Kenneth B. Haas of the College of Commerce, Bowling Green, Kentucky. He queried 104 teachers of secondary schools and colleges from Maine to Vermont, of which number 62 replied in detail. Only three instructors stated that they had no reason to expect friction or complaints. Just how did the other teachers reporting handle the problem? Doctor Haas has summarized the replies:

“A majority of instructors deliberately solicited the cooperation of organized community groups—the P. T. A., Better Business Bureaus, Rotary, American Legion, and the like. Their major determinant for success appeared to reside in ‘selling’ the ideals of consumer education to the people of the community.

“The selling process was also evident in the classroom. The dominant method employed was to let pupils find out for themselves. Teachers who expressed satisfaction with their outcomes all employed the project and discussion method. To teach successfully worthwhile material a majority of these teachers felt that it was necessary to have

a weighty majority of debatable issues. They felt that a majority of topics should deal with politic-economic issues, folkways, emotions, the fundamentals of government itself, as well as commodities and fiscal matters. They evidently believed that the general *forum procedure* is the only practical and useful approach to the teaching of this kind of subject matter. In brief, the following points seem to dominate the instruction of those who enjoy successful teaching experiences:

1. Employ the project, laboratory, forum techniques.
2. Be judicial—do not take sides.
3. Do not restrict discussion.
4. Tolerate the views of anyone.
5. No one except the most suave and diplomatic teachers should give personal viewpoints.
6. If conclusions are made, have them definite and genuine.
7. Keep discussions neutral—no personal expressions.
8. Avoid indoctrination.
9. Teachers should not have an evident missionary or reform spirit.
10. They should promote the scientific and social point of view.
11. Propagandizing for a cause, or 'anti' anything should not enter the classrooms.
12. Their viewpoint should be that the ultimate interests of consumers and producers are identical.
13. Avoid the acute angle. Don't argue, contradict, or criticise."

In concluding, Doctor Haas points out:

"Much has been written and said about the importance of techniques in teaching. This question was asked on the assumption that a new subject requires adequate techniques to overcome unusual difficulties. What were these techniques? None were unusual, but many of them employed aids and devices to an unusual degree. Only a few em-



ployed the lecture and discussion method exclusively.

"Just as the salesman employs all possible presentation and demonstration devices, so did the teacher of consumer courses. Teaching methods ranged from pure lectures and questions to the employment of all forms of instruction. Sixty-five per cent of these teachers also used laboratory testing, charts, slides, moving pictures, outside speakers, student reports, notebooks, excursions, student exhibits and displays, bulletin boards, library research, and analyses of reports from consumer organizations. Few teachers used conventional texts. The great majority employed the method of assigned readings and brief outlines.

"Their topics ranged through commodity studies, consumer-economic theory, consumer social action, general buying problems and consumer financial problems. Those who emphasized theories of consumer economics appeared to have the most carefully prepared material, followed by commodity studies, general buying and financial problems. Consumer finance was taught by commercial teachers and bore a marked resemblance to elementary business training and general business training topics. They contained little of a consumer nature and much of the subject matter could hardly be dignified by naming it consumer education.

"These courses were in a constant state of flux from year to year—doubtless an indication of sound, healthy growth. Evidently consumer elements are tending toward a fusion of many elements, or into a separate subject, with the possibility of becoming in the future a force tending to integrate all subjects within certain areas."

Many teachers are using *Consumers' Digest* as reference material in connection with their consumer problems, and there are undoubtedly others who have followed the example of Doctor Haas in making surveys of their field. We invite them to send in their findings which will be summarized in these pages from time to time. Outlines of such courses will also be gladly received.

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# Choosing Your Pictures

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THE first ratings of motion pictures appeared in the November, 1937, issue of *Consumers' Digest*. The entire list has been revised monthly by recording the opinions of additional reviewers.

The ratings of pictures given herewith are based upon an analysis of the reviews published in the following periodicals:

*Boston Transcript, Box Office, Christian Century, Christian Science Monitor, Commonweal, Cue, Film Weekly, Harrison's Reports, Hollywood Spectator, Judge, Liberty, Minneapolis Journal, The Nation, The New Republic, New York Herald Tribune, New York Sun, New York Times, New York World-Telegram, New Yorker, News Week, Philadelphia Exhibitor, Stage, Time, Variety, Variety (Hollywood), Weekly Guide to Selected Pictures*, and the bulletins of the American Legion Auxiliary, Daughters of the American Revolution, General Federation of Women's Clubs, National Council of Jewish Women, National Legion of Decency, National Society of New England Women, Women's University Club of Los Angeles.

Films are rated "AA," "A," "B," and "C," which designate them as *strongly recommended, recommended, intermediate, and not recommended* respectively. The figures preceding each picture indicate the range of critical opinion regarding that picture as determined by an analysis of the reviews published in the aforementioned periodicals. Thus, "The Good Earth" is *strongly recommended* by twenty-five of these judges, *recommended* by four, and rated *intermediate* by one.

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

*adv*—adventure  
*biog*—biography  
*com*—comedy  
*cr*—crime and capture of criminals  
*f*—foreign language  
*hist*—founded on historical incident  
*mel*—melodrama

*mus-com*—musical comedy  
*mys*—mystery  
*nov*—dramatization of a novel  
*rom*—romance  
*soc*—social-problem drama  
*trav*—travelogue  
*wes*—western

AA	A	B	C	
—	5	11	5	Accidents Will Happen .....cr A
5	12	2	—	Adventures of Chico .....trav AYC
4	6	5	5	Adventures of Marco Polo .....adv-com A
19	7	—	—	Adventures of Robin Hood .....adv AYC
7	12	3	1	Adventures of Tom Sawyer .....adv AY
—	—	6	2	Affairs of Maupassant .....biog f A
—	—	—	9	Air Devils .....mel A
3	5	—	—	Alexander's Ragtime Band .....mus-com A
4	15	6	2	Ali Baba Goes to Town .....mus-com A
10	8	—	—	All Quiet on Western Front .....nov AY
—	—	3	5	Always Goodbye .....soc AY
—	4	—	—	Amazing Dr. Clitterhouse .....Cr A
3	11	9	6	Angel .....rom A
—	11	4	—	Arsene Lupin Returns .....mys AY
—	—	6	—	Arson Gang Busters .....cr A
1	5	1	—	Ave Maria .....mus-rom AY
20	9	—	—	Awful Truth .....com A
—	11	11	3	Back in Circulation.....cr A
1	8	8	4	Bad Man of Brimstone .....wes AY
—	5	—	—	Ballad of Cossak Golota .....adv f A
1	11	8	2	Baroness and the Butler .....com A
1	10	7	2	Barrier .....adv AY
—	4	7	3	Bar 20 Justice .....wes AY
—	6	13	3	Battle of Broadway .....com A
—	15	5	2	Beg, Borrow or Steal .....com AYC
—	5	10	4	Beloved Brat .....com AY
1	7	11	7	Big Broadcast of 1938 .....mus-com AY
—	6	1	—	Birth of a Baby .....soc AY
—	6	6	3	Blind Alibi .....mys AY
—	1	2	3	Blonde Cheat .....com A
—	5	2	—	Blondes at Work .....mys AY
5	13	8	—	Bluebeard's Eighth Wife .....com A
—	13	5	1	Border Cafe .....wes AYC
—	—	1	4	Border Wolves .....wes AY
—	2	4	9	Born Reckless .....cr A
—	—	2	3	Born To Be Wild .....adv A
—	9	4	—	Borrowing Trouble .....com AYC
1	11	6	2	Boy of the Streets .....soc AY
1	9	11	3	Breakfast for Two .....com Y
3	6	10	9	Bride Wore Red .....com A
7	13	5	1	Bringing Up Baby .....com AYC
11	13	3	—	Buccaneer .....adv AYC
—	3	9	4	Bulldog Drummond's Peril .....mys AY
—	3	8	6	Bulldog Drummond's Revenge ....mys A
—	—	4	6	Call .....biog f AY
—	—	4	—	Call of the Rockies .....wes AYC
1	2	7	2	Call of the Yukon .....adv AY
—	—	2	3	Call the Mesquiteers .....wes AY
26	4	—	—	Captains Courageous .....nov AYC

AA	A	B	C	
—	—	8	5	Cassidy of Bar 20 ..... <i>wes</i> <i>AYC</i>
—	1	3	1	Cattle Raiders ..... <i>wes</i> <i>AYC</i>
1	16	5	—	Charlie Chan at Monte Carlo .... <i>mys</i> <i>AY</i>
2	7	2	—	Charm of La Boheme ..... <i>mus-rom</i> <i>f</i> <i>AY</i>
—	7	6	—	Club de Femmes ..... <i>com</i> <i>f</i> <i>A</i>
—	10	11	3	Cocoanut Grove ..... <i>mus-com</i> <i>AY</i>
—	—	2	2	Code of the Ranger ..... <i>wes</i> <i>AY</i>
—	2	10	13	College Swing ..... <i>mus-com</i> <i>A</i>
—	4	8	8	Condemned Women ..... <i>mel</i> <i>A</i>
16	11	3	1	Conquest ..... <i>rom</i> <i>A</i>
8	20	—	—	Count of Monte Cristo ..... <i>adv</i> <i>AY</i>
—	3	4	—	Country Bride ..... <i>rom</i> <i>f</i> <i>AY</i>
2	6	1	—	Courier of Lyons ..... <i>hist</i> <i>f</i> <i>AY</i>
—	1	2	—	Cowboy from Brooklyn ..... <i>com</i> <i>AY</i>
—	7	9	7	Crime of Dr. Hallet ..... <i>mel</i> <i>A</i>
2	20	7	2	Crime School ..... <i>mel</i> <i>A</i>
—	2	3	—	Crime Takes a Holiday ..... <i>cr</i> <i>AY</i>
3	21	7	—	Damsel in Distress ..... <i>mus-rom</i> <i>AY</i>
—	10	8	—	Danger, Love at Work ..... <i>com</i> <i>A</i>
1	1	6	4	Dangerous to Know ..... <i>cr</i> <i>A</i>
—	—	4	3	Dare-Devil Drivers ..... <i>mel</i> <i>A</i>
1	3	5	3	Dark Eyes ..... <i>rom</i> <i>f</i> <i>A</i>
—	2	7	11	Daughter of Shanghai ..... <i>mel</i> <i>A</i>
23	7	—	—	David Copperfield ..... <i>nov</i> <i>AYC</i>
—	—	2	3	Dawn Over Island ..... <i>adv</i> <i>AY</i>
14	6	—	—	Dead End ..... <i>soc</i> <i>AY</i>
9	19	1	1	Devil Is a Sissy ..... <i>youth</i> <i>AYC</i>
—	1	7	5	Devil's Party ..... <i>mel</i> <i>A</i>
—	10	4	1	Divorce of Lady X ..... <i>com</i> <i>A</i>
3	13	7	1	Doctor Rhythm ..... <i>mus-com</i> <i>AY</i>
—	—	6	11	Double Danger ..... <i>mys</i> <i>A</i>
1	9	13	7	Double Wedding ..... <i>com</i> <i>A</i>
—	2	2	2	Dybbuk ..... <i>rom</i> <i>f</i> <i>A</i>
1	18	9	1	Easy Living ..... <i>com</i> <i>AY</i>
2	16	8	3	Ebb Tide ..... <i>adv</i> <i>AY</i>
—	—	1	4	Emil ..... <i>adv</i> <i>A</i>
1	15	12	2	Emperor's Candlesticks ..... <i>mys</i> <i>AY</i>
—	10	9	2	Everybody Sing ..... <i>mus-com</i> <i>AY</i>
—	6	10	9	Every Day's a Holiday ..... <i>com</i> <i>A</i>
—	—	2	3	Extortion ..... <i>mys</i> <i>A</i>
5	11	4	—	Farewell to Arms ..... <i>nov</i> <i>A</i>
—	—	2	6	Female Fugitive ..... <i>mel</i> <i>A</i>
1	5	5	—	Fight for Peace ..... <i>trav</i> <i>AY</i>
—	10	7	5	Fight for Your Lady ..... <i>com</i> <i>AY</i>
1	14	7	2	First Hundred Years ..... <i>com</i> <i>A</i>
4	13	6	—	First Lady ..... <i>rom</i> <i>A</i>
—	10	5	2	Fit for a King ..... <i>com</i> <i>AYC</i>
—	4	4	3	Flight into Nowhere ..... <i>adv</i> <i>A</i>
—	1	9	15	Fools for Scandal ..... <i>com</i> <i>A</i>

AA	A	B	C	
—	2	3	2	Forbidden Valley ..... <i>wes AY</i>
—	11	7	2	45 Fathers ..... <i>com AYC</i>
1	11	9	1	Four Men and a Prayer ..... <i>mel A</i>
—	11	5	—	Gaiety Girls ..... <i>mus-com AY</i>
—	2	7	—	Gangs of New York ..... <i>cr A</i>
5	9	—	—	Generals Without Buttons ..... <i>com f AY</i>
14	13	—	—	Ghost Goes West ..... <i>mys AYC</i>
—	—	4	11	Girl in the Street ..... <i>rom A</i>
4	9	7	2	Girl of the Golden West ..... <i>mus-rom AY</i>
2	11	7	2	Girl Said No ..... <i>mus-rom AY</i>
2	4	2	3	Girl Was Young ..... <i>mys AY</i>
—	2	7	7	Go Chase Yourself ..... <i>com A</i>
—	7	6	8	Gold Diggers in Paris ..... <i>mus-com A</i>
3	14	7	4	Gold Is Where You Find It ..... <i>hist AY</i>
10	9	8	1	Goldwyn Follies ..... <i>mus-com AY</i>
25	4	1	—	Good Earth ..... <i>nov A</i>
—	3	4	8	Goodbye Broadway ..... <i>com AY</i>
7	18	5	1	Great Garrick ..... <i>biog AY</i>
—	5	1	1	Great John Erickson ..... <i>hist f AY</i>
1	3	3	2	Green Fields ..... <i>soc f AY</i>
—	1	4	—	Gun Law ..... <i>wes AY</i>
7	7	5	2	Happy Landing ..... <i>rom AYC</i>
—	2	5	—	Harlem on the Prairie ..... <i>wes A</i>
—	5	1	—	Having a Wonderful Time ..... <i>com AY</i>
—	6	9	3	Hawaii Calls ..... <i>adv AYC</i>
—	3	7	3	Heart of Arizona ..... <i>wes AYC</i>
9	19	1	—	Heidi ..... <i>rom AYC</i>
—	3	2	1	Helene ..... <i>rom f A</i>
—	—	—	4	He Loved an Actress ..... <i>mus-com A</i>
—	1	11	8	Her Jungle Love ..... <i>adv A</i>
—	5	3	—	Hideout in the Alps ..... <i>mys AY</i>
4	17	7	2	History Is Made at Night ..... <i>rom AY</i>
1	9	14	5	Hitting a New High ..... <i>mus-com AY</i>
—	11	6	1	Hold 'Em Navy ..... <i>com AY</i>
—	12	5	4	Hold That Kiss ..... <i>com AY</i>
13	8	1	—	Holiday ..... <i>rom AY</i>
5	13	8	2	Hollywood Hotel ..... <i>com AY</i>
—	3	2	1	Hollywood Roundup ..... <i>com AY</i>
—	1	4	—	House of Mystery ..... <i>mys AY</i>
—	7	10	1	Hunted Men ..... <i>cr AY</i>
9	13	2	—	Hurricane ..... <i>adv AY</i>
—	12	5	—	I Cover the Waterfront ..... <i>rom A</i>
—	5	9	5	I Met My Love Again ..... <i>rom AY</i>
—	1	6	3	Idol of the Crowds ..... <i>adv AYC</i>
1	12	8	—	I'll Take Romance ..... <i>mus-rom AY</i>
15	12	—	—	In Old Chicago ..... <i>hist AYC</i>
—	2	8	1	International Crime ..... <i>mys A</i>
—	9	3	3	International Settlement ..... <i>mys A</i>
—	4	4	4	Invisible Enemy ..... <i>mys AY</i>

AA	A	B	C	
—	2	5	1	Invisible Menace ..... <i>mys AY</i>
—	10	7	2	Island in the Sky ..... <i>mys A</i>
—	—	5	—	It's All in Your Mind ..... <i>soc A</i>
14	7	—	—	It's Love I'm After ..... <i>com AY</i>
6	10	7	3	Jezebel ..... <i>mel A</i>
—	7	9	3	Josette ..... <i>rom-com A</i>
1	17	9	1	Joy of Living ..... <i>rom AY</i>
—	14	8	—	Judge Hardy's Children ..... <i>com AY</i>
—	4	8	4	Jury's Secret ..... <i>soc A</i>
—	—	2	3	Karl Frederick Reigns ..... <i>rom f A</i>
—	3	5	1	Kathleen ..... <i>rom A</i>
2	9	4	3	Kentucky Moonshine ..... <i>com AY</i>
—	2	12	7	Kid Comes Back ..... <i>com AY</i>
3	6	8	5	Kidnapped ..... <i>adv AY</i>
—	—	5	6	King of the Newsboys ..... <i>rom A</i>
—	—	4	—	Knight of the Plains ..... <i>wes AYC</i>
—	—	5	1	Ladies in Distress ..... <i>cr A</i>
—	8	5	1	Lady in the Morgue ..... <i>mys AY</i>
1	10	6	—	Lady Tubbs ..... <i>com AYC</i>
2	11	2	5	Lancer Spy ..... <i>adv AY</i>
—	9	11	4	Last Gangster ..... <i>cr AY</i>
—	3	4	3	Last Stand ..... <i>wes A</i>
—	1	9	10	Law of the Underworld ..... <i>cr A</i>
3	4	1	—	Lenin in October ..... <i>hist f AY</i>
—	1	1	2	Let's Make a Night of It ..... <i>mus-com A</i>
—	1	7	4	Lie of Nina Petrovna ..... <i>rom f A</i>
3	4	3	—	Life and Loves of Beethoven .... <i>biog f A</i>
1	7	8	3	Life Begins in College ..... <i>mus-com A</i>
6	4	5	—	Life Dances On ..... <i>rom f A</i>
16	4	—	—	Life of Emile Zola ..... <i>biog AYC</i>
4	13	5	—	Little Miss Marker ..... <i>com AY</i>
—	1	5	4	Little Miss Roughneck ..... <i>com AY</i>
—	1	9	4	Little Miss Thoroughbred ..... <i>com AY</i>
18	4	1	1	Little Women ..... <i>nov AYC</i>
—	10	9	3	Live, Love, and Learn ..... <i>com AY</i>
—	—	3	11	Living on Love ..... <i>com A</i>
19	10	1	—	Lloyds of London ..... <i>hist AY</i>
—	5	4	—	Lonely White Sail ..... <i>hist f AY</i>
—	1	3	3	Lone Wolf in Paris ..... <i>mys AY</i>
—	1	3	1	Look Out for Love ..... <i>rom A</i>
—	6	1	—	Lord Jeff ..... <i>cr AYC</i>
23	5	1	1	Lost Horizon ..... <i>nov AYC</i>
—	14	9	3	Love and Hisses ..... <i>com A</i>
—	3	14	8	Love, Honor, and Behave ..... <i>com AY</i>
—	5	3	—	Love on a Budget ..... <i>com AYC</i>
—	—	1	14	Love on Toast ..... <i>com A</i>
16	10	—	—	Mad About Music ..... <i>mus-rom AYC</i>
1	2	2	1	Madam Bovary ..... <i>soc f A</i>
—	9	14	2	Madam X ..... <i>mel A</i>

AA	A	B	C	
—	—	1	5	Maid's Night Out .....com AYC
—	—	3	3	Main Event .....cr A
—	1	4	5	Making the Headlines .....mys AY
—	—	—	5	Man Hunters of Caribbean .....adv A
—	6	11	—	Man-Proof .....rom A
—	5	6	2	Manhattan Merry-Go-Round ..mus-com A
—	10	10	1	Mannequin .....rom AY
6	9	1	—	Mayerling .....rom f A
15	12	1	—	Maytime .....mus-rom AYC
—	4	1	1	Meet Miss Mozart .....com f A
—	1	2	5	Men Are Such Fools .....rom A
1	4	2	1	Merlusse .....youth f AY
—	16	5	—	Merrily We Live .....com AYC
—	13	8	6	Merry-Go-Round of '38 .....mus-com A
—	5	5	3	Midnight Intruder .....mys A
28	2	—	—	Mr. Deeds Goes to Town .....com AYC
—	5	7	4	Mr. Moto's Gamble .....mys A
—	—	2	2	Mr. Moto Takes a Chance .....mys AY
—	5	—	—	Monastery .....trav AY
3	7	3	1	Moonlight Sonata .....mus-rom AY
5	6	12	9	Music for Madam .....mus-rom AY
30	—	—	—	Mutiny on the Bounty .....adv AY
—	—	3	3	My Old Kentucky Home .....rom A
—	5	1	—	Mysterious Mr. Moto .....mys AY
—	—	4	3	Mystery House .....mel A
24	6	—	—	Naughty Marietta .....mus-rom AYC
4	24	5	—	Navy Blue and Gold .....rom AY
—	10	5	3	Night Club Scandal .....mys A
—	1	4	5	Night Spot .....mel A
—	4	17	2	Non-Stop New York .....mel A
—	2	5	6	No Time to Marry .....com A
8	18	2	—	Nothing Sacred .....com AY
—	—	4	3	Numbered Woman .....mel A
—	4	12	—	Nurse from Brooklyn .....mel A
8	17	4	—	Of Human Hearts .....hist A
19	2	—	—	100 Men and a Girl .....mus-rom AY
—	2	7	7	One Wild Night .....mys A
—	6	2	—	Orphan Boy of Vienna .....mel f AYC
—	2	3	—	Outlaws of Sonora .....wes AYC
—	—	5	—	Outlaws of the Prairie .....wes AYC
—	1	3	1	Outside of Paradise .....mus-com A
1	5	1	—	Overland Express .....wes AYC
—	3	5	6	Over the Wall .....mel AY
—	—	5	1	Painted Trail .....wes AYC
—	12	7	—	Paradise for Three .....com AY
1	7	5	—	Pearls of the Crown .....hist f AY
1	6	4	1	Penitentiary .....soc A
—	6	8	—	Penrod & Twin Brother .....cr AY

AA	A	B	C	
—	6	3	—	Penrod's Double Trouble ..... <i>com AY</i>
2	16	3	—	Perfect Specimen ..... <i>com AYC</i>
3	6	2	1	Peter the First ..... <i>nov f AY</i>
10	13	5	2	Plough and the Stars ..... <i>hist AY</i>
—	—	1	6	Port of Missing Girls ..... <i>mel A</i>
—	4	3	—	Port of Seven Seas ..... <i>rom A</i>
11	19	—	—	Prince and the Pauper ..... <i>nov AYC</i>
—	—	4	1	Prison Farm ..... <i>cr A</i>
—	2	6	3	Prison Nurse ..... <i>mel A</i>
21	9	—	—	Prisoner of Shark Island ..... <i>biog AY</i>
20	6	—	—	Prisoner of Zenda ..... <i>mel AY</i>
—	—	5	—	Purple Vigilantes ..... <i>wes AYC</i>
—	2	6	5	Quick Money ..... <i>com AY</i>
1	5	12	6	Radio City Revels ..... <i>mus-com AY</i>
—	8	2	—	Rage of Paris ..... <i>rom-com AY</i>
—	—	3	1	Rangers Roundup ..... <i>wes AY</i>
—	2	5	7	Rascals ..... <i>com A</i>
—	—	4	7	Rat ..... <i>mel A</i>
—	8	7	2	Rawhide ..... <i>wes AYC</i>
3	9	11	—	Rebecca of Sunnybrook Farm .. <i>com AYC</i>
—	3	6	5	Reckless Living ..... <i>com AY</i>
—	—	4	4	Reformatory ..... <i>soc AY</i>
—	—	2	2	Religious Racketeers ..... <i>cr AY</i>
3	4	1	—	Return of Maxim ..... <i>soc f AY</i>
1	8	5	3	Return of Scarlet Pimpernel ..... <i>adv AY</i>
8	8	1	—	River ..... <i>trav AY</i>
5	13	6	6	Road Back ..... <i>mel AY</i>
1	2	—	—	Robinhood ..... <i>adv Y</i>
—	1	2	1	Roll Along, Cowboy ..... <i>wes AY</i>
2	12	8	1	Romance in the Dark ..... <i>mus-rom AY</i>
—	—	5	—	Romance of the Limberlost ..... <i>rom AY</i>
—	—	5	2	Romance on the Run ..... <i>mys-rom AY</i>
24	5	1	—	Romeo and Juliet ..... <i>rom AY</i>
1	7	8	7	Rosalie ..... <i>mus-rom AYC</i>
15	14	—	—	Rosemarie ..... <i>mus-rom AY</i>
—	1	5	2	Rose of the Rio Grande ..... <i>adv AY</i>
—	7	10	3	Sailing Along ..... <i>mus-com AY</i>
—	11	7	1	Saint in New York ..... <i>mys A</i>
—	—	1	4	Saleslady ..... <i>rom A</i>
—	4	11	1	Sally, Irene and Mary ..... <i>mus-com AY</i>
23	7	—	—	San Francisco ..... <i>hist AY</i>
—	2	2	—	Says O'Reilly to McNab ..... <i>com AY</i>
—	1	3	10	Scandal Street ..... <i>com A</i>
—	10	11	—	Second Honeymoon ..... <i>com A</i>
—	4	6	1	She Loved a Fireman ..... <i>com AY</i>
—	3	5	2	She Married an Artist ..... <i>com AY</i>
—	1	9	3	Sh! The Octopus ..... <i>adv A</i>
—	13	12	—	Singing Marine ..... <i>mus-com AYC</i>
—	2	9	6	Sinners in Paradise ..... <i>adv A</i>



AA	A	B	C	
—	5	—	—	Ski Battalion .....mel f A
—	5	2	—	Ski Chase .....trav f AYC
5	12	5	1	Slight Case of Murder .....com AY
—	1	1	4	Slipper Episode .....com f A
31	—	—	—	Snow White and Seven Dwarfs .adv AYC
—	—	4	2	Speed to Burn .....cr A
—	—	2	2	Squadron of Honor .....mys A
—	1	7	4	Stadium Murders .....mys A
25	7	1	—	Stage Door .....com AY
13	11	2	—	Stand-In .....com AY
8	18	3	1	A Star Is Born .....rom A
—	4	6	—	Start Cheering .....mus-com A
—	1	8	3	State Police .....cr A
12	8	2	—	Stella Dallas .....soc A
1	12	9	2	Stolen Heaven .....mel A
5	9	1	—	Storm in a Teacup .....com A
23	7	—	—	Story of Louis Pasteur .....biog AYC
2	17	6	—	Submarine D1 .....mel AY
1	8	12	1	Super Sleuth .....mys AY
1	—	5	9	Swiss Miss .....com AY
—	1	2	2	Tales from Vienna Woods ..mus-rom AY
—	—	1	3	Tarzan and Green Goddess .....adv AY
—	—	5	9	Tarzan's Revenge .....adv AY
—	—	2	3	Telephone Operator .....mel AY
1	2	3	2	Tender Enemy .....rom f A
20	9	1	—	Test Pilot .....adv AY
—	5	5	3	Texas Trail .....wes AY
—	—	3	4	Tex Rides with Boy Scouts ....wes AYC
—	4	5	5	Thank You, Mr. Moto .....mys A
—	—	2	3	That's My Story .....mel AY
9	15	2	1	Theodora Goes Wild .....com AY
—	4	5	4	There Goes the Groom .....com A
6	11	4	—	There's Always a Woman .....mys A
—	7	4	—	They Were Five .....rom f A
7	17	3	—	They Won't Forget .....soc A
16	12	2	—	Thin Ice .....rom AY
—	11	2	1	Think Fast, Mr. Moto .....mys AYC
1	4	4	—	This Is China .....trav AY
5	20	5	—	This Is My Affair .....rom A
—	1	7	6	This Marriage Business .....com A
—	2	4	14	This Way Please .....mus-com A
1	11	9	2	Thoroughbreds Don't Cry .....com A
—	5	3	1	Three Blind Mice .....rom AY
11	5	7	1	Three Comrades .....nov AY
—	7	2	2	Three on a Week End .....rom AY
10	18	2	—	Three Smart Girls .....rom-com AYC
—	1	2	2	Thunder in the Desert .....wes AY
—	10	2	—	Thunder Trail .....wes AYC
—	4	7	—	Tip-off Girls .....cr A
8	13	2	—	To the Victor .....adv AY
2	17	9	2	Toast of New York .....hist AY

AA	A	B	C	
3	18	3	1	Topper .....com AY
—	—	7	7	Torchy Blane in Panama .....mys A
13	12	1	—	Tovarich .....com AY
—	—	6	5	Toy Wife .....rom A
—	1	4	2	Trapped by G-Men .....cr AY
16	13	—	—	Treasure Island .....adv AY
—	11	3	—	Trip to Paris .....com AYC
3	12	4	—	Troopship .....adv A
—	3	—	—	Tropic Holiday .....mus-com AY
6	15	2	1	True Confession .....com AY
—	2	3	2	Two Gun Justice .....wes AYC
—	1	4	2	Uncivilized .....adv A
—	10	4	1	Under Western Stars .....wes AYC
10	10	7	—	Victoria the Great .....biog AY
—	2	3	3	Vienna Burgtheatre .....rom f A
8	17	1	—	Vivacious Lady .....rom AY
8	10	6	—	Vogues of 1938 .....mus-com AY
—	1	1	3	Volga Boatman .....rom f A
—	4	4	—	Wajan .....trav A
—	2	8	2	Walking Down Broadway .....com A
11	11	3	2	Wells Fargo .....hist-wes AYC
—	1	4	4	When G-Men Step In .....cr AY
—	2	9	3	When Were You Born? .....mys A
3	4	4	2	White Banners .....nov A
—	—	3	6	Who Killed Gail Preston? .....mys A
—	4	3	5	Wide Open Faces .....com AY
2	8	6	2	Wife, Doctor and Nurse .....rom A
—	3	5	4	Wife of General Ling .....mel AY
—	2	4	—	Wild Innocence .....adv AYC
—	11	4	2	Wild Money .....com AY
—	3	5	4	Without Warning .....mys AY
12	16	2	2	Wings of the Morning .....rom AY
—	3	11	10	Wise Girl .....rom A
—	4	6	2	Wives Under Suspicion .....mel A
—	—	—	5	Woman Against the World .....mel A
—	1	3	—	Woman Against Woman .....rom A
—	—	3	9	Women Are Like That .....com A
—	—	3	6	Women in Prison .....mel A
—	5	4	4	Women Men Marry .....rom A
—	3	3	3	Wrong Road .....cr A
5	12	5	1	Yank at Oxford .....rom AYC
10	13	2	—	Yellow Jack .....hist AYC
—	3	3	12	You and Me .....cr A
—	2	1	2	Young Pushkin .....biog f AY
1	9	8	3	You're a Sweetheart .....com AY
7	7	5	2	You're Only Young Once .....rom AY

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Handbook  
of Buying

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# CONSUMERS' DIGEST



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*Lipstick Allure*

*Miniature Cameras*

*House Insulation*

*Electric Ironers*

*Dress Sizes*

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VOL. IV NO. 3

Quacks  
in  
Psychology

25<sup>c</sup>

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Consumers' Digest presents only recommended products in its listings, with the exception of motion pictures. It is to be noted that the absence of any brand from the recommended lists does not imply a non-recommendation.





# CONSUMERS' DIGEST



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## More About Miniature Cameras

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WHEN the miniature camera virus strikes deep into its victim, there is practically no limit to the money he can be persuaded, by ingenious advertising, to expend, or to the number of accessories he will buy in satisfying the urge of minicomania. These gadgets, it may be said, all cost plenty of money.

The difficulties in using the miniature camera are well set forth in a quotation from the introduction of a recent scholarly book on stereophotography by Dr. J. Moir Dalzell, L.R.C.P., L.R.C.S. (Edin.):

Ciné-film is a very circuitous route indeed to picture-making when divorced from the motor-driven camera. The path is punctuated by as many pitfalls as matrimony for movie stars. A minute mechanical defect—congenital or acquired—in the miniature negative is liable to cause a glaring blemish in a projection-print of only post-card size, and for really satisfactory, well-defined pictures on a bigger scale one must resort to enlarging apparatus of impeccable precision designed exclusively for this class of work.

In practical—not theoretical—photography, to make an absolutely flawless negative of any size is a technical *tour de force*. But the ciné-film partisan invites a specially defiant bogle [bugbear, hoodoo] to his darkroom. That bogle lurks in the grain of the diminutive images and signifies an ever-present tendency to excessive clumping of the constituent particles of silver. The normal use in ciné-film is to register motion and then the eye is more or less oblivious to granularity; but in an ordinary photograph optical over-definition of the grain-structure is intolerable.

The foregoing does not by any means imply that miniature cameras do not have their sphere of usefulness *in the hands of expert and experienced users*. These small cameras have certain advantages which have made them popular. They are small in size and light in weight, unless equipped with all the accessories and the various cases, etc., which their makers recommend. They are versatile, too, and in that respect they are the equal of other much heavier cameras and camera outfits that have a large capacity for many different types of work.

They will not, however, take the place of the plain old-fashioned  $2\frac{1}{4} \times 3\frac{3}{4}$ -inch or  $3\frac{1}{4} \times 4\frac{3}{4}$ -inch plate or film-pack cameras (these are preferred camera sizes for the photographic hobbyist), even though the minicam's owner may be the proud possessor of many or all of the three hundred and thirty-odd accessories or gadgets which one make has available.

### Types of Cameras

Miniature cameras are of two leading types: (1) those which take  $24 \times 36$  mm ( $15/16 \times 1\frac{3}{8}$  inches) pictures on standard 35 mm film; (2) those which take sixteen  $15\frac{5}{8} \times 1\frac{3}{16}$ -inch pictures on an eight-exposure vest pocket film. For the cameras using 35 mm film, a fairly wide choice of emulsions is available, including the newer fine grain emulsions. A roll of 36 exposures in a spool for daylight loading retails for 90 cents, as compared with 30 cents for the same number of shots when bought in 55-foot lots. It is, of course, much cheaper to buy perforated but unnotched film from the manufacturer in 50- or 100-foot lengths and load it into the daylight loading spools in the darkroom yourself. A still cheaper source of supply is to obtain "short end" film left over by the motion picture studios, which is distributed by several camera stores, one of which is Morgan Camera Shop, 6305 Sunset Boulevard, Hollywood, Calif. This firm retails *Dupont Superior* and *Eastman Super X* film at 3 cents per foot postpaid.

With 36 pictures per loading, considerable time must elapse before the first pictures on the roll are developed, unless one takes a great many shots, and for this reason it is rather difficult to take effective advantage of the numerous types of film theoretically usable.

It is important to note that many of the coupled range finders are inaccurate and hence, in some cases, it may be preferable to use a small focusing camera and a separate range finder.

For the fans or prospective fans who have the money to spend and have the desire to experience the thrills of mini-camania, we present the following listings.

#### RECOMMENDED

*Bantam Special* (Eastmas Kodak Co., Rochester, N.Y.) \$87.50 with Kodak Anastigmat *Ektar* f:2 lens and case. Shutter, *Compur Rapid*, with speeds of 1 to 1/500 second, time, and bulb. Built-in range finder, coupled for automatic focusing. Had the disadvantage of using only special film of Kodak type 828 (picture area was 35 per cent larger than the standard 35 mm film), which limits choice of emulsions and increases cost of operation for film to about 2½ times as compared with standard 35 mm film bought in 50-foot lengths at regular prices. Picture size 1½ x 1 9/16 inches.

*Contax*, Model I (Carl Zeiss, Inc.) \$145 with *Carl Zeiss Tessar* f:3.5 lens; \$163 with *Carl Zeiss Tessar* f:2.8 lens; \$190 with *Carl Zeiss Sonnar* f:2 lens; \$277 with *Sonnar* f:1.5 lens. 14 interchangeable lenses in all, sold at the high prices usual for such equipment, were available for this model and for Models II and III, sufficient to cover every possible requirement. Shutter, focal plane, with speeds of ½ to 1/1000 second, time, and bulb. Built-in range finder, coupled for automatic focusing. For some users, this camera will be preferable to the *Leica*, on account of its removable back which permits the use

of a ground glass for focusing (valuable for certain types of precise work). Used standard 35 mm film. Picture size 24 x 36 mm (15/16 x 1 3/8 inches).

*Contax*, Model II (Carl Zeiss, Inc.) \$188 with *Carl Zeiss Tessar* f:3.5 lens; \$206 with *Carl Zeiss Tessar* f:2.8 lens; \$233 with *Carl Zeiss Sonnar* f:2 lens; \$320 with *Carl Zeiss Sonnar* f:1.5 lens. Shutter, focal plane, with speeds of 1/2 to 1/1250 second, time, and bulb. Had self-timing device. Built-in range finder and view finder combined in one eye-opening which obviates shifting the eye from range finder to view finder. Automatic focusing device in which focusing motion was coupled to range finder. Used standard 35 mm film. Picture size 24 x 36 mm (15/16 x 1 3/8 inches).

*Contax*, Model III (Carl Zeiss, Inc.) \$238 with *Carl Zeiss Tessar* f:3.5 lens; \$256 with *Carl Zeiss Tessar* f:2.8 lens; \$283 with *Sonnar* f:2 lens; \$370 with *Sonnar* f:1.5 lens. This camera was identical with *Contax*, Model II, except that its equipment included a built-in photoelectric exposure meter.

*Leica*, Model G (Ernest Leitz, Inc., 60 E. 10 St., N.Y.C.) \$168 with *Elmar* f:3.5 lens; \$213 with *Summar* f:2 lens. 12 interchangeable lenses were available for this and the other *Leicas* listed; one of these lenses, however, did not couple to the built-in range finder. Shutter, focal plane, with speeds of 1 to 1/1000 second. Built-in range finder coupled for automatic focusing. A fine, compact mechanical job of very precise workmanship (said to excel the *Contax* in this respect) and fine, highly developed design. Used standard 35 mm film. Picture size 24 x 36 mm (15/16 x 1 3/8 inches). The 90 mm *Thambar* f:2.2 lens deserves special comment; this lens which appears to have been more or less neglected by owners of miniature cameras, is one of the finest lenses available for portrait work with the miniature camera; it is also excellent for

landscape work. Its price, \$129, is in the opinion of experts well justified in comparison with other lenses for miniature cameras, but to produce satisfactory results with it will require experience.

*Leica*, Model D (Ernest Leitz, Inc.) Special price \$97.50 with *Elmar* f:3.5 lens. Very similar to *Leica*, Model G, except that it had a more limited range of shutter speeds (1/20 to 1/500 second) and lacked one or two other refinements.

*Leica*, Model E (Ernest Leitz, Inc.) \$84 with *Elmar* f:3.5 lens. Shutter, focal plane, with speeds 1/20 to 1/500 second. Detachable range finder, not coupled for automatic focusing. This model is recommended for copying work and photomicrography where wide range of shutter speeds, and automatic focusing are not essential. Used standard 35 mm film. Picture size 24 x 36 mm.

*Leica*, Model F (Ernest Leitz, Inc.) \$156 with *Elmar* f:3.5 lens. Very similar to *Leica*, Model G, but had smaller range of shutter speeds (1 to 1/500 second).

*Retina II* (Eastman Kodak Co.) \$115 with Anastigmat f:2.8 lens; \$140 with Anastigmat f:2 lens. Shutter, *Compur Rapid*, with speeds of 1 to 1/500 second, and bulb. Built-in range finder coupled for automatic focusing. Had locking device to prevent double exposure. Used standard 35 mm film. Picture size 24 x 36 mm.

*Super Nettel II* (Carl Zeiss, Inc.) \$115 with *Tessar* f:2.8 lens. Shutter, focal plane, with speeds of 1/5 to 1/1000 second, and bulb. Automatic focusing device. Setting the shutter moved the film on for next exposure automatically, thus eliminating any possibility of double exposure. Similar to *Contax* in many respects. Used standard 35 mm film. Picture size 24 x 36 mm.

*For pictures at close range*, the following cameras can be recommended only when used in conjunction with a range finder (which will have to be purchased as a separate acces-

sory), so as to enable the user to set the focus of the lens accurately:

*Dolly A* (Distrib. Burleigh Brooks, Inc., 127 W. 42 St., N.Y.C.) \$27.50 with Schneider *Radionar* f:3.5 lens. Shutter, *Compur*, with speeds of 1 to 1/300 second, time, and bulb. Takes 16 pictures  $1\frac{1}{4} \times 1\frac{5}{8}$  inches on the standard vest pocket roll film.

*Baby Ikonta* (Carl Zeiss, Inc.) \$54 with Zeiss *Tessar* f:3.5 lens. Shutter, *Compur Rapid*, with speeds of 1 to 1/500 second, time, and bulb. Takes 16 pictures  $1\frac{1}{4} \times 1\frac{5}{8}$  inches on standard vest pocket roll film.

*Baldi* (Distrib. Willoughby Camera Stores, Inc., 110 W. 32 St., N.Y.C.) \$46.50 with *Trioplan* f:3.5 lens; \$49 with *Trioplan* f:2.9 lens. Shutter, *Compur Rapid*, with speeds of 1 to 1/500 second, time, and bulb. Also available with *Compur* shutter having speeds of 1 to 1/300 second at slightly lower prices. Takes 15 pictures  $3 \times 4$  cm (about  $1\frac{1}{4} \times 1\frac{5}{8}$  inches) on standard vest pocket film.

*Baldina* (Balda-Werk, Dresden; distrib. Photo Utilities, Inc., 10 W. 33 St., N.Y.C.) \$43 with *Trioplan* f:3.5 lens; \$45 with *Trioplan* f:2.9 lens. Shutter, *Compur*, with speeds of 1 to 1/300 second, time, and bulb. Also available with *Compur Rapid* shutter having speeds of 1 to 1/500 second at slightly higher prices. Used standard 35 mm film. Picture size  $24 \times 36$  mm (about  $15/16 \times 1\frac{3}{8}$  inches).

*Retina I* (Eastman Kodak Co.) \$57.50 with *Ektar* f:3.5 lens. Shutter, *Compur Rapid*, with speeds of 1 to 1/500 second, time, and bulb. Very similar to *Retina II* except that it lacked automatic focusing and a few other refinements. Used standard 35 mm film. Picture size  $24 \times 36$  mm ( $15/16 \times 1\frac{3}{8}$  inches).

*Welti* (Distrib. Burke & James, Inc., 233 W. Madison St., Chicago) \$51 with *Steinheil* Anastigmat f:2.9 lens; \$73

with *Tessar* f:2.8 lens; \$79 with *Xenon* f:2 lens; \$137 with *Zeiss Biotar* f:2 lens. Shutter, *Compur Rapid*, with speeds of 1 to 1/500 second, time, and bulb. Used standard 35 mm film. Picture size about 1 x 1½ inches.

#### QUALIFIED RECOMMENDATION

*Pilot* (Kamera Werkstätten, Dresden) \$60 to \$127.50 depending on lens equipment. Takes 16 pictures 1 3/16 x 1 9/16 inches.

*Contaflex* (Carl Zeiss, Inc., 485 Fifth Ave., N.Y.C.) \$321 with *Tessar* f:2.8 lens; \$348 with *Sonnar* f:2 lens; \$435 with *Sonnar* f:1.5 lens. Shutter, focal plane, with speeds of ½ to 1/1000 second, time, and bulb. This camera is a twin-lens reflex, and is so far as known the most expensive miniature on the market. To facilitate focusing, the image of the field on the ground glass is enlarged to 35 x 50 mm. The camera had a built-in photoelectric exposure meter. Three interchangeable lenses in addition to those listed above were available at \$85, \$108, and \$215 each. Used standard 35 mm film, but cut-films and plates could also be used in conjunction with an adapter, an accessory listed at \$25. Picture size 24 x 36 mm (15/16 x 1¾ inches).

\* \* \*

The following cameras are not of a grade and finish that would satisfy the advanced photographic amateur or miniature camera devotee but have their uses for the "snapshotter" and for certain other purposes, where the camera's use is chiefly as a convenient memo-device to provide a photographic record of a scene or object, rather than a picture.

*Anso Memo* (Agfa Anso Corp., Binghamton, N.Y.) \$20.

No longer manufactured but available in many stores at reduced price, around \$7. *Cinemat* f:6.3 lens. Fixed



focus. Shutter speeds of 1/25, 1/50, 1/100, time, and bulb. Used standard 35 mm film, 50 exposures per roll. Picture size 24 x 18 mm (15/16 x 11/16 inches).

*Argus*, Model A (International Research Corp., Ann Arbor, Mich.) \$12.50 with Anastigmat f:4.5 lens. Shutter speeds of 1/25, 1/50, 1/100, 1/200, time, and bulb; but top speed was not correct, indeed was substantially identical with the 1/100 second. On replacement a second shutter had the same defect. Used standard 35 mm film. Picture size about 1 x 1½ inches.

*Argus*, Model AF (International Research Corp.) \$15. Identical with Model A except equipped with focusing mount.

*Argus*, Model C (International Research Corp.) \$25 with f:3.5 *Cintar* lens. Rated shutter speeds 1/5 to 1/300 second and bulb. Used standard 35 mm film. Picture size approximately 1 x 1½ inches. Camera large for size of picture. Range finder somewhat inaccurate. This camera, too newly placed on the market for certain rating, is given a *Qualified Recommendation* tentatively.

*Bantam* (Eastman Kodak Co.) \$6 with *Doublet* lens; \$10 with f:6.3 lens. The former is considered the better buy. Fixed focus. Not recommended for very serious picture taking, but satisfactory as a second camera where compactness and lightweight are essential. Used special film No. 828, 8 exposures per roll. Picture size 28 x 40 mm (1⅛ x 19/16 inches). See comments re film under *Bantam Special*.

*Dolly A* (Distrib. Burleigh Brooks, Inc.) \$15 with *Certar* f:4.5 lens. Shutter, *Vario* type with speeds of 1/25, 1/50, 1/100 second, time, and bulb. Picture size 1¼ x 1⅝ inches.



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## *Lipstick Allure*

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LIPSTICK advertising copy has covered every form of appeal from the purely glamorous through the scientific, the practical, the different. In one case words have been abandoned altogether and a full page outline drawing substituted, appearing only with the brand name of the lipstick. To the average person, all this must be pretty difficult to interpret, so that one wonders, really, what *is* in a lipstick.

What is in it is a lot more complex than one would ever guess. Perhaps the most obvious ingredient is the color. At least we think of a lipstick's being used primarily for its color. An insistent demand is made for a permanent color, so that indelible lipsticks have become increasingly popular. All indelible lipsticks contain an organic dye identified by the chemist as either tetrabromofluorescein or dibromofluorescein. The color of this dye is yellow, but it reacts with the skin, or changes on the skin, to red. A few lipsticks, described as being "orange in the stick," contain this dye as the only coloring matter. Their "magic" change in color is merely a natural property of the dye. Since these compounds (tetrabromofluorescein or dibromofluorescein) stain or dye the skin, the color is reasonably permanent, which is why one or the other is normally present in indelible lipsticks. The great majority of indelible lipsticks contain red lakes, or insoluble red coloring agents, as well as the fluorescein compound, so that the change of color after application is not observable. Lipsticks which are not indelible contain lakes and toners only, which do not react with the skin. They apply a coating of color, not a dye acting within the skin tissue.

Some people are hypersensitive to eosin (a shorter name for tetrabromofluorescein) so that they show a typical allergic reaction in which the skin dries out, and is later accompanied by swelling if the application is not discontinued. Some people who are unaffected by eosin itself are affected by it when combined with castor oil. (This latter is the self-same liquid that you may have had fed to you with a spoon in your less mature days with instructions to hold your nose—the only difference now being that there is a so-called tasteless variety.) Castor oil is the most used dispersing or diluting agent for eosin in the basic material of lipsticks. It is believed that a reaction occurs, and a new compound, the bromine derivative of ricinoleic acid, is formed. This appears to be a more common source of trouble than the dye, so that if the castor oil were not present, it is quite likely that very few people would be adversely affected. There is a new product sold under the trade name of *Dispersol* which is said to be a better dispersing agent than castor oil and to be without the allergic effect. People who find that application of indelible lipstick causes irritation should use one of the other kinds containing no eosin, at least until indelible lipsticks containing no castor oil are more generally marketed.

Another source of irritation in some cases is the perfume material. A compound known as methyl heptene carbonate, which produces a violet odor, has been found to give some trouble. Whenever perfume materials are found to cause allergic effects, their use should be voluntarily discontinued by the manufacturer. It seems reasonable to assume that this will be the case, since a great choice of perfume materials is available, and the manufacturer only hurts his own cause by the unnecessary incorporation of ingredients which may have an irritating effect on some or many users.

In some lipstick advertising, the claim is made that the use of lipstick will keep your lips moist—prevent them from becoming dry and chapped. Continuing our examination of **ingredients**, we shall see that properly compounded lipsticks

should have just this effect. Lanolin plays a very important part in giving lipsticks their softening and moistening effect, because lanolin is one of the few fats absorbed to any considerable extent by the skin. Since it aids in penetration, it makes the color effect more lasting. Other materials which assist absorption include cholesterol, cetyl alcohol, and lecithin. While these are not true fats, they are fatty in nature and so appear to have a degree of soothing effect on the skin. They have an apparent advantage in being less sticky than lanolin, which is a true fat of animal origin.

Petrolatum (or *Vaseline*) is another ingredient. A thin film of this will also serve to prevent the skin from drying, as it will help retain the natural moisture of the skin—in other words, it checks evaporation. It also improves the consistency of a lipstick. Mineral oil is used for somewhat the same purpose, but being a liquid, aids even more in giving a spreading action. It is necessary that the lipstick can be applied in a very thin, even layer; the ingredients of petroleum origin further this property and oppose smearing. Their daily use on the lips is not of a certainty safe, however, for some petroleum oils are known to affect skin health.

We could get a thin paste with all these materials, but since it is much more convenient to have the stick form, waxes are incorporated to give body. Stiffening agents include beeswax and carnauba wax as well as harder mineral waxes, such as ceresin, ozocerite. These waxes give strength to the lipstick to prevent its doubling over or breaking in two in use.

Whether to use lipstick or not is entirely a question for the individual woman to decide. If she has experienced an unpleasant result from the use of an indelible lipstick, she will be wise to avoid this type altogether because she may be sensitive to dyes of the type of eosin which are found in all indelible lipsticks.

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# What Do You Know about Tooth Pastes and Powders?

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HAVE you any idea why you use a particular brand of tooth paste or tooth powder? Perhaps you like its flavor or the radio program which its maker sponsors, or it may be economical. Maybe it's just because it's the kind you find on the bathroom shelf in the morning. The expenditure for something to put on your toothbrush is comparatively so small and is spread over so long an interval that you may not feel the need to economize, but certainly you ought to know what you are putting into your mouth when you brush your teeth.

Let us consider for a minute just what a dentifrice—whether paste or powder—will do. One might easily get the impression from a casual reading of advertisements that this or that brand will cure all the ills that teeth and gums are heir to and a host of new ones never before encountered by the layman in his visits to the dentist. Pink toothbrush, bacterial-mouth, albuminous proteid and mucin plaques are but a few of the conditions invented by the ingenious advertising men to be cleared up by their particular product.

Perhaps you are one of those superior people who realized that all these super-grandiloquent claims were the bunk but still you feel that you must use something. Listen to the words of Dr. Benjamin Tishler, an authority in the field:<sup>1</sup> "A tooth brush, properly used, will maintain gingival

<sup>1</sup> Quoted from *Paying Through the Teeth* by Bissell B. Palmer, Vanguard Press, New York.

[gum] health indefinitely, without the use of powder, paste, or mouthwash." You see, if you *really* want to economize, you can safely give up tooth paste or tooth powder entirely. On the other hand, its flavor may help to take away that morning-after-the-night-before taste. In that case, try a little ordinary baking soda on your toothbrush or a home-made powder made by adding a little oil of peppermint for flavoring to a high-grade precipitated chalk which any good druggist can get for you at about thirty cents a pound.

There are, however, some people who just can't be bothered messing around with making even a preparation so simple as chalk with a few drops of added flavor. If you belong in this group, take your pen in hand and write to the American Dental Association, 212 East Superior Street, Chicago, for their most recent list of acceptable dentifrices. If the particular tooth paste that you usually buy is not on the list, ask the American Dental Association for information about it. You might as well know what you are using.

At the present time, the Council on Dental Therapeutics of the American Dental Association will not, according to an article by the former secretary, accept tooth pastes containing potassium chlorate; or drugs related to carbolic acid, like betanaphthol; or sodium perborate which may give rise to burns of the mouth; or orris root, to which many people are unpleasantly sensitive; or large amounts of sugar. Furthermore, when new substances are used in dentifrices, tests to show their safety will be required by the Council before a product can be accepted. The advertising claims made must adhere to the Council's definition of a dentifrice as an aid to the toothbrush in cleaning the accessible surfaces of the teeth.


*Ipana*, for example, was turned down by the A.D.A. on many counts, notably for its "pink toothbrush" advertising and the claimed fact that it contained ziratol, an unaccept-

able proprietary of secret composition which contained betanaphthol when examined in 1930.

In connection with the "pink toothbrush" claims which were objectionable to the American Dental Association, it is enlightening to discover that other claims made for *Ipana* by Bristol-Myers were brought to the notice of the Federal Trade Commission. The result was that Bristol-Myers promised to cease advertising that *Ipana* and massaging will correct any unhealthy gum condition; that *Ipana* and the use of a toothbrush will restore to the gums the

stimulation they need to remain firm and healthy; that modern dental science or the country's dentists urge or approve the use of *Ipana* and massaging in the care of teeth and gums; and that *Ipana* and massaging will prevent one from becoming a "dental cripple."

The circular in the current package of *Ipana* carries a picture of a dentist and the admonition shown, in an attempt, it may be,



See your  
**DENTIST**

**G**OOD as *Ipana* is, it cannot take the place of your dentist. No tooth paste can do that. At the first sign of dental trouble, see your dentist and permit him to diagnose and treat your condition.

After he has done so, you will find *Ipana* one of his ablest assistants in keeping your teeth clean and sparkling and your gums firm and healthy.

to counteract by flattery of the individual dentist *Ipana's* failure to win the approval of the dentist's national professional organization.

On the other hand, *Iodent Tooth Paste* No. 1 and No. 2 bear the A.D.A.'s Seal of Approval. According to the Journal of the American Dental Association, *Iodent* No. 1 consisted of precipitated calcium carbonate (a form of powdered chalk), soap, glycerine, petrolatum, saccharin, oil of peppermint, water, and iodides. *Iodent* No. 2 was similar in composition except that in addition to those ingredients already listed, it contained prepared calcium carbonate.



The A.D.A. seal of acceptance appears plainly on the box of *Iodent* shown in the illustration. You will notice also the phrase, "No. 2 for teeth Hard to bryten."

Perhaps you thought that "bryten" was the modern way to spell "brighten." Such is not the case. It appears that several years ago the Iodent Chemical Company discovered that many people had misinterpreted their advertising to such an extent that they thought if they used *Iodent Tooth Paste* they could eliminate periodical visits to their dentist. This misconception distressed the Company no end, and it promptly changed its claims to emphasize the whitening effect of the *Iodents*. Once again they were misunderstood. People reading their advertising jumped to the conclusion that the tooth paste would bleach the natural color and actually make their teeth white. Such was not the case, and the company tried again,

evolving the word, "bryten," to describe the action. What's more, they had the word trade-marked, so you see nothing can "bryten" teeth except *Iodent Tooth Paste*.

Despite these painstaking endeavors to keep their advertising claims from seeming exaggerated in case officials or a cynical consumer should raise the question, the Company found it wise to promise the Federal Trade Commission early in 1938 that they would cease advertising that *Iodent Tooth Paste* would restore teeth to their original



brilliance and beauty and protect exposed surfaces from the accumulation of dirt or harmful materials, and that the product possessed the polishing factor that enables teeth to retain their original brilliancy twenty-four hours a day.

There are some people who prefer tooth powder to tooth paste. Which you use is entirely a matter of personal choice, for the American Dental Association has pointed out that there is no essential difference in the cleansing properties of a tooth powder over a tooth paste. Indeed, the Raleigh (N.C.) Dental Society was so annoyed at the claims made for *Dr. Lyon's* tooth powder that at their annual meeting in May, 1936, they passed the following resolution:

"Whereas, we, as members of the dental profession, feel that one of our most important health service duties is to educate our people in the proper care of their teeth; and

"Whereas, the *Dr. Lyon's Tooth Powder*, manufactured and sold by the R. L. Watkins Company, Newark, N. J., in their radio advertisement repeatedly makes the statement that 'ninety per cent of the dentists clean teeth with powder,' which we believe is incorrect and unfair to our profession; therefore, be it

"Resolved, that we, the members of the Raleigh Dental Society, condemn and label as untrue the statement made by the radio announcer on the national program of the R. L.

## Powder—cleans teeth as nothing else can

### ●THREE IMPORTANT REASONS Why You Are Wise To Use Powder—

- |                                 |   |  |
|---------------------------------|---|--|
| 100%<br>Cleansing<br>Properties | } | Nothing known to science cleans and polishes teeth naturally and leaves them so gleaming white as POWDER. In fact, it is only the POWDER part of any dentifrice that does the actual cleaning. A dentifrice that is ALL POWDER just naturally cleans best. You will see the proof of this in a few days after using. |
| No Grit—<br>No Pumice           | } | <i>Dr. Lyon's</i> contains no drugs, grit, pumice or other harmful ingredients. If you'll peruse the details or figure the safe it contained in its early year record has shown, you will see the dentifrice old enough to prove that it can be safely used for life. It is ABSOLUTELY SAFE.                         |
| More<br>Economical              | } | As <i>Dr. Lyon's</i> is an ALL POWDER, ALL CLEANSING dentifrice, you are not paying for carbon waste. It is not only doubly efficient but costs only half as much to use. <i>Dr. Lyon's</i> will outlast tooth paste more than ten times.  |

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**DR. LYON'S Tooth Powder**

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Watkins Company, and further suggest that a true statement of the facts will place both the dental profession and dentifrice manufacturers in a position more to be desired; and be it further

“Resolved, that a copy of these resolutions be mailed to the R. L. Watkins Company, a copy to the Secretary of the American Dental Association, and a copy to the secretary of the North Carolina Dental Society with a request that same be acted upon at the next meeting of the North Carolina Dental Society.”

The company, however, continues to pay little heed to the warnings of the dental profession. When one reads the current circular which is here reproduced, it is plain to see just why *Dr. Lyon's* tooth powder does not carry the label of acceptance of the A.D.A.

Still another tooth powder that is unacceptable to the A.D.A. is *Calox*, which according to its carton is “a preparation of pharmaceutical purity, for cleansing and beautifying the teeth, and promotes oral hygiene. Polishes safely. Assists in neutralizing mouth acids. Sweetens the breath. Tends to strengthen the gums.” Several years ago, the company asked the A.D.A.'s Council on Dental Therapeutics to consider their product for acceptance. After careful consideration of the composition of *Calox* and the advertising claims made for it, the Council sent a detailed report to the company explaining their reasons for turning it down. The firm replied that although they disagreed with the findings of the A.D.A., they would be delighted to make their opinions conform to those of the A.D.A. except for the fact that they had “a tremendous investment in finishing materials, in advertising, contracts, copy and display material which cannot, because of economic reasons, be cast aside at this time.” The ingredients of the tooth powder were said to be magnesium carbonate, flavoring oils, heavy chalk, light chalk, sodium perborate, calcium peroxide, powdered soap, and powdered sugar. Although

*Calox* at the present time carries the *Good Housekeeping* Seal of Approval, the acceptance label of the American Dental Association seems still not to have been awarded this firm.

Several large-sized volumes could be written comparing the sales and advertising claims of the many tooth pastes and powders on the market with the scientific and technical reports of the American Dental Association on the same products. The Federal Trade Commission likewise has a long line of stipulations by which various dentifrice concerns have agreed to cease making certain misleading claims. If you are interested in pursuing the subject further, see what your local library has available. If your library has no material on tooth paste and powders, ask your librarian to get the information from the American Dental Association, 212 East Superior Street, Chicago, and the Federal Trade Commission, Washington, D. C. The findings of the A.D.A. and the F.T.C. will be valuable additions to your library's consumer bookshelf. You might do your bit for consumer education by making a scrapbook for your library, school, or club of the advertisements and circulars contrasted with the technical facts.



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# Catch 'Em with Magic

By

FLORINE STANYON

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'ROUND and 'round in the cycle goes that pernicious, persistent pest, the agent who sells cooking utensils. His visits are periodic and about as regular as presidential elections. After fine-tooth combing a community and cleaning up a fat commission on every set of utensils sold, he goes on his way to more lucrative fields, leaving many mystified housewives to struggle with what is likely to be described as the latest, most modern method of cooking food, a method claimed to be entirely different and only made possible through the use of one brand of specially designed cooking utensils.

The sales technique of the efficient utensil agent is essentially the same on every visit. I know, for I have experienced an attack of well-calculated technique aimed in my direction. I took the bait but didn't swallow the hook, line and sinker.

I concede that I was a susceptible victim at first and grasped eagerly at the marvelous possibilities offered with the new way of cooking. What housewife would allow such an opportunity to pass unheeded? A way to prolong the life and improve the health of the entire family has a great appeal to any woman. And it sounded so easy. Just save the precious vitamins and blood-building minerals.

This new *Magic Goodicook*<sup>1</sup> cookingware was being demonstrated in our community, and I gladly accepted a most cordial invitation to dine in a neighbor's home at the agent's expense. I welcomed a meal that I hadn't peeled or

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<sup>1</sup> The names which appear in this article are entirely fictitious and any similarity to actual names is merely coincidence.

scraped or perspired over. Even the explanation that a new method of cooking was to be demonstrated didn't dampen the prospect of a free meal. No matter how it was cooked, it was still a free meal and not to be sneezed at. The neighbor added that there was no obligation to buy a set of utensils, but my presence would enable her to obtain a free dish of the wonderful ware.

After I had answered a few pointed questions from friend-husband, he decided that demonstration dinners were not up his alley. He said rather tersely: "For gosh sakes, don't tell that agent your name. Say you are Mrs. Somebody Else. I don't want him hanging around here."

When I entered my neighbor's home, I detected strange odors emanating from the kitchen, and the guests were informed that the dinner would be served promptly. In the meantime, the demonstration man would entertain us. He did—for one full hour.

With a serious air, he stated most emphatically that the foods we eat supply the energy for our bodies. He compared us to automobiles. No gas—no move. Old stuff, for I had learned that in the days when physiology was taught in the public schools.

He discussed with fluency the fats and carbohydrates, quoting from government bulletins. The proteins, minerals, and vitamins were not overlooked. Their presence in our diet was absolutely necessary, or we would wilt like a flower on a hot day—otherwise known as malnutrition.

He informed us of the surprising fact that plants obtain all the life-giving elements from the soil and the air but we poor humans must eat them alive or cooked.

By that time, I had a feeling of bewilderment but fancied that I had heard that line before. The agent had been speaking very quietly when suddenly he became an animated demon. He assumed a belligerent, almost threatening manner and swung into violent action. He paced the floor, waving his arms frantically while uttering the most terri-

fying words. "You are guilty, just as guilty as if you deliberately planned to harm your loved ones. And why? Because you destroy all of the life-giving, life-prolonging elements." We shuddered at the thought.

With another burst of eloquence he added: "You cheat your family by filling the trap in the kitchen sink with the precious minerals, the precious vitamins—all the real value in foods. You feed your family the husks. Change your ways before it is too late. Save that dear little child and your loving, hard-working husband. He toils from morn 'til late at night earning money for food, and you, yes you, pour the best down the drain. It is time to awaken to the appalling crime you are committing." We shuddered again as he wiped the perspiration from his brow.

I glanced around at the other women. They sat in rapt silence, spellbound as this awful accusation hit them squarely between the eyes.

But he was speaking again, gently, pleadingly, while he held a beautiful, shining pan in his hand. His voice became warm and vibrant. "It isn't too late, my dear friends. I have come in time. You can correct all of the errors of the past."

With a deep sigh of relief, we relaxed in our chairs and made a silent resolution to round up all the vitamins and minerals, regardless of cost.

At the psychological moment, the agent's charming wife appeared wearing a dainty cap and a fetching outfit starched to the rustling stage. She announced with a smile, that the dinner was ready to be served and held a dish in her hand. He explained that it contained apples with their jackets on, seeds left in, and cooked in their own juices. The apples were to be passed through a newfangled strainer to remove the peels and seeds. No mention was made about worms. Perhaps, in the new cookery, they have food value too.

The charming wife brought another dish. This time we saw the lowly potato, not lowly in food value, which now,

strangely enough, hovers directly under the peel. It's the outer ring around the potato that contains the kick. We were told to cook potatoes with their jackets on and without water in a *Magic Goodicook* pan. Three other dishes, of the same brand, contained carrots, meat, and a steamed pudding.

The agent elaborated on the almost unbelievable results obtained by cooking in *Magic Goodicook* ware. Life was prolonged—health restored to the sick and aged and all lived happily ever after.

By that time, I had a queer hollow feeling. I noticed that chairs were being moved rather noisily to relieve the tired muscles of the sitters. Glances manifesting hunger went the rounds with a tightening of the lips and a raising of the eyebrows. Apparently, minds were running in the same channel—that of food.

When plates of food were passed, a strange silence settled over the room—a quietness only marred by a fork or a knife ringing against a plate.

I ate, scarcely realizing whether the food was palatable, well cooked, or not. I know now that there was a high degree of diplomacy and sales technique in his method. If people are hungry enough, they are rarely critical. After our desire for food had been satisfied, attractive cards were passed around for us to sign. It seemed most ungracious to refuse to sign after eating a free meal. Under social pressure we signed our names on the dotted line.

Our hostess proudly exhibited a bright new *Magic Goodicook* pan as her complimentary gift for having her house turned topsy-turvy, and turned into a salesroom.

That night I dreamed of chasing elusive vitamins all over the place. Their appearance was that of very lively fleas, and they always managed to disappear into the void just as I caught up with them.

The morning found me with a normal mind once more. The daze and smoke of the previous evening had cleared

away. I read some farm home extension department literature and verified my impression that vitamins are found in butter, fat, cream, fresh vegetables, eggs, milk, and fruits—foods that are served regularly every day in my home—and that few who eat anything like a normal or customary diet are in the least practical danger of vitamin starvation. As I cook vegetables and meats with very little water and serve them with all the juices, the minerals have no way of escaping.

With this realization, I knew that my family had not been robbed of the necessary food elements. That agent was all wet. I began to prepare a rather wordy bombardment for the fellow when he called. It must have been effective for he left hurriedly muttering as his parting shot something about "those who are too dumb to learn." Some salesmen just don't like to deal with consumers who know the fallacies in their sales talks.

### Arsenic in Foods

Arsenic was formerly a frequent source of trouble in foods. A great many foods or food ingredients have at some stage of their manufacture been in contact with sulphuric acid, much of which was at one time prepared from arsenical pyrites. Many cases of arsenical contamination could be traced back to this source. Now that the chamber process for sulphuric acid has been largely displaced by the contact process there is less likelihood of arsenic contamination from this source. Foods which have been dried in contact with coke fumes may contain arsenic derived from pyrites present in the original coal. Arsenical insecticides used in agriculture are also responsible for occasional trouble, as in the instance of apples. One extraordinary case occurred several years ago when arsenic was found in certain brands of cocoa. Potassium carbonate had been added to the cocoa to improve its solubility. This particular lot of potassium carbonate had been made by calcining the residues left after cleaning wool, and the wool came from sheep which had been washed with an arsenical insecticide.

*Food and the Consumer,*

by Dr. G. W. Monier-Williams, British Ministry of Health.



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## *Electric Ironers*

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THESE is much room for debate whether the purchase of an electric ironing machine is desirable for the average household. The considerable expenditure required for the purchase of such an appliance may be justified if the saving of energy (which may be considerable) in ironing and a small saving of time (10 to 20 per cent) are considered to be worth the extra expense. Whether there will be a saving of time depends largely upon the character of the average laundry work in the household. If there is a large amount of flatwork to be ironed and if the operator of the machine is one who will develop considerable skill with experience, a good deal of time can be saved. When there are few sheets, pillowcases, table cloths, bedspreads, dresser scarves, towels, and the like, the electric ironing machine will have difficulty in justifying itself either economically or on the score of convenience. The advantage to be gained may not be great enough to warrant the expense in a family of fewer than four or five, assuming that the entire ironing is done at home by the housewife.

There are two types of household ironing machines, the rotary ironer (usually open only at one end and having a motor-driven roll pressing against a hot shoe which usually is above the roller), and the flat presser (consisting of a broad, flat, or nearly flat shoe, which is pressed down upon a stationary, padded surface). The first is a heated mangle, the second a small modification adapted for the home, of the common tailor's pressing machine. Each type has its advantages and offsetting disadvantages. The mangle has been shown to save more of the energy of the operator than does the presser (unless, perhaps, the squeez-

ing action of the latter is operated by a motor—and most pressers are not).

In a test made by Consumers' Research, the operator was fatigued nearly as much by using the flat hand-operated presser on a typical weekly washing, as by using a high-grade automatic flatiron to do the same work. It should be remembered that in recent years the electric hand iron has been considerably improved in effectiveness and in speed at which it can do ironing. The mangle type of ironer worked faster than either the flatiron or the presser, although the different machines tested were not equally rapid. But with none of the machines tested would the amount of time saved per week for the housewife be great—say, an hour or two a week at the most in a family of four or five, and that saving will depend largely upon the number of large, flat pieces which have to be ironed. Indeed, one of the presser-type ironers was found actually to be somewhat slower than the modern flatiron. The time saved by using the fastest mangle was twenty-one minutes, or about one-eighth, or twelve per cent, of the time required to do the ironing by means of the flatiron (a little under three hours). To sum this all up briefly, it may be said that in comparison with an up-to-date efficient electric flatiron the roll-type ironers save work and fatigue but only a little time in doing a typical *small-family* laundry, while the flat-press ironers save very little work and do not save time at all.

The comparative disadvantages of the flat-presser type are offset to some extent by the somewhat better quality of its work. It produced fewer wrinkles, and straighter edges, due to the fact that with the mangles the operator could not always guide the material into the roll straight and even. Some "touching up" with a hand iron will likely be required with either type of machine, especially on articles of clothing. The presser is obviously somewhat safer to use than the mangle because there is no power-driven roll which might pull the operator's hand against the hot shoe.

Shoes having their temperatures automatically controlled (there should be a separate thermostat at each end) are very desirable, but only the *Meadows* presser type machine of those tested by Consumers' Research had this feature. The shoe of this machine maintained a uniform temperature, which could be adjusted for light, heavy, dry, or damp pieces. The temperature of the other machines had to be controlled by the operator's turning on and off a switch from time to time. If the temperature is not automatically controlled, there should at least be a plain, easily observed temperature indicator to guide the operator.

The mangles had knee controls which, in general, were convenient and easy to operate. The control of the *Thor*, could either be used as a knee control or be removed from the machine and used as a foot control. There should be adequate clearance between the roll and the shoe of the mangle—approximately one-half inch or slightly more. The clearance for the *Thor* and *Kennmore* was, however, more than twice this and while this made it easier to adjust the pieces about to be ironed without burning the fingers of the operator, the greater clearance presented more hazard of the fingers being caught between the roll and the shoe. There should be clearance of approximately two inches between the end of shoe and gear housing and between the end of roll and gear housing so that a wide, heavy cloth which extends beyond the end of the roll will not be jammed and wrinkled in ironing. The *Thor* had the best clearance; Montgomery Ward's, the poorest. Foot-operated brakes for the casters (only on the *Easy* of the roll-type machines tested) to keep the machine from rolling on the floor while it is in use are more convenient than hand-operated brakes.

All of the machines tested were found to pass the customary standard tests for safety of electrical insulation. The prospective purchaser of such a machine should be warned against using any ironer on a concrete laundry or cellar floor, or where the operator would come in contact with a

water faucet, a radiator, or pipes or plumbing fittings of any kind while the ironer is connected to the power line. The advice, "Use only in dry location," which was on the nameplate of the *Kenmore* machine should be heeded by the operator of any ironer of any make. If it is absolutely necessary to use the ironer in a basement or other damp location, the machine should be securely *grounded in a permanent, workmanlike manner by an electrician*. A dry wooden floor is a good electrical insulator, and therefore, if the machine must be used in the basement it is a wise precaution against accidental electrical shock to install a wooden floor, large enough to accommodate the machine and the operator. The floor should be laid on cross pieces to prevent its absorbing moisture from below, and the nails (or screws) should be put into the boards in such a fashion that no part of them projects beyond or comes up to the level of the boards, so that there will be no danger of making contact through the shoe of the operator or through a metal stool or chair with any nail or nail head. An engineering-minded person might go further and actually introduce an insulating layer of some kind in the structure of the platform, as by setting it in glass cups at its four corners. (Such a platform should be in addition to the permanent grounding of the frame of the machine, already referred to.)

The operating cost for electricity of the six ironing machines tested averaged one-quarter more than the operating cost of the *Sunbeam Ironmaster* automatic flatiron used for doing the same work—a difference which, expressed in money terms, will be smaller than most people would consider important as a basis of choice between the two methods of ironing.

Prices for the six machines ranged from \$29.95 to \$59.95. As is so often the case with electrical appliances, there was no reliable relationship found between price and quality; as with other goods, one does *not* get what one

pays for, contrary to the universal tenets and solemn assurances of advertisers and salesmen everywhere. Furthermore, quality of performance was not in any way related to the magnitude, splendor, or vividness of verbiage in the manufacturer's advertising. All of the machines were tested for rapidity and uniformity of heating and for electrical characteristics, and were given practical performance tests and limited endurance tests.

Of six ironers tested, we recommend the five which follow.

#### QUALIFIED RECOMMENDATION

Montgomery Ward & Co., Cat. No. 285—166. \$29.95 plus freight. *Mangle type*. 110 volts, a-c only. 30-day home trial allowed. Clearance between roll and shoe judged small enough to afford some protection against accidentally getting fingers caught between roll and shoe. Clearance between end of shoe and gear housing and between end of roll and gear housing seemed unduly limited. Judged to iron particularly heavy, damp pieces not quite so smoothly as the other roll type machines tested. Model in 1938 Spring & Summer catalogue most nearly resembling model tested is 285—900 at \$31.95 plus freight.

*Kenmore*, Cat. No. 22 EM 3202 (Distrib. Sears, Roebuck & Co.) \$37.50 plus freight. *Mangle type*. 120 volts, a-c only. The only machine tested which had a signal light—for showing when heater is turned on—a very important feature. Shoe could not be tipped back to permit steaming of fabrics. Not listed in the 1938 Spring & Summer catalogue, but may be available in retail stores. Machine most nearly corresponding to one tested is No. 22 FM 3220 at \$39.95 plus freight.

*Easy*, Model 30 (Easy Washing Machine Corp., Syracuse, N.Y.) \$59.95. *Mangle type*. 115 volts, a-c only. Clearance between roll and shoe judged small enough to afford some protection against accidentally getting fingers caught between the roll and shoe. Had convenient foot-

operated brakes on casters. Only machine tested which was equipped with a cover cloth for protection from dust. *Meadows*, Model D-1 (The Meadows Corp., Bloomington, Ill.) \$59.50. *Presser type*. 110-120 volts, a-c or d-c (only the a-c was used in the test). Temperature was thermostatically controlled, a very desirable feature that should have been present in all models; but lacked signal light, an equally essential feature.

*Thor*, Model 61-S (Hurley Machine Co., Div. of Electric Household Utilities Corp., Chicago) \$49.95. *Mangle type*. 110-120 volts, a-c only. Control mechanism somewhat difficult to operate as a knee control; easy as a foot control. Had best clearance between end of shoe and gear housing and end of roll and gear housing of the machines tested, a convenience. This model has been discontinued. The 1938 model most nearly corresponding to the one tested is 610 at \$69.95.

### For Better Advertising

Aid your nearest Better Business Bureau in fighting frauds in advertising. These bureaus are usually connected with the chambers of commerce. They are supported by honest manufacturers and merchants. Other businessmen try desperately to suppress these bureaus. Their efforts can be offset by active support from consumers. These bureaus charge no fees to consumers who make inquiries, although if you belong to a Buyers Club it would be only fair for your club to make a small contribution to the Better Business Bureau. You should also take time to write publishers of magazines and newspapers, either complimenting them for refusing certain advertisements or criticizing them for accepting them. It would surprise you to know how effective a few letters from consumers may be.

*Consumer Protection, How It Can Be Secured,*  
by Roger W. Babson and C. N. Stone,  
Harper & Bros., New York.

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## Razor Blades

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**R**AZOR BLADE advertising should be read with a very definite "you-show-me" complex. In fact, it would seem that the really *good* blades are notable in being among many fine products that do not advertise extensively. Perhaps in an industry where prices are rather closely competitive, the cost of advertising tends to be made up by shortcuts in, and methods of speeding up, production processes—for the razor blade is certainly an item where the production engineer can do almost anything he pleases with quality by being slow and careful, or fast and slipshod.

The thin blades, which stepped into the limelight last year, have apparently had a useful effect in improving the standards of at least a part of the razor blade industry, and some of the brands which have, in the past, shown only promise of being passably good have stepped up into the decent shave class.

But don't assume from this that all thin blades are superior. Although the majority of the thin blades tested gave more or less comfortable shaves in the shaving test, some were far better than others both as to initial sharpness and endurance.

A possible disadvantage was suggested by one user who felt that the thin blades did not lend themselves so well to sharpening as blades of ordinary thickness. Some have even been so unkind as to hint that the drive for thinner blades, as also for the long slot in the thicker blades which preceded the trend to thin blades, was but an ingenious device of the manufacturers to discourage resharpening of blades by making the action of the stropping machine or

other device far less efficient than it would be with the thicker and stiffer old-style blade. Consumers' Research tested *Thin-Flex* and *Windsor Super-Thin* blades rather thoroughly on this point in the laboratory, and results showed that both sharpened very well on an *Allegro* (Allegro Co., 170 Thomas St., Newark, N. J., \$5) and on a *Handy Andy Velvet* sharpener (Velvet Stropper Co., 995 Market St., San Francisco, \$1). The best thin blades performed so well in the laboratory tests, and also gave so many good shaves without sharpening, that they should certainly prove a welcome improvement not only for those who do not customarily use sharpeners, but for all who use safety razors.

It must be remembered that a good blade is only half the battle in obtaining a clean, painless shave; correct preparation of the beard is also essential. Even the best blades may be unsatisfactory, and will certainly have a short life if used on tough beard that has not been properly softened by following the correct technique of lathering, for dry hair dulls cutting edges with greater speed than do such metals as *lead, aluminum, or annealed copper*. In the article on "Shaving Soaps and Hints for Shaving" in the May, 1938, *Consumers' Digest*, there is sound advice on preparation for shaving, as well as on what soap or cream to use. These simple but adequate directions should be carefully followed before attempting to form any opinion as to the quality of the blade used for the actual shaving. Comparison of shaving results without first making sure that the preparation of the face for the shave is identical in the two cases will have little meaning; in any attempt, therefore, to evaluate blades by actual shaving tests, the routine of preparation of the face for the shave should be carefully standardized.

The recommendations from the latest Consumers' Research test of razor blades follow. These blades were purchased from several large retailers, and several blades of each brand were tested from each of at least two sources



(except in cases where the blades were obtainable only through a single distributor), thus giving some indication of the degree of uniformity and control exercised by the manufacturer.

#### RECOMMENDED

##### Gillette-Type Blades

*Dublekeen* (General Blade Corp., 3-5-7 W. 22 St., N.Y.C.)

3 cents. Found to be the most dependably good blade of the regular, or standard, thickness.

*Thin-Flex* (General Blade Corp.) 3 1/3 cents (100 blades for \$3 postpaid). By a wide margin the best blade tested both as to initial sharpness and endurance.

*Windsor Super-Thin* (Windsor Mfg. Co., Inc., Orange, N.J.; sold by Rogers Peet & Co., N.Y.C. and Boston) 5 cents. A first-class blade with not quite the initial sharpness of *Thin-Flex*.

##### Blades Other Than Gillette Type

*Gem Micromatic* Double Edge (Gem Division, American Safety Razor Co., Brooklyn) 8 to 10 cents.

*Sextoblade* (Edw. Weck & Co., 206 Broadway, N.Y.C.) 10 cents. Single-edge blade for *Weck* razor.

*Valet Auto-Strop* (Autostrop Division Gillette Safety Razor Co., Boston) 5 cents.

#### QUALIFIED RECOMMENDATION

The following blades were found good in the test just completed, but it was deemed wise not to give them full recommendation, perhaps because they had not been tested previously by Consumers' Research and, therefore, no clue was available as to the probable concern of the manufacturer for close manufacturing control and uniformity of product; or for other good reasons based on experience.

##### Gillette-Type Blades

*Marlin* (The Marlin Fire Arms Co., New Haven, Conn.)

1¼ cents. The blades tested showed improvement in quality over those of last year, but past experience would seem to indicate that the manufacturer has not been in a position to maintain fully satisfactory quality control.

*Barbasol* (The Barbasol Co., Indianapolis) 3 cents. Showed both high initial sharpness and excellent durability in recent tests.

*Wards Super Thin*, Cat. No. 45—3523 (Distrib. Montgomery Ward & Co.) About 4 cents. May be the same blade as *Windsor Super-Thin* listed under *Recommended*.

*Wexteel* (Edw. Weck & Co.) About 4 cents. Most of these blades tested were very good but occasionally a poor one was found. Very satisfactory on both laboratory and shaving tests.

### Be a Bargain Hunter

Learn to be real shoppers. This means that if you are a judge of quality you can seek small stores, with low rent, with which you can bargain. Often the best goods are not found on ground-floor stores with attractive show windows—certainly the lowest priced goods are not. Watch the small "For Sale" advertisements in the newspapers. If, by chance, you wish to buy a bedroom set or davenport or other furniture, it might be well to put a small advertisement "Furniture Wanted" in a daily paper. Great bargains can often be secured in this way. The easiest way you can earn money is by taking pains to hunt for bargains when making purchases.

*Consumer Protection, How It Can Be Secured,*  
by Roger W. Babson and C. N. Stone,  
Harper & Bros., New York.

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# *Insulation for the House*

By

E. W. CHENEY and F. J. SCHLINK

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**B**EFORE you attempt to determine what heat insulating material to use in a building, first of all decide whether you really need any insulation in your house. The answer to this question may depend upon whether you are building a new house or trying to save fuel and improve heating conditions in an old one.

Here are some of the advantages that will be accomplished by insulation:

1. Fuel bills will be reduced.
2. There will usually be some increase in the comfort of the occupants.
3. There will be less transmission of sound through the walls.
4. Labor of taking care of the furnace will be reduced.
5. Some types of insulation will provide an added safeguard against fire.

## Heat Loss

Since the reduction in fuel bills is one of the most important considerations, we may first examine the facts to see how great a saving this may be.

Consider, for example, a "typical" house, one requiring, say, twelve tons of coal to heat it during the season. From a study made by C. C. Segeler on two hundred houses, it was found that, for our "typical" house, in round figures, a little over one-quarter of the useful heat obtained from the fuel will probably be lost by conduction through the walls, one-quarter lost through the glass in the windows,

one-quarter used in heating the air changes (the air which leaks into and out of the house), one-sixth will go through the ceiling and roof, and one-fifteenth through the doors, floor, and divers other avenues of heat-escape. These figures are, of course, approximate. They depend upon the design of the house, upon how good the construction is, how extensive is its exposure to wind, and upon the climate.

Let us put the findings into concrete terms. The man who burns twelve tons of coal a season burns:

Three tons and over to make up for the loss through the walls;

Three tons to make up for the loss through the window glass;

Three tons of coal to heat the air which leaks into and out of the house;

And nearly two tons to make good the leakage through the ceiling.

The loss of heat through the window glass of the average dwelling is thus seen to be practically the same as that through the remaining wall areas, and the amount lost through the roof is nearly two-thirds of either of these.

#### Fuel Savings from Storm Windows

Now it has been found possible greatly to reduce the loss of heat through windows by using double sash or storm windows. Tests which were made at the University of Illinois on a single room having two exposed walls, a double window, and one door opening to the outside, showed that a tight-fitting storm window reduced by one-tenth the fuel consumption required to heat the room. A tight-fitting storm door—tight enough to cut out the air infiltration—reduced the fuel consumption by twice as much or one-fifth. Thus the storm door and window together accomplished a fuel saving of about one-third. When storm windows with felt weather stripping fastened along all four contact edges and storm doors were similarly installed in

a test residence (not a single room), it was found that a saving of 20 per cent in seasonal fuel consumption was accomplished. (Incidentally, the experimentally determined results for this test house showed actually about 6 per cent less saving in fuel than a computation, based upon the thermal conductivities of the walls, indicated would be the case. Compared with a fuel saving of 20 per cent provided by storm doors and windows, it is estimated that weather stripping alone of the windows and doors would have saved only 5 or 6 per cent.) We thus see that if properly fitted storm windows and doors are installed, instead of our "typical" residence requiring twelve tons of coal, something between nine and ten tons will suffice.

Tight-fitting storm windows and doors serve not only to reduce the loss of heat by conduction, but they also reduce the infiltration of air and make it unnecessary to use weather stripping on the regular sash unless condensation of moisture on the inside of the storm sash is deemed objectionable. If the sash is already weather-stripped and infiltration of air thus reduced, the felt weather stripping of the storm sash will not be needed. Many people fail to obtain full benefit from storm windows and doors by failing to have them fit as snugly as they should; but properly installed, they are worth-while equipment for regions having winters as cold as those in Illinois or Pennsylvania. A good and inexpensive way to eliminate infiltration through windows is to clamp the windows against hair-felt weather stripping as was done in the test described. The doors should also be properly weather-stripped.

#### Fuel Savings from Insulation

Filling the wall space of an ordinary frame dwelling with fill-type insulation may save 20 per cent, and insulating the second-floor ceiling with  $3\frac{5}{8}$  inches of fill-type insulation will probably save 14 per cent. These figures of fuel savings accomplished by insulation are computed values

but they are in good agreement with actual tests which have been made on five small houses. The tests showed an average probable saving in the season's fuel bill of around 30 per cent accomplished by insulating both walls and ceiling with a thickness of  $3\frac{1}{2}$  inches of fill-type insulation. In general terms, these figures show that storm windows and doors will reduce fuel consumption about as much as will a thick layer of insulation in the walls, and that a thick layer of insulation in the top-story ceiling will accomplish something more than half as much as insulating the walls.

The implication of these figures is plain. Since, in general, installation of storm windows and doors costs less than adding insulation to the exterior walls of a house already built and the fuel saving is practically the same, installation of storm windows and doors is the more practical measure—unless one objects to the additional work of installing and removing them each season and keeping them in repair. Adding insulation to the top-floor ceiling, if the attic is unfinished, so that the cost of applying the insulation will be low, is also practical. If the attic is finished, however, the cost of insulating it will probably amount to as much as one-half or more of the cost of insulating the walls. Whether or not the walls and the finished attic can be economically insulated will depend upon whether or not the savings of two or three tons of fuel (out of twelve) a season, and the other advantages of comfort, even temperature, etc., are considered worth the cost, and upon an additional matter which will now be discussed.

#### Possible Damage from Insulation

Insulating a house greatly increases the amount of condensation that may collect within walls. Some houses, in which fill-type insulation (see types on page 41) has been installed in the air spaces of the outside wall, have become damp and the side walls, studs, and sheathing have rotted. This is caused by the fact that water vapor, always present inside the house, filters through the insulation to the outside.

Low temperatures within the wall cause the condensation of the moisture in places where it can dry out only very, very slowly.

It is believed that condensation of moisture will not usually be troublesome in houses, provided the relative humidity is not artificially raised as is often done in warm-air heating and air-conditioning systems. Very few people indeed are aware of the great danger of damage to the house which exists in the practice of artificially raising the humidity level indoors. To prevent condensation of moisture in the walls and ceiling of the average insulated house, the relative humidity must not be allowed to exceed 30 per cent when the outside temperature is 15 degrees Fahrenheit or below, nor to exceed 20 per cent when the outside temperature is below zero. This recommendation is based upon tests now under way at the Forest Products Laboratory combined with practical observations in homes, and may require some modification as the results of further tests become available.

It should be noted also that condensation will occur in the walls under certain conditions of relative humidity and temperature, irrespective of the presence of the insulation. The question is not whether condensation will occur in walls, but to what extent it will occur and how rapidly it will disappear again when the relative humidity and temperature have changed. It is not the moisture alone which harms the structure, but the length of time during which moisture remains when weather and humidity conditions have changed. The rate of fungous growth and rotting may be very greatly increased by seemingly small changes in moisture conditions. The problem of moisture retention is made far more serious when the walls are insulated and when there is a good deal of very cold weather, because there is then a greater temperature gradient within the walls tending to increase the percentage of the moisture which is deposited from the air.

Some kinds of mineral wool are naturally resistant or have been made artificially resistant to wetting by water. They are not, however, resistant to passage of water vapor, and, contrary to what manufacturers may claim, cannot be relied upon as a protection to the structure in which they are used against the dangers of condensation. Since the moisture which condenses in the exterior walls comes from the rooms in the house, the way to prevent condensation in the walls is to keep the air from becoming too humid and to make the room-side of the walls relatively impermeable to the passage of air and moisture.

In building a new house, the moistureproofing may be accomplished in a number of ways by installing a vapor barrier. The most suitable barriers found so far (in the Forest Products Laboratory's investigation) are:

"(1) asphalt-impregnated and surface-coated sheathing paper, glossy surfaced, weighing 35 to 50 pounds per roll of 500 square feet;

"(2) laminated sheathing paper made of two or more sheets of kraft paper cemented together with asphalt;

"(3) double-faced reflective insulation mounted on paper."

None of the vapor-resistant paper backs supplied with mineral wool insulating batts or with the blanket types of insulation, while definitely useful, has been found to be as effective in resisting passage of vapor as the 50-pound asphalt sheathing paper just mentioned.

Where a moisture barrier is required for a building already constructed, two coats of aluminum paint (applied to the wall covering of plaster, plywood, etc.) have been found to offer excellent resistance and permit almost any subsequent method of decoration desired. Ordinary paints have been found not so effective and may not give adequate protection.



### Types of Insulation

There are four common types of insulating material: fill-in (loose-fill), rigid, semi-rigid, flexible.

Fill-type insulations are loose materials, inorganic or organic, such as diatomite, vermiculite, eel grass, sawdust, and the various sorts of "rock wool," so called.

Rigid insulations are pressed boards or wallboard manufactured from sugar cane, shavings, wood pulp, etc. They serve not only as insulating material, but also as structural material. They supply more strength and rigidity than wood sheathing that is applied horizontally but less than wood sheathing that is applied diagonally.

Semi-rigid insulation is made for the most part from flax straw.

Flexible insulation may be of the blanket or batt type made of mineral wool, eel grass, wood fiber, etc., or of the reflecting type made of metallic foil or of paper painted with a reflecting paint.

One of the best of all heat insulators is air. All insulations except the reflecting type depend principally for their effectiveness upon the entrapping of tiny pockets of air. The lighter and fluffier the material and the smaller its density, the greater is the volume of air entrapped and the more effective it is as an insulator. Even the bright metallic foil reflecting insulations, which depend for their effectiveness mostly upon their ability to reflect radiant heat, must be installed in an air space in order to utilize the reflective power of the bright surfaces and to take advantage of the insulating value of the layer of air on each side of the foil. The insulating value of a plain layer of air  $\frac{3}{4}$ -inch thick, which costs nothing except for the materials needed to bound it, is approximately one-third to one-half that of the same thickness of a commercial insulating board. Narrower air spaces are less effective and spaces greater than  $\frac{3}{4}$  inch are no more effective because of increased convection currents in the larger spaces. If

rigid or semi-rigid insulation is used in the house, it should, in order to be most efficient, be installed in such a way that there is at least a  $\frac{3}{4}$ -inch air space on each side closed at bottom and top, and with a number of intervening horizontal stops;  $\frac{1}{2}$  inch of insulating board when installed in this way is approximately as effective as 1 inch of board installed in such a way as to be in contact on both sides with other building material.

Consumers are prone to give far too much weight to the supposed differences in insulating power of the different brands of wallboard of the same general type, when installed. These differences, it will appear from what immediately precedes, are mainly of negligible importance, since it is use of the air space which mainly differentiates the insulating value of the construction. Boards of the same general appearance and density may be assumed to be similarly effective as air-confiners and insulators in house construction.

### The Danger of Arsenic Poisoning

One well-known brand of commercial insulation, which features its resistance to destruction by termites, is treated in manufacture with an arsenic compound.

Years ago when arsenical colors were used more often than now in printing wall papers, there were mysterious cases of poisoning of persons not exposed in any known way to a poisoning hazard. After many years of investigation, and many cases of illness and death, it was discovered that molds feeding upon the paper transformed the arsenic in the paper into arsine, which is an extremely dangerous gas, and liberated it into the room where it caused a serious and deadly slow poisoning of every one living in the room, particularly students or aged or sick persons who might be confined to their rooms more than a normal part of the day. Arsine in considerable concentrations may cause quick death. It can cause a slow, lingering death or a

serious deterioration of health if present in any concentration at all—quite possibly in concentrations below those which can be measured by the skill of the most expert chemist.

Laws were enacted in some countries forbidding the use of arsenic in manufacturing wallpaper. In the long years which have elapsed since this phenomenon was investigated and reported by chemists, and in the approximately forty years which have elapsed since Massachusetts passed a law prohibiting the sale of paper or fabric containing arsenic above a stated limit, the danger has been largely forgotten, and the hazard has appeared now in a new form in manufactured building materials. (It is a curious fact that poison hazards have, at times, been discovered after scores or perhaps hundreds of people were injured or killed, only to be forgotten for a generation or two, after which they have reappeared in some new and perhaps even more menacing form.)

It would be a reasonable safeguard of the workman handling the material, and of the future occupants of the home, if every piece of building material chemically treated with arsenic, or similar highly toxic material, should be plainly labeled "Deadly poison—handle with care!"

The consumer will be well-advised to look with suspicion on any wallboard claiming to be treated so as to be resistant to insect infestation. In no connection with the home is it safe to utilize wood or other materials chemically treated to prevent rotting or decay, unless every ingredient of the chemical treatment is known and understood. (It is well to remember that nearly all of the cheap and commercially available substances which are poisonous to animals and to insects are poisonous to human beings as well.) Wallboard containing arsenic is particularly a menace and especially to be avoided in any location subject to high humidity, such as laundries, bathrooms, and kitchens. This warning becomes particularly important because there is a

growing tendency to introduce arsenical and similarly toxic substances into the treatment of a number of materials used in the construction of buildings, including even lumber meant for damp locations.

### Hints for the Technically Minded

Insulating effect depends upon the amount of material used as well as upon the thermal efficiency, so that poor insulating power may be compensated for by using a layer of sufficient thickness. Effectiveness of insulation material is commonly specified by giving its conductivity in British Thermal Units per square foot of area per inch of thickness for a difference of one Fahrenheit degree in temperature between the two surfaces. The lower the conductivity of a material, the more effective is an inch layer of it in keeping out the cold. Federal Specifications for flexible insulating blankets specify a maximum of 0.28 for the conductivity; for insulating boards the maximum conductivity allowed is 0.36; and for fill-type insulation the maximum conductivity is 0.30 for light-weight materials, and 0.50 for medium-weight materials. The conductivities of most insulations are known, but these alone are not sufficient for selecting the insulation for a particular job. The conductivity per square foot of material installed per dollar of cost is of greater importance, and this depends upon local prices. This should be as small as possible and should be carefully ascertained by the individual for his own particular case. Present test data indicate that the insulation afforded by the reflecting-foil-type is somewhat less than that afforded by the fill-type as ordinarily installed.

A competent manufacturer of insulating material who has a product which can stand technical examination in competition with those of his competitors, will not hesitate to give fully, and freely, the relative performance of his product, not merely alone in a sheet by itself (which is of less importance) but in the correct constructional relation-

ship to the material used in building the wall, roof, or floor. That information is of the utmost value, is easily subject to technical verification, and is the least that one can do with in any case where the building insulation problem is to be taken seriously, and any considerable sum of money is to be spent on it.

With new construction, the problem of installing insulation presents no difficulties. With old houses, on the other hand, some materials are much more easily made use of than are others. The cheapest and simplest way of insulating the top of a house where there is an unfinished attic is generally to sprinkle fill-type insulation between the joists of the attic floor. The loose-fill insulation which should be used between the joists in the attic should be from 1 to 4 inches thick. A filling of  $3\frac{5}{8}$  inches is common and gives excellent results but does not yield as high a rate of return on the investment as a thickness say of  $1\frac{5}{8}$  inches. The greater thickness of loose-fill would reduce the conductivity of the ceiling from 0.69 to 0.07 or an improvement of 90 per cent, whereas the smaller thickness, which costs much less, would reduce the conductivity only to 0.15, which is, however, an improvement of 78 per cent. Where expense must be limited, therefore, the smaller thickness may be used and a very large part of the practicable benefit of the insulation obtained.

The National Development Bureau of Canada warns: "In unventilated attic spaces having a height of less than 5 feet from an insulated ceiling to the roof, there is a possibility of condensation forming which is liable to soak through the insulation and stain the ceiling. This may be obviated by installing screened ventilators in the gable ends." The amount of ventilation required to prevent condensation is ordinarily not great.

In a house already constructed, where loose-fill insulation cannot be installed by simple pouring, as it cannot be in walls, then one has to resort to a company which can

blow the fill-type insulation into closed places by means of an engine blower, or choose one of the other types of insulation. When insulation cannot be practicably applied to the interior of walls, there are possibilities in the way of applying it to the exterior or interior surfaces. There are cases in which this may be the preferred method because through it a fresh surface is afforded, making for improved appearance.

### A Few References for Further Study

While the data or recommendations in these pamphlets may in some instances be incompatible with the results of the most recent investigations summarized in this article they contain much valuable practical information and advice and are recommended for thorough reading by anyone interested in the subject of house insulation. Prices given of government bulletins may have been changed.

● *The Insulation of New and Old Houses*, by G. D. Mallory, National Development Bureau, Ottawa, Canada. A limited number of copies are still available at 15 cents a copy from the Dominion Fuel Board, Ottawa, Canada.

● *Thermal Insulation of Buildings—Circular No. 376*, National Bureau of Standards. 5 cents from Superintendent of Documents, Washington, D. C.

● *House Insulation, Its Economies and Application*, National Committee on Wood Utilization. 10 cents from Superintendent of Documents, Washington, D. C.

● *Thermal Conductivity of Building Materials—Bulletin No. 12*, by F. B. Rowley and A. B. Algren. Engineering Experiment Station, The University of Minnesota Press, Minneapolis. \$1.50 cloth, \$1 paper bound.

● *Thermal Insulation—Letter Circular 227*, National Bureau of Standards, Washington, D. C. Free.

● *Condensation in Walls and Attics*, by L. V. Teesdale. Forest Products Laboratory, Madison, Wis. Free.

● *Arsenic in Papers and Fabrics—Bulletin No. 86*, by J. K. Haywood with collaboration of H. J. Warner. Issued by the Bureau of Chemistry, United States Department of Agriculture, 1904. (Out of print, but no doubt available through larger city libraries.)

● Report of the Insulation Committee, American Society of Refrigerating Engineers, Annual Meeting 1922, revised to 1924. This includes results of a determination of the conductivities of building materials which was notable in giving brand names.

● "Arsine Hazard—Arsenic Not a Termite Barrier," by Prof. Charles A. Kofoid, in *The Architect and Engineer*, October 1934, Vol. 119, pp. 47-50.

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## *Is There a "Perfect Size 36?"*

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HAVE you ever admired an attractive dress in a shop window on a hot summer day and wondered wistfully if you could take a chance on buying it in size 18 without trying it on in a hot fitting room? If you did, there was at least a 50 per cent chance that it ran large—or small—and you were put to the trouble of taking it back or trying to alter it. According to a study made last year for the trade, some 20 per cent of 5,371 garments returned were due to unsatisfactory fit.

Since a good fit is of primary importance to every woman who wants to look well-dressed—and who doesn't?—you would think that manufacturers of ready-made garments would do something about sizes. According to a government study, no manufacturer since the ready-to-wear industry began has really made a consistent effort to find out what the average measurements ought to be, and what the variations in women's measurements really are. The report states also that the methods still used in the dress industry in this scientific age cause loss to the manufacturer from returns, terrific loss to the retailer from markdowns needed to clear the stock and from returns, and loss to the consumer through wasteful expenditure of money, time, and energy. The article continues:

"To be sure, ascertaining norms and measurements for the female figure is no simple problem. In the first place, it must be done on a large scale and in terms of averages; in the second place those averages are changing. Statistics in measurements of college women show an increase of five inches in circumference of the waist between 1896 and 1905—partly due to styles no doubt, and partly to the more athletic life. Today one retailer advises a general increase

of one to one and one-half inches in hip measurements of women's dresses, on account of the sedentary life in automobiles. Yet women on the whole are slenderer than they used to be.

"But in spite of all the difficulties presented by large number, changing customs and physiques, the approach toward obtaining data on measurements might be fairly scientific. In the end it would be simpler and would give more satisfactory results than those methods which produced the Bauman Forms.

"The Bauman Forms, largely used as standards, were originally made from measurements of a few women chosen at random. Then as changes appeared necessary they were haphazardly patched up here and there. Such are the methods used in an age that boasts of scientific progress. Even the measurements of the Civil War Army uniforms were determined more scientifically than these.

"It would be to every one's advantage to change the mysteries of the ready-to-wear industry to a science. The manufacturer knows this, but has gone about attempting changes in a tentative way. He may be afraid perhaps, if he cooperates with others, of having to divulge some of his secrets, and of course he cannot bear the expense of any wide investigation alone. So he continues on his blind voyage of trial and error.

"He still guesses and idealizes about the woman's figure—the willowy model of the fashion plate—with the result that clothes are made chiefly for women under twenty years. Ninety per cent between the ages of fifteen and nineteen can step into ready-made dresses easily enough, while only 50 per cent between the ages of twenty and forty-four, and 33 per cent over forty-five can wear them without alterations.

"Obviously the manufacturer, in establishing his seven sizes, has taken into account only the average typical figures without considering the variations of the atypical ones.



He must consider the demands of different types, of the Scandinavian woman of the midwest, the factory worker of the east, the suburban woman and the business woman. Their physiques, occupations and incomes made different demands.

"Confusion is added to confusion when, in addition to this unscientific basis for measurements, there is no standard nomenclature of sizes. It is particularly disadvantageous to the retailer and consumer that manufacturers do not conform to one standard set of measurements for 'size 36' and another for 'size 34.' Each has his own specifications and system of nomenclature.<sup>1</sup>

"But even within the boundaries of proper designation there is no perfect size 36. In a style show of fifty silk dresses nominally the same size, this is quite evident. Some run small and some run large. A 36 dress may vary in bust from thirty-six to forty-five inches, the back from thirteen and one-half to fifteen inches, the armhole from sixteen to nineteen inches, the neck from thirteen and one-half inches to fifteen and one-half, the waist from twenty-nine to thirty-one, the hip from thirty-seven to forty-two inches, and in larger sizes the variations are even greater. Of course these varieties of size are in demand and should not be eliminated, but they should be differentiated by names and specifications.

"Some differentiation is shown by half sizes, quarter sizes and such terms as 'short,' 'regular,' 'short stout,' 'long stout,' 'stylish stout,' 'stubby stout,' 'junior,' and so on. But these are vague terms, and though 'stylish stout' means bigger bust, longer waist and hips small in proportion to the bust, the exact proportions are unspecified.

"The manufacturer is not entirely to blame, however, for the confusion in the naming of sizes. The retailer, too,

<sup>1</sup> Moreover a dishonest manufacturer may for convenience in an emergency order, mislabel sizes; or he may undersell his rival by deliberately undersizing, by giving three different sizes to the same dress, and by cutting badly and too closely at the seams. These are the commonest tricks practiced on cheap dresses. With expensive dresses, however, there is little or no improper designation of size.

has something to do with it. Sometimes he misnames sizes out of flattery or courtesy to his customer. He does not tell her she wears a 'stubby stout.' Certainly that is a most unsympathetic title. And he does not always tell her she wears a half size—being a little larger on the hips. One buyer for a department store, in fact, purchased only half sizes and named them all straight sizes. Of course the customer is in this conspiracy, too, because she would rather not admit the half size and accepts the salesman's flattery with alacrity.

"Less honest and courteous retailers have other practices which add to the confusion of sizes. If the shop is out of a particular size the saleswoman does not always admit it, and to give the impression of being obliging calls a thirty-four a thirty-six. Or she may count on the psychological effect of telling her customer a certain dress is her size, thereby leading her to believe alterations will be less than they actually are. But this policy will in the end defeat itself since the goodwill of the customer will be lost."

At the present time, the Bureau of Home Economics is setting out to get exact body measurements of a large number of children to provide a basis for working out standards for sizes in children's garments. Perhaps in time, they will undertake to secure similar information on women's sizes.

In the meantime, don't just sit back and feel bad when you buy a badly sized dress that doesn't fit. Return it promptly, preferably with a letter to the merchandise manager stating clearly just where the proportions are wrong. Remember that a letter is much more effective than a complaint in person because it's much less likely to be sidetracked or "smothered" by a junior executive or salesperson anxious merely to have the matter out of the way with the least time and trouble possible. If you have too much trouble in getting a properly fitted dress, investigate the dressmaking possibilities in your community. Perhaps

you could have your dresses made at home at very little extra cost and with better results. Get your local women's club to study the problem of sizes and how they can most effectively make manufacturers understand that they want size 18 or size 36 to stand for certain definite measurements and proportions. Let's come to some agreement on what constitutes a perfect size 36 in ready-to-wear dresses and other garments, and then get the manufacturers to make their garments accordingly.



**Points to  
Look for  
When Buying a Dress**

"Style and fabric suited to your needs.

A label that tells what kind of fibers make up the material.

Definite information about shrinkage, weighting, or sizing, and color fastness to sunlight and washing.

Fabrics made of durable yarns, with firm, balanced weave.

Staple fabrics rather than novelties, for economy.

All pieces cut the right way of the goods.

Full cut with plenty of room.

Neat, appropriate, and serviceable workmanship.

Allowances for alterations, particularly in growing girls' dresses."

*Quality Guides in Buying Ready-Made Dresses.* Leaflet Number 105.  
United States Department of Agriculture.

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# *Phenolphthalein Laxatives*

By

GEORGE W. FIERO, PH.D.

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DISCOVERED by accident in 1902, the use of phenolphthalein as a laxative has been seized by the patent medicine manufacturers and ballyhooed so much that its medicinal sale now totals more than three billion average doses yearly. The phenomenal popularity of this drug is not in any way due to its superior medicinal value or usefulness, or to its lack of harmful effects, but simply to its ease of administration. It is practically tasteless, and because only a very small dose is required, it can be and has been readily included as a hardly noticed ingredient in such common vehicles as chewing gum, bread, cookies, yeast, and as a dye in dentifrices.

The Food and Drug Administration has found that many laxatives bearing trade names descriptive of fruit and of other laxatives, such as cascara and Epsom salts, actually contained phenolphthalein and owed their therapeutic action chiefly to it. Yet the consumer was led, directly or indirectly, to believe that he was taking a harmless preparation of such material as apples or figs.

One example will suffice to illustrate the methods of certain patent medicine manufacturers. In the journal *Advertising Age*, several years ago, there appeared a discussion of an advertising campaign to be launched to sell a new laxative. "The derivation of the laxative from apples is emphasized in the copy and also in the form in which it is presented. The large red pill is very nearly the shape of an apple. To further stress the fact that it is *basically obtained from one of the most healthful of fruits*, pictures of apples

appear in the copy and on the cellophane covered package." (Italics mine.) In order to give a scientific background, the term "malic acid" is discussed throughout the initial advertisements intimating that the preparation's activity is due to the content of this natural acid of apples. "It is pointed out that 'malic' is the 'greatest remedy yet discovered for mankind's greatest curse, constipation,' and that 'its germicidal action is so powerful that even typhoid bacilli in the bowels are destroyed by a "malic" solution of one-half of one per cent, which is much less than is contained in one portion . . . And the reason is that they [other remedies] place their reliance on drugs that attack the evils of constipation and aggravate the cause. All laxatives stress the importance of a natural movement, but the only way to ensure a natural movement is by a natural method.' "

One month later, in one of the "test cities" mentioned in the advertising journal, the Food and Drug Administration seized the preparation, which was found upon analysis to contain *phenolphthalein*. This coal-tar drug was the "natural method" stressed in the advertising as being superior to other laxatives! The use of a common fruit believed by the layman to be healthful—as indicated by the slogan "an apple a day keeps the doctor away"—was thus used as a decoy. The advertising stressed "malic acid" content, but it is apparent that the laxative effect was due to phenolphthalein.

Is phenolphthalein harmless? The answer is emphatically NO! Seizures by the Food and Drug Administration are often based upon the fact that a nostrum contained "phenolphthalein, a drug which might be harmful," or "phenolphthalein, which might have rendered it [bread containing the drug] injurious to health." Is it a poison? The answer depends upon the interpretation of the word "poison." In a news release<sup>1</sup> reporting a warning against the use of phenolphthalein in candy laxatives by the phy-

<sup>1</sup> Numerals throughout refer to the references at the end of the article.

sician, Doctor F. J. Cullen, at that time Chief of Drug Control of the Food and Drug Administration, it was stated that phenolphthalein is "a drug known to injure the tissues of the liver." The Bureau of Investigation of the American Medical Association<sup>2</sup> said: "The warning has come none too soon. Physicians have for some time past awakened to the fact that phenolphthalein is by no means harmless and that its indiscriminate use carries with it a real danger." The New Hampshire Board of Health states<sup>3</sup> that ". . . we now know that phenolphthalein is by no means an altogether safe drug for indiscriminate or prolonged use and that the latter in the case of many individuals can have serious consequences."

Phenolphthalein laxatives offer two sources of danger. First, certain people have an idiosyncrasy to the drug. In such persons, extremely small amounts of the drug can do harm, and the minute quantity present as a pink coloring in cake icing or tooth paste has caused oral symptoms. When taken in larger quantities as a laxative, the effects may vary from slight skin eruption to large lesions, about twice the size of a silver dollar and deeply colored to the point of being coal black, which may persist for six months or a year after stopping the use of phenolphthalein. As little as five grains has caused collapse and required hospitalization of a man.<sup>4</sup> In another case of a person who was susceptible to the drug, as little as one-half grain (half the average dose) caused a recurrence of previous symptoms. Cases are on record<sup>4</sup> where one grain caused collapse of a patient who had had a phenolphthalein eruption two and a half years previously. One dermatologist stated that at least three times a week patients seek his services because of a phenolphthalein skin disease consequent to the use of some proprietary phenolphthalein medicament.

The other danger of phenolphthalein laxatives is best expressed in the language of the American Medical Association:<sup>2</sup> "There may be no serious objection to a physi-



cian's prescribing for a child phenolphthalein in candy form, because the very conditions that surround the issuance and use of a prescription are such as to make it highly improbable that the dosage recommended will be exceeded. It is an entirely different thing, however, to put up an active drug in the enticing form of candy or chewing gum, sell it indiscriminately to the public for self-medication, and advertise it in newspapers and over the radio by the ballyhoo methods common to 'patent medicine' exploiters." The article also went on to say that the public feels that such preparations are harmless, and in holding this view it is relying on an impression that the "State" would not permit indiscriminate sale to the public of drugs which are really dangerous. No doubt under the new Food, Drug, and Cosmetic Act passed by Congress in its last session a declaration of the presence of this drug will be required on the label. Many manufacturers of agar and oil mixtures have slipped in a dose of phenolphthalein to make the preparation more active and so give the patient and doctor assurance of the efficiency of the prescription. In doing so, they have often deluded the doctor himself, who believed he was prescribing a non-irritant, non-cathartic mixture.

Because of the form of its administration, there is definite possibility of an overdose of phenolphthalein, particularly to children. It is obvious that a large overdose of any laxative—even those considered harmless—would be harmful. In this case, however, where the drug is known to cause deleterious effects in some people, the dangers are much greater. Cases are on record of poisonous symptoms and even death from an overdose of "candy laxative" containing phenolphthalein.<sup>5</sup>

What is phenolphthalein? It is a "coal tar" drug manufactured, as the name indicates, from phenol (carbolic acid) and the chemical—phthalic anhydride. It appears to exist in two forms. The white powder, a pure compound recognized by the medical profession,<sup>6</sup> and a yellow form which

is more potent (because of impurities that are present and of which, therefore, a smaller dose is required). Both forms appear to cause the characteristic reactions. Although the chemical is manufactured from carbolic acid, it appears that the toxic action is not due to this poison, as it is not liberated in the system.

In conclusion, everyone who takes laxatives should be warned that phenolphthalein is a dangerous drug, particularly to those having an idiosyncrasy towards it. Its use as a laxative (and its use in that way certainly is not to be recommended) calls for the same care that one employs in using other drugs known to be dangerous. It should not be used in a daily or frequent attempt to deal with constipation, and the appearance of any degree of skin irritation or mouth ulcers calls for stopping its use immediately.

#### References

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4. *Archives of Dermatology and Syphilology*, June, 1935, pp. 777-795.
5. *Journal of the American Medical Association*, August 20, 1932, p. 65.
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# *Fads, Fashions, and Fallacies in Medicine*

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IT is a familiar and recognized tendency of the human mind, especially the American mind, to seize upon any new thing and make a fad or fashion of it, merely because it is new, irrespective of whether, upon sober consideration, it promises to prove rational or fallacious. This characteristic may be observed not only in politics and in the sartorial arts, but in hygiene, in medicine, and in the other sciences as well. In the field of medicine it is exhibited chiefly by the laity, yet not by them exclusively. Sometimes, some doctors, in spite of their professional training, are not immune from the disposition to make a fad of some item of technique or treatment, or some bit of laboratory suggestion.

Examples of fashion in medicine may be found in the fields of dietetics, of obstetrics, of pediatrics, and of surgery. One of the prevalent dogmata in the feeding of children is that every child must drink a quart of milk and eight ounces of orange juice daily in order that his teeth may grow hard and strong. Whatever the laboratory evidence on which this theory is based, it is probably true that heredity plays a larger part than diet in the characteristics of the teeth, as of the other tissues of the body. In a family of children all fed alike, where one parent has good teeth and the other poor, the qualities of the children's teeth will follow Mendel's law, irrespective of diet. Now milk is not a natural beverage of the human being, or of any other mammal, after the period of infancy. It may be that the human

An editorial reprinted by permission from the *New England Journal of Medicine*,  
September 13, 1934.

race has become, in a sense, parasitic on the cow; but this parasitism, due to inability or unwillingness of the human female to fulfill her function, need not extend beyond the first year of life. Some children, after drinking the milk and orange juice which are their required quota for breakfast, have little appetite or room left for the bacon, bread, cereal, egg, and fruit which should be the chief staples of their meal.

When vitamins were first discovered and their relation to deficiency diseases noted, the idea was promptly seized by the laity and commercially exploited by the trade for profit. In the popular mind the importance of vitamins has been grossly exaggerated, and their use carried to excess. Because an adequate amount of the various vitamins is essential to good health is no reason why every human being should be consistently overdosed with them from birth. A little whiskey may be good for one occasionally, but it is not a desirable or exclusive essential of every meal. Other fruits contain vitamins besides oranges.

The same commercial phenomenon may be observed in the matter of cereals. It is questionable whether any cereal, except possibly rice, is superior or equal as a food to oatmeal—one of two things which have made the Scots a hardy race. The multitude of breakfast foods which most people eat in lieu of oatmeal are for the most part inferior and expensive substitutes foisted upon the gullible public by advertising methods which create a fashion or fad in their favor.

In obstetrics and in surgery a variety of fashions within the past forty years have had their little day and ceased to be. Scopolamine-morphine anesthesia, the fad of a generation ago, is now in the way of being discredited, after costing the lives of a good many babies. The barbiturates are the fashion of today, and may be no more permanent. Even the use of ether has been overdone in obstetrics. Universal episiotomy or universal version are no more likely

to prove desirable than universal tonsillectomy or universal circumcision. Thirty years ago nephropexy was the fashionable operation upon women. Few things in this world are momentous enough to be universal except death and taxes.

In all these phenomena we see merely manifestations of the common mental process of unconsidered generalization, the tendency, from which even some physicians are not exempt, to seize upon any new drug or operation or technique or theory, and apply it to all sorts of conditions to which it may not be adapted. Thus arise the fads, fashions, and fallacies of medicine. It is the old dogma of the panacea, the tendency to believe that any new thing which may be good or true under certain circumstances can be universally applied with benefit. Of course new ideas must be tested, but with a wholesome skepticism, a resolution to hold fast only that which proves to be correct, and its corollary to abandon that which has been serviceable only when it is clearly demonstrated that something else is better. By such an attitude the doctor may avoid the temptation to be "blown about by every wind of fashionable doctrine," bearing in mind rather Pope's admirable and Polonius-like maxim:

"Be not the first by whom the new is tried  
Nor yet the last to lay the old aside."



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# *Quacks in Psychology*

By

GILBERT BRIGHOUSE, PH. D.

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**M**ADAME HOPE, psychologist, is an expert in affairs of the heart: let her guide you" . . . "Send for our free booklet on 'How to Improve Your Memory in Thirty Days'" . . . "Swami Hindustani, Seer, Clairvoyant, Psychologist."

Of all the fruitful fields to which the charlatan may turn for profit, none can offer so enticing a harvest as pseudo psychology. Even the name "psychologist" has a magical sound. The prospect is further brightened for the quack because the law offers no hindrance to his enterprises so long as he offers no medical advice. Since there is as yet no restriction on the term "psychologist," anyone, regardless of training or ethics, can hang out his shingle and practice. This is not only unfair to the honest members of the profession; it is economically wasteful and potentially dangerous to the thousands who form the clientele of the fakers.

What are the varieties of psychological fraud? By what criteria may the uninitiated seeking psychological service choose a reliable practitioner? There are two principal ways in which the quack may take your money. He may offer to read your character—and even your future; or he may undertake to remodel your personality by improving your memory, increasing your will-power, and making you into a master of men.

## The Character Readers

The character analysts are the pikers of the profession. Many of them will do a "reading" for as little as fifty

cents and few charge over five dollars. But overhead is low, business is usually brisk, and a glib talker will take in from fifty to seventy-five dollars a day. Furthermore, the business knows no depressions because a panic sends in more worried customers.

Your character may be read from the stars, from your handwriting, the number of letters in your name, the lines on your hand, the shape of your face, or the bumps on your head. It doesn't matter which, for there is not a shred of truth in any of them. As an example take phrenology, which has been rejuvenated since the Duke of Kent visited a London practitioner sometime ago. The phrenologist claims to read your character from the geography of your head, bumps and depressions pointing to the presence or absence of the traits supposed to be localized there. But let us examine the logic of phrenology.

If we take one hundred men who are known to have a large amount of some trait, there is no single locality where each has a bump. Nor can the various traits be located in exact spots on the brain. Although the whole matter of brain localization is extremely complicated, the best evidence indicates that the brain acts as a whole, so that most of the gray matter is involved even in the simplest mental processes. Furthermore there is no evidence that the use or development of a function enlarges the corresponding part of the brain. Neither does the shape of the brain conform to the shape of the skull, for between them are three protective linings and a fluid. Finally, if the various mental qualities were located in exact spots whose size increased with the development of the function, how could the soft, spongy mass of the brain push out bumps in the skull, which is one of the hardest bones in the body? Phrenology simply does not conform to the facts.

The faulty logic of the other quack character analysts can be destroyed with equal readiness; yet these fakers live well at the expense of a gullible public.

Although these pseudo psychologies have no rational basis, the character analyst does at times tell the truth. He may be a keen judge of character; however, his judgments are based not on phrenology, palmistry, and so forth as he claims, but on your behavior—how you walk, talk, wear your clothes—all of which are revealing to the practiced observer. He draws inferences from your reactions to his tentative suggestions. He will “explore” your interests, touching on business, love, travel. When you show interest in one of these “feelers” by leaning forward eagerly with a glint in your eye, he knows that he is on the right track. Much of the material he will give you will be mere generalization—“You have a keen love for the truth,” or “Your husband does not understand you”—statements which apply to any number of people. Since we all like to hear nice things about ourselves, the wealthiest characterologist is the one who best succeeds in subtly inflating the ego of his client.

### The Personality Experts

These wonder-workers are not such small fry as the character analysts; they are more subtle and more expensive. Will-power development may cost you fifty dollars, for which you receive some fairly good advice—which is obtainable more reasonably in the better books on personal and mental hygiene and applied psychology.

To improve your memory will cost from ten to two hundred dollars or as much more as the market will stand. The instruction usually consists of an elaborate set of associations. For example, one system advises that the names of people be associated with common objects beginning with the same letter—“Brown” with “box,” “Thompson” with “table” and so on. To recall a man’s name you simply think of the object. Another system associates names with numbers. Yet another is based on the number “12”; to recall the date of Columbus’ discovery of America, you take the number 12 once and add  $\frac{1}{6}$  of 12, or 2, making 14;



then take  $3/4$  of 12, or 9, and  $1/6$  of 12, or 2, and there is your date. How simple!

These complex associational systems require more time and energy to learn than their use can save; but there is another difficulty. At least ninety-five per cent of those who complain of poor memory are not suffering from memory deficiency, but from inadequate perception. The few cases of genuine memory loss need the services of a competent neurologist, not a correspondence school; the rest of us do not remember because we do not perceive. We need to form the habit of seeing accurately and listening attentively; this we can learn only by doing.

The personality specialist thrives on inferiority complexes. Those who are tormented by feelings of incompetency and inadequacy are easy marks for the quack's beautiful word pictures of the radiant personality he can produce in six easy lessons. By power of suggestion he may spellbind his clients into a temporary feeling of omnipotence, like the jack-rabbit who was hypnotized into attacking the hound. But inferiority complexes have their origin in childhood, and to eradicate them requires expert guidance and the ability to reeducate oneself into new forms of self-expression. True poise is the result of practicing poise, not reading about it. Of the many things which cannot be taught but can be acquired through self-discipline, the best examples are will-power, memory, and personality.

### The Functions of the Psychologist

Is there any need for the services of well-trained, competent, conservative, and academically well-qualified psychologists? The answer is clearly "yes." The real psychologists are much less well-known to people in general than the pseudopsychologists and fakers, and their work is done less in the public eye and with less journalistic ballyhoo. The chief functions of the professionally qualified are: clinical work, consultation, industrial and business psy-

chology. In the psychological clinic all kinds of behavior cases are treated. Typical problems include habit disorders, speech and reading difficulties, the training of the mentally defective, and so forth. The consulting psychologist may be called on for help in educational problems, in the discovery and guidance of bright and retarded children, in vocational education. To aid high school and college students in their choice of an occupation, he may use psychological tests, the better ones of which have now been refined to the point that they give satisfactory measurements of intelligence, aptitudes, attitudes, interests, and certain other personality traits. Their use in vocational guidance helps to prevent some cases of square pegs in round holes. The industrial and business psychologist deals with problems of industrial efficiency, morale, personnel selection, marketing and advertising surveys. By the use of techniques developed in the psychological laboratory, he can promote efficiency in a variety of industrial problems.

#### How to Choose a Reliable Psychologist

The psychologist has a function to perform, but those who wish his services may not know where to find a reliable practitioner, i. e., a person who does psychological work not as a commercial business but as a profession. Since the profession is unprotected by legal restraints, the client should be even more careful in his selection than he would be in choosing a physician, lawyer, or architect. Around these professions the law has thrown certain safeguards requiring adequate training, passing of certain examinations, professional experience, and the like.

The first criterion of the practicing psychologist should be membership in one of the professional societies, the American Psychological Association, the Association of Consulting Psychologists, and the American Association of Applied and Professional Psychology. While membership is no guarantee of competency to render psychological serv-

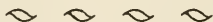
ice, and while there may be some qualified individuals who are not within the fold, nevertheless one will generally be safer in choosing from their memberships. Each of these requires certain standards for membership. A second criterion should be the training of the individual. In general he should hold either the Doctor of Philosophy or the Doctor of Medicine degree—and from a reputable university. For the layman, an excellent criterion for the selection of a consulting or industrial psychologist is the recommendation of the Psychological Corporation, 522 Fifth Avenue, New York City, which is a non-profit association organized to further the progress of applied psychology.

When selecting a clinical psychologist it may be well to secure the recommendations of the National Committee for Mental Hygiene, 50 West 50 Street, New York City. There are certain other signs of honesty in the clinical psychologist. If he is genuine, he will make no promises of definite cure. Nor will he charge a flat fee for a cure, but will charge by the visit. He will cooperate with the medical profession, and if the case involves the slightest suspicion of bodily disorder he will demand a thorough medical examination before he undertakes any psychological treatment. His method will be straightforward. The most successful clinical techniques thus far developed are "probing" to get at the early causes of the difficulty; "abreaction," or healing emotional hurts by living them through again and again, thus learning to look at them objectively; and "positive conditioning," or the development of healthy attitudes by associating the sources of past failure with new pleasant success. One should ask the clinician what method he plans to use; if he is honest he will take you into his confidence.

One branch of clinical psychology requires special mention. This is psychoanalysis, which is a method of searching into the past life of the patient to bring repressed emo-

tions and conflicts into consciousness. The technique is useful in some cases, but clinicians are by no means agreed that everyone should have the subconscious aired out; perhaps for most of us it is better not to recall all our painful memories. Psychoanalysis is an expensive process, ordinarily requiring an hour daily over a period of years, at an hourly rate of anywhere from five to fifty dollars.

When analysis is attempted it should be under highly skilled direction. If, after careful thought, you decide to take such a course of treatment, choose your analyst with extreme care, preferably securing the advice of the National Committee for Mental Hygiene or of the departments of psychology and medicine in your nearest university.



### The Author:

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# *When You Buy*

A Book Review

By

F. R. ALLEMAN

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INCREASING interest in consumer education in our public schools has been marked this year by the publication of a number of texts offered for use in the secondary field. Many of these new texts will be used in schools' commercial departments, where the emphasis is still on salesmanship rather than on "buymanship." *When You Buy* is a welcome exception, since it is written from the consumer viewpoint and is intended for use "in separate courses organized for the study of consumer buying." At a time when many producer texts are being hastily revised and relabeled, and then offered as consumer texts, this Pittsburgh group deserves special mention for writing to help the young consumer become a more discriminating buyer.

*When You Buy* is one of the first texts written for use in separate consumer courses, although the form of the book will readily permit its use elsewhere in connection with study units on consumer buying. B. J. Rivett, writing in the August, 1937, *Nation's Schools*, mentions that only 18 secondary schools out of 158 which replied to his inquiry had separate courses in consumer education, although five out of six had consumer study units in home economics and other courses. It would seem, therefore, that the immediate appeal of this new text will not be largely to teachers of separate consumer courses, but rather

*When You Buy*, Trilling, Eberhart, and Nicholas (J. B. Lippincott Company. \$1.80).

to teachers of home economics, economics, and related social studies.

The authors have split the book into two sections, the first part treating of consumer problems, and the second labeled "To the Rescue," offering ways of meeting these problems. After asking the reader to appraise his own skill or limitations as a buyer, the opening chapters of the book move on to a consideration of expenditures which will yield the greatest satisfactions, followed by discussion of the competition for the consumer's dollar through sales artifices, advertising—good and bad, and the myriad devices and lures which make the buyer of average training a good deal less than a free agent. When Chapter Four is reached, the question is asked, "Do You Get Your Money's Worth?" and at this point the text is devoted more largely to specific problems and commodities than to the general considerations of the earlier chapters.

Miss Trilling and her associates are careful not to "name names"—even notorious ones, and as a result this section lacks the vitality and challenges which it might otherwise have for students. This whole question of policy with respect to discussions of brands, good and bad, is due for an airing. The burden should not fall on the individual teacher, but some modern Luther may have to nail his beliefs at the very door of authority before help is forthcoming from state or national associations.

The chapter on fraud is necessarily condensed, but helps round out the picture. And speaking of pictures, we must not forget Cy Hungerford's cartoons, which do much to enliven the book. The last chapter in the first section is a simple, readable lesson in economics, and is entitled, "What Do You Really Pay For?"

The second half of the book is devoted to what has elsewhere been called "First Aid,"<sup>1</sup> in which the consumer helps himself, and learns where to turn for help.

<sup>1</sup> Chase and Schlink: *Your Money's Worth*.

Meaningful labels and standardization receive a rather full treatment in Chapter Nine. Here is most definitely a field where the government itself might become (though it has not done so) a great force for good. There is, of course, no good reason why the consumer should not have more adequate information than is now given him. As with other chapters, a list of problems and projects is appended. The references here seem to be especially well chosen.

Government agencies receive more than a passing bow, and the new student will learn considerable of the agencies now at work. The great gaps and flaws in the services of well-equipped agencies, such as the Food and Drug Administration, Bureau of Home Economics, and Bureau of Standards, might well have received critical consideration. Teachers adopting this text can make this section of greater value by including reference material covering the activities of various state boards in the consumer field. For example, North Dakota has done an exceptionally fine job in analyzing consumer products, and in seeing, as all federal and most state agencies do not, that the public gets the results of their research. Connecticut and New Hampshire are among other states having departments which have been doing pioneer work in consumer protection.

Up to the point where the authors give "a long team yell" for cooperatives, they have succeeded quite well in maintaining the unprejudiced approach they mention in the preface. Subjects have been objectively treated, and an attempt made to avoid taking sides. The author trio are so completely sold on the cooperative movement that they fail almost wholly in presenting any side of the picture other than the conventional one of the cooperative booster. Any teacher desirous of showing the whole picture would certainly have to introduce additional material for pupil consideration. The text is largely concerned with consumer

cooperatives, and as an evidence of the success of the movement, points to Denmark. But the same text shows conclusively that Denmark's is fundamentally a *producer* movement. The small farms, intensively cultivated, and highly specialized as to products, lend themselves exceptionally well to owner operation, and one need not begrudge the success of these thrifty and highly literate Danish people. But in the United States the large scale of both farm and manufacturing enterprises and the tremendous increases in land prices have certainly been more potent factors in the growth of tenancy than the lack of cooperatives.

Sweden is cited as having gotten much lower electric lamp prices through the activities of cooperatives. We in America have the finest electric lamp bulbs in the world, at low prices for which the cooperatives are in no wise responsible, indicating that other factors and agencies are at work. The reviewer has no desire to seem over-critical, and by so doing to detract from the many worthwhile things in *When You Buy*, but to many it does seem that too much hope and faith is being put by some in the cooperative movement. When people formally unite to organize a cooperative, all the problems of efficient management, distribution, and sometimes manufacturing must still be solved, just as in any other business venture. In the case of cooperatives, the solution must sometimes be solved by people with a minimum of business and administrative experience. If products are obtained for less than their market value, experience has shown that they would often be of a low quality and dear at any price. For these and many other reasons, many a business operated for profit easily sells at prices below those asked by cooperatives.

But there is a more fundamental difficulty. Let us consider: "they will test the articles they buy . . . the consumer . . . would be protected against inferior goods" (p. 337). This is exactly what does not happen in practice.



J. B. Matthews was abroad at the same time as the United States cooperative investigating group, studying cooperatives independently. His article, "The Cooperatives—An Experiment in Civilization," appeared in the *Atlantic Monthly*, December, 1936. The conclusions drawn as to quality of merchandise were reached after a large variety of goods, purchased from cooperatives abroad, was tested here in the United States. Many products which were bought of European cooperatives were of such low quality, or so badly misrepresented, that they would not even be permitted to be put on sale here. Some reprints of this article are still available.<sup>1</sup> It presents a side of the picture which the authors of *When You Buy* should have known about and presented to their readers.

Some teachers will doubtless wish to supplement this text with studies on the part of incomes spent for various commodities, such as food, shelter, clothing, services, and other consumer needs, including consideration of the problems of purchasing them. The science teacher and his classes might be called on frequently for additional tests. But all of them will find in *When You Buy* a text with much to recommend it, which will give the pupil an insight into "ways of attacking consumer problems." After all, this is the expressed purpose of the book. We hope the text will give added impetus to the organization of separate courses in consumer education, and will amplify and enrich those consumer units where it may find employment.

<sup>1</sup> 5 cents from Consumers' Research, Inc., Washington, N. J.



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# Choosing Your Pictures

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THE first ratings of motion pictures appeared in the November, 1937, issue of *Consumers' Digest*. The entire list has been revised monthly by recording the opinions of additional reviewers.

The ratings of pictures given herewith are based upon an analysis of the reviews published in the following periodicals:

*Boston Transcript, Box Office, Christian Century, Christian Science Monitor, Commonweal, Cue, Film Weekly, Harrison's Reports, Hollywood Spectator, Judge, Liberty, Minneapolis Journal, The Nation, The New Republic, New York Herald Tribune, New York Sun, New York Times, New York World-Telegram, New Yorker, News Week, Philadelphia Exhibitor, Stage, Time, Variety, Variety (Hollywood), Weekly Guide to Selected Pictures*, and the bulletins of the American Legion Auxiliary, Daughters of the American Revolution, General Federation of Women's Clubs, National Council of Jewish Women, National Legion of Decency, National Society of New England Women, Women's University Club of Los Angeles.

Films are rated "AA," "A," "B," and "C," which designate them as *strongly recommended, recommended, intermediate, and not recommended* respectively. The figures preceding each picture indicate the range of critical opinion regarding that picture as determined by an analysis of the reviews published in the aforementioned periodicals. Thus, "The Good Earth" is *strongly recommended* by twenty-five of these judges, *recommended* by four, and rated *intermediate* by one.

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

*adv*—adventure  
*biog*—biography  
*com*—comedy  
*cr*—crime and capture of criminals  
*f*—foreign language  
*hist*—founded on historical incident  
*mel*—melodrama

*mus-com*—musical comedy  
*mys*—mystery  
*nov*—dramatization of a novel  
*rom*—romance  
*soc*—social-problem drama  
*trav*—travelogue  
*wes*—western

AA	A	B	C	
—	5	11	5	Accidents Will Happen ..... <i>cr A</i>
5	12	2	—	Adventures of Chico ..... <i>trav AY</i>
4	6	5	5	Adventures of Marco Polo ..... <i>adv-com A</i>
19	7	—	—	Adventures of Robin Hood ..... <i>adv AY</i>
7	12	3	1	Adventures of Tom Sawyer ..... <i>adv AY</i>
—	5	2	—	Affairs of Annabel ..... <i>com AY</i>
—	—	6	2	Affairs of Maupassant ..... <i>biog f A</i>
—	—	—	9	Air Devils ..... <i>mcl .1</i>
3	5	—	—	Alexander's Ragtime Band ..... <i>mus-com A</i>
10	8	1	1	Algiers ..... <i>mcl A</i>
10	8	—	—	All Quiet on Western Front ..... <i>nov AY</i>
3	6	4	5	Always Goodbye ..... <i>soc AY</i>
1	11	5	—	Amazing Dr. Clitterhouse ..... <i>cr A</i>
1	2	4	—	Army Girl ..... <i>mcl AY</i>
—	11	4	—	Arsene Lupin Returns ..... <i>mys AY</i>
—	—	6	—	Arson Gang Busters ..... <i>cr A</i>
20	9	—	—	Awful Truth ..... <i>com A</i>
—	11	11	3	Back in Circulation ..... <i>cr A</i>
1	8	8	4	Bad Man of Brimstone ..... <i>wes AY</i>
—	5	—	—	Ballad of Cossak Golota ..... <i>adv f A</i>
1	11	8	2	Baroness and the Butler ..... <i>com A</i>
1	10	7	2	Barrier ..... <i>adv AY</i>
—	4	7	3	Bar 20 Justice ..... <i>wes AY</i>
—	6	13	3	Battle of Broadway ..... <i>com A</i>
—	15	5	2	Beg, Borrow or Steal ..... <i>com AY</i>
—	5	10	4	Beloved Brat ..... <i>com AY</i>
1	7	11	7	Big Broadcast of 1938 ..... <i>mus-com AY</i>
—	6	1	—	Birth of a Baby ..... <i>soc AY</i>
—	6	6	3	Blind Alibi ..... <i>mys AY</i>
—	1	4	5	Blonde Cheat ..... <i>com A</i>
—	5	2	—	Blondes at Work ..... <i>mys AY</i>
5	13	8	—	Bluebeard's Eighth Wife ..... <i>com A</i>
—	—	1	3	Boo-oo ..... <i>adv AY</i>
—	13	5	1	Border Cafe ..... <i>wes AY</i>
—	7	3	1	Border G-Man ..... <i>wes AY</i>
—	—	1	4	Border Wolves ..... <i>wes AY</i>
—	2	4	9	Born Reckless ..... <i>cr A</i>
—	—	2	3	Born To Be Wild ..... <i>adv A</i>
2	1	—	—	Boy Meets Girl ..... <i>com AY</i>
1	11	6	2	Boy of the Streets ..... <i>soc AY</i>
7	13	5	1	Bringing Up Baby ..... <i>com AY</i>
11	13	3	—	Buccaneer ..... <i>adv AY</i>
—	3	9	4	Bulldog Drummond's Peril ..... <i>mys AY</i>
—	—	4	6	Call ..... <i>biog f AY</i>
—	—	4	—	Call of the Rockies ..... <i>wes AY</i>
1	2	7	2	Call of the Yukon ..... <i>adv AY</i>
—	—	2	3	Call the Mesquiteers ..... <i>wes AY</i>
26	4	—	—	Captains Courageous ..... <i>nov AY</i>
—	—	8	5	Cassidy of Bar 20 ..... <i>wes AY</i>

AA	A	B	C	
—	1	3	1	Cattle Raiders ..... <i>wes</i> <i>AYC</i>
1	16	5	—	Charlie Chan at Monte Carlo ..... <i>mys</i> <i>AY</i>
2	7	2	—	Charm of La Boheme ..... <i>mus-rom</i> <i>f</i> <i>AY</i>
—	—	2	4	City Streets ..... <i>mel</i> <i>AY</i>
—	7	6	—	Club de Femmes ..... <i>com</i> <i>f</i> <i>A</i>
—	10	11	3	Cocconut Grove ..... <i>mus-com</i> <i>AY</i>
—	—	2	2	Code of the Ranger ..... <i>wes</i> <i>AY</i>
—	2	10	13	College Swing ..... <i>mus-com</i> <i>A</i>
—	4	8	8	Condemned Women ..... <i>mel</i> <i>A</i>
16	11	3	1	Conquest ..... <i>rom</i> <i>A</i>
8	20	—	—	Count of Monte Cristo ..... <i>adv</i> <i>AY</i>
—	3	4	—	Country Bride ..... <i>rom</i> <i>f</i> <i>AY</i>
2	6	1	—	Courier of Lyons ..... <i>hist</i> <i>f</i> <i>AY</i>
1	7	8	4	Cowboy from Brooklyn ..... <i>com</i> <i>AY</i>
—	7	9	7	Crime of Dr. Hallet ..... <i>mel</i> <i>A</i>
—	2	8	2	Crime Ring ..... <i>cr</i> <i>A</i>
2	20	7	2	Crime School ..... <i>mel</i> <i>A</i>
—	2	3	—	Crime Takes a Holiday ..... <i>cr</i> <i>AY</i>
3	21	7	—	Damsel in Distress ..... <i>mus-rom</i> <i>AY</i>
—	10	8	—	Danger, Love at Work ..... <i>com</i> <i>A</i>
—	2	5	5	Danger on the Air ..... <i>mel</i> <i>AY</i>
1	1	6	4	Dangerous to Know ..... <i>cr</i> <i>A</i>
—	—	4	3	Dare-Devil Drivers ..... <i>mel</i> <i>A</i>
1	3	5	3	Dark Eyes ..... <i>rom</i> <i>f</i> <i>A</i>
—	2	7	11	Daughter of Shanghai ..... <i>mel</i> <i>A</i>
23	7	—	—	David Copperfield ..... <i>nov</i> <i>AYC</i>
—	—	2	3	Dawn Over Island ..... <i>adv</i> <i>AY</i>
14	6	—	—	Dead End ..... <i>soc</i> <i>AY</i>
9	19	1	1	Devil Is a Sissy ..... <i>youth</i> <i>AYC</i>
—	1	7	5	Devil's Party ..... <i>mel</i> <i>A</i>
—	10	4	1	Divorce of Lady X ..... <i>com</i> <i>A</i>
3	13	7	1	Doctor Rhythm ..... <i>mus-com</i> <i>AY</i>
—	—	6	11	Double Danger ..... <i>mys</i> <i>A</i>
1	9	13	7	Double Wedding ..... <i>com</i> <i>A</i>
—	2	2	2	Dybbuk ..... <i>rom</i> <i>f</i> <i>A</i>
1	18	9	1	Easy Living ..... <i>com</i> <i>AY</i>
2	16	8	3	Ebb Tide ..... <i>adv</i> <i>AY</i>
—	—	1	4	Emil ..... <i>adv</i> <i>A</i>
1	15	12	2	Emperor's Candlesticks ..... <i>mys</i> <i>AY</i>
—	19	9	2	Everybody Sing ..... <i>mus-com</i> <i>AY</i>
—	6	10	9	Every Day's a Holiday ..... <i>com</i> <i>A</i>
—	—	2	3	Extortion ..... <i>mys</i> <i>A</i>
5	11	4	—	Farewell to Arms ..... <i>nov</i> <i>A</i>
1	7	2	2	Fast Company ..... <i>mys</i> <i>AY</i>
—	—	2	6	Female Fugitive ..... <i>mel</i> <i>A</i>
1	5	5	—	Fight for Peace ..... <i>trav</i> <i>AY</i>
—	10	7	5	Fight for Your Lady ..... <i>com</i> <i>AY</i>
1	14	7	2	First Hundred Years ..... <i>com</i> <i>A</i>
4	13	6	—	First Lady ..... <i>rom</i> <i>A</i>
—	10	5	2	Fit for a King ..... <i>com</i> <i>AYC</i>

AA	A	B	C	
—	4	4	3	Flight into Nowhere .....adv A
—	1	9	15	Fools for Scandal .....com A
—	2	3	2	Forbidden Valley .....wes AY
—	11	7	2	45 Fathers .....com AYC
1	11	9	1	Four Men and a Prayer .....mel A
—	11	5	—	Gaŕety Girls .....mus-com AY
—	2	7	—	Gangs of New York .....cr A
5	9	—	—	Generals Without Buttons .....com f AY
14	13	—	—	Ghost Goes West .....mys AYC
—	—	4	11	Girl in the Street .....rom A
4	9	7	2	Girl of the Golden West .....mus-rom AY
2	11	7	2	Girl Said No .....mus-rom AY
2	4	2	3	Girl Was Young .....mys AY
—	2	7	7	Go Chase Yourself .....com A
—	7	6	8	Gold Diggers in Paris .....mus-com A
3	14	7	4	Gold Is Where You Find It .....hist AY
—	5	3	1	Gold Mine in the Sky .....wes AYC
10	9	8	1	Goldwyn Follies .....mus-com AY
25	4	1	—	Good Earth .....nov A
—	3	4	8	Goodbye Broadway .....com AY
7	18	5	1	Great Garrick .....biog AY
—	5	1	1	Great John Erickson .....hist f AY
1	3	3	2	Green Fields .....soc f AY
—	6	3	2	Gun Law .....wes AY
7	7	5	2	Happy Landing .....rom AYC
—	2	5	—	Harlem on the Prairie .....wes A
3	10	3	4	Having Wonderful Time .....com AY
—	6	9	3	Hawaii Calls .....adv AYC
—	3	7	3	Heart of Arizona .....wes AYC
9	19	1	—	Heidi .....rom AYC
—	3	2	1	Helene .....rom f A
—	—	—	4	He Loved an Actress .....mus-com A
—	1	11	8	Her Jungle Love .....adv A
—	5	3	—	Hideout in the Alps .....mys AY
4	17	7	2	History Is Made at Night .....rom AY
1	9	14	5	Hitting a New High .....mus-com AY
—	11	6	1	Hold 'Em Navy .....com AY
—	12	5	4	Hold That Kiss .....com AY
14	9	1	—	Holiday .....rom AY
5	13	8	2	Hollywood Hotel .....com AY
—	3	2	1	Hollywood Roundup .....com AY
—	1	4	—	House of Mystery .....mys AY
—	7	10	1	Hunted Men .....cr AY
9	13	2	—	Hurricane .....adv AY
—	12	5	—	I Cover the Waterfront .....rom A
—	1	6	3	Idol of the Crowds .....adv AYC
—	6	3	1	I'll Give a Million .....rom AYC
1	12	8	—	I'll Take Romance .....mus-rom AY
—	5	9	5	I Met My Love Again .....rom AY
15	12	—	—	In Old Chicago .....hist AYC

AA	A	B	C	
—	2	8	1	International Crime ..... <i>mys A</i>
—	9	3	3	International Settlement ..... <i>mys A</i>
—	4	4	4	Invisible Enemy ..... <i>mys AY</i>
—	2	5	1	Invisible Menace ..... <i>mys AY</i>
—	10	7	2	Island in the Sky ..... <i>mys A</i>
—	—	5	—	It's All in Your Mind ..... <i>soc A</i>
14	7	—	—	It's Love I'm After ..... <i>com AY</i>
6	10	7	3	Jezebel ..... <i>mel A</i>
—	7	11	6	Josette ..... <i>rom-com A</i>
1	17	9	1	Joy of Living ..... <i>rom AY</i>
—	14	8	—	Judge Hardy's Children ..... <i>com AY</i>
—	4	8	4	Jury's Secret ..... <i>soc A</i>
—	—	2	3	Karl Frederick Reigns ..... <i>rom f A</i>
—	3	5	1	Kathleen ..... <i>rom A</i>
—	6	4	1	Keep Smiling ..... <i>rom AYC</i>
2	9	4	3	Kentucky Moonshine ..... <i>com AY</i>
—	2	12	7	Kid Comes Back ..... <i>com AY</i>
3	6	8	5	Kidnapped ..... <i>adv AY</i>
—	—	5	6	King of the Newsboys ..... <i>rom A</i>
—	—	4	—	Knight of the Plains ..... <i>wes AYC</i>
—	—	7	1	Ladies in Distress ..... <i>cr A</i>
—	8	5	1	Lady in the Morgue ..... <i>mys AY</i>
1	10	6	—	Lady Tubbs ..... <i>com AYC</i>
2	11	2	5	Lancer Spy ..... <i>adv AY</i>
—	9	11	4	Last Gangster ..... <i>cr AY</i>
—	3	4	3	Last Stand ..... <i>wes A</i>
—	1	9	10	Law of the Underworld ..... <i>cr A</i>
3	4	1	—	Lenin in October ..... <i>hist f AY</i>
—	1	1	2	Let's Make a Night of It ..... <i>mus-com A</i>
—	1	7	4	Lie of Nina Petrovna ..... <i>rom f A</i>
3	4	3	—	Life and Loves of Beethoven .... <i>biog f A</i>
1	7	8	3	Life Begins in College ..... <i>mus-com A</i>
6	4	5	—	Life Dances On ..... <i>rom f A</i>
16	4	—	—	Life of Emile Zola ..... <i>biog AYC</i>
—	11	4	—	Little Miss Broadway ..... <i>com AYC</i>
4	13	5	—	Little Miss Marker ..... <i>com AY</i>
—	1	5	4	Little Miss Roughneck ..... <i>com AY</i>
—	1	9	4	Little Miss Thoroughbred ..... <i>com AY</i>
—	3	2	3	Little Tough Guy ..... <i>cr AYC</i>
18	4	1	1	Little Women ..... <i>nov AYC</i>
—	10	9	3	Live, Love, and Learn ..... <i>com AY</i>
—	—	3	11	Living on Love ..... <i>com A</i>
19	10	1	—	Lloyds of London ..... <i>hist f AY</i>
—	5	4	—	Lonely White Sail ..... <i>hist f AY</i>
—	1	3	3	Lone Wolf in Paris ..... <i>mys AY</i>
—	1	3	1	Look Out for Love ..... <i>rom A</i>
4	9	4	1	Lord Jeff ..... <i>cr AYC</i>
23	5	1	1	Lost Horizon ..... <i>nov AYC</i>
—	14	9	3	Love and Hisses ..... <i>com A</i>
3	6	—	—	Love Finds Andy Hardy ..... <i>com AYC</i>

AA	A	B	C	
—	3	14	8	Love, Honor, and Behave .....com AY
—	5	3	—	Love on a Budget .....com AYC
—	—	1	14	Love on Toast .....com A
16	10	—	—	Mad About Music .....mus-rom AYC
1	2	2	1	Madam Bovary .....soc f A
—	9	14	2	Madam X .....mel A
—	—	1	5	Maid's Night Out .....com AYC
—	—	3	3	Main Event .....cr A
—	1	4	5	Making the Headlines .....mys AY
—	—	—	5	Man Hunters of Caribbean .....adv A
—	6	11	—	Man-Proof .....rom A
—	5	6	2	Manhattan Merry-Go-Round .....mus-com A
—	10	10	1	Mannequin .....rom AY
3	—	—	—	Marie Antoinette .....hist AYC
6	9	1	—	Mayerling .....rom f A
15	12	1	—	Maytime .....mus-rom AYC
—	4	1	1	Meet Miss Mozart .....com f A
—	2	2	12	Men Are Such Fools .....rom A
—	2	2	2	Meridian .....mys AY
1	4	2	1	Merlusse .....youth f AY
—	16	5	—	Merrily We Live .....com AYC
—	13	8	6	Merry-Go-Round of '38 .....mus-com A
—	5	5	3	Midnight Intruder .....mys A
23	2	—	—	Mr. Deeds Goes to Town .....com AYC
—	5	7	4	Mr. Moto's Gamble .....mys A
—	—	2	4	Mr. Moto Takes a Chance .....mys AY
—	5	—	—	Monastery .....trav AY
3	7	3	1	Moonlight Sonata .....mus-rom AY
5	6	12	9	Music for Madam .....mus-rom AY
30	—	—	—	Mutiny on the Bounty .....adv AY
—	5	6	5	My Bill .....soc AY
—	—	5	3	My Old Kentucky Home .....rom A
—	9	1	1	Mysterious Mr. Moto .....mys AY
—	—	4	3	Mystery House .....mel A
24	6	—	—	Naughty Marietta .....mus-rom AYC
4	24	5	—	Navy Blue and Gold .....rom AY
—	10	5	3	Night Club Scandal .....mys A
—	1	4	5	Night Spot .....mel A
—	4	17	2	Non-Stop New York .....mel A
—	2	5	6	No Time to Marry .....com A
8	18	2	—	Nothing Sacred .....com AY
—	—	4	3	Numbered Woman .....mel A
—	4	12	—	Nurse from Brooklyn .....mel A
8	17	4	—	Of Human Hearts .....hist A
19	2	—	—	100 Men and a Girl .....mus-rom AY
—	2	7	7	One Wild Night .....mys A
—	6	2	—	Orphan Boy of Vienna .....mel f AYC
—	2	3	—	Outlaws of Sonora .....wes AYC
—	—	5	—	Outlaws of the Prairie .....wes AYC

AA	A	B	C	
—	1	3	1	Outside of Paradise ..... <i>mus-com A</i>
1	5	1	—	Overland Express ..... <i>wes AYC</i>
—	3	5	6	Over the Wall ..... <i>mel AY</i>
—	—	5	1	Painted Trail ..... <i>wes AYC</i>
—	12	7	—	Paradise for Three ..... <i>com AY</i>
—	2	3	4	Passport Husband ..... <i>com A</i>
1	7	5	—	Pearls of the Crown ..... <i>hist f AY</i>
1	6	4	1	Penitentiary ..... <i>soc A</i>
—	6	8	—	Penrod & Twin Brother ..... <i>cr AY</i>
—	6	3	—	Penrod's Double Trouble ..... <i>com AY</i>
2	16	3	—	Perfect Specimen ..... <i>com AYC</i>
3	6	2	1	Peter the First ..... <i>nov f AY</i>
—	1	1	2	Phantom Ranger ..... <i>wes AYC</i>
10	13	5	2	Plough and the Stars ..... <i>hist AY</i>
—	—	1	6	Port of Missing Girls ..... <i>mel A</i>
—	8	7	4	Port of Seven Seas ..... <i>rom A</i>
—	3	1	2	Pride of the West ..... <i>wes AYC</i>
11	19	—	—	Prince and the Pauper ..... <i>nov AYC</i>
—	1	4	3	Prison Break ..... <i>mel AY</i>
—	1	6	5	Prison Farm ..... <i>cr A</i>
—	2	6	3	Prison Nurse ..... <i>mel A</i>
21	9	—	—	Prisoner of Shark Island ..... <i>biog AY</i>
20	6	—	—	Prisoner of Zenda ..... <i>mel AY</i>
3	4	3	2	Professor Beware ..... <i>com AYC</i>
—	—	5	—	Purple Vigilantes ..... <i>wes AYC</i>
—	2	6	5	Quick Money ..... <i>com AY</i>
1	5	12	6	Radio City Revels ..... <i>mus-com AY</i>
4	14	3	—	Rage of Paris ..... <i>rom-com AY</i>
—	—	3	1	Rangers Roundup ..... <i>wes AY</i>
—	2	5	7	Rascals ..... <i>com A</i>
—	—	4	7	Rat ..... <i>mel A</i>
—	8	7	2	Rawhide ..... <i>wes AYC</i>
3	9	11	—	Rebecca of Sunnybrook Farm ..... <i>com AYC</i>
—	3	6	5	Reckless Living ..... <i>com AY</i>
—	—	4	4	Reformatory ..... <i>soc AY</i>
—	—	2	2	Religious Racketeers ..... <i>cr AY</i>
3	4	1	—	Return of Maxim ..... <i>soc f AY</i>
1	8	5	3	Return of Scarlet Pimpernel ..... <i>adv AY</i>
—	2	1	2	Riders of the Black Hills ..... <i>wes AYC</i>
8	8	1	—	River ..... <i>trav AY</i>
5	13	6	6	Road Back ..... <i>mel AY</i>
1	2	—	—	Robinhood ..... <i>adv Y</i>
—	1	2	1	Roll Along, Cowboy ..... <i>wes AY</i>
2	12	8	1	Romance in the Dark ..... <i>mus-rom AY</i>
—	1	6	3	Romance of the Limberlost ..... <i>rom AY</i>
—	—	5	2	Romance on the Run ..... <i>mys-rom AY</i>
—	5	1	—	Romeo and Juliet ..... <i>rom AY</i>
—	7	8	7	Rosalie ..... <i>mus-rom AYC</i>
15	14	—	—	Rosemarie ..... <i>mus-rom AY</i>
—	1	5	2	Rose of the Rio Grande ..... <i>adv AY</i>



AA	A	B	C	
—	7	10	3	Sailing Along ..... <i>mus-com AY</i>
—	11	7	1	Saint in New York ..... <i>mys A</i>
—	—	1	4	Saleslady ..... <i>rom A</i>
—	4	11	1	Sally, Irene and Mary ..... <i>mus-com AY</i>
23	7	—	—	San Francisco ..... <i>hist AY</i>
—	2	2	—	Says O'Reilly to McNab ..... <i>com AY</i>
—	1	3	10	Scandal Street ..... <i>com A</i>
—	10	11	—	Second Honeymoon ..... <i>com A</i>
—	4	6	1	She Loved a Fireman ..... <i>com AY</i>
—	3	5	2	She Married an Artist ..... <i>com AY</i>
4	5	8	1	Shopworn Angel ..... <i>rom A</i>
—	1	9	3	Sh! The Octopus ..... <i>adv A</i>
—	13	12	—	Singing Marine ..... <i>mus-com AYC</i>
—	2	9	6	Sinners in Paradise ..... <i>adv A</i>
—	5	—	—	Ski Battalion ..... <i>mel f A</i>
—	5	2	—	Ski Chase ..... <i>trav f AYC</i>
—	3	4	—	Sky Giant ..... <i>mel AY</i>
5	12	5	1	Slight Case of Murder ..... <i>com AY</i>
—	1	1	4	Slipper Episode ..... <i>com f A</i>
31	—	—	—	Snow White and Seven Dwarfs ..... <i>adv AYC</i>
—	2	1	1	South Riding ..... <i>rom AY</i>
—	—	4	2	Speed to Burn ..... <i>cr A</i>
—	—	2	2	Squadron of Honor ..... <i>mys A</i>
—	1	7	4	Stadium Murders ..... <i>mys A</i>
25	7	1	—	Stage Door ..... <i>com AY</i>
13	11	2	—	Stand-In ..... <i>com AY</i>
8	18	3	1	A Star Is Born ..... <i>rom A</i>
—	4	6	—	Start Cheering ..... <i>mus-com A</i>
—	1	8	3	State Police ..... <i>cr A</i>
12	8	2	—	Stella Dallas ..... <i>soc A</i>
1	12	9	2	Stolen Heaven ..... <i>mel A</i>
5	9	1	—	Storm in a Teacup ..... <i>com A</i>
23	7	—	—	Story of Louis Pasteur ..... <i>biog AYC</i>
2	17	6	—	Submarine D1 ..... <i>mel AY</i>
1	8	12	1	Super Sleuth ..... <i>mys AY</i>
1	—	5	9	Swiss Miss ..... <i>com AY</i>
—	—	1	3	Tarzan and Green Goddess ..... <i>adv AY</i>
—	—	2	3	Telephone Operator ..... <i>mel AY</i>
1	2	3	2	Tender Enemy ..... <i>rom f A</i>
20	9	1	—	Test Pilot ..... <i>adv AY</i>
—	5	5	3	Texas Trail ..... <i>wes AY</i>
6	11	4	—	There's Always a Woman ..... <i>mys A</i>
1	3	—	—	The Texan ..... <i>adv AYC</i>
—	7	4	—	They Were Five ..... <i>rom f A</i>
—	11	2	1	Think Fast, Mr. Moto ..... <i>mys AYC</i>
1	4	4	—	This Is China ..... <i>trav AY</i>
—	1	7	6	This Marriage Business ..... <i>com A</i>
—	16	3	3	Three Blind Mice ..... <i>rom AY</i>
11	5	7	1	Three Comrades ..... <i>nov AY</i>
—	7	2	2	Three on a Week End ..... <i>rom AY</i>
10	18	2	—	Three Smart Girls ..... <i>rom-com AYC</i>

AA	A	B	C	
—	1	2	2	Thunder in the Desert ..... <i>wes AY</i>
—	4	7	—	Tip-off Girls ..... <i>cr A</i>
8	13	2	—	To the Victor ..... <i>adv AY</i>
—	—	7	7	Torchy Blane in Panama ..... <i>mys A</i>
13	12	1	—	Tovarich ..... <i>com AY</i>
2	6	6	9	Toy Wife ..... <i>rom A</i>
16	13	—	—	Treasure Island ..... <i>adv AY</i>
—	11	3	—	Trip to Paris ..... <i>com AYC</i>
3	12	4	—	Troopship ..... <i>adv A</i>
—	5	6	6	Tropic Holiday ..... <i>mus-com AY</i>
0	15	2	1	True Confession ..... <i>com A</i>
—	2	3	2	Two Gun Justice ..... <i>wes AYC</i>
—	12	4	1	Under Western Stars ..... <i>wes AYC</i>
10	10	7	—	Victoria the Great ..... <i>biog AY</i>
8	17	1	—	Vivacious Lady ..... <i>rom AY</i>
—	1	1	3	Volga Boatman ..... <i>rom f A</i>
—	4	4	—	Wajan ..... <i>trav A</i>
—	2	8	2	Walking Down Broadway ..... <i>com A</i>
11	11	3	2	Wells Fargo .. <i>hist-wes AYC</i>
—	6	4	1	We're Going to Be Rich ..... <i>rom A</i>
—	1	4	4	When G Men Step In ..... <i>cr AY</i>
—	2	9	3	When Were You Born? ..... <i>mys A</i>
7	8	4	3	White Banners ..... <i>nov A</i>
—	—	3	6	Who Killed Gail Preston? ..... <i>mys A</i>
—	4	3	5	Wide Open Faces ..... <i>com AY</i>
—	3	5	4	Wife of General Ling ..... <i>mel AY</i>
—	2	4	—	Wild Innocence ..... <i>adv AYC</i>
—	3	5	4	Without Warning ..... <i>mys AY</i>
—	3	11	10	Wise Girl ..... <i>rom A</i>
—	5	6	4	Wives Under Suspicion ..... <i>mel A</i>
—	—	—	5	Woman Against the World ..... <i>mel A</i>
—	4	7	4	Woman Against Woman ..... <i>rom A</i>
—	—	3	9	Women Are Like That ..... <i>com A</i>
—	—	3	6	Women in Prison ..... <i>mel A</i>
5	12	5	1	Yank at Oxford ..... <i>rom AYC</i>
10	13	2	—	Yellow Jack ..... <i>hist AYC</i>
—	5	4	15	You and Me ..... <i>cr A</i>
—	2	3	0	Young Fugitives ..... <i>mel AYC</i>

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*Electric Shavers*

*Face Powders*

*Fireproofing Fabrics*

*Canned Dog Foods*

*Dreft and Drene*

*Writing Inks*

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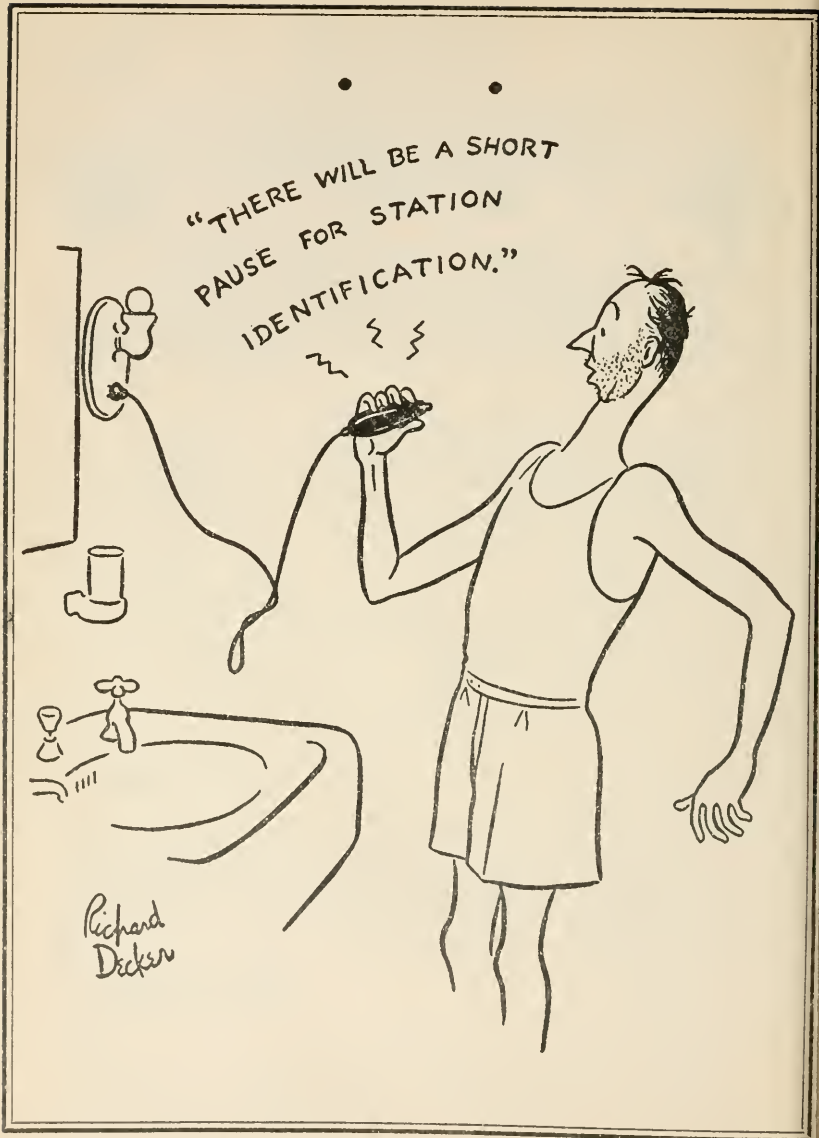
# CONSUMERS' DIGEST

*The enlightened consumer is a necessary  
encouragement to merchandising integrity*

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## *A Study of Electric Shavers*

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IT IS estimated that there are well over three million electric shavers now in use. As this number shows every sign of continuing to increase rapidly, the makers of razor blades and of shaving soaps have ample cause for concern. Since there is no likely means for regaining all of the business they have lost, some of the manufacturers are seeking to enter the field themselves in order to obtain a slice of what is apparently a very profitable business. American Safety Razor Company, for example, have announced their intention of putting an electric shaver on the market, and Gillette is said to be working along the same lines.

This feverish activity on the part of manufacturers, and the huge advertising campaign being waged in order to catch the attention of a public whose attention has been somewhat dulled by past advertising on the subject of revolutionary shaving inventions, should be viewed with proper cynicism. The wise consumer will remember that while every new shaving device has been described in terms which suggest that at last the shaving millennium has been achieved, most of the new shaving devices have serious defects or disadvantages—not one of which will ever be mentioned in any of the advertising.

Those who buy an electric razor in the high expectation of being enabled to whisk away the morning whiskers with a few easy, effortless strokes are likely to be quite disappointed during and after the first shave. They may continue to be disappointed after a few weeks of electric shaving—depending on whether the shaver of their choice

is a good one (most are not) and whether their beard and skin are suited to the results produced by this kind of shaving.

Very few users have found that they could shave as close with a shaver as with even a mediocre blade-type razor. To shave at all decently in the same number of minutes as with a blade-type razor, the user must take weeks to become quite expert with any electric shaver of whatever type or style irrespective of claims to the contrary made by some makers.

If the shaver is not a first-rate one, its unfortunate owner may never achieve quick and easy shaving with it. If it is a bad one, he may become increasingly disgusted with each successive use. Even the best electric shaver will probably give no saving of time over blade shaving; though with certain electric shavers, one can in a minute or two remove the most of a two- or three-day-old beard. For some users this may be the only advantage in electric shaving. On a beard which is only a day old, however, much time and effort are required for a close, clean job, suitable for an important engagement or a social event.

These conclusions have been corroborated by reports from a considerable number of users, the sum of which indicates that a fair percentage of electric razor users will find their new appliance's performance wholly disappointing. The knack of handling the shaver to get good results reasonably quickly must be acquired not only by practice, but by observation of the peculiarities of one's beard, a matter which may not be disposed of to one's full satisfaction even after several months' use. For some men, especially those with sparse or light-colored beards, the electric shaver may be good enough for the ordinary everyday shave, but for many others, who are perhaps more particular, it is quite certain that it will not pass muster, especially for an "evening dress" shave.

It must be admitted, however, that there are a large number of men who will find the electric shaver a boon, because their tender skin makes shaving with the blade-type razor somewhat of an ordeal. To these, the less perfect shave obtained by some power beard-mowers is perhaps more than balanced by their elimination of skin irritation. One should not be too optimistic about being freed from the bugbear of skin soreness, however, for some makes of shavers are characterized by a decided propensity for chafing the skin, leaving it red and smarting, a fault which is characteristic of many brands. This defect is not confined to the cheaper shavers.

It is well to note that some makes of shavers are less well adapted for trimming long hair than others. If you are one who is fussy about the neatness and evenness of your sideburns, you will have to take care to select the proper shaver. Only a thorough trial can enable you to choose the shaver best suited to your needs. The *Sunbeam* in particular, because of its construction which uses holes instead of slots for the entry of the hairs, was not well adapted for clipping long hairs. Some makes also have more tendency to pull long hairs than others, and are more difficult, perhaps even painful, to use when the beard is long, or for women to use in shaving the armpits or legs.

At best, there is a special hazard of electrical shock that must be considered with any electrical appliance used in the bathroom with its special problems of dampness, body unprotected by clothing, and a network of well-grounded highly conductive water and sewer piping to increase the ease with which a leakage current or a stray current can find a path to earth.

Electric shavers are also notable in the extent to which they tend to cause severe radio interference. With the exception of the *Sunbeam*, the majority of the electric razors gave considerable radio interference. In an apart-

ment house or a hotel, this may be very annoying not only to one's own family but to neighbors. It can, however, be satisfactorily eliminated in many cases by the use of electrical filters such as the *Aerovox* Radio Noise Eliminator, Type IN-31 (*Aerovox* Corp., Brooklyn, N. Y.).

Several types of cutting heads are available for some makes of shavers, with slots of different widths. If one has either a very fine or a very coarse beard, it will be well to submit a sample of the stubble to the manufacturer to ascertain whether one of the finer or coarser heads should be used.

Consumers who have become accustomed to using electric razors will quite likely find it advantageous to take with them a hand-power safety razor when traveling abroad or on steamships or trains, or to the country or camp, or in any circumstances where the current available may not be of the right voltage for the particular electric razors which they have.

There is an amusing story told of an elegant young man addicted to an electric shaver. He was invited on a yachting trip and took his shaver along only to find it unusable for lack of the proper type of current. Since there was an alluring young lady aboard, he felt called upon to keep up appearances. As the yacht cruised up the Maine coast, therefore, he was put ashore once a day to locate an obliging fisherman who would lend him an electrical connection in his cottage to supply the electric current needed for the shaving operation.

Indications are that the present prices cannot be maintained much longer, as the market, which has been chiefly among those of the higher income levels and those who are appealed to by any sort of new mechanical gadget or novelty, is fast becoming saturated. The appearance of secondhand markets where used electric razors can be bought for as little as \$3 or thereabouts is another indication that prices are due for a cut.

Two secondhand dealers in electric razors are: August Waeldin, Inc., 117 Fulton St., N.Y.C., and Electric Appliance Rental & Sales Co., 324 W. 42 St., N.Y.C., but their prices are more nearly half the price of the new razor. The first named also offers repair service, and an exchange or trade-in plan on razors submitted for appraisal. Quite likely the next few years will see many electric razors at prices of \$2, \$3, or \$4, and probably in time they will be sold in the variety chain stores along with electric hot plates, curling irons, and toasters at \$1 or less.

Shavers are rated on the basis of tests for shaving performance by members of the staff of Consumers' Research, and on a judgment of workmanship, but not on tests for endurance, on which question there has not yet been time to reach conclusions. Of eight electric razors tested, we recommend the five which follow.

#### RECOMMENDED

*Sunbeam Shavemaster*, Model R (Chicago Flexible Shaft Co., 5600 W. Roosevelt Rd., Chicago) \$15. Gave a somewhat closer shave than other shavers tested. Not well suited for clipping long hair, or for use when the beard is long; on this account (depending on the user's own requirements) might warrant a qualified recommendation. Will, it is believed, be among the most satisfactory of electric shavers, on the normal one-day's growth of beard. Motor of a generally more satisfactory type than that used in other shavers; caused considerably less radio interference than other makes tested. The only shaver tested equipped with a self-starting motor and a convenient switch. Replacement heads, \$1 complete; cutting knife only, 15 cents.

#### QUALIFIED RECOMMENDATION

*Champion*, Cat. No. 8H6335 (Champion Instrument Co., Cranford, N. J.; sold by Sears, Roebuck & Co.) \$9.89

plus postage. Shaving performance about equal to that of *Schick Shaver*, except for slight chafing, which to many users would be rated perhaps as of no consequence. Pulling when beard was long, noticeably less than in most other makes. Well suited for clipping long hair. Practically the same razor is also sold, under the name *Saybrooke*, by R. H. Macy & Co., the well-known N.Y.C. department store, at \$9.34; and by some drugstores, under the name *Utility*, at \$12.50.

*Hanley Clipshave* (Clipshave Inc., Port Chester, N. Y.) \$10. A 1936 model examined shaved fairly well (probably as well as the *Schick*) but in use the motor slowed down several times, almost to a stopping point, during the course of a shave. A "Model H" purchased in March 1938 was found to exhibit the same defect, and in one case chafed the skin notably. If 1937 offer by manufacturer of thirty-day guaranty period, for razors purchased direct, providing for refund of purchase price in full if shaver was found unsatisfactory, still applies, this make, considering its lower price, might be worth a trial for some users.

*Nicholl Velvet* (Nicholl, Inc., 766 E. 12 St., Los Angeles) \$17.50. Performance judged as practically indistinguishable from that of *Schick Shaver*.

*Schick Shaver* (Schick Dry Shaver, Inc., Stamford, Conn.) \$12.50. Shaved somewhat less closely than *Sunbeam Shavemaster*. Exceptionally free from chafing effect, but pulled rather severely when beard was long. Not as well suited for trimming long hair as *Champion*. Replacement cutter heads, \$5.



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## Fireproofing Fabrics

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HAVE you ever answered the telephone when you were in the midst of the weekly ironing and come back to discover that your iron had burned a hole through your new ironing board cover and set it on fire? If so, you will be glad to learn that there are now very simple methods of "fireproofing" your ironing board cover which can easily be applied at home.

Not only ironing board covers but curtains and draperies, cloth pot lifters, and rugs—particularly those which lie before an open fireplace—can inexpensively be rendered fire resistant (though not fully proof against catching fire).

According to a recent bulletin put out by the United States Department of Agriculture, the best treatments are the simplest.

All of them consist merely in dissolving the proper quantity of the fireproofing substance in a specified amount of water and saturating the goods with the solution. Several procedures may be employed, depending on the article to be treated.

Some articles can be treated by being dipped into the solution, squeezed through a clothes wringer or by hand, and hung up to dry just as clothes are customarily dried. It is not advisable to treat fabrics already wet, as the moisture already present prevents the absorption of enough of the fireproofing solution to insure resistance to fire.

If it is not desirable to dip the article into the fireproofing solution, it can be hung up, sprayed with the solution, and allowed to hang until dry. A common garden sprayer can be used. With this procedure, the amount of wetting can be controlled, and the necessity of squeezing out the excess solution is avoided. The sprayer can also be used in treating such materials as carpets, loose cotton, and sawdust.

The fireproofing solution can be very conveniently incorporated in some fabrics just before they are ironed. Instead of being dampened with water, they can be sprinkled with the fireproofing solution and then ironed. It would probably be necessary to dampen the fabric more than is customary when water is used in order to saturate it with the fireproofing solution, but the dampened fabric should be nearly dry before it is ironed. Only a moderately hot iron should be used in ironing fireproofed fabrics.

Saturating some fabrics may be difficult—for example, new fabrics that are heavily sized and water-resistant. This difficulty can be overcome easily by incorporating in the fireproofing solution certain substances termed “wetting agents.” Ordinary soap is recommended as a wetting agent. Pure water may merely collect in drops on water-repellent surface, but soapy water spreads and wets the same surface very effectively. Fortunately, soap is compatible with most chemicals that possess fireproofing properties. Usually just enough soap to form a suds with moderate stirring will suffice. Soap in flakes or powder form is the most convenient for this purpose.

In some cases soap may be objectionable, because it usually leaves a visible film on drying and also is made ineffective by hard water. Many wetting agents on the market are more effective, are not affected by hard water, and do not leave any visible residue on drying. These agents are used in commercial dyeing operations and can be obtained from firms handling dyers' supplies. Very small quantities of such agents are needed. With most, one-fourth of an ounce to a gallon of solution will be enough.

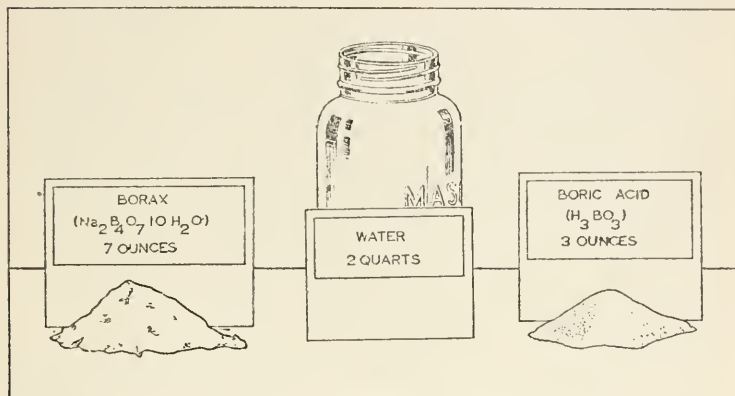
For effective fireproofing, the material being treated should be thoroughly saturated with the solution. Obviously, therefore, if parts are only damp, fire resistance will not be satisfactory. In any event, it would be safer to test the procedure by treating scraps of fabric and observing the fire resistance after drying. If the fire resistance is not satisfactory, the fabric probably has absorbed too little of the fireproofing solution.

### Fireproofing Formulas

Fireproofing solutions made according to the following formulas will impart satisfactory fire resistance to in-



flammable materials. All the solutions are prepared in the same way. The fireproofing substance is simply stirred into the water until a clear solution is obtained. In treating water-resistant fabrics, enough soap is added to the solution to form a suds. If the fabric to be treated has been laundered, probably no soap will be needed, as laundering removes sizing and makes the fabric absorbent.



#### Formula 1

Borax .....	7 ounces
Boric acid .....	3 ounces
Water (hot) .....	2 quarts

The proportions for formula 1 are shown graphically in figure 1. If powdered boric acid is used, it can be dissolved more readily by first making a paste with a small quantity of the water. Hot water should be used in preparing this solution.

If allowed to stand, this borate solution will usually become turbid and sometimes jellylike, but warming will quickly restore it to its original condition.

#### Formula 2

Ammonium sulphate .....	1 pound, 9½ ounces
Water .....	1 gallon

If fertilizer-grade ammonium sulphate is used, strain the solution to remove dirt and debris. It is further recommended that just enough household ammonia be added to the solution to impart a distinctly ammoniacal odor.

This will neutralize any free acid and temporarily retard the setting free of acid which causes deterioration.

Formula 3

Diammonium phosphate .....2 pounds, 1½ ounces  
Water .....1 gallon

Formula 4

Ammonium sulphate .....12½ ounces  
Diammonium phosphate .....12½ ounces  
Water .....1 gallon

In general, it will be found that one of the above formulas can be used on any material which is adapted for fireproofing in the home. Only formula 1 is recommended for clothing and household fabrics. Formulas 2, 3, and 4 may be used when the effect on tensile strength is not important as, for example, on sawdust, fiberboard, and loose cotton for insulating purposes.

Formula 1, the mixture of boric acid and borax, is one of the best fireproofing materials because the two compounds interact to give the solution just the properties needed to provide effective fireproofing.

In concluding, the bulletin points out that the formulas are for use only when the article to be treated is to be kept indoors. They are not effective for anything exposed to the weather since the chemical used will easily wash out.

The government pamphlet illustrates very graphically the method of applying these formulas, and those who are interested will find it worth their while to send for a copy of Farmers' Bulletin No. 1786, United States Department of Agriculture; it is available from the Superintendent of Documents, Washington, D. C. for 5 cents.



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## *The New Food, Drug, and Cosmetic Law*

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OUT of the welter of politics which characterized the closing of the Seventy-fifth Congress in June, 1938, came one law which has possibilities of great benefits to consumers, if it is well and conscientiously enforced. For several years Congress, trade representatives, and consumer groups have wrangled over nearly a score of proposed revisions of the antiquated 1906 Pure Food Act. Many believed that no consumer legislation of this type would go through because of certain political factors.

The sponsor of the Food and Drug Bill which first passed the Senate was Senator Royal S. Copeland. Because he came to be out of favor with the President, for opposing some "White House legislation," it was an openly expressed belief in advertising circles that, even if his version should pass the House, the President would veto it. Much hard work and endless conferences with the industries and government officials on the part of Senator Copeland succeeded in ironing out the differences in the Senate and House versions, and the Act was finally passed. Senator Copeland's death is believed to have assured the President's signing the bill, because sure political repercussions would certainly have ensued had he vetoed it.

As with all protective legislation, the law as it now stands is a compromise between a really effective consumer-protective act and what politicians can be persuaded to put through in the face of strong protests by various organized pressure groups, and relative indifference in years past of

the federal food and drug officials themselves. There is no doubt that in many respects it is much better than the original 1906 Act which it is designed to supersede. The loopholes in that law are well set forth in the book *100,000,000 Guinea Pigs* to which credit is due to a large extent for the passing of the present Act (as indeed has often been conceded by the drug and food trade press).

The loopholes in the old Act as well as the laxity of enforcement by Food and Drug officials were pointed out by this book in detail. Its criticism and the picture which it painted of the hazards to which consumers were being subjected daily aroused considerable protest and a wide range of organized activity to correct such conditions. For a long time a best seller, *100,000,000 Guinea Pigs*, which was largely written from the files of Consumers' Research, and under that organization's leadership, became the bible of consumer groups aiming to get an adequate food, drug, and cosmetic bill passed. Consumers' Research had drawn up a bill designed to remedy the deficiencies set forth in this book.

While there is little resemblance between the bill drawn by Consumers' Research and the Copeland Act, it must be remembered that many and far-reaching changes have taken place in government since it first appeared. The government under the New Deal administration has taken unprecedented and, in the opinion of many, exceedingly unethical legal tactics in its reaching out for greater concentration of federal power over industry. Considering these sharp shifts in government policy and manner of acting in legal matters, it is probably just as well that the original proposal of Consumers' Research never got to first base. The last few years, as all know, have seen an extraordinary and wholly unprecedented extension of federal powers and a tremendous increase in the number and power of governmental bureaucrats. Those in sympathy with the aims of the Roosevelt administration see nothing

to worry about in the situation. The powers held by or potentially inherent in the federal government, and centralized in the hands of a few individuals, can, however, be as much a force for evil as for good. That the people have no safeguard or assurance that such powers will be used for the common good, the unfortunate citizens of Russia, Germany, and Austria well know. Such power can destroy business, personal initiative, and the consumer's livelihood while supposedly attempting to cure some of the faults of the workings of our economic system.

The first stumbling block in securing conference agreement on the final form of the present Food and Drugs Act was the court review section. As the administration of the form of the Act favored by the Administration was set up, the regulations of the Secretary of Agriculture were to be binding and the citizen whose business was destroyed or crippled by his order had no right of appeal to any court for review. Having had a pretty clear foretaste of the present administration's ideas of justice through the workings of the National Labor Relations Board, the Securities and Exchange Commission, and others, the representatives of those trades affected by the new Act were in no mind to have further chains loaded around their necks. This aspect of the new Act was therefore vigorously fought.

The version of the new Act as passed by the House went so far in the direction of curbing the powers of the Secretary of Agriculture as to permit review of his regulations and orders by any one of the eighty-three federal district courts. This the Administration claimed would hamstring enforcement and was worse than the old law, and the threat was made that the President would veto the bill if it passed with the federal district court review provision in it. The compromise which Senator Copeland finally worked out which secured passage of the

Bill was the section providing that appeal was to be restricted to the ten Federal Circuit Courts of Appeal.

The most important aspect of the new law, aside from tightening up the details of the old one, is the extension of authority which brings cosmetics under the supervision of the Food and Drug Administration for the first time. Another important new section is the establishment of a permanent control over the marketing of new potentially dangerous drug products. This section was specifically aimed at the control of products like elixir of sulfanilamide which caused the death within two months of nearly ninety persons who had purchased it at reputable drugstores, and had then taken it on doctors' prescriptions.

Some of the unfavorable aspects of the Act are: The new law contains no adequate provision requiring the establishment of standards of quality for canned or packaged goods, and nothing was done about requiring clear and simple grades on food labels so that a housewife may know what she is buying. Through the extreme pressure of Congressmen from fruit growing regions, concessions were made to large fruit growers who are spraying their fruits and vegetables with the very poisonous arsenic and lead sprays, now known to be so hazardous to consumers' welfare. Whether or not the new Act is adequate to protect the consumers' welfare remains to be seen. Much depends on its enforcement and administration, including the skill and energy with which the Department's lawyers press their cases and present the testimony of their expert witnesses in court. The Department of Justice might do well to take its lawyers off tilting at publicity windmills as in the recent oil anti-trust law cases and back up with its best legal advice the support of the Food and Drug Administration in its attempt to protect consumers.

The advertising provisions originally in the proposed Food, Drug, and Cosmetic Bill were deleted and passed

separately in the form of the Wheeler-Lea Act, now in effect, which protects the consumer to the extent that it empowers the Federal Trade Commission to take action in cases of misleading advertising associated with the sale of food, drugs, and cosmetics without the necessity, as heretofore, of showing that such advertising involved injury or "unfair competition *in commerce*." [Italics ours.] The Commission has already taken steps to stop such claims as those made by the manufacturers of *Lifebuoy* that the soap penetrates the pores deeply and eliminates the cause of B. O. and those by the makers of *Jergens Lotion* including the claim that their product will restore the natural oil or moisture to the hands. Perhaps with this separation of duties the Food and Drug Administration will be able to enforce the new law more effectively than they did the old one and will be able to meet the challenge of casualness and laxity in enforcement set forth in detail and at great length in *100,000,000 Guinea Pigs*.

The general provisions of this Federal Food, Drug, and Cosmetic Act will go into effect June 25, 1939. The following provisions, however, became effective immediately upon approval of the Act by the President:

"The prohibition against drugs which are dangerous to health when used in the dosage, or with the frequency or duration prescribed, recommended or suggested in the labeling (sec. 502(j)).

"The prohibition against the introduction of new drugs before an application for such introduction becomes effective (sec. 505).

"The prohibition against cosmetics which may be injurious to users under the conditions of use prescribed in the labeling or under such conditions as are customary or usual (sec. 601 (a) ). However, poisonous coal-tar hair dyes which would be exempted under the proviso of this requirement if they bore the warning label prescribed by the statute, will not be subject to action by reason of their

failure to bear the prescribed warning until 90 days after the date of approval."

It is important that all consumers, particularly women's clubs and other groups who are studying the enforcement of health laws, should familiarize themselves with the chief provisions of the new Act which can only afford effective protection if it is enforced conscientiously. Perhaps a lawyer friend of your club will be glad to read the new law, and discuss its provisions in comparison with those of the old law in terms that laymen can understand. The best assurance that such a law will be enforced is the interest and knowledge of the citizens whose welfare it affects, backed up by prompt protest whenever and wherever there is any failure to enforce it or lack of energy in protecting consumers' rights.

For those who wish a summary of the outstanding provisions, a digest prepared by the United States Department of Agriculture follows.

The new law preserves the worthy features of the Federal Food and Drugs Act of June 30, 1906. In its principal differences from the old law it—

1. Brings all cosmetics except toilet soap under control (sec. 201 (i)); outlaws cosmetics which may be injurious to users, except poisonous coal-tar hair dyes which bear warning labels (sec. 601 (a)); prohibits false or misleading labeling (sec. 602 (a)).

2. Prohibits traffic in food which may be injurious to health (sec. 402 (a) (1)). (The old law prohibits injurious food only when the poisonous substance is *added*.)

3. Prohibits the addition of poison to food except where such addition is required in the production thereof or cannot be avoided by good manufacturing practice; where added poisons are so required or cannot be so avoided, tolerances are authorized limiting the amount to a point insuring protection of public health (sec. 402 (a) (2), sec. 406 (a)).

4. Authorizes emergency permit control of food that may be injurious because of contamination with microorganisms, if public health cannot otherwise be protected (sec. 404).

5. Forbids traffic in confectionery containing metallic trinkets and other inedible substances (sec. 402 (d)).

6. Specifically requires label declaration of artificial coloring, arti-



ficial flavoring, and chemical preservatives in food, but exempts butter, cheese, and ice cream from this requirement in so far as artificial coloring is concerned (sec. 403 (k)).

7. Requires labeling of special dietary food to inform purchasers fully of its vitamin, mineral, and other dietary properties (sec. 403 (j)).

8. Provides for the promulgation of a definition and standard of identity and a reasonable standard of quality and fill of container for each food, but exempts from this provision fresh and dried fruits and vegetables, except avocados, cantaloupes, citrus fruits, and melons (sec. 401, sec. 403 (g), (h)). Butter is also exempt from this provision, but the act preserves the statutory definition and standard of identity for butter which became law in 1923 (sec. 902 (a)). (The old law contains no authority for the establishment of definitions and standards of identity, and the authority to establish standards of quality and fill of container is limited to canned foods.)

9. Requires the labeling of food for which no definition and standard of identity has been fixed to disclose the ingredients by name, except spices, colorings, and flavorings, which may be declared simply as spices, colorings, and flavorings. Authorizes regulations prescribing exemptions from this requirement where compliance is impracticable or results in deception or unfair competition (sec. 403 (i)).

10. Does not contain the "distinctive name" joker of the old law under which any mixture or compound of food not injurious to health can escape control.

11. Brings under control drugs used in the diagnosis of disease and drugs intended to affect the structure of any function of the body (sec. 201 (g) (2), (3)).

12. Brings therapeutic devices under control, and subjects them to the same general requirements as are set up for drugs (sec. 201 (b), secs. 501, 502).

13. Prohibits traffic in drugs and devices which are dangerous to health under the conditions of use prescribed in the labeling (sec. 502 (j)).

14. Prohibits traffic in new drugs unless such drugs have been adequately tested to show that they are safe for use under the conditions of use prescribed in their labeling; authorizes exemption from this requirement of drugs intended solely for investigational use by qualified scientific experts (sec. 505).

15. Makes the Homeopathic Pharmacopoeia of the United States the legal standard for homeopathic drugs (sec. 201 (j), sec. 501 (b)).

16. Requires labels of official drugs—i.e., drugs recognized in the United States Pharmacopoeia, National Formulary, or Homeopathic Pharmacopoeia of the United States—to reveal any differences of strength, quality, or purity from the official standards (sec. 501 (b)).

(The old law requires merely that the label bear a true statement of the strength, quality, and purity of the drug, without showing the difference from the official standard.)

17. Requires drugs intended for use by man to bear labels warning against habit formation if they contain any of a list of narcotic or hypnotic habit-forming substances, or any derivative of any such substance which possesses the same properties (sec. 502 (d)).

18. Requires the labeling of drugs and devices to bear adequate directions for use, but authorizes regulations exempting drugs and devices from this requirement where it is not necessary for the protection of the public health (sec. 502 (f)).

19. Requires the labeling of drugs and devices to bear warnings against probable misuse which may be dangerous to health (sec. 502 (f)).

20. Requires special precautionary labeling for drugs that are liable to deterioration (sec. 502 (h)).

21. Does not contain the fraud joker in the old law under which the Government must prove that false claims of curative effect on the labels of patent medicines were made with willful intent to deceive.

22. Requires official drugs to be packaged and labeled as prescribed by the Pharmacopoeias and Formulary (sec. 502 (g)).

23. Declares non-official drugs illegal if the standard of strength thereof differs from the standard claimed (sec. 501 (c)). (The old law prohibits only those which *fall below* the strength claimed.)

24. Requires that antiseptics possess germicidal power (sec. 201 (o)).

25. Requires the labels of non-official drugs to list the names of the active ingredients, and in addition to show the quantity or proportion of certain specified substances. Authorizes regulations prescribing exemptions from this requirement where compliance is impracticable (sec. 502 (e)).

26. Proscribes the use of containers for food, drugs, and cosmetics which may render the contents injurious to health (sec. 402 (a) (6), sec. 501 (a) (3), sec. 601 (d)).

27. Prohibits traffic in food, drugs, and cosmetics which have been prepared or handled under insanitary conditions that may contaminate them with filth or that may render them injurious to health (sec. 402 (a) (4), sec. 501 (a) (2), sec. 601 (c)).

28. Forbids the use of uncertified coal-tar colors in food, drugs, and cosmetics, other than hair dyes (sec. 402 (c), sec. 501 (a) (4), sec. 601 (e)).

29. Proscribes slack filling of containers for food, drugs, and cosmetics, and prohibits the use of deceptive containers (sec. 403 (d), sec. 502 (i) (1), sec. 602 (d)).

30. Authorizes factory inspection of establishments producing food, drugs, devices, and cosmetics for interstate shipment (sec. 704).

31. Provides for the procurement of transportation records and other documents necessary to establish Federal jurisdiction (sec. 703).

32. Requires that part of samples collected by the Government for analysis be given to the manufacturer on request, but provides exemption from this requirement to the extent necessary for proper administration of the act (sec. 702 (b)).

33. Authorizes the Government to charge fees for the certification of coal-tar colors in amounts necessary to defray the expenses of the service (sec. 706).

34. Specifically authorizes abatement of administrative proceeding in minor violations through written notice or warning from the enforcing agency when the public interest can thus be adequately served (sec. 306).

35. Provides increased criminal penalties for violations (sec. 303).

36. Authorizes the Federal courts to restrain violations by injunction (sec. 302).

37. Limits seizure for misbranding to a single interstate shipment of the product unless the misbranding has been the subject of a prior court decision in favor of the Government, or unless the misbranded article is dangerous to health, or its labeling is fraudulent or would be in a material respect misleading, to the injury or damage of the purchaser or consumer (sec. 304 (a)). Authorizes consolidation of multiple-seizure cases (seizures of two or more interstate shipments of identical goods from the same shipper) for trial in a single jurisdiction (sec. 304 (b)). Also authorizes such consolidated cases, as well as cases involving seizure of a single interstate shipment for misbranding, to be removed for trial to any district agreed upon by stipulation between the Government and the shipper or owner of the seized goods. In case of failure to reach an agreement, the shipper or owner of the goods may apply to the court in which the seizure was made, and the court is required, unless good cause to the contrary is shown, to specify a district of reasonable proximity to the applicant's principal place of business in which the case will be tried (sec. 304 (a), (b)). (The old law places no limitation on the number of shipments of illegal goods which may be seized; contains no provision for change of venue for trial; and seizures thereunder are tried in the districts in which the seizures occur, which ordinarily are the districts to which the goods have been shipped for sale and consumption.)

38. Provides for a judicial review in United States Circuit Courts of Appeals to determine the validity of certain regulations. This form of review is an addition to and not in substitution for any other remedies provided by law (sec. 701 (f)).

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## Price Fixing vs. The Consumer

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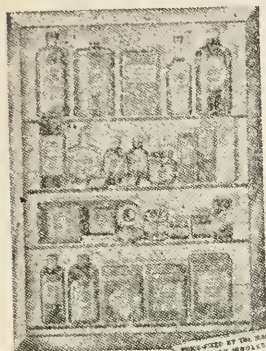
THE advertisement on the opposite page is an excellent one. It would be even more educational to the consumer if the newspapers had permitted Macy's to include the actual *names* of the price-fixed brands in the lower left-hand column.

Macy's has been kind enough to supply *Consumers' Digest*, at its request, with these brand names. They are in order:

Albolene Mineral Oil, U.S.P.	Johnson & Johnson Gauze Bandage (1" x 10 yds.)
Sal Hepatica Effervescent Laxative Salt	Johnson & Johnson Gauze Bandage (1½" x 10 yds.)
Squibbs Castor Oil, U.S.P.	Johnson & Johnson Gauze Bandage (3" x 10 yds.)
Squibbs Milk of Magnesia, U.S.P.	Johnson & Johnson Absorbent Cotton
Squibbs Epsom Salts, U.S.P.	Johnson & Johnson Gauze Pads
Squibbs Boric Acid, U.S.P.	Gillette Razor Blades (double edge)
Squibbs Bicarbonate of Soda, U.S.P.	Gem Razor Blades (single edge)
Bayer's Aspirin Tablets	Colgate's Shaving Cream (plain)
Squibbs Zinc Ointment, U.S.P.	Aqua Velva After Shave Lotion
Vaseline White Petrolatum, U.S.P.	Ipana Toothpaste
Baume Ben-Gay Analgesic Balm	Vince Colored & Flavored Sodium Perborate
Squibbs Magnesia Tablets	Lavoris Mouthwash (red)
Johnson & Johnson Adhesive Tape (½" x 5 yds.)	Vitalis Hair Tonic
Johnson & Johnson Adhesive Tape (1" x 5 yds.)	
Johnson & Johnson Adhesive Tape (2" x 5 yds.)	

"THE CONSUMER WILL NOW DECIDE..."

# Here's how Price-Fixing eats into your HOUSEHOLD BUDGET for DRUG and TOILET NECESSITIES



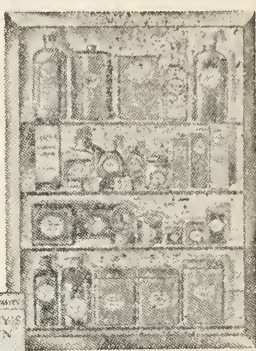
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PRODUCED BY DR. HANCOCK  
POWER OF WELL-KNOWN  
BRANDS FOR THE CONSUMER'S  
NEW YORK LAW

—and here's how you can protect your health without paying fixed prices:

A proper supply of household drugs, medical supplies, and toilet articles "runs into plenty of money" . . . for such preparations are things you want to have handy

Compare these two typical family medicine cabinets. Too few consumers realize the costs imposed on them by price-fixing under the New York State Feld-Crawford Price-Fixing Law



MACY'S OWN  
FOR THE CONSUMER'S  
BEST VALUE

This is an actual photograph

1. This medicine cabinet is filled with 28 well-known articles in frequent use in the home.

Each is the product of a reputable manufacturer, well-made, of pure ingredients.

No magic—simply strict skill—is involved in their making. One thing they all have in common—every one is price-fixed by the manufacturer or wholesaler under the New York State Feld-Crawford Price-Fixing Law.

No matter how much you may want or need any one of these articles, no matter where you buy it within the borders of New York State, you may not pay less than the fixed price; every New York retailer is bound by law not to sell it to you at less than the fixed price.

The 28 useful price-fixed articles in this "typical family medicine chest" will cost you **12.50**

## PRICE-FIXED . . . all well-known

Mineral Oil, U.S.P., 16 fluid oz.	69c
Efferescent Laxative Salt, 12 oz.	97c
Castor Oil, U.S.P., 12 fluid oz.	69c
Milk of Magnesia, U.S.P., 12 fluid oz.	29c
Epsom Salts, U.S.P., 1 lb. tin	31c
Boric Acid, U.S.P., 1 lb. tin	37c
Bicarbonate of Soda, U.S.P., 1 lb. tin	31c
Aspirin Tablets, 5 grain, N.F., 100's	59c
Zinc Ointment, U.S.P., 1 oz. tube	19c
White Petrolatum, U.S.P., 4 oz.	18c
Analgesic Balm, 1 oz. tube	59c
Magnesia Tablets, 100's	41c
Adhesive Tape, 1/2 inch x 5 yards	10c
Adhesive Tape, 1 inch x 5 yards	19c
Adhesive Tape, 2 inches x 5 yards	33c
Gauze Bandage, 1 inch x 10 yards	5c
Gauze Bandage, 1 1/2 inches x 10 yards	8c
Gauze Bandage, 2 inches x 10 yards	14c
Absorbent Cotton, 2 oz. roll	14c
Gauze Pads, 2 1/2" (3" x 3") (1.6c each pad)	40c
Razor Blades, double edge 10's	47c
Razor Blades, single edge 10's	49c
Shaving cream (plain), 4.2 oz. tube	37c
After Shave Lotion, 5 fluid oz.	39c
Toothpaste, 2.4 oz. tube	39c
Colored and Flavored Sodium Perborate	
Dentifrice, 1 lb.	1.59
Mouthwash (red), 20 fluid oz.	79c
Hair Tonic, 9 fluid oz. (\$.77c per oz.)	79c

2. This medicine cabinet is filled with 28 Macy articles in frequent use in the home.

Each is the product of a reputable manufacturer, well-made, of pure ingredients.

No magic—simply strict skill—is involved in their making. One thing they all have in common—not one of them is subject to any price-fixing agreement aimed to make the consumer pay more. Every single one of them is price-free. And every one of them costs you less than the comparable price-fixed article opposite.

Examine these articles, price for price, quantity for quantity

The 28 useful price-free articles in this "typical family medicine chest" will cost you not one cent more than **6.29**

## MACY'S OWN . . . all tested quality

Mineral Oil, U.S.P., 16 fluid oz.	29c
Efferescent Laxative Salt, 12 oz.	69c
Castor Oil, U.S.P., 12 fluid oz.	39c
Milk of Magnesia, U.S.P., 12 fluid oz.	19c
Epsom Salts, U.S.P., 1 lb. tin	15c
Boric Acid, U.S.P., 1 lb. tin	27c
Bicarbonate of Soda, U.S.P., 1 lb. tin	10c
Aspirin Tablets, 5 grain, N. F., 100's	18c
Zinc Ointment, U.S.P., 1 oz. tube	9c
White Petrolatum, U.S.P., 4 oz.	16c
Analgesic Balm, 1 oz. tube	31c
Magnesia Tablets, 100's	26c
Adhesive Tape, 1/2 inch x 5 yards	6c
Adhesive Tape, 1 inch x 5 yards	11c
Adhesive Tape, 2 inches x 5 yards	27c
Gauze Bandages, 1 inch x 10 yards	4c
Gauze Bandage, 1 1/2 inches x 10 yards	6c
Gauze Bandage, 2 inches x 10 yards	11c
Absorbent Cotton, 2 oz. roll	12c
Gauze Pads, 1 1/2" (1 1/2" x 1 1/2") (1.167c each pad)	14c
Razor Blades, double edge 10's	18c
Razor Blades, single edge 10's	17c
Shaving cream (plain), 4.5 oz. tube	23c
After Shave Lotion, 5 fluid oz.	21c
Toothpaste, 2.4 oz. tube	19c
Colored and Flavored Sodium Perborate	
Dentifrice, 1 lb.	46c
Mouthwash (red), 20 fluid oz.	34c
Hair Tonic, 9 fluid oz. (.675c per fluid oz.)	54c

★  
**SAVE  
6.21**



—and **SAVE IT WITH SAFETY**

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# *Operate Your Furnace Economically*

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**N**OW is the time to begin to consider the winter heating problem—before actual cold weather arrives. Many house-heating furnaces are operated in such a way that much fuel is unnecessarily wasted.

It is entirely possible for most people to make a large saving on their fuel bills if a little intelligent study is given to the problem. For those who are interested we reproduce a number of helpful suggestions made after careful study of the factors involved by F. G. Hechler, Professor of Engineering Research of Pennsylvania State College.<sup>1</sup>

## **The Heating Plant The Chimney**

A furnace, no matter how good it may be, cannot function well unless the draft is adequate and properly regulated. Insufficient draft is usually due to poorly constructed chimneys. In older houses chimneys are usually built of brick without a flue lining; the brick work in these chimneys is porous and often cracked. This permits air to leak in, decreasing the draft in the furnace. This type of chimney is also a frequent cause of fires. Fire clay flue lining should be used in all chimneys, not only for safety but because it also aids materially in making a tight chimney with a smooth interior that will insure a good draft. The chimney should be as straight as possible and free from sharp bends and projections that might cause stoppage. The top of the chimney should be at least two feet higher than the

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<sup>1</sup> Engineering Experiment Station Bulletin No. 34.

ridge of the roof of the building to prevent interference with the draft when the wind comes from certain directions. The cleanout at the base of the chimney should have an iron door built in so that it can be closed tightly. Each flue should have only one connection.

The smoke pipe should be flush with the inner wall of the chimney and should be tightly cemented in place with asbestos cement. The possibility of the pipe extending part way into the chimney should be particularly guarded against. The pipe should be as short and straight as the location of the heater will permit.

### The Heater

The furnace should be in good repair; broken or burned out grates should be replaced; fuel, ash pit and cleanout doors should fit snugly when closed, if they do not they should be repaired. All joints between the various sections and between the base and the floor should be made air tight, preferably with regular furnace cement which is less porous than the asbestos cement sometimes used for this purpose.

Keep the heating surface clean and free from soot; to do this when burning bituminous coal requires regular and frequent cleaning. The loss due to an accumulation of soot on the heating surfaces is surprisingly large as shown by the following data from tests on marine boilers:

<i>Thickness of Soot in Inches</i>	<i>Decrease in Efficiency of Heating Surface in Per Cent</i>
1/32	9.5
1/16	26.2
1/8	45.2
3/16	69.0

Warm air furnaces should always have recirculating or return air ducts with dampers so that during cold weather either part or all of the cold air may be taken from the

house, usually from the living room or front hall, instead of from outdoors. This practice has much to commend it and probably accounts in large measure for the excellent results often attributed to "pipeless" heaters. In most houses enough air leaks into the house through cracks and around doors and windows to provide adequate ventilation without taking additional air direct from the outside.

### Pipe Covering

The heater and all exposed hot water pipes, steam pipes, and hot air leaders in the basement should be well insulated with asbestos covering to conserve heat and to prevent needless heating of the basement. The initial cost of a good grade of covering is usually saved in a comparatively short time . . .

For the average hot water heating plant the mean temperature difference for the heating season will be considerably less than 110 degrees so that the fuel waste will be less than computed. For a steam heating system, however, the temperature difference is considerably greater than 110 degrees and the savings due to a covering correspondingly greater. A good grade of pipe covering will pay for itself in from one to two seasons, depending on the kind of heating system and the conditions of operation. All subsequent saving is a clear gain.<sup>1</sup>

Hot air pipes are frequently wrapped with a sheet of asbestos paper. Tests<sup>2</sup> have shown that the addition of one or two thicknesses of asbestos paper actually makes the radiation loss greater than it would be from a bare, bright tin surface. Approximately eight layers of such paper are necessary before there is any saving in heat. Hot air pipes should be insulated with about one-half inch of corrugated asbestos covering next to the pipe with a few layers of

<sup>1</sup>[Of course, not all of the heat in a cellar can be considered wasted. Much of any heat that is produced beyond need in the basement rooms will find its way into the rooms above.]

<sup>2</sup> University of Illinois, Engineering Experiment Station Bulletin No. 117.



asbestos paper outside. If covered in this way unnecessary heat losses will be eliminated to a great extent.

### Dampers

For a good control of the furnace, the dampers that are indispensable are: the check damper, the throat damper, and the ash pit damper. A slide damper is usually used in the

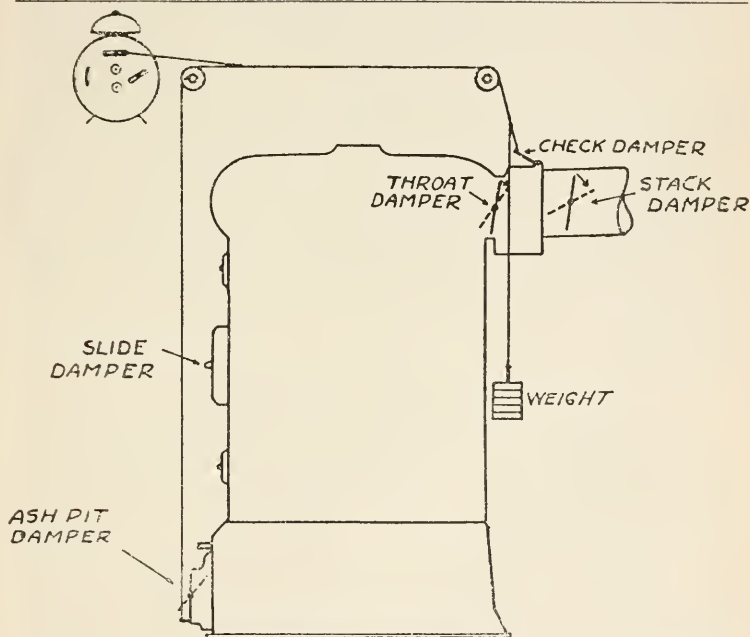


Fig. 1.

Schematic arrangement of furnace dampers and of alarm clock for opening drafts.

feed door, and occasionally a stack or smoke pipe damper is added. See Fig. 1 for the location of the various dampers. If only one turn damper is used between the furnace and the chimney it should always be placed between the furnace and the check damper. The check damper and the ash pit damper should be connected by a chain or cable running over pulleys so that the check damper closes

just before the ash pit damper opens. These dampers are often controlled by chains running to the living room or some other convenient point permitting the regulation of the fire without going to the basement.

### The House

The best way to reduce fuel consumption is to make sure that the house is well built. A well insulated wall and roof not only make the house warmer in winter but also cooler in summer. Not only should the walls be tight but the doors and windows should fit properly. The best protection against air leakage is to use weather strips or storm windows and storm doors.<sup>1</sup> In colder climates practically all houses are equipped in this way; this materially reduces the heat losses and also decreases the amount of dust blown into the house. On windy days four or five times as much air as is needed for ventilation may leak into a house. The heat loss to an open attic is often excessive and should be prevented.

### Humidity and Temperature

In practically all houses heated by furnaces the air is too dry for health and comfort. If a satisfactory method of increasing the humidity can be devised, our houses will be equally comfortable at lower temperatures. To keep the air in an average size house at proper humidity for comfort and health when the intake air is zero and the room temperature is 70 degrees Fahrenheit, would require the evaporation of about one-half gallon of water per hour. This is, of course, far beyond the capacity of any of the usual devices used for this purpose.<sup>2</sup>

The temperature maintained in our houses is usually about 70 degrees Fahrenheit. Compared with temperatures common in Europe and Canada this value is too high and

<sup>1</sup>[Storm windows and doors should fit tightly. See "Insulation for the House," *Consumers' Digest*, September, 1938, for good ways of accomplishing this.]

<sup>2</sup>[The statements in this paragraph would need to be modified in the light of recent investigations. An article on this subject will appear in a forthcoming issue of *Consumers' Digest*.]

might well be reduced to about 65 degrees. Provided proper humidity is present the lower temperature would be more healthful and would save from 10 to 15 per cent of fuel if no heat is required to humidify the air. Usually, however, the heat necessary to evaporate the water for humidification is greater than the saving due to a lowering of the air temperature.

### Methods of Firing Fuels Anthracite Coal

The smaller sizes of anthracite, such as pea and buck-wheat, are considerably cheaper than the larger domestic sizes. They cannot, however, be burned successfully unless there is a strong draft. Usually, sufficient draft cannot be secured without using a blower. Small blower units, complete with motor, may be purchased for attachment to the furnace. If the air is forced into the ash pit the pressure in the furnace is greater than atmospheric, which may cause gas to escape into the cellar. To prevent this an induced draft type of installation has been developed recently by the anthracite interests. With mechanical draft very small anthracite, such as river coal, can be burned successfully. River coal is small anthracite that has been washed down the rivers from the mining districts above and recovered by dredging. With mechanical draft a thermostat should be used to control the operation of the blower which is started and stopped instead of opening and closing the dampers. The check damper should be fastened in the full open position.

For best results carry a deep fire bed. In mild weather let ashes accumulate on the grate to check the fire; in cold weather shake down the ashes more, so as to have a deeper live fire. Shake the grates only sufficiently to remove the ashes and always stop before live coals fall through to the ash pit. Keep the ash pit free of ashes to prevent burned out grates. Keep the flues clean and free

from soot. When firing, always have some live coal exposed to ignite the gas as given off from the fresh coal. When firing the smaller sizes this precaution is very necessary to prevent explosions. Leave the drafts open until a blue flame appears, then check the draft to the point that experience has proved best. Learn to control the fire with the dampers; never attempt to check it by leaving the feed door open; this is an exceedingly wasteful practice.

For new installations and where replacements are necessary the magazine type of boiler may be used to advantage for burning the smaller and cheaper sizes of anthracite coal. A good draft is essential and the condition of the chimney should be carefully checked before choosing this type of heater. As the name indicates, it has a magazine or hopper from which the coal automatically feeds down into the combustion space where it burns in a relatively thin fuel bed, giving a sufficiently rapid rate of combustion, even for the fine grades of coal. The magazine usually requires filling only once a day. This type of boiler is not suitable for most bituminous coals because they do not feed down automatically.

#### Bituminous Coal

Coal screened to a uniform size is easier to handle than run of mine because the drafts are easier to manage. It usually costs more and is seldom available in the low volatile coals because they are friable and break up badly in handling. The low volatile coals seldom produce much smoke with the usual methods of burning. With high volatile coals the amount of smoke can usually be reduced by pushing the live coals to one side and putting the fresh coal into the hole thus made. This insures slow combustion and gives the live coals a chance to ignite the gases as given off.

Keep the ash pit clean to insure good distribution of air and prevent burned out grates. Keep the heating surfaces clean and free from soot; carry a deep fuel bed (12 to 18 inches). In mild weather let a layer of ashes accumulate

on the grate, in cold weather shake down the ashes and carry a deeper live fire. When shaking the grates always stop when the glow of the fire can be seen in the ash pit.

Admitting some air over the fire sometimes reduces smoke when a fresh charge of coal is added; too much air reduces the efficiency. Never check the fire by leaving the feed door open.

When adding fresh fuel the turn damper in the smoke pipe should be open, at other times it can usually be partly closed. The check damper should be closed when starting or replenishing a fire, at other times it may be partly open. The ash pit damper should be open when starting a fire, slightly open during the day if necessary to maintain the desired heat, and closed at night. The proper use and adjustment of these three dampers is of the utmost importance and a careful study of their functions will amply repay every householder.

### Coke

Next to anthracite, coke is the best solid fuel. It burns without smoke and is clean to handle. For best results it must be properly sized; from one-half inch to two inches is usually best. A very deep fire, deeper than with other fuels, should be carried, and the draft kept under control. The amount of draft required is less than for anthracite or bituminous coal. Avoid shaking the grates too much. Keep the ash pit clean. Coke is light and considerably more space is required for a given weight than for the other fuels, hence the need of a deep fire.

### The Relative Values of Anthracite, Bituminous, and Coke

When used in domestic furnaces under ordinary conditions, it is usually found that anthracite and coke have about the same heating value per ton and that the bituminous coals give results from 10 to 15 per cent lower than the other two fuels, depending somewhat on the composition of the coal used.

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# Face Powders

By

M. C. PHILLIPS

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THERE was a time years and years ago when a girl powdered her nose to take the shine off. To suggest such a simple objective nowadays is to reveal oneself to be a crude, unsophisticated person insensitive to the finer nuances of cosmetology. Today, if you believe the expressed or implied messages set forth in the advertisements that have appeared in women's magazines, you powder your nose to glorify your face, to invite romance, to prevent dust and impurities from entering your pores, or to guard your skin against blemishes caused by surface germs.

It is true that little harm is done to the woman who believes such romancings—unless it be to her pocketbook. Face powder, on the whole, is a safe cosmetic. Cases of lead poisoning from the use of face powder, which have been reported in scientific and medical journals, come for the most part from the Orient where white is the most desirable shade and where the pigment, white lead, was and is much used as the covering agent. In this country, however, lead is not used in manufacturing face powder.

It is a far cry today from the days when a dab of rice or talcum powder—pink or white in shade—sufficed to take off the shine. The modern face powder is a complex mixture of a number of ingredients and is available in shades from white to dark tan. One cosmetic house, indeed, announces the availability of over one hundred shades

in order that you may choose the one best suited to your coloring.

Essentially, face powder today contains talc, to which is added titanium dioxide and zinc oxide to supply covering power. To make the product cling to the skin, a metallic soap, such as zinc stearate, is added. The combination of talc and zinc stearate makes the powder go on smoothly, and the second ingredient, according to one trade authority, makes it appear light and fluffy. To hold the color and the perfume, magnesium carbonate and calcium carbonate (precipitated chalk) are also used. To this mixture are added color and perfume.

Although the earliest face powders probably contained a very large proportion of rice powder and other starches, up-to-date manufacturers are eliminating these ingredients for many reasons. Orris root, which is a kind of starch, is extremely irritating to many people, particularly hay fever sufferers. Some have suggested that starch powders tend to combine with perspiration to form a paste and clog the pores. Another objection is that starch has a tendency to coat hair shafts and thus accentuate the downy hair on a woman's face.

Perhaps you have noticed that occasionally two types of face powder are offered for sale; one for oily skin and one for dry skin. Usually we say that the powder for an oily skin is heavier, which does not refer to its weight but to its coating ability. In this type of powder a greater amount of titanium dioxide and zinc oxide is customarily used than in a powder for dry skin.

There are, as a rule, few unpleasant results from the use of face powder. Those that do occur are frequently due to an allergy, or sensitivity on the part of the user to certain ingredients present.

Starches (rice, corn, and potato) have already been mentioned as causing trouble. Perfume oils also occasionally cause trouble—particularly methyl heptin carbonate.

On the whole, it seems likely that no woman is really taken in by the romancings of the copy writers of advertising for face powder. Any woman knows that for the most part she selects a particular powder because she likes the perfume, the shade, because she thinks it stays on well, and because it agrees with her skin. Sometimes after the use of face powder, rough spots will appear on the skin. Whether or not these can be attributed to the face powder is not entirely certain. It is quite possible, however, that there is some ingredient present which does not agree with the skin, and the spot will clear up upon shifting to another brand. It is really very silly for the ad boys to concoct fairy tales because only the adolescent will believe them anyway, nowadays. The intelligent woman knows that the most a face powder can do is to remove the shine and help to cover skin defects. Perhaps now that the Federal Trade Commission has considerable power to proceed against fraudulent and misleading claims in advertising, the more exuberant forms of romancing will disappear from cosmetic advertisements.

While there is no serious hazard to health to be incurred from the use of modern American face powders, there is a difference in the quality of the ingredients used, and hence in the quality of different brands of face powder. Fineness is one of the chief characteristics of a good face powder. It is fairly easy for a microscopist to determine the quality of the various ingredients by examining and measuring them under a microscope. Talc, which forms the basis of all face powders, for example, is a powdered mineral and is very difficult to secure free from all undesirable impurities. It is, however, possible to secure a high-grade talc with a minimum of impurities.

In a test made for Consumers' Research by an expert petrologist, a number of well-known brands of face powder were examined to determine their freedom from mineral impurities. All those which are recommended here were



free of these to a high degree. Those given a qualified recommendation did not compare quite so favorably. The expert who made the examination one year commented that: "None of the powders examined contained a 'good' grade of talc. We use this material in our spark plugs and I can safely say that the talc we use in our porcelain is purer than any seen in some 30 face powders analyzed."

There is a possibility, of course, that even a powder of high quality may not agree with your skin if you have a sensitivity to some ingredient in it. If such is the case, don't be alarmed but simply change your brand. It may be wisest to purchase the size commonly sold in the five- and ten-cent stores in the interest of economy. If you need to discard a particular brand, there will be much less money wasted than if you purchased a 50-cent or dollar size. The 10- and 25-cent sizes also lend themselves more readily to the change in your skin tint in summer, fall, and winter—if you go in for sun tan. The brands are listed within each recommended group in the order of increasing price per unit weight. The most economical are given first, the most expensive last.

The following listings are taken from Consumers' Research *Annual Cumulative Bulletin*, September, 1938. Of sixteen face powders tested, we recommend those which follow:

#### RECOMMENDED

- Woodbury's Facial* (Jergens-Woodbury Sales Corp., Cincinnati) 10 cents for about 15 grams.\*
- Armand Complexion* (The Armand Co., 124 Des Moines St., Des Moines) 25 cents for about 33 grams.
- Lady Esther* (Lady Esther Co., 7171 W. 65 St., Chicago) 10 cents for about 13 grams.
- Pond's* (Pond Extract Co., 60 Hudson St., N.Y.C.) 10 cents for about 13 grams.
- Belcano* (Belcano Co., 3473 Fairmount Ave., Cleveland) \$1 for about 81 grams.

\* One ounce is equal to about 28 grams.

*Luzier's Regular* (Luzier's Inc., 3210-20 Gillham Plaza, Kansas City, Mo.) \$1 (plus service charge for mailing) for about 73 grams.

*Evening in Paris* (Bourjois, Inc., 35 W. 34 St., N.Y.C.) \$1.10 for about 68 grams.

*Coty's "Air-Spun" L'Origan* (Packed by G. W. Button Corp., 549 W. 132 St., N.Y.C.) 10 cents for about 6 grams.

*Valaze* for Normal or Oily Skin (Helena Rubinstein, H. R. Laboratories, Inc., 8 E. 57 St., N.Y.C.) \$1 for about 56 grams.

#### QUALIFIED RECOMMENDATION

*Princess Pat* (Princess Pat, Ltd., 2701 S. Wells St., Chicago) 25 cents for about 24 grams.

*Dorothy Gray Salon* (Dorothy Gray Co., 683 Fifth Ave., N.Y.C.) \$1 for about 92 grams.

*Elizabeth Arden* (Elizabeth Arden, 681 Fifth Ave., N.Y.C.) \$1.75 for about 79 grams. Powder of good quality ingredients, but contained starch, to which some women are allergic.

*Dermetics* (Dermetics Co., Inc., 630 Fifth Ave., N.Y.C.) \$1.25 for about 46 grams. Bottle containing face powder labeled 2 fluid ounces, although powder was dry and should have been labeled to show weight, not volume.

### For Wiser Buyers

The merchandiser of a worthy product, straightforwardly advertised, has nothing to fear from an educated buyer. On the contrary, he is accorded a measure of protection from less scrupulous rivals. In the long view, the establishment of sound and unprejudiced machinery for consumer education appears as a valuable control upon the marketing process. It simply tends to apply in more rapid and effective form the economic law of the inevitable elimination of the unfit and undeserving seller.

—Printers' Ink

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## *Cord Sets for Electrical Appliances*

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THE cord on the electric toaster or the electric flat-iron seems to be forever wearing out at the most inconvenient times. Of course, both cords usually get harder wear than those attached to the washing machine, electric fan, or the radio. You can spend a lot or a little for a new cord, but can you tell from actual experience which will give longer service—which will give you the greatest number of months' use per dollar of cost?

With some types of commodities (hot-water bottles, for example) the lowest-priced article is sometimes the one which gives the most service for each cent of its purchase price. This is unlikely to be the case with electrical heating appliance cords. Skimpy construction, poor design, low-grade materials, all making for a short and unsafe life, are all too frequently characteristics of the cord sets sold by variety-chain stores and other "bargain" or cut-rate stores. Such cords, however low their first cost, are bound to be an expensive purchase, and their use is fraught with the dangers of fire or personal injury which may at any time accompany failure of electrical equipment in service, under load.

There is of course little excuse for a cord set failing, with the fireworks which very often accompany a short circuit. A good cord should not be permitted, through long use, to reach that state of disrepair or final disintegration at which failure is imminent, and cheap cords which reach such a stage very quickly should by all means be studiously

avoided. Cords and plugs should be inspected occasionally and kept in good order, instead of waiting until a fuse is blown, and perhaps someone burned, or a fire started, or an appliance ceases to operate at a time when it is most needed.

The conductor of a good heater cord will be not smaller than No. 16 (American Wire Gauge). To give good flexibility and durability, it may be composed of as many as 105 strands of fine wire. Its covering will include a wrapping of not less than three and one-half pounds of asbestos per 1000 feet. In the cheap cord tested, the conductor was No. 20 gauge (which has 60 per cent smaller area of conductor than the minimum for a good cord) and had only ten strands of relatively coarse wire. The covering contained considerably less than a pound of asbestos per 1000 feet. In a twisting test on a specially designed machine, this cord lasted only 410 twists until failure, whereas the best cord tested withstood over 25,000.

### Methods of Test

Each of the three components of a cord set, the cord, the attachment plug (the two-prong plug which goes into the wall receptacle), and the appliance plug (which receives the two prongs on the appliance), was subjected to a series of mechanical tests designed to permit a comparison of the quality and durability of the different makes. Comparisons were also made for length of cord, wire sizes, amount of asbestos, and presence of free sulphur in the rubber jacket (which contributes to early failure by causing the copper conductor to become brittle). Electrical tests included high voltage breakdown (which all cords passed successfully) and electrical resistance of appliance plug contacts. Heat and inflammability tests were also applied to the appliance plugs, and those which were equipped with a switch were examined by a qualified engineer for adequacy and safety of design. Switches were in general found to be of poor construction, and should be avoided as being a likely added

source of trouble; they are not needed on thermostatically controlled flatirons. Avoid cord sets which do not bear the Underwriters' Laboratories' label. Where not otherwise noted, brand names of the plugs and cords were the same as that of the cord sets.

Out of twelve cord sets tested, seven were found to merit recommendation by *Consumers' Digest*.

#### RECOMMENDED

*General Cable* (General Cable Corp., Buffalo) 60 cents. *Cutler-Hammer* appliance plug, *Belden* attachment plug. Length, 8 feet. No. 16 conductor. The only cord set tested of which all the parts could be given an unqualified recommendation. Durability of cord in twisting or mechanical life test, nearly twice that of the next best cord; resistance to abrasion, only fair.

*Hatfield Angle Cord Set*, No. 16-10M (Hatfield Wire & Cable Co., Hillside, N. J.) 60 cents. Length, 7 feet. No. 16 conductor. Resistance to abrasion, best by a considerable margin of all the cords tested. Appliance plug would be given a qualified recommendation. Cord attached at side of appliance plug, probably a convenient arrangement.

#### QUALIFIED RECOMMENDATION

*Heatmaster*, Cat. No. 20—617 (Distrib. Sears, Roebuck & Co.) 29 cents plus postage. *Collyer* cord, *Arrow-Hart & Hegeman* appliance plug, *Belden* attachment plug. Length, 7 feet. No. 16 conductor. Durability of cord in twisting test, good; resistance to abrasion, relatively poor. The appliance plug was of a type which breaks somewhat easily, but otherwise of good quality.

*Monowatt*, No. 500 (The Monowatt Electric Corp., Bridgeport, Conn.; distrib. S. S. Kresge Co.) 25 cents. *General Electric* cord. Length, 6 feet, which is considered unduly short. No. 18 conductor, considered too small. Durability of cord in twisting test, fair; resistance to abrasion,

very good. Amount of asbestos used in construction, slightly low. Had an appliance plug of the switch type, of fair quality.

*Belden*, No. 1718 (*Belden Manufacturing Co.*, Chicago) 40 cents. Length, 6 feet, which is considered unduly short. No. 18 conductor, considered too small. Durability of cord in twisting test, fair; resistance to abrasion, very good. Amount of asbestos used in construction, somewhat low. The appliance plug (*Belden*, No. 333) was the best of those in the group tested.

*Sunbeam*, No. 1 (*Chicago Flexible Shaft Co.*, Chicago) \$1. *A. I. W.* cord, *Allied Mercantile* attachment plug. Length, 6 feet, considered unduly short. No. 16 conductor. Durability of cord good, but rubber contained free sulphur which is indicative of short life, apart from wearing out or breakdown due to use or handling. Amount of asbestos used in construction slightly low. Appliance plug well designed and constructed.

*Westinghouse*, No. M107 (*Westinghouse Electric & Manufacturing Co.*, Mansfield, Ohio) 99 cents. *General Cable* cord, *Bryant* appliance plug, *Diamond Braiding Mills* attachment plug. Length, 6 feet, considered unduly short. No. 18 conductor, considered too small. Durability of cord in twisting test, second best of cords tested; resistance to abrasion above average.

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### *Vitamin D Milk*

Baltimore virtually eliminates the sale of vitamin D milk since it does not permit the designation of it on the milk cap. . . . Birmingham, Ala., does not in any way prohibit the production and sale of vitamin D milk, but the Health Department feels that if such milk is sold it should come under the rigid supervision of the department and that those producing and selling the milk should pay for such supervision and control. The result is that no vitamin D milk is sold in the city.

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# *A Course in Consumer Education*

A Review

By

CHARLES S. WYAND

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SOMETIME during the past year educators began to recognize the importance of consumption as an academic subject. One indication of this trend can be seen in the recent appearance of a veritable flood of outlines for courses in consumption.

If one were to include mimeographed materials as well as printed syllabi in the collection, it is safe to say that no less than 200 formal course outlines have already been devised. Moreover there are literally hundreds more now in various stages of production. High school and college teachers alike seem obsessed with the desire to draw up as quickly as possible their own version of what a good course in consumption should include.

There is, I admit, some justification for both the great number and the diversity of such courses. The variety of conditions under which the work is offered, the lack of uniformity in classroom and laboratory facilities, and the variable interests of teachers all tend to make a stereotyped program undesirable if not impossible. Nonetheless it is interesting to note that with all of their diversity practically all of such courses follow a general pattern and possess in common certain virtues and certain defects.

Most of these traits can be clearly seen in a *Course in Consumer Education* recently prepared by members of the staff of the Teachers College and University Extension

Division of the University of Nebraska.<sup>1</sup> While this particular outline is unusually detailed, it is otherwise typical and will therefore serve nicely as an example of what the educational system is now doing for the consumer.

The most striking thing about the Nebraska outline is its almost complete lack of orientation. Although elaborate and detailed instructions are given as to how to administer the lessons, how to keep student grades, etc., not one word is said about the aims of the course itself. After a careful analysis of the materials one does, it is true, emerge with the general idea that the course seeks to make more efficient buyers of the students. Nonetheless it seems apparent that both student and teacher would be saved much time and trouble if the objectives were briefly but clearly stated. As it is, the authors have made the altogether unwarranted assumption that every one not only recognizes the importance of a course in consumption, but also understands thoroughly what is included in such courses and why. Nothing is further from the facts.

Another serious weakness emerges in the uncritical use of such relative terms as good, bad, harmful, thrifty, warranted, false and truthful. This in itself is a common failing. But it is a dangerous one if the instructor is really interested in the development of efficient buying methods. Asking the student if he knows "one brand of reasonably priced toilet soap that is of good quality" will certainly start an argument and antagonize the student unless someone defines (and then justifies his definition of) such terms as "reasonably priced" and "good quality." This would seem like a minor point were it not for the fact that many students approach consumption courses with the idea that consumption "experts" tend to exaggerate the weaknesses of products. Consequently if the teacher makes a simple and

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<sup>1</sup> *A Course in Consumer Education* by Norma C. Allertz and Lucius W. Dye, Teachers College, Univ. of Nebraska, Lincoln, 1938. The outline is divided into four parts, viz: Part I—Directions to the Supervisor; Part II—Material for the Pupil; Part III—Tests; Part IV—Key to Tests. Single copies, \$1 paper bound, \$1.20 cloth bound.



unqualified statement to the effect that a given brand of soap is "no good," every student who has got what he thinks to be satisfactory service from that brand in the past will resent the arbitrary judgment and forthwith will lose whatever confidence he may have had in the teacher. It is therefore unfortunate that the Nebraska Course and most of its contemporaries fail to point out (a) that "good" and "bad" are relative terms; (b) that a certain brand of soap may be "good" but that other brands may be qualitatively better at the same or lower prices; and (c) that the intelligent choice of goods depends on a comparison of *relative worth* rather than on the performance of a single product.

Another puzzling omission from the Nebraska Course grows out of the authors' conviction that all but "objective" values are worthless. I mean by that that the whole question of prestige values, conspicuous consumption, and "psychic" worth merit much more consideration than is given them. It may be true that such intangible factors as style, exclusiveness, and social competition should be ignored in buying goods, but one cannot as is done here dismiss them without *some* discussion, for far more consumers' goods are bought on the basis of such human foibles than even cross the counter after a technical analysis of the product. The fact remains that making one's neighbors envious can be as satisfying to the average human soul as is the use of technically high-grade products.

One more point in this connection is worth noting. In the unit on textiles, the Nebraska Course places practically complete emphasis on over-the-counter tests despite the fact that any well-trained textile chemist knows such tests to be worthless in the technical selection of goods. These simple tests do, however, lend themselves nicely to the artificial conditions of a laboratory assignment; therefore they bulk large in almost every consumption course. The important consideration in evaluating such materials is whether a

necessarily very superficial knowledge of textiles is really helpful to the student. Take for example the extensive discussion (p. 22) of "how textiles burn." This probably makes an excellent laboratory exercise, but of how much practical value is it to the average man or woman in the selection of clothes?

Similarly, the material on adulteration is interesting, but how is the consumer to determine the nature and extent of the adulteration in a suit or dress while on a shopping tour? All things considered, it is difficult to see why the consumption educators do not recognize the fact that there are very real limitations to what the average consumer can do to safeguard his own economic interests. There is certainly justification for suggesting that consumption courses would be more practical if they said less about identification of textile fibers and fabrics and more about the care and effective use of textiles.

Another common fault present in the Nebraska Course centers about the suggestion to the student (p. 10) that "you will probably profit more by performing tests . . . not specifically assigned. Tests that you originate and perform will be more indicative of your growth and your ability to judge widely the merits of the products for which you spend your money." Such self-devised tests will almost certainly be worthless because the average student cannot be expected to know enough about technical qualities and qualifications to make significant tests of complex products. In fact, the overwhelming nature of the obstacles involved in such assignments would tend to discourage rather than encourage student interest. Moreover, it would be difficult to keep careless students from attempting experiments which could only end in personal injury or in the destruction of property. Of greater importance, however, is the fact that such suggestions for undirected analysis lead the student into the uncritical acceptance of almost any test of quality and into the assumption that a buying judgment

can be based on one or two instead of (frequently) many criteria.

One final characteristic of the Nebraska Course should be noted. Apparently the authors of that outline are very much in favor of the cooperative movement and its ideals. In any event, their statement (p. 4) to the effect that they are going to inspect cooperation impartially is certainly not borne out. Their whole analysis is an argument for cooperation. Thus (pp. 10-11) they select "at random from the *Consumers' Guide* a few statements that indicate the progress of the movement in the United States." These statements all imply that cooperation in America is growing by leaps and bounds. No mention is made of the failure of innumerable American cooperatives or of the fact that the coops have never done as much as  $\frac{1}{2}$  of 1 per cent of the total retail business of the nation. Every article and book cited is pro-cooperative. The whole unit is, in short, propaganda and far from a basis for the training of students in scientific objectivity.

One could question the desirability of spending three weeks of a twenty-one week course on "The Automobile," or four weeks on advertising.<sup>1</sup> It could also be asked why no time at all was devoted to an analysis of food production, preservation, and sale, or why the complex and important problems of household finance are ignored. However, since it is patently impossible to cover all phases of consumption in one course, the selection of materials becomes of necessity a rather arbitrary process based on professorial interests and the conditions under which the course is given. In general the tests and work sheets are provocative and informative. In places, however, the alter-

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<sup>1</sup> The course is divided into 7 units, viz: I—"You and I in Wonderland," a review of prevailing merchandising methods, 3 weeks; II—"Bear Oil," an analysis of advertising and its adjuncts, 4 weeks; III—"Making Your Dollars Have More Cents," a technique for efficient buying, 3 weeks; IV—"Your Medicine Cabinet," simple analyses of dentifrices, medical supplies, and cosmetics, 3 weeks; V—"The Automobile," suggestions for the purchase and maintenance of a car, 3 weeks; VI—"Textile Fibers," the pitfalls in buying textiles, 3 weeks; and VII—"When Consumers Cooperate," 2 weeks.

native answers, "true" or "false," seem rather arbitrary, as for example, when one is faced with the statement, "people buy not to keep up with the Jones but to keep ahead of the Jones."

The best materials in the course are those dealing with proprietary medicines, cosmetics, and dental products. In this unit, a successful effort is made to give the reader information of practical value. The discussion of advertising and its adjuncts is well presented although entirely too much time is devoted to the subject. The materials on informative advertising are weak in the sense that they commend technical specifications to students. However valuable technical specifications may be, they are (and probably will remain) meaningless to all but technically trained persons. The untrained student therefore loses confidence in a point of view which urges him to buy on the basis of specifications he does not understand.

It is precisely here that the major objection to the Nebraska Course and to others of its type arises. Most consumer education today is a product of the ideals, the perspective, and the limitations of the classroom. Despite all of the ballyhoo to the contrary, the emphasis is on pedagogy rather than on practical consumer training. As a result the student is overwhelmed with a mass of facts and a collection of experiments which are designed to square with the latest educational methods. Inevitably the student loses interest in the subject because he has sense enough to see that many of the vital factors involved in the selection of goods are ignored in the classroom version of consumption.

What is needed now is a course in consumption which deals with reality as it is rather than with reality as the academicians think it ought to be. Such a course would certainly not follow the traditional outline. But it would offer the student a point of view and a plan of action worthy of his consideration.

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## *Feeding Your Dog Canned Foods*

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**I**N two previous articles we have discussed the problem of feeding a dog on canned dog foods. The best advice appears to be that, as is the case with human beings, a dog will thrive best on freshly prepared meals high in protein of animal origin. For those cases when it is absolutely necessary to use canned dog food, it is important for the sake of your dog's health and disposition that you know what is in the can.

The Regulatory Department of North Dakota has done a pioneer job in setting up standards for this type of product. These requirements are that canned dog food sold in North Dakota should contain 50 per cent by weight of fresh, sound meat or fish, that 75 per cent of the protein content be of animal or fish origin with a minimum of 10 per cent protein and 2 per cent fat and a maximum of 1 per cent fiber. The significance of the figures for protein content can be approximately determined when it is noted that protein in ordinary dressed fresh fish runs from about 8 to 15, and in dressed meat from about 15 to about 20 per cent of the weight.

While the requirements of this standard are not entirely applicable to the data from the Kentucky Agricultural Experiment Station\* in the following tables, they will be of some service in helping the reader determine what brands of canned dog food are of lower quality than it is wise to use. In many cases it will be noted that analyses of several samples of a brand are given.

\* Bulletin No. 14, Regulatory Series.

The dog feed business has grown like mushrooms during the last few years. Its growth has been so sudden and the proportions so enormous, especially in canned feeds, that the manufacturers have lost control of it. They are divided on the ethics of the business. Few states, if any, have adequate laws to cope with its control. Its operation is in such a chaotic condition that it is a question whether it should be dignified by calling it an industry or whether the term "racket" would not be more appropriate.

It would not be fair to put all manufacturers of canned dog feeds into the category of makers of spurious and inferior products. A large number make high-class feeds but are put to a great disadvantage because of dishonest competition. Purchasers of dog feeds are warned to make proper discrimination.

Some interesting data have been gathered in the investigation and study of the problem that dog feeds present. It seems it would not be amiss to present some of them for the general information of those interested. The number of dogs in the United States is estimated at over 15,000,000. The annual cost of a ten-cent steak given each of these dogs daily would exceed \$500,000,000. Annual dog shows and costs of exhibits cost dog owners over \$120,000,000. New York State alone contributed annually more than \$900,000, in dog licenses. Owners' solicitude for the life and health of their dogs adds a tremendous cost, besides feed, to their upkeep, such as shelter, hospitals, societies, cemeteries and monuments. The annual retail sales of canned dog feed for 1936 is estimated to be at least \$30,000,000.

Dog feeds naturally divide themselves into two general divisions: dry and canned feeds. The dry feeds are made up largely of cereals and cereal by-products, supplemented with meat and meat by-products. They are made of a large variety of low-fiber, highly digestible materials, and their use is increasing as their value and the method of feeding are better understood by the dog owner. Canned dog feeds

are made up of meat and meat by-products, supplemented by cereals and cereal by-products, vegetables, and water.

During the year, 142 samples of canned dog feeds were collected for analysis. Complete analyses were made in many instances. The results are published in full in Table 1. The materials of canned dog feed are cooked, the individual ingredients losing much of their identity. In many instances the names of dog feeds were misleading as to their composition; the ingredients were incorrectly stated; the claims for feed value were extravagant; they were short in net weight; and the feed was misbranded. Some of them were made of the cheapest materials obtainable of both animal and vegetables sources. The samples varied from 4.8 to 13 per cent protein, from 0.5 to 6 per cent fat and from 0.5 to 4 per cent fiber. The water content, most of which was added, varied from 65 to 85 per cent. On the basis of an average cost of 6 cents a can for some of the cheapest canned dog feeds, and not considering the cheapness and questionable character of the contents of some of these feeds or cost of the container, the total possible nutrients would be worth only 0.9 cents a can while the water content would cost 5.1 cents; 1 pound, 40 cents; 100 pounds, \$40.

#### Analyses of Dog Feeds\*

Manufacturer and Brand Name	Protein	Fat	Fiber	Nitrogen Free Extract	Water	Ash	Remarks
Allied Mills, Chicago, Ill.							
Wayne Dog Feed							
Krums .....	30.95	6.16	4.28	.....	.....	.....	As guaranteed
	32.45	6.55	3.33	.....	.....	.....	Same
	*30.00	*4.00	*4.00	.....	.....	.....	
Wayne Dog Feed							
Elox .....	30.20	6.55	3.65	.....	.....	.....	Same
	29.75	6.90	3.75	.....	.....	.....	Same
	*30.00	*4.00	*4.00	.....	.....	.....	
Austin Dog Bread & Animal Food Co., Chelsea, Mass.							
Austin's Puppy Biscuit .....	24.00	2.30	0.85	.....	.....	.....	
	*20.00	*1.00	*2.00	.....	.....	.....	Same

\* Manufacturer's guaranty is marked with an asterisk.

## Analyses of Dog Feeds\*

Manufacturer and Brand Name	Protein	Fat	Fiber	Nitrogen Free Extract	Water	Ash	Remarks
Ballard & Ballard Co., Louisville, Kentucky							
<i>Insurance Dog Feed</i>	20.25 *20.00	3.55 *2.00	3.25 *5.00	.....	.....	.....	Same
<i>Ballard's Kennel-cts.</i>	19.30 *17.00	1.18 *1.25	0.90 *1.00	.....	.....	.....	Same
Balorations, Inc., Waverly, N. Y.							
<i>"Ti-O-Ga" Dog Feed</i>	25.50 *20.00	4.28 *2.50	1.90 *3.50	.....	.....	.....	Same
Banner Packing Co., Des Moines, Ia.							
<i>Pal Dog Ration</i> ....	8.76 *8.50	4.95 *2.00	0.67 *2.00	.....	68.50	.....	No carrots found
Battle Creek Dog Food Co., Battle Creek, Mich.							
<i>Miller's A-1 Ration</i> ..	16.90 17.90 *15.00	2.83 3.28 *1.50	2.65 4.35 *1.30	.....	.....	.....	Excess fiber Much too high in fiber
<i>Miller's Quick Lunch</i>	11.33	2.55	0.67	10.24	73.33	1.88	Not labeled
California Animal Products Co., Oakland, Calif.							
<i>Calo Dog Feed</i> .....	10.95 10.23 11.20 10.10	5.45 3.94 2.52 2.82	0.49 0.49 1.08 0.45	11.68	69.61	1.82	As guaranteed Deficient in net weight Excess fiber Fish product present the not guaranteed
	7.03 *8.00	3.98 *2.25	0.56 *0.50	.....	.....	.....	Deficient in protein No carrots found
<i>Modern Brand Dog Feed</i> .....	5.05 *6.00	2.56 *1.00	0.71 *0.70	.....	75.60	.....	Deficient in protein Fish product present the not guaranteed
Chappel Bros., Rockford, Ill.							
<i>Pup-E-Ration</i> .....	12.70	2.73	0.61	12.51	68.67	2.78	Not labeled
<i>Ken-L-Ration</i> .....	10.95 11.05 *10.00	3.12 2.38 *2.00	0.87 0.66 *2.00	13.50	67.56	4.00	Deficient in net weight Same
<i>Ken-L-Biscuit</i> .....	22.05 *20.00	2.70 *2.00	1.58 *2.00	.....	69.50	.....	As guaranteed
Clover Farm Stores, Cleve- land, O.							
<i>Kwik-Meal Dog Feed</i>	10.85 9.25 *10.00	3.11 4.13 *2.00	0.48 0.48 *1.00	.....	75.00	.....	Same Deficient in protein Deficient in net weight
Coast Fishing Co., Wil- mington, California							
<i>Balto Dog and Cat Feed</i> .....	15.38 17.17 *12.50	10.33 10.43 *6.00	0.73 0.63 *1.00	3.98	66.63 63.50	2.95	As guaranteed Same
Continental Packing Co., Covington, Kentucky							
<i>Bronie's "Blue Rib- bon" Brand Dog Feed</i> .....	11.77 9.82	2.05 2.06	1.42 1.38	14.50	68.94	1.41	Deficient in fat. No soy- bean meal or carrots found Deficient in protein and fat. Deficient in net weight. Misbranded

\* Manufacturer's guaranty is marked with an asterisk.



## Analyses of Dog Feeds\*

Manufacturer and Brand Name	Protein	Fat	Fiber	Nitrogen Free Extract	Water	Ash	Remarks
	10.50	2.56	1.37	.....	72.50	.....	Deficient in fat. Deficient in net weight
<i>C. P. C. Dog Feed...</i>	*10.50 10.00	*3.50 2.78	*1.50 1.38	..... .....	..... .....	..... .....	Deficient in protein. Deficient in net weight
Daily Packing Co., Chicago, Ill.	11.75 *11.44	5.20 *2.58	1.45 *1.27	14.79 .....	65.31 .....	1.50 .....	No soybean meal or carrots found. Deficient in net weight
<i>Daily Dog Feed ....</i>	15.00	4.30	1.52	.....	.....	.....	Deficient in fat. Excess fiber
	13.00	5.10	1.58	.....	.....	.....	Excess fiber
	12.25	4.40	1.23	.....	.....	.....	Deficient in fat
Dietrich & Gambrill, Inc., Frederick, Md.	*12.00	*5.00	*1.00	.....	.....	.....	
<i>D &amp; G Dog Feed ...</i>	21.50	5.10	3.25	.....	.....	.....	Excess fiber
	23.55	4.40	1.83	.....	.....	.....	As guaranteed
Doggie Dinner, Inc., Terre Haute, Indiana	*18.00	*2.50	*2.00	.....	.....	.....	
<i>Doggie Dinner .....</i>	8.97	2.77	0.55	13.12	72.90	1.69	Same
	7.60	1.75	0.67	.....	71.00	.....	Deficient in protein and fat
	8.07	2.16	0.62	.....	.....	.....	Deficient in fat
Doyle Packing Co., Mokenca, Ill.	*8.30	*2.90	*0.26	.....	.....	.....	
<i>Bozo Dog Feed ....</i>	6.80	2.34	0.88	11.57	77.68	0.73	No soybean meal or hominy grits found. Deficient in net weight
	6.66	2.03	1.06	.....	75.70	.....	Excess fiber. Deficient in net weight. Misbranded
<i>White Cross Dog and Cat Feed .....</i>	*6.50	*2.50	*0.50	.....	.....	.....	
	4.81	0.92	0.97	.....	77.50	.....	Deficient in protein and fat. Deficient in net weight. Misbranded
	6.53	1.77	0.87	.....	.....	.....	Deficient in fat. No carrots found
<i>Doyle's "Supreme Brand" Dog Feed.</i>	*6.50	*2.50	*0.50	.....	.....	.....	
	5.18	5.43	0.94	.....	.....	.....	Deficient in protein. No carrots found
	7.13	2.29	1.08	13.51	75.21	0.78	Excess fiber. No soybean meal found. Deficient in net weight
	*6.50	*2.50	*0.50	.....	.....	.....	
<i>Whistle Dog Feed..</i>	7.37	2.72	1.19	13.04	74.88	0.80	Same
	8.05	2.17	1.00	.....	73.00	.....	No carrots found. Deficient in net weight
	6.13	1.32	1.00	.....	74.60	.....	Deficient in fat. No carrots found. Deficient in net weight
	*6.50	*2.50	*0.50	.....	.....	.....	
<i>Roxey Rations Dog and Cat Feed ...</i>	7.25	1.88	0.86	.....	74.50	.....	Same
	7.45	2.74	0.88	.....	.....	.....	No carrots or hominy grits found
	6.83	3.08	0.81	12.69	75.68	0.91	As guaranteed
	*6.50	*2.50	*0.50	.....	.....	.....	
<i>Strongheart Rations Dog and Cat Feed</i>	6.94	1.69	0.96	.....	76.00	.....	Deficient in fat. No carrots or bone found. Deficient in net weight. Misbranded.

\* Manufacturer's guaranty is marked with an asterisk.

## Analyses of Dog Feeds\*

Manufacturer and Brand Name	Protein	Fat	Fiber	Nitrogen Free Extract	Water	Ash	Remarks
	7.10	1.95	0.98	14.32	74.76	0.89	Deficient in fat. No hominy grits or soybean meal found. Deficient in net weight. Misbranded
	6.27	1.09	0.79	.....	.....	.....	Deficient in fat. Deficient in net weight
<i>Doyle's De Luxe Quality Brand Dog and Cat Feed ...</i>	*6.50	*2.50	*0.50	.....	.....	.....	Deficient in fat. Deficient in net weight
	6.55	2.47	0.83	.....	75.30	.....	Deficient in protein and fat. No carrots found
The Foster Canning Co., Inc., Brooklyn, New York	*3.00	*3.00	*0.75	.....	.....	.....	Deficient in net weight Misbranded.
<i>Lucky Dog Feed ...</i>	3.25	2.00	0.94	.....	.....	.....	As guaranteed
	8.15	2.02	0.93	.....	.....	.....	Deficient in net weight
	8.40	1.86	0.95	.....	73.00	.....	As guaranteed
	7.32	2.44	0.85	.....	74.20	.....	Same
	7.90	3.60	0.80	11.20	75.70	0.80	Deficient in net weight
	*7.00	*2.25	*0.50	.....	.....	.....	
<i>Dr. Olding Brand Pet Ration .....</i>	13.54	4.13	0.72	9.21	70.97	1.43	As guaranteed
	*9.00	*3.00	*0.50	.....	.....	.....	
Guines Food Co., Sherburne, New York							
<i>Gaines Granular Dog Feed .....</i>	30.80	5.40	3.58	.....	.....	.....	Charcoal and alfalfa leaf meal present tho not guaranteed
	29.20	5.75	3.08	.....	.....	.....	As guaranteed
	*23.00	*3.00	*4.00	.....	.....	.....	
General Laboratories, Inc., Des Moines, Ia.							
<i>Blue Cross Dog Feed</i>	43.40	6.45	2.48	.....	.....	.....	Same
	42.25	6.28	2.40	.....	.....	.....	Same
	42.30	6.75	2.61	30.74	7.20	10.40	No soybean cake found
	*30.00	*4.00	*4.00	.....	.....	.....	
Glendale Canning Co., Glendale, L. I., N. Y.							
<i>Snappy Dog Feed</i>	8.90	1.85	1.28	.....	71.70	.....	Deficient in fat. Excess fiber
	*7.00	*2.25	*0.50	.....	.....	.....	
Graham Food Products Co., Louisville, Ky.							
<i>Ace Dog Feed ...</i>	13.40	3.54	0.27	7.56	73.34	1.89	Deficient in protein and fat
	*14.00	*5.00	*0.50	.....	.....	.....	
Hales & Hunter Co., Chicago, Ill.							
<i>Lucky Dog Pellets</i>	25.25	5.68	3.79	.....	.....	.....	As guaranteed
	*25.00	*5.00	*6.00	.....	.....	.....	
Jem Animal Food Corporation, Brooklyn, N. Y.							
<i>Bal-O-Ration ...</i>	24.15	3.85	1.58	.....	.....	.....	Caraway seed present tho not guaranteed
	*21.00	*3.00	*1.75	.....	.....	.....	
Kasco Mills, Inc., Toledo, O.							
<i>Kasco Complete Dog Ration ...</i>	23.85	3.60	3.50	.....	.....	.....	As guaranteed
	*22.00	*4.00	*4.00	.....	.....	.....	
Dr. Geo. C. Melody, Greensburg, Pa.							
<i>Dr. Melody's Dog and Cat Feed ..</i>	6.55	0.90	0.80	.....	.....	.....	Same

\* Manufacturer's guaranty is marked with an asterisk.

## Analyses of Dog Feeds\*

Manufacturer and Brand Name	Protein	Fat	Fiber	Nitrogen Free Extract	Water	Ash	Remarks
S. E. Mighton Co., Cleveland, O. <i>Spot Dog Feed...</i>	5.60	0.30	0.58	.....	.....	.....	Deficient in net weight
	5.08	0.37	0.67	.....	79.00	.....	Same
	6.43	0.63	0.76	.....	79.00	.....	As guaranteed
	*4.99	*0.67	*3.91	.....	.....	.....	
	6.60	3.06	1.27	.....	.....	.....	No alfalfa meal found
	7.62	4.94	0.94	.....	63.00	.....	Same
	7.13	4.35	0.88	.....	64.00	.....	As guaranteed
	*7.00	*1.75	*1.75	.....	.....	.....	
	8.80	1.96	1.33	.....	.....	.....	No carrots or alfalfa found
	8.95	4.22	0.79	13.05	71.48	1.51	No wheat bran, barley or alfalfa found. Deficient in weight. Misbranded
John Morrell & Co., Otumwa, Ia. <i>Red Heart Dog Feed</i> .....	11.80	6.10	0.80	4.70	73.90	2.70	As guaranteed
	*12.00	*5.00	*1.00	.....	.....	.....	
	8.25	4.35	0.28	.....	.....	.....	Much too low in protein
	12.55	6.66	0.98	.....	.....	.....	Deficient in net weight
	*11.00	*3.00	*1.00	.....	.....	.....	
<i>Red Heart Dog Feed, Diet B ..</i>	11.10	5.47	0.48	.....	69.30	.....	As guaranteed
	*11.00	*3.00	*1.00	.....	.....	.....	
	.....	.....	.....	.....	.....	.....	
National Biscuit Co., New York, New York <i>"Milk Bone Brand" Crumbs</i> .....	18.40	1.53	1.30	.....	.....	.....	Same
	*17.00	*1.00	*2.50	.....	.....	.....	
	19.00	2.18	1.60	.....	.....	.....	Same
	18.10	2.40	1.23	65.32	9.26	3.69	Same
	*17.00	*1.00	*2.50	.....	.....	.....	Same
National Coast Products Corp., Swedesboro, N. J. <i>King Brand Dog Feed</i> .....	9.38	2.20	1.05	.....	74.00	.....	Same
	*8.00	*2.00	*1.00	.....	.....	.....	
National Grocery Co., Inc., Louisville, Ky. <i>National Brand Dog Feed</i> .....	8.65	2.14	1.13	.....	.....	.....	Excess fiber
	7.70	3.00	0.80	12.00	74.20	2.30	As guaranteed
	*7.00	*2.25	*0.50	.....	.....	.....	
Nyal Co., Inc., Detroit, Mich. <i>K-rect Dog Feed.</i>	7.63	1.13	0.96	.....	.....	.....	Deficient in fat. Deficient in net weight
	*8.00	*2.00	*0.50	.....	.....	.....	
Old Trusty Dog Food Co., Needham Hts., Mass. <i>Bovex Dog Feed..</i>	10.75	3.73	0.60	12.83	71.39	0.70	Deficient in net weight
	10.65	5.43	0.48	.....	.....	.....	
	10.40	4.48	0.42	14.41	69.48	0.81	As guaranteed
	*10.00	*2.00	*2.00	.....	.....	.....	Deficient in net weight
<i>Old Trusty Dog Feed</i> .....	17.90	1.55	1.48	.....	.....	.....	Not labeled

\* Manufacturer's guaranty is marked with an asterisk.

## Analyses of Dog Feeds\*

Manufacturer and Brand Name	Protein	Fat	Fiber	Nitrogen Free Extract	Water	Ash	Remarks
Paramount Canning Co., Kansas City, Mo. <i>Paramount Dog Feed</i> .....	6.90	1.19	0.34	.....	.....	.....	Deficient in net weight. Much too low in protein. Excess fiber. Deficient in net weight. Mis- branded
	4.80	1.47	0.56	.....	82.50	.....	
	6.03	3.78	0.46	12.62	75.17	1.94	
Pedrick Laboratories, Tulsa, Okl. <i>Vigo Dog Feed</i> ..	*6.90	*0.70	*0.10	.....	.....	.....	Deficient in protein. De- ficient in net weight.
	9.10	1.50	4.32	.....	75.00	.....	
	6.95	0.92	0.37	.....	.....	.....	
Pickrell & Craig Co., Louis- ville, Ky. <i>"Scotch Chief" Dog Feed</i> .....	6.85	2.93	0.53	10.14	78.91	0.64	Deficient in net weight
	*7.80	*2.00	*0.50	.....	.....	.....	
	13.22	3.50	0.40	.....	72.00	.....	
Polk Miller Products Corp., Richmond, Va. <i>Serpent's Dog Feed</i> .....	*14.00	*5.00	*0.50	.....	.....	.....	Deficient in protein and fat
	25.80	2.58	1.93	.....	.....	.....	
	*21.44	*2.74	*1.50	.....	.....	.....	
Ralston Purina Co., St. Louis, Mo. <i>Purina Dog Chow.</i>	24.15	7.78	3.70	47.01	9.83	7.53	Same
	23.35	7.55	3.15	.....	.....	.....	Same
	23.40	8.18	3.50	.....	.....	.....	Same
	23.90	6.95	3.30	.....	.....	.....	Same
	*20.00	*3.00	*6.00	.....	.....	.....	As guaranteed
The Rath Packing Co., Waterloo, Ia. <i>Dog-Gon Good Dog Feed</i> .....	14.14	5.30	0.63	.....	69.00	.....	Same Deficient in protein As guaranteed
	10.50	5.15	0.77	.....	.....	.....	
	11.80	4.84	0.42	5.58	75.80	1.56	
Republic Foods Products Co., Chicago, Ill. <i>Vim Dog Feed</i> ..	*12.00	*3.00	*0.75	.....	.....	.....	As guaranteed Deficient in net weight
	10.50	5.58	0.61	.....	70.80	.....	
	10.50	3.16	0.59	.....	.....	.....	
Rich Products Corporation, Rockford, Illinois <i>Err-Redy Dog Feed</i>	*10.50	3.00	*1.00	.....	.....	.....	As guaranteed Same Same Wheat present tho not guaranteed
	9.30	1.90	0.50	16.30	67.50	4.50	
	12.38	7.17	0.83	.....	.....	.....	
	11.60	2.94	0.97	.....	65.00	.....	
	9.35	3.50	0.72	.....	.....	.....	
Rival Packing Co., Chicago, Ill. <i>Rival Dog Feed</i> .	*3.00	*1.00	*2.00	.....	.....	.....	As guaranteed Deficient in net weight As guaranteed
	10.70	4.67	0.58	.....	.....	.....	
	11.40	2.68	0.41	9.70	75.06	0.75	
	10.28	3.47	0.53	.....	72.00	.....	
G. P. Rose & Co., Nash- ville, Tenn.	*10.00	*2.50	*0.50	.....	.....	.....	As guaranteed

\* Manufacturer's guaranty is marked with an asterisk.

## Analysis of Dog Feeds\*

Manufacturer and Brand Name	Protein	Fat	Fiber	Nitrogen Free Extract	Water	Ash	Remarks
<i>Blue Ribbon Brand Dog Feed</i> .....	6.68	1.56	0.51	.....	.....	.....	Deficient in net weight. Not labeled
Dr. W. J. Ross Co., Los Angeles, California <i>Dr. Ross' Vitamin Dog and Cat Feed</i>	8.05	3.19	0.83	.....	69.00	.....	Same
Sandy's Pet Foods, Inc., Chicago, Illinois <i>Sandy's Dog Feed</i>	10.60 10.37 12.12	3.53 4.20 4.10	0.36 0.42 0.60	..... 13.19	..... 70.83	..... 0.99	Deficient in net weight As guaranteed Same
Schultz, Baujan & Co., Beardstown, Ill. <i>Honest Brand Dog Feed</i> .....	*10.50	*3.50	*1.00	.....	.....	.....	.....
Security Mills, Knoxville, Tenn. <i>Security Dog Feed</i>	28.40 *30.00	4.23 *4.00	4.75 *4.00	.....	.....	.....	Deficient in protein Excess fiber
Spratt's Patent (America) Ltd., Newark, N. J. <i>Spratt's Puppy Cakes</i> .....	21.50 20.80 *20.00	2.60 2.53 *2.00	0.90 0.80 *1.50	..... 63.84	..... 9.64	..... 2.39	Same Same
Swift & Co., Chicago, Ill. <i>Paro Dog Feed..</i>	11.42 11.82 *10.50	3.71 3.30 *2.50	0.46 0.77 *0.50	..... 9.49	71.00 72.00	..... 2.62	Same Same
The ThoroBread Co., Cincinnati, O. <i>Cincy Dog Feed..</i>	7.65 *7.00	1.50 *1.25	1.06 *1.50	.....	75.00	.....	No carrots found. Barley present tho not guaranteed
<i>ThoroBread Dog and Puppy Feed</i>	17.25 *17.59	5.65 *3.25	3.73 *3.20	.....	.....	.....	Excess fiber
<i>ThoroBread "Meaty Brand" Dog Feed</i>	9.81	3.36	1.18	.....	.....	.....	.....
Vaughan Food Products, Inc., Kansas City, Mo. <i>Life Saver Dog Feed</i> .....	10.32 *7.00	4.06 *3.00	0.80 *1.00	14.09	65.33	5.40	Wheat present tho not guaranteed. Deficient in net weight No soybean oil meal found. Deficient in net weight
Victory Packing Co., Oakland, Calif. <i>Victory Dog and Cat Feed</i> .....	13.90	4.60	0.30	6.20	73.00	2.00	Not labeled
The Vitamont Sales Co., Butte, Montana <i>Vitamont Blue Ribbon Dog Feed</i> ..	5.55 5.43 *6.00	2.11 1.55 *1.00	0.62 0.67 0.70	..... 13.34	77.00 76.81	..... 2.20	Wheat present tho not guaranteed Deficient in protein
	13.15	3.52	0.41	6.54	75.68	0.70	Not labeled. Deficient in net weight

\* Manufacturer's guaranty is marked with an asterisk.

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# *Dreft and Drene*

By

FRANK MACADAMS

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VERY recently there have appeared two new products which have many of the properties of soap. One is a liquid called *Drene*, and the other a granular or powdered substance called *Dreft*. Although not like soap in their chemical constitution, *Dreft* and *Drene* might be considered first cousins to it. Soap, chemically, is a "salt" which puts it in the same general classification, in the chemist's mind, as ordinary table salt, sodium chloride. Most sodium salts are soluble in water and this is true of soap, although the non-sodium part of the compound, by itself, is not water-soluble but is fatty in nature.

It was discovered years ago that fats and oils can be made miscible with water by treatment with sulphuric acid. The resulting products are known as *sulphonated oils*. Such compounds resemble soap slightly in that they have cleansing action, and some grades are efficient in removing soil of a greasy nature. They are different in their action for they do not foam or lather as soap does. These sulphonated oils have another important difference in that, in most grades, they are stable in acid solution and do not form gummy curds in hard water. These properties give the new substances a decided advantage over soap for some purposes, particularly in the textile industry. Some have been used in shampoo liquids. Washing hair with soap and hard water seems sometimes, so far as the apparent results are concerned, to be worse than not washing it at all. Hard water contains calcium and magnesium salts which with

soap form sticky precipitates that are exceedingly difficult to rinse out.

### Soap Substitutes

In the search for soap substitutes, it was thought by chemists that it would be a great advantage if the cleansing and foaming properties of soap could be combined with the acid and hard-water resistance of sulphonated oils. In making soap, fat or oil, or a mixture of the two, is made to react with caustic alkali or lye. Such oils and fats as tallow, coconut oil, palm kernel oil, and occasionally, olive or linseed oils are used. It was found necessary to introduce an intermediate step. It was the getting of this intermediate step down to a practical basis which finally brought the solution of the whole problem. The fats and oils were changed to fatty acids, which was simple enough—but then these fatty acids were reduced to fatty alcohols, which was indeed new and novel as a large-scale procedure. It was accomplished at high pressure and high temperatures with the aid of catalysts (agents which accelerate chemical reaction, themselves suffering no permanent change, just as the enzyme pepsin speeds up digestion). The fatty alcohols were treated with sulphuric acid to form sulphates and these, in turn, were treated with caustic alkali to form sodium salts. The product, termed chemically alkyl sulphate, appears to have many of the properties that chemists have been looking for for years in producing efficient detergents. Now it only remains to make it cheaply.

*Dreft* is a commercial product of this sort. It contains roughly, 50 per cent of sodium alkyl sulphates, mostly sodium lauryl sulphate (since it is made from coconut oil) and, roughly, 50 per cent of sodium sulphate. The latter is a salt which has no cleansing action, but one whose presence in the mixture arises out of the method of manufacture. If this unnecessary substance were to be removed, the

cost of manufacture would be greatly increased and the retail price made prohibitive. *Drene* is a solution of a similar substance asserted by the company to be triethanolamine alkyl sulphate in water. It is sold as a shampoo liquid and, with certain reservations, it should afford some real advantages to people living in districts having excessively hard water. The possible disadvantage of its continued use is that it is such an effective solvent that it may remove too much of the natural oil in the hair and scalp. Experience has also shown that some people react unpleasantly to its use.

#### Advantages in Use

Like soap in solution, aqueous solutions of sodium lauryl sulphate possess the property of forming stable foams. Unlike soap, they form foams readily in hard water—indeed, even in sea water. The material is much more soluble at ordinary temperatures than soap, and it will dissolve even in ice water to give a good suds.

The soap chemist talks a great deal about hydrolysis. This means that when soap dissolves in water it forms a small amount of free alkali. Also a very small amount, a small fraction of one per cent, of free alkali is usually left in the soap, intentionally, when it is made, so that it will keep better and not turn rancid. The alkalinity of soap solution is considered by some to be a drawback, since alkali may irritate sensitive skins. For instance, shaving cream is often "superfatted" to counteract any slight alkalinity. This is especially useful in shaving soaps which are in contact with the skin for a longer time than toilet soap. The sodium alkyl sulphates, which are used in the new soap substitute, are neutral in their chemical reaction so that there is no caustic effect on the skin.

*Dreft* and *Drene* are the children of the Hyasol Corporation, which is itself half owned by E. I. du Pont de Nemours & Co., a huge industry which turns out an amazing variety of chemical products and is continually introducing



new chemical substances (mainly for industrial uses). Another half of the Hyasol Corporation is owned by Procter and Gamble. The latter company controls the distribution of the material to the public as a soap substitute and shampoo liquid. Du Pont controls the industrial uses; these are particularly in the textile field, to which is supplied a series of products under the names of Gardinols, Duponols, and Avirols. Put into one type of bottle, the product becomes a copious-foaming rug shampoo; in yet another container, it becomes a special cleaning agent for washing silk hose. There has been a great effort in chemical circles to develop other products that will have somewhat the same properties as sodium alkyl sulphate, but so far none has reached the consumer in a form competitive with *Dreft* and *Drene*.

#### Price vs. Price of Soap

It is difficult to say to what extent the present prices of the products as sold to consumers are justified. Certainly, as is usual with new products, a substantial assessment per pound is being paid by the consumer to pay for the original research and development cost. A four-ounce package of *Dreft* sells for 15 cents as compared with a five-ounce package of *Lux* at 10 cents. These, of course, both represent markups from the prices of the corresponding articles in bulk. For example, the grade of alkyl sulphate sold as *Dreft* is marketed at 42 cents per pound in lots of a number of barrels. Thus, in this case, the price in "consumer-packages" represents a markup of less than 50 per cent above the bulk price, which is a rather remarkably small markup for a proprietary product of this sort. *Lux* flake soap is, on the other hand, a type of material which, in bulk without the perfume, sells for about 12 cents per pound. Thus, in this case, the "consumer-package" price represents a markup of a very much larger amount—over 150 per cent. Possibly some of this difference in rate

of markup may be ascribed to the fact that *Dreft* is sold with a small amount of advertising.

To return to the bulk prices of 42 cents and 12 cents respectively for alkyl sulphate and flake soap, the former contains about 50 per cent inert matter, the soap, about 10 per cent water. Reduced to a strictly comparable basis, these products would be priced at 84 cents and 13.3 cents respectively. Why this spread? Without going into too great detail, it can be said that the operations in manufacture of the alkyl sulphates in many ways parallel those in manufacture of soaps, and the raw materials are similar. More operations are required for final production of the alkyl sulphates so that the manufacturing cost per pound of alkyl sulphates can, as it would seem at this writing, never be as low as for soaps.

Evidently, the product *Dreft* is carrying a considerable burden of development cost as well as the cost of continued research; if it were not for the large load of advertising carried by such a product as *Lux*, the price comparison would be less favorable to *Dreft*. It should be noted, however, that it is the industrial consumers who carry much of the burden of expense in development of the alkyl sulphates, since they are the major outlet.

#### Performance vs. Soap's Performance

What of performance? In soft water there is no great advantage of *Dreft* over soap, and when we say soap, we mean *Lux*, *Cashmere Bouquet*, *Palmolive*, *Sweetheart*, and a host of other brands distinguishable from each other by the layman chiefly by color, perfume, or name on the product or package, or by whether the product is in a solid cake, or flaked, or powdered. Some additional merit resides in the effectiveness of *Dreft* in cold water, for most soaps are really inefficient unless the water is at least lukewarm. But *Dreft* does cost more.

In water of 15 to 20 grains hardness, which is typical

of a large portion of the middle and western sections of the country, about half the soap used is wasted in softening the water. Water can be softened more cheaply, but most consumers, undoubtedly, do not take the trouble to do this and rely mainly upon soap for any water softening that is done, especially in the toilet uses of soap.

When soap is used to soften the water in the tub or washbowl, it is converted to sticky, gummy calcium and magnesium soaps which must be washed away with the other parts of the soap which were not so decomposed.

### General Conclusions

Based on present prices, therefore, the general conclusion can be drawn that in water of over 15 grains hardness *Dreft* is as economical as flake soap of a high grade comparable to *Lux*, *Ivory Flakes*, *Ivory Snow*, *Kirkman's Chips*, and *Palmolive*.

When washing the hands and use in the bathtub are considered, the increase in cost of *Dreft* over soap becomes somewhat greater because its physical form does not permit as economical use as does soap in a bar or a cake.

In conclusion it may be said that *Dreft* is an effective but expensive substitute for soap for those who live in soft water regions. It will, undoubtedly, be considered a boon for a great many of those who have to do their washing of dishes and clothes in hard water. If carefully used, its cost will not be much greater than soap. For washing the face and hands, however, it will be uneconomical.

*Dreft* dissolved in water is an effective shampoo but may leave the hair and scalp too dry. Its companion, *Drene*, which is similar in composition, has advantages, too, over soap as for shampooing the hair when hard water must be used, but it is expensive and has been known to cause allergic reactions in some persons who have used it.

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# Writing Inks

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A COLLEGE president recently warned that the inferior grades of paper and inks in use in contemporary documents may cause the history of this period to be completely blotted out and the present age to become known to future historians as the "lost century." If you have had the names fade from the deed to your grandfather's farm, a treasured military commission, or college diploma, you probably agree.

Yet, except when an ink is to be used by children, there is little reason for it to be other than of a permanent type.

## Characteristics of Good Ink

Nearly fifty years ago the desirable characteristics of ink were carefully set down in a book by Schluttig and Neumann, two German ink chemists. They said:

1. Ink should be a solution which is clear except for its color, i.e., free from floating or suspended particles, and should keep well for a considerable time without forming a deposit or scum.

2. It should flow easily from the pen without clogging or dropping.

3. It should not spread on paper, nor penetrate through good paper.

4. It should have an intense color that does not fade or bleach out, have no strong odor, not be too acid, and not be sticky after drying.

5. It should resist effectively efforts to make it illegible by treatment with water or alcohol [to which we would add, soap and water and other simple common reagents] after it has dried for eight days.

6. It should contain not less than a certain minimum amount of iron and sufficient tannin to give deep black after eight days.

Schluttig and Neumann might have added, were they writing today, that the ideal ink would write jet black at the time when first applied to the paper and would resist drying out in a fountain pen in such a way as to clog the pen and keep it from feeding freely. The first of these two requirements was not set down in early writing about ink because no one had been able to contrive an ink formula which would give instant blackness and at the same time suitable permanence comparable with that of the ink which turned black slowly after being applied to the paper. The second requirement is a modern development coming from the very wide use of the fountain pen. In steel pen days, the property of an ink which makes it clog a fountain pen was practically of slight importance.

The iron and tannin contents specified in Schluttig and Neumann's description make a compound which penetrates into the paper and which there becomes oxidized into a dark-colored substance comparatively durable and resistant to the effects of atmospheric conditions and time. The penetration into the paper of a dark-colored substance, moreover, renders removal by chemical means very difficult without betraying the attempt at alteration, and even though the paper may have burned to a char, the iron-tannin marks remain and can be made visible by appropriate chemical means.

Although the making of ink is one of the oldest chemical arts, how to make a writing ink which is satisfactory in all respects is a problem which has not yet been solved, for the requirements of an ideal ink are many, and up to the present time have been found to be to some extent mutually antagonistic. For instance, if the common iron gallotannate ink is to keep satisfactorily in a bottle, it must be slightly acid. The acidity required to produce this desirable quality,

however, has the unfortunate effect of deteriorating the paper, bringing about its destruction along the ink lines after many years, and it is also corrosive to steel pens.

### Disadvantages of Certain Types

Dye inks which contain no iron, as for instance *Quink Washable Black*, are unsuitable for writing checks or other documents intended to serve as a record. There are likewise many inks which contain only a little iron—not enough to make them appreciably better than mere dye inks. Because of their attractive qualities in other respects, such as especial fluidity or strong color, they have become very popular among people who suppose that all inks are pretty much alike or do not care whether their writing lasts or does not last. The unfortunate thing about this position is that every once in a while in everybody's lifetime there comes a time when the need to decipher a faded signature or to establish beyond question a date or number becomes a very pressing one, with perhaps very important financial significance.

So-called "safety" or "acid proof" inks (often bright blue or greenish-blue in color) are resistant enough to acid erasure but are quickly removed by other reagents, such as alkali or soap and water. Such inks have been often sold to bankers on the strength of their acid-proofness by salesmen who forgot to indicate their peculiar want of soap- or alkali-proofness, in respect to which they are among the worst inks that could possibly be devised.

For convenience in storing and shipping, ink powders which can be mixed with water to make writing ink are desirable. Most commercial ink powders, however, are mere water-soluble dyes, and most attempts to make good gallotannate ink powder have failed. Directions for making a ferrous sulphate ink powder which has proved to be fairly satisfactory in use, however, are given in the project following this article.

### Government Inks

Government standard inks continue to be the best inks from many different standpoints, and granting certain well-known defects of the government grades of inks, there are no commercial inks which surpass them in a number of really *important* characteristics.

Government standard writing ink and government standard record ink are iron-gallotannate inks. To meet Federal Specifications, record ink must contain not less than 0.58 gram nor more than 0.70 gram of iron per 100 cc. Government Standard Writing Ink has one-half as much iron as the record ink. It has the advantage over the record ink of being more fluid and hence working better in fountain pens. Its permanence should serve the purpose of anyone having no more than ordinary need for high record value of what he writes.

Government writing ink, which is a blue-black ink, contains the following:

	<i>Grams</i>
Tannic acid -----	11.7
Gallic acid crystals -----	3.8
Ferrous sulphate crystals -----	15.0
Hydrochloric acid, "dilute," U.S.P.* -----	12.5
Carbolic acid (phenol)* -----	1.0
Dye (C.I. 707; Sch. 539) -----	3.5
Water to make a volume of 1 liter (1000 cc)	

To make record ink instead of writing ink, the proportions of the first four ingredients, which are the ones fundamental to the final strength of color and permanence of the writing, are doubled.

Those who wish to make their own inks may find instructions for making each of the above in the project following this article.

\* Harmful to skin or to inhale, and especially must not be allowed to splash into eyes.

### General Advice

Inks should be kept in a tightly closed container to exclude them as much as possible from contact with air. Do not mix inks, even though presumably of the same make or composition, especially if they are to be used in fountain pens. Even minute traces of one ink in another may spoil it for satisfactory use in a fountain pen. If necessary to change inks in a fountain pen, it is very important that the pen should be thoroughly washed and soaked in water, or in water with a little added ammonia, for two or three days and thoroughly rinsed. The government inks described here, the record and the writing standard inks, and the ferrous sulphate ink have long been used with complete satisfaction in fountain pens, but this can only be done if the pen is thoroughly cleaned to begin with and if it is not too often or too long left open on the desk with the cap removed.

### Ratings

The following ratings of inks are based primarily upon durability of the writing as determined by standard tests for resistance to various chemical and physical treatments and upon corrosion and iron content as compared with government standard writing ink. All inks contained iron with the exceptions of those mentioned in the listings as not containing it. With the exception of *Higgins' Eternal*, not even one of the commercial inks tested was the equal of government standard writing ink in resisting chemical erasure. *Higgins'* ink, however, was not as resistant to mechanical erasure. It lies rather on the surface of the paper than deep in its tissue as do the best iron inks. It should be observed that the term "permanent" used by many manufacturers to designate their inks is a highly sanguine description. Some of the inks so designated failed badly to measure up to this term.

The washable inks, being in a different class, were not



compared with the government standard writing ink. Inks marked with an asterisk (\*) were markedly acid, a characteristic which is detrimental to steel pens and, over a period of many years, to paper, but not judged to be of great significance to the average fountain pen user. Ingredients for adding to distilled water to make one quart of either of the first two inks listed are available from the Buffalo Chemical Supply Company, Box 240, Buffalo, New York. Instructions for making these inks and the ink powder listed under *Qualified Recommendation* are given in the Project following this article.

Inks given a qualified recommendation were somewhat inferior to government standard writing ink.

#### RECOMMENDED

Government Standard Record Ink. This ink is strongly recommended to all who wish their writing or signatures to be as strong in color and as permanent in keeping quality as possible.

Government Standard Writing Ink. "Writing ink" is less permanent and gives a less intensity of final color than does the record ink, but will give less difficulty with clogging when used in fountain pens, especially for a person who does not take particular care to keep a fountain pen sealed as much as possible.

#### QUALIFIED RECOMMENDATION

The following inks were relatively permanent.

Ferrous Sulphate Ink Powder. Made according to the directions published by the National Bureau of Standards. The Buffalo Chemical Supply Co., Box 240, Buffalo, N. Y., can supply ink powder made according to a powdered ink formula with soluble nigrosine dye. The powder is made into ink by simply adding distilled water and mixing, as described for government ink in the Project.

\**Carter's* Permanent Kongo Midnight Black, No. 886 (*Carter's Ink Co.*, Boston) 10 cents per 2.5-ounce bottle.

\**Carter's* Permanent Ryto Midnight Blue-Black, No. 816 (*Carter's Ink Co.*) 10 cents per 2-ounce bottle.

\**Graph* Permanent Blue-Black, No. S 730 (*United Drug Co.*, Boston) 15 cents per 3-ounce bottle. No. S 762, 10 cents for 2 ounces, is claimed by the manufacturer to be the same ink.

\**Higgins'* Blue-Black, No. 822 (*Charles M. Higgins & Co.*, Inc., 271 Ninth St., Brooklyn, N. Y.) 15 cents per 2-ounce bottle. Iron content somewhat too low.

*Higgins' Eternal* Black, No. 812 (*Charles M. Higgins & Co.*, Inc.) 10 cents per 2-ounce bottle. Resisted *chemical* erasure and exposure to light best of inks tested, including government standard writing ink, and was the only commercial ink even closely to equal the government standard ink in this respect; but was not as resistant to mechanical erasure as the types of ink which penetrate and react chemically with the paper rather than lie upon its surface. Not an iron ink.

\**Sanford's* Permanent Blue-Black, No. 5 (*Sanford Mfg. Co.*, Chicago) 10 cents per 2-ounce bottle.

*Stafford's* Permanent Blue-Black, No. 250 (*S. S. Stafford, Inc.*, N.Y.C.) 10 cents per 2.5-ounce bottle. Iron content somewhat too low.

*Waterman's Ideal* Permanent Jet-Black (*L. E. Waterman Co.*) 15 cents per 2-ounce bottle. Iron content somewhat too low.

The following are not iron inks. For use where an ink which is washable from fingers and fabrics is wanted. Not suitable for records.

*Winner* Washable Black, No. 989 (*Winner Chemical Co.*) 5 cents per 1.3-ounce bottle.

*Quink* Washable Black (*The Parker Pen Co.*, Janesville, Wis.) 15 cents per 2-ounce bottle.

\* Markedly acid. See text.

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# A Project for Consumers

## How to Make Your Own Ink

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THE making of a good ink is, fortunately, interesting and easy, especially for high school chemistry classes or those consumers who are fortunate enough to have some very simple laboratory facilities available at home.

### Government Writing and Record Inks

The formulae for these inks are given in the previous article. In purchasing ingredients it would be well to remember the following points:

In some states, the law permits the sale of only a 10 per cent solution of carbolic acid; in such a case 10 cc of the 10 per cent solution may be substituted for the 1 gram called for in the formula. The dilute U.S.P. hydrochloric acid is a 10 per cent solution of HCl (and that is not the same as a 10 per cent solution of U.S.P. hydrochloric acid).

The soluble blue dye that is used is specified by its color index number or alternatively by its Schultz number and should be obtained directly from a reliable dye dealer, as for instance, Fezandie & Sperrle, Inc., 205 Fulton St., N.Y.C.; or from the Buffalo Chemical Supply Co., Box 240, Buffalo, N. Y.; or from E. A. Snow, 253 Bedford St., Lexington, Mass. Specify in ordering that the dye is to be used in making gallotannate ink. Be sure you get the dye you ask for and that it is correctly and completely labeled by its name and number as such (soluble blue, C.I. 707, or Sch. [or Schultz] 539). The types of dye that will serve properly in ink are few; with many, the ink reacts in such a way as to produce an off-color or a heavy sediment

that will clog any fountain pen. The other ingredients may be ordered from the Buffalo Chemical Supply Co., or may, if desired, be measured out by the neighborhood druggist, who, however, will quite likely have to order specially one or more of the ingredients.

It is recommended that distilled water should be used in making ink unless you live in a region where the water is exceptionally pure and soft and free from dissolved matter.

In making, dissolve the tannic and gallic acids in about 600 cc of warm water (122 degrees Fahrenheit). Then add the hydrochloric acid\* and the ferrous sulphate. In another dish, dissolve the dye in about 250 cc of warm water. Pour this through a filter paper into the first solution. Rinse two or three times with a little water (a few cc) the vessel in which the dye was dissolved, and pour this also through the filter paper. When the mixture has cooled to room temperature, add the carbolic acid\* (which is a poison and must necessarily be handled with care, properly labeled with a poison label, and always put away in such a place that it cannot come into the hands of a child or anyone not familiar with its dangers). Then add enough distilled water to make a total volume of 1 liter, which is about 1 1/20 quarts, and mix thoroughly not by shaking but by simply inverting the mixture in a stoppered flask a dozen times or so. Instead of filtering, the ink may be allowed to stand for several days in the corked flask; then all but the lower part of the liquid is carefully poured off. This ink writes blue and the writing turns black upon exposure to air after a period of several days.

Many people prefer the appearance of an ink which writes a true or intense black immediately, but there is no such ink which is also of highest quality in all other respects. Attempts to use a black dye in iron-gallotannate

\* Harmful to skin or to inhale, and especially must not be allowed to splash into eyes.

ink, such as government writing ink, have so far proved unsatisfactory.

To make record ink instead of writing ink, follow the above instructions, but double the proportions of the first four ingredients.

#### Ferrous Sulphate Ink Powder

Recently the National Bureau of Standards has recommended a ferrous sulphate ink powder made of the following ingredients:

	<i>Grams</i>
Gallic acid crystals -----	10.0
Ferrous sulphate crystals -----	15.0
Tartaric acid -----	1.0
Soluble blue (C.I. 707; Sch. 539) -----	3.5

These four ingredients may be mixed dry and then added to distilled water to make a total volume of 1 liter. The ink has good keeping qualities, low acidity, and a good degree of permanence but is not, however, to be regarded as a fully developed type. It is perhaps worth experimenting with and further experience with it may indicate how it can be improved. No completely satisfactory way has yet been found for making powdered inks of good color and intensity.

#### A Sure Foundation

Subject all products to a more rigid test than the purchaser requires; for a reputation for producing the best is a sure foundation on which to build.

—Andrew Carnegie

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# Choosing Your Pictures

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THE first ratings of motion pictures appeared in the November, 1937, issue of *Consumers' Digest*. The entire list has been revised monthly by recording the opinions of additional reviewers.

The ratings of pictures given herewith are based upon an analysis of the reviews published in the following periodicals:

*Boston Transcript, Box Office, Christian Century, Christian Science Monitor, Commonwealth, Cue, Film Weekly, Harrison's Reports, Hollywood Spectator, Judge, Liberty, Minneapolis Journal, The Nation, The New Republic, New York Herald Tribune, New York Sun, New York Times, New York World-Telegram, New Yorker, News Week, Philadelphia Exhibitor, Stage, Time, Variety, Variety (Hollywood), Weekly Guide to Selected Pictures*, and the bulletins of the American Legion Auxiliary, Daughters of the American Revolution, General Federation of Women's Clubs, National Council of Jewish Women, National Legion of Decency, National Society of New England Women, Women's University Club of Los Angeles.

Films are rated "AA," "A," "B," and "C," which designate them as *strongly recommended, recommended, intermediate, and not recommended* respectively. The figures preceding each picture indicate the range of critical opinion regarding that picture as determined by an analysis of the reviews published in the aforementioned periodicals. Thus, "The Good Earth" is *strongly recommended* by twenty-five of these judges, *recommended* by four, and rated *intermediate* by one.

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

*adv*—adventure  
*biog*—biography  
*com*—comedy  
*cr*—crime and capture of criminals  
*f*—foreign language  
*hist*—founded on historical incident  
*mel*—melodrama

*mus-com*—musical comedy  
*mys*—mystery  
*nov*—dramatization of a novel  
*rom*—romance  
*soc*—social-problem drama  
*trav*—travelogue  
*wes*—western

AA	A	B	C	
—	5	11	5	Accidents Will Happen ..... <i>cr A</i>
5	12	2	—	Adventures of Chico ..... <i>trav AYC</i>
4	6	5	5	Adventures of Marco Polo ..... <i>adv-com A</i>
19	7	—	—	Adventures of Robin Hood ..... <i>adv AYC</i>
7	12	3	1	Adventures of Tom Sawyer ..... <i>adv AY</i>
—	10	3	1	Affairs of Annabel ..... <i>com AY</i>
—	—	6	2	Affairs of Maupassant ..... <i>biog f A</i>
—	—	—	9	Air Devils ..... <i>mel A</i>
8	8	3	1	Alexander's Ragtime Band ..... <i>mus-com A</i>
10	8	1	1	Algiers ..... <i>mel A</i>
10	8	—	—	All Quiet on Western Front ..... <i>nov AY</i>
3	6	4	5	Always Goodbye ..... <i>soc AY</i>
1	15	5	1	Amazing Dr. Clitterhouse ..... <i>cr A</i>
1	11	7	—	Army Girl ..... <i>mel AY</i>
—	11	4	—	Arsene Lupin Returns ..... <i>mys AY</i>
—	—	6	—	Arson Gang Busters ..... <i>cr A</i>
20	9	—	—	Awful Truth ..... <i>com A</i>
—	11	11	3	Back in Circulation ..... <i>cr A</i>
1	8	8	4	Bad Man of Brimstone ..... <i>wes AY</i>
—	5	—	—	Ballad of Cossak Golota ..... <i>adv f A</i>
1	11	8	2	Baroness and the Butler ..... <i>com A</i>
1	10	7	2	Barrier ..... <i>adv AY</i>
—	4	7	3	Bar 20 Justice ..... <i>wes AY</i>
—	6	13	3	Battle of Broadway ..... <i>com A</i>
—	15	5	2	Beg, Borrow or Steal ..... <i>com AYC</i>
—	5	10	4	Beloved Brat ..... <i>com AY</i>
1	7	11	7	Big Broadcast of 1938 ..... <i>mus-com AY</i>
—	6	1	—	Birth of a Baby ..... <i>soc AY</i>
—	6	6	3	Blind Alibi ..... <i>mys AY</i>
—	1	3	—	Block Heads ..... <i>com AYC</i>
—	1	4	5	Blonde Cheat ..... <i>com A</i>
—	5	2	—	Blondes at Work ..... <i>mys AY</i>
5	13	8	—	Bluebeard's Eighth Wife ..... <i>com A</i>
—	7	5	15	Boo-oo ..... <i>adv AYC</i>
—	13	5	1	Border Cafe ..... <i>wes AYC</i>
—	7	3	1	Border G-Man ..... <i>wes AYC</i>
—	—	1	4	Border Wolves ..... <i>wes AY</i>
—	2	4	9	Born Reckless ..... <i>cr A</i>
—	—	2	3	Born To Be Wild ..... <i>adv A</i>
3	6	2	—	Boy Meets Girl ..... <i>com AY</i>
1	11	6	2	Boy of the Streets ..... <i>soc AY</i>
7	13	5	1	Bringing Up Baby ..... <i>com AYC</i>
11	13	3	—	Buccaneer ..... <i>adv AYC</i>
—	2	7	1	Bulldog Drummond in Africa ..... <i>mys AY</i>
—	3	9	4	Bulldog Drummond's Peril ..... <i>mys AY</i>
—	—	4	6	Call ..... <i>biog f AY</i>
—	—	4	—	Call of the Rockies ..... <i>wes AYC</i>
1	2	7	2	Call of the Yukon ..... <i>adv AY</i>
—	—	2	3	Call the Mesquiteers ..... <i>wes AY</i>

AA	A	B	C	
26	4	—	—	Captains Courageous ..... <i>nov</i> <i>AYC</i>
—	—	8	5	Cassidy of Bar 20 ..... <i>wes</i> <i>AYC</i>
—	1	3	1	Cattle Raiders ..... <i>wes</i> <i>AYC</i>
1	16	5	—	Charlie Chan at Monte Carlo .... <i>mys</i> <i>AY</i>
2	7	2	—	Charm of La Boheme ..... <i>mus-rom</i> <i>f</i> <i>AY</i>
—	7	6	3	Chaser ..... <i>com</i> <i>A</i>
—	1	3	5	City Streets ..... <i>mel</i> <i>AY</i>
—	10	11	3	Cocoanut Grove ..... <i>mus-com</i> <i>AY</i>
—	—	2	2	Code of the Ranger ..... <i>wes</i> <i>AY</i>
—	2	10	13	College Swing ..... <i>mus-com</i> <i>A</i>
—	4	8	8	Condemned Women ..... <i>mel</i> <i>A</i>
16	11	3	1	Conquest ..... <i>rom</i> <i>A</i>
—	—	1	3	Convicted ..... <i>mel</i> <i>AY</i>
8	20	—	—	Count of Monte Cristo ..... <i>adv</i> <i>AY</i>
—	3	4	—	Country Bride ..... <i>rom</i> <i>f</i> <i>AY</i>
2	6	1	—	Courier of Lyons ..... <i>hist</i> <i>f</i> <i>AY</i>
1	7	8	4	Cowboy from Brooklyn ..... <i>com</i> <i>AY</i>
—	7	9	7	Crime of Dr. Hallet ..... <i>mel</i> <i>A</i>
—	1	1	5	Crime Over London ..... <i>cr</i> <i>AY</i>
—	2	8	2	Crime Ring ..... <i>cr</i> <i>A</i>
2	20	7	2	Crime School ..... <i>mel</i> <i>A</i>
—	2	3	—	Crime Takes a Holiday ..... <i>cr</i> <i>AY</i>
—	11	4	1	Crowd Roars ..... <i>com</i> <i>AY</i>
3	21	7	—	Damsel in Distress ..... <i>mus-rom</i> <i>AY</i>
—	2	5	5	Danger on the Air ..... <i>mel</i> <i>AY</i>
1	1	6	4	Dangerous to Know ..... <i>cr</i> <i>A</i>
—	—	4	3	Dare-Devil Drivers ..... <i>mel</i> <i>A</i>
1	3	5	3	Dark Eyes ..... <i>rom</i> <i>f</i> <i>A</i>
—	3	6	2	Dark Sands ..... <i>adv</i> <i>AY</i>
—	2	7	11	Daughter of Shanghai ..... <i>mel</i> <i>A</i>
23	7	—	—	David Copperfield ..... <i>nov</i> <i>AYC</i>
—	—	2	3	Dawn Over Island ..... <i>adv</i> <i>AY</i>
14	6	—	—	Dead End ..... <i>soc</i> <i>AY</i>
—	1	2	6	Desperate Adventure ..... <i>com</i> <i>AY</i>
9	19	1	1	Devil Is a Sissy ..... <i>youth</i> <i>AYC</i>
—	1	7	5	Devil's Party ..... <i>mel</i> <i>A</i>
—	10	4	1	Divorce of Lady X ..... <i>com</i> <i>A</i>
3	13	7	1	Doctor Rhythm ..... <i>mus-com</i> <i>AY</i>
—	—	6	11	Double Danger ..... <i>mys</i> <i>A</i>
3	3	—	—	Drums ..... <i>adv</i> <i>AYC</i>
—	2	2	2	Dybbuk ..... <i>rom</i> <i>f</i> <i>A</i>
1	18	9	1	Easy Living ..... <i>com</i> <i>AY</i>
2	16	8	3	Ebb Tide ..... <i>adv</i> <i>AY</i>
—	—	1	4	Emil ..... <i>adv</i> <i>A</i>
1	15	12	2	Emperor's Candlesticks ..... <i>mys</i> <i>AY</i>
—	10	9	2	Everybody Sing ..... <i>mus-com</i> <i>AY</i>
—	—	2	3	Extortion ..... <i>mys</i> <i>A</i>
5	11	4	—	Farewell to Arms ..... <i>nov</i> <i>A</i>
2	12	3	2	Fast Company ..... <i>mys</i> <i>AY</i>



AA	A	B	C	
—	—	2	6	Female Fugitive .....mel A
1	5	5	—	Fight for Peace .....trav AY
—	10	7	5	Fight for Your Lady .....com AY
1	14	7	2	First Hundred Years .....com A
4	13	6	—	First Lady .....rom A
—	10	5	2	Fit for a King .....com AYC
—	4	4	3	Flight into Nowhere .....adv A
—	1	9	15	Fools for Scandal .....com A
—	2	3	2	Forbidden Valley .....wes AY
4	4	2	—	Four Daughters .....mel AY
1	11	9	1	Four Men and a Prayer .....mel A
2	10	7	4	Four's a Crowd .....com AY
—	—	3	1	Freshman Year .....com AYC
—	11	5	—	Gaiety Girls .....mus-com AY
—	2	7	—	Gangs of New York .....cr AY
—	5	4	—	Garden of the Moon .....mus-com AY
—	1	4	7	Gateway .....rom AYC
5	9	—	—	Generals Without Buttons .....com f AY
14	13	—	—	Ghost Goes West .....mys AYC
—	—	4	11	Girl in the Street .....rom A
4	9	7	2	Girl of the Golden West .....mus-rom AY
2	11	7	2	Girl Said No .....mus-rom AY
2	4	2	3	Girl Was Young .....mys AY
—	5	8	5	Give Me a Sailor .....com AYC
—	4	2	1	Gladiator .....com AYC
—	2	7	7	Go Chase Yourself .....com A
—	7	6	8	Gold Diggers in Paris .....mus-com A
3	14	7	4	Gold Is Where You Find It .....hist AY
—	5	3	1	Gold Mine in the Sky .....wes AYC
10	9	8	1	Goldwyn Follies .....mus-com AY
25	4	1	—	Good Earth .....nov A
—	3	4	8	Goodbye Broadway .....com AY
7	18	5	1	Great Garrick .....big AY
—	5	1	1	Great John Erickson .....hist f AY
—	6	3	2	Gun Law .....wes AY
7	7	5	2	Happy Landing .....rom AYC
3	10	3	4	Having Wonderful Time .....com AY
—	6	9	3	Hawai Calls .....adv AYC
—	3	7	3	Heart of Arizona .....wes AYC
9	19	1	—	Heidi .....rom AYC
—	3	2	1	Helene .....rom f A
—	—	—	4	He Loved an Actress .....mus-com A
—	1	11	8	Her Jungle Love .....adv A
—	2	4	—	Heroes of the Hills .....wes AYC
—	5	3	—	Hideout in the Alps .....mys AY
4	17	7	2	History Is Made at Night .....rom AY
—	12	5	4	Hold That Kiss .....com AY
14	9	1	—	Holiday .....rom AY
5	13	8	2	Hollywood Hotel .....com AY
—	3	2	1	Hollywood Roundup .....com AY

AA	A	B	C	
—	1	4	—	House of Mystery ..... <i>mys AY</i>
—	7	10	1	Hunted Men ..... <i>cr AY</i>
9	13	2	—	Hurricane ..... <i>adv AY</i>
—	4	2	—	I Am the Law ..... <i>mel AY</i>
—	12	5	—	I Cover the Waterfront ..... <i>rom A</i>
—	9	7	3	I'll Give a Million ..... <i>rom AYC</i>
1	12	8	—	I'll Take Romance ..... <i>mus-rom AY</i>
—	3	2	7	I'm from the City ..... <i>com AYC</i>
15	12	—	—	In Old Chicago ..... <i>hist AYC</i>
—	3	2	—	In Old Mexico ..... <i>wes AYC</i>
—	2	8	1	International Crime ..... <i>mys A</i>
—	9	3	3	International Settlement ..... <i>mys A</i>
—	4	4	4	Invisible Enemy ..... <i>mys AY</i>
—	2	5	1	Invisible Menace ..... <i>mys AY</i>
—	10	7	2	Island in the Sky ..... <i>mys A</i>
—	—	5	—	It's All in Your Mind ..... <i>soc A</i>
14	7	—	—	It's Love I'm After ..... <i>com AY</i>
6	10	7	3	Jezebel ..... <i>mel A</i>
—	7	11	6	Josette ..... <i>rom-com A</i>
1	17	9	1	Joy of Living ..... <i>rom AY</i>
—	14	8	—	Judge Hardy's Children ..... <i>com AY</i>
—	4	8	4	Jury's Secret ..... <i>soc A</i>
—	—	2	3	Karl Frederick Reigns ..... <i>rom f A</i>
—	3	5	1	Kathleen ..... <i>rom A</i>
—	10	4	1	Keep Smiling ..... <i>rom AYC</i>
2	9	4	3	Kentucky Moonshine ..... <i>com AY</i>
—	2	12	7	Kid Comes Back ..... <i>com AY</i>
3	6	8	5	Kidnapped ..... <i>adv AY</i>
—	—	5	6	King of the Newsboys ..... <i>rom A</i>
—	—	4	—	Knight of the Plains ..... <i>wes AYC</i>
—	—	7	1	Ladies in Distress ..... <i>cr A</i>
—	8	5	1	Lady in the Morgue ..... <i>mys AY</i>
1	10	6	—	Lady Tubbs ..... <i>com AYC</i>
2	11	2	5	Lancer Spy ..... <i>adv AY</i>
—	3	4	3	Last Stand ..... <i>wes A</i>
—	1	9	10	Law of the Underworld ..... <i>cr A</i>
3	4	1	—	Lenin in October ..... <i>hist f AY</i>
—	1	1	2	Let's Make a Night of It ..... <i>mus-com A</i>
1	6	4	1	Letter of Introduction ..... <i>rom AYC</i>
—	1	7	4	Lie of Nina Petrovna ..... <i>rom f A</i>
3	4	3	—	Life and Loves of Beethoven ... <i>biog f A</i>
6	4	5	—	Life Dances On ..... <i>rom f A</i>
16	4	—	—	Life of Emile Zola ..... <i>biog AYC</i>
2	14	10	—	Little Miss Broadway ..... <i>com AYC</i>
4	13	5	—	Little Miss Marker ..... <i>com AY</i>
—	1	5	4	Little Miss Roughneck ..... <i>com AY</i>
—	1	9	4	Little Miss Thoroughbred ..... <i>com AY</i>
—	3	2	3	Little Tough Guy ..... <i>cr AYC</i>

AA	A	B	C	
18	4	1	1	Little Women ..... <i>nov AY</i> C
—	10	9	3	Live, Love, and Learn ..... <i>com AY</i>
19	10	1	—	Lloyds of London ..... <i>hist AY</i>
—	5	4	—	Lonely White Sail ..... <i>hist f AY</i>
—	1	3	3	Lone Wolf in Paris ..... <i>mys AY</i>
—	1	3	1	Look Out for Love ..... <i>rom A</i>
4	13	4	1	Lord Jeff ..... <i>cr AY</i> C
23	5	1	1	Lost Horizon ..... <i>nov AY</i> C
—	14	9	3	Love and Hisses ..... <i>com A</i>
5	19	3	1	Love Finds Andy Hardy ..... <i>com AY</i> C
—	3	14	8	Love, Honor, and Behave ..... <i>com AY</i>
16	10	—	—	Mad About Music ..... <i>mus-rom AY</i> C
1	2	2	1	Madam Bovary ..... <i>soc f A</i>
—	9	14	2	Madam X ..... <i>mel A</i>
—	—	1	5	Maid's Night Out ..... <i>com AY</i> C
—	—	3	3	Main Event ..... <i>cr A</i>
—	1	4	5	Making the Headlines ..... <i>mys AY</i>
—	2	5	—	Man from Music Mountain ..... <i>wes AY</i> C
—	—	—	5	Man Hunters of Caribbean ..... <i>adv A</i>
—	1	3	—	Man's Country ..... <i>wes AY</i> C
11	5	3	—	Marie Antoinette ..... <i>hist AY</i> C
15	12	1	—	Maytime ..... <i>mus-rom AY</i> C
—	—	5	5	Meet the Girls ..... <i>com A</i>
—	2	2	12	Men Are Such Fools ..... <i>rom A</i>
1	4	2	1	Merlusse ..... <i>youth f AY</i>
—	16	5	—	Merrily We Live ..... <i>com AY</i> C
—	13	8	6	Merry-Go-Round of '38 ..... <i>mus-com A</i>
—	5	5	3	Midnight Intruder ..... <i>mys A</i>
—	—	2	5	Mr. Chump ..... <i>com A</i>
—	5	7	4	Mr. Moto's Gamble ..... <i>mys A</i>
—	1	3	—	Mr. Moto's Last Warning ..... <i>mys AY</i>
—	—	2	4	Mr. Moto Takes a Chance ..... <i>mys AY</i>
—	5	—	—	Monastery ..... <i>trav AY</i>
3	7	3	1	Moonlight Sonata ..... <i>mus-rom AY</i>
2	11	7	2	Mother Carey's Chickens ..... <i>nov AY</i> C
5	6	12	9	Music for Madam ..... <i>mus-rom AY</i>
30	—	—	—	Mutiny on the Bounty ..... <i>adv AY</i>
—	5	6	5	My Bill ..... <i>soc AY</i>
—	—	3	3	My Old Kentucky Home ..... <i>rom A</i>
—	9	1	1	Mysterious Mr. Moto ..... <i>mys AY</i>
—	—	4	3	Mystery House ..... <i>mel A</i>
24	6	—	—	Naughty Marietta ..... <i>mus-rom AY</i> C
4	24	5	—	Navy Blue and Gold ..... <i>rom AY</i>
—	1	4	5	Night Spot ..... <i>mel A</i>
—	2	5	6	No Time to Marry ..... <i>com A</i>
8	18	2	—	Nothing Sacred ..... <i>com AY</i>
—	—	4	3	Numbered Woman ..... <i>mel A</i>
—	4	12	—	Nurse from Brooklyn ..... <i>mel A</i>

AA	A	B	C	
8	17	4	—	Of Human Hearts ..... <i>hist A</i>
19	2	—	—	100 Men and a Girl ..... <i>mus-rom AY</i>
—	2	7	7	One Wild Night ..... <i>mys A</i>
—	—	3	4	Outlaw Express ..... <i>wes AYC</i>
—	2	3	—	Outlaws of Sonora ..... <i>wes AYC</i>
—	—	5	—	Outlaws of the Prairie ..... <i>wes AYC</i>
—	1	3	1	Outside of Paradise ..... <i>mus-com A</i>
1	5	1	—	Overland Express ..... <i>wes AYC</i>
—	3	5	6	Over the Wall ..... <i>mel AY</i>
—	2	3	1	Painted Desert ..... <i>wes AYC</i>
—	—	5	1	Painted Trail ..... <i>wes AYC</i>
—	12	7	—	Paradise for Three ..... <i>com AY</i>
—	2	4	10	Passport Husband ..... <i>com A</i>
1	7	5	—	Pearls of the Crown ..... <i>hist f AY</i>
1	6	4	1	Penitentiary ..... <i>soc A</i>
—	6	3	—	Penrod's Double Trouble ..... <i>com AY</i>
2	16	3	—	Perfect Specimen ..... <i>com AYC</i>
3	6	2	1	Peter the First ..... <i>nov f AY</i>
—	1	1	2	Phantom Ranger ..... <i>wes AYC</i>
10	13	5	2	Plough and the Stars ..... <i>hist AY</i>
—	—	1	6	Port of Missing Girls ..... <i>mel A</i>
—	8	7	4	Port of Seven Seas ..... <i>rom A</i>
—	3	1	2	Pride of the West ..... <i>wes AYC</i>
11	19	—	—	Prince and the Pauper ..... <i>nov AYC</i>
—	1	7	5	Prison Break ..... <i>mel AY</i>
—	1	6	5	Prison Farm ..... <i>cr A</i>
—	2	6	3	Prison Nurse ..... <i>mel A</i>
21	9	—	—	Prisoner of Shark Island ..... <i>biog AY</i>
20	6	—	—	Prisoner of Zenda ..... <i>mel AY</i>
5	14	7	2	Professor Beware ..... <i>com AYC</i>
—	—	5	—	Purple Vigilantes ..... <i>wes AYC</i>
—	5	12	—	Racket Busters ..... <i>cr AY</i>
1	5	12	6	Radio City Revels ..... <i>mus-com AY</i>
4	14	3	—	Rage of Paris ..... <i>rom-com AY</i>
—	—	3	1	Rangers Roundup ..... <i>wes AY</i>
—	2	5	7	Rascals ..... <i>com A</i>
—	—	4	7	Rat ..... <i>mel A</i>
—	8	7	2	Rawhide ..... <i>wes AYC</i>
3	9	11	—	Rebecca of Sunnybrook Farm .. <i>com AYC</i>
—	3	6	5	Reckless Living ..... <i>com AY</i>
—	—	4	4	Reformatory ..... <i>soc AY</i>
—	—	2	2	Religious Racketeers ..... <i>cr AY</i>
1	8	5	3	Return of Scarlet Pimpernel ..... <i>adv AY</i>
—	3	9	3	Rich Man, Poor Girl ..... <i>rom AY</i>
—	2	1	2	Riders of the Black Hills ..... <i>wes AYC</i>
8	8	1	—	River ..... <i>trav AY</i>
5	13	6	6	Road Back ..... <i>mel AY</i>
1	2	—	—	Robinhood ..... <i>adv AY</i>
2	12	8	1	Romance in the Dark ..... <i>mus-rom AY</i>
—	1	6	3	Romance of the Limberlost ..... <i>rom AY</i>

AA	A	B	C	
—	—	5	2	Romance on the Run ..... <i>mys-rom AY</i>
24	5	1	—	Romeo and Juliet ..... <i>rom AY</i>
1	7	8	7	Rosalie ..... <i>mus-rom AYC</i>
15	14	—	—	Rosemarie ..... <i>mus-rom AY</i>
—	1	5	2	Rose of the Rio Grande ..... <i>adv AY</i>
—	3	4	—	Safety in Numbers ..... <i>com AYC</i>
—	7	10	3	Sailing Along ..... <i>mus-com AY</i>
—	11	7	1	Saint in New York ..... <i>mys A</i>
—	—	1	4	Saleslady ..... <i>rom A</i>
—	4	11	1	Sally, Irene and Mary ..... <i>mus-com AY</i>
23	7	—	—	San Francisco ..... <i>hist AY</i>
—	2	2	—	Says O'Reilly to McNab ..... <i>com AY</i>
—	1	3	10	Scandal Street ..... <i>com A</i>
—	10	11	—	Second Honeymoon ..... <i>com A</i>
—	4	6	1	She Loved a Fireman ..... <i>com AY</i>
—	3	5	2	She Married an Artist ..... <i>com AY</i>
5	10	8	1	Shopworn Angel ..... <i>rom A</i>
4	10	1	—	Sing You Sinners ..... <i>com AYC</i>
—	13	12	—	Singing Marine ..... <i>mus-com AYC</i>
—	2	9	6	Sinners in Paradise ..... <i>adv A</i>
—	1	2	1	Six Shootin' Sheriff ..... <i>wes AYC</i>
—	5	—	—	Ski Battalion ..... <i>mel f A</i>
—	5	2	—	Ski Chase ..... <i>trav f AYC</i>
—	7	15	4	Sky Giant ..... <i>mel AY</i>
5	12	5	1	Slight Case of Murder ..... <i>com AY</i>
—	1	1	4	Slipper Episode ..... <i>com f A</i>
—	5	6	3	Smashing the Rackets ..... <i>mel AY</i>
31	—	—	—	Snow White and Seven Dwarfs ..... <i>adv AYC</i>
3	4	6	1	South Riding ..... <i>rom AY</i>
1	3	—	—	Spawn of the North ..... <i>mel AY</i>
—	—	4	2	Speed to Burn ..... <i>cr A</i>
—	—	2	2	Squadron of Honor ..... <i>mys A</i>
—	1	7	4	Stadium Murders ..... <i>mys A</i>
25	7	1	—	Stage Door ..... <i>com AY</i>
13	11	2	—	Stand-In ..... <i>com AY</i>
—	1	8	3	State Police ..... <i>cr A</i>
12	8	2	—	Stella Dallas ..... <i>soc A</i>
1	12	9	2	Stolen Heaven ..... <i>mel A</i>
23	7	—	—	Story of Louis Pasteur ..... <i>biog AYC</i>
2	17	6	—	Submarine D1 ..... <i>mel AY</i>
1	8	12	1	Super Sleuth ..... <i>mys AY</i>
1	—	5	9	Swiss Miss ..... <i>com AY</i>
—	—	1	3	Tarzan and Green Goddess ..... <i>adv AY</i>
—	—	2	3	Telephone Operator ..... <i>mel AY</i>
1	2	3	2	Tender Enemy ..... <i>rom f A</i>
—	4	3	—	Terror of Tiny Town ..... <i>wes AYC</i>
20	9	1	—	Test Pilot ..... <i>adv AY</i>
6	11	4	—	There's Always a Woman ..... <i>mys A</i>
1	8	9	5	The Texans ..... <i>adv AYC</i>
—	7	4	—	They Were Five ..... <i>rom f A</i>

AA	A	B	C	
—	11	2	1	Think Fast, Mr. Moto ..... <i>mys AYC</i>
—	1	7	6	This Marriage Business ..... <i>com A</i>
—	16	3	3	Three Blind Mice ..... <i>rom AY</i>
11	5	7	1	Three Comrades ..... <i>nov AY</i>
—	7	2	2	Three on a Week End ..... <i>rom AY</i>
10	18	2	—	Three Smart Girls ..... <i>rom-com AYC</i>
—	1	2	2	Thunder in the Desert ..... <i>wes AY</i>
—	5	5	3	Time Out for Murder ..... <i>mys AY</i>
—	4	7	—	Tip-off Girls ..... <i>cr A</i>
8	13	2	—	To the Victor ..... <i>adv AY</i>
—	—	7	7	Torchy Blane in Panama ..... <i>mys A</i>
2	6	6	9	Toy Wife ..... <i>rom A</i>
16	13	—	—	Treasure Island ..... <i>adv AY</i>
—	11	3	—	Trip to Paris ..... <i>com AYC</i>
3	12	4	—	Troopship ..... <i>adv A</i>
—	5	6	6	Tropic Holiday ..... <i>mus-com AY</i>
6	15	2	1	True Confession ..... <i>com A</i>
—	2	3	2	Two Gun Justice ..... <i>wes AYC</i>
—	12	4	1	Under Western Stars ..... <i>wes AYC</i>
10	10	7	—	Victoria the Great ..... <i>biog AY</i>
8	17	1	—	Vivacious Lady ..... <i>rom AY</i>
—	1	1	3	Volga Boatman ..... <i>rom f A</i>
—	4	4	—	Wajan ..... <i>trav A</i>
—	2	8	2	Walking Down Broadway ..... <i>com A</i>
11	11	3	2	Wells Fargo ..... <i>hist-wes AYC</i>
—	12	5	2	We're Going to Be Rich ..... <i>rom A</i>
—	1	4	4	When G-Men Step In ..... <i>cr AY</i>
—	2	9	3	When Were You Born? ..... <i>mys A</i>
7	8	4	3	White Banners ..... <i>nov A</i>
—	—	3	6	Who Killed Gail Preston? ..... <i>mys A</i>
—	4	3	5	Wide Open Faces ..... <i>com AY</i>
—	3	5	4	Wife of General Ling ..... <i>mel AY</i>
—	5	6	4	Wives Under Suspicion ..... <i>mel A</i>
—	—	—	5	Woman Against the World ..... <i>mel A</i>
—	4	7	4	Woman Against Woman ..... <i>rom A</i>
—	—	3	9	Women Are Like That ..... <i>com A</i>
—	—	3	6	Women in Prison ..... <i>mel A</i>
5	12	5	1	Yank at Oxford ..... <i>rom AYC</i>
10	13	2	—	Yellow Jack ..... <i>hist AYC</i>
—	5	4	15	You and Me ..... <i>cr A</i>
3	—	—	—	You Can't Take It With You ..... <i>com AY</i>
—	2	3	6	Young Fugitives ..... <i>mel AYC</i>

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*A Handbook for  
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# CONSUMERS' DIGEST



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*Auto Operating Costs*

*No Cosmetic Fairy Tales*

*Improving Cheap Furs*

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NOVEMBER 1938  
Vol. IV No. 5

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# CONSUMERS' DIGEST



*The enlightened consumer is a necessary  
encouragement to merchandising integrity*

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## Consumers Are Popular

FROM WALL FLOWER to belle of the ball might well be the title of a study of the consumer's rise to prominence during the past eleven years, since *Your Money's Worth* appeared in 1927. Advertising men chortled over some of its revelations or grew irate—if their own advertisements were criticized—but none of them really took it seriously.

Consumers, however, appeared to be grateful for such help and wholeheartedly gave their support to Consumers' Research which has grown in support and influence ever since. The book *100,000,000 Guinea Pigs*, written from the files of Consumers' Research, followed in the footsteps of *Your Money's Worth* and, aided by *Skin Deep*, was successful in its crusade to secure a better and more inclusive food, drug, and cosmetic act.

Now it appears that the consumer is the darling of the advertising, business, and political world. Department stores like Bonwit Teller have added consumer relations committees; Macy's and Marshall Field, testing laboratories. Crowell Publishing Company (*Collier's*, *American Magazine*, *Woman's Home Companion*) sends Mrs. Anna Steese Richardson around the country to drum up confidence in advertising, but later sets up a Consumer Division. Hearst puts on a big advertising campaign proclaiming that nationally advertised goods are best, attempting, no doubt, to create good will among advertisers for his magazines which include *Good Housekeeping*, *Cosmopolitan*, and *American Druggist*. Consumers Union sets up a left-wing organization in imitation of Consumers' Research but with C.I.O. overtones. The Federal Trade Commission, with newly granted powers, is bestirring itself from a long lethargy and is assuming a stern attitude toward such claims as "Lifebuoy penetrates the pores, purifies, stops 'B.O.'" and "You'll like the way Lux Toilet Soap keeps skin clear, smooth, fresh-looking." Consumers' courses are appearing in schools and colleges all over the country. Even the politicians are taking notice. Michigan, for example, has recently set up a Consumers' Bureau.

Aside from the pleasant glow which comes from being everybody's darling, what benefit is the consumer actually getting from all this attention? Are the blankets which you need to purchase plainly labeled all virgin wool or 90 per cent wool and 10 per cent cotton, so that you can tell what you are getting? If your new iron which is "fully guaranteed" for one year suddenly goes bad at the end of a month's use does the manufacturer cheerfully and speedily make good? Is the Michigan Consumers' Bureau furnishing the consumers of that state with practical usable information that will enable them to save money and get better quality in their buying or is it simply another additional expense to the already overburdened taxpayer?

Be practical about claims of interest and devotion to consumers' interests; insist on performance rather than promises.

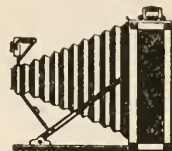
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# Hocus Focus

By  
PERCIVAL WILDE

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## I

THE First International Photographic Exposition, held in New York City from April 18 to April 24, 1938, was attended by more than 136,000 persons—including the present writer. "So great was the interest in the exhibition," states *The Camera*, "that several special trains were run for the benefit of out of town groups, one enterprising firm of photo dealers in Philadelphia even chartering the Crusader, the Reading's modern streamlined train, for the first Sunday trip in its history."

Lectures were given by well-known photographers. Prints, old and new, were exhibited. There was a "Stage Snapshot Class," featured by pretty girls in bathing attire, whom visitors were allowed to shoot from any angle. And there was an amazing display of countless varieties of cameras, lenses, accessories, gadgets, and what-nots. Not only did the 136,000 visitors pay entrance charges at the door, but they bought so heavily that *The Camera* continues naïvely, "Every dealer we contacted expressed unqualified satisfaction with the show and its results."

Well, why not? Does any photographic dealer ever go broke? Here were cute little appliances, manufacturing cost, 98 cents, selling price, \$9.98 special; here were lenses, good ones and bad ones, Tessar and Stinkar, well made and sloppily made imitation, but selling alike, both the fine lenses and the hunks of polished glass, for their weight in

EDITOR'S NOTE. This is the first of a series of articles on photography by Mr. Wilde. The second installment will follow next month.

gold; and here, too, were cameras, fine and less fine, but allegedly "built with the precision of a watch" and fetching prices which would have paid for good secondhand automobiles. No wonder the dealers "expressed unqualified satisfaction"!

Among the visitors—gawking, staring, shelling out hard-earned money—was the writer.

For nearly forty years photography has been my principal hobby. I began at the age of thirteen with a Pony Premo and a rapid rectilinear lens—and both are still in working order. I began with plates, color-blind emulsions, tray development in pyro, and printing-out papers. Sometimes I made platinum prints, platinum paper being relatively cheap in those days. Unknowingly I anticipated the purists when I photographed my friends in such a manner that every freckle and every pore registered. I roamed through Central Park, fortified by a license to photograph, duly bought and paid for, and impressively exhibited to inquiring policemen, and I processed the results in a closet large enough to contain me, a kerosene-burning red lantern, three trays, and the family's winter clothing. For a table, the top of a large trunk served admirably.

In those days gadgets were few, and the word itself had not entered the language. The object of photography was the making of pictures: not the representation, by the light of one match, of a leprous-complexioned gentleman touching off his cigarette (lips and left eye in good focus; nose elephantine, possibly cancerous, due to use of 1.5 lens; left ear pretty fair; right eye a casualty; right shoulder missing). "Worm's eye views" did not exist, and cameras themselves were sufficiently rare to be stared at when their possessors carried them about.

Photography developed. I used, as they came into the market, the many types of cameras, movie and still, which appeared. I made negatives in nearly all sizes from that of the postage stamp up, used nearly every chemical and

sensitive material known to the unscientific science of photography, and during one long period of insanity toned my prints with gold, silver, platinum, cobalt, copper, chromium, lead, mercury, nickel, sulphide, thiocyanate, thio-carbamide, vanadium, and cast iron. Between times I made carbros, brometchings, and bromoils. If it did not improve the prints, it nevertheless allowed me to fill my shelves with an impressive array of bottles, and some of the results were published or hung; but during the forty years which culminated in the acquisition of a darkroom containing two enlarging machines, a dozen tanks, racks full of trays, and many accessories which I admire but do not use, I paid and paid.

Therefore I was among those present at the Photographic Exposition to begin Photographic Expositions; but I differed from 135,999 other fanatics because after a lengthy survey of the thousands of lovely, overpriced, and frequently unnecessary gadgets, I turned my attention to some of the men whose business it was to part with those self-same articles in exchange for the contents of your wallet. One group of four, inhabiting a single booth, impressed me. They were well-fed, paunchy, oleaginous. They were nicely dressed in 44-stouts, and they stared at the buyers who filled the aisles with an expression which I once saw in the eyes of a stray cat perched on the rim of my lily pool, visioning how well it would dine on my fancy goldfish—until my young son appeared and shot it in the pants.

It made me thoughtful—because there were no rifles at the exhibition—and the humans, unlike the cat, were sure to have their feast. I began to wonder about the industry in which a dealer could make a living by selling for \$2 the identical article which could be bought elsewhere for \$1—and could be manufactured for a very great deal less—and when I returned home that night I began to rummage through my large file of dealers' catalogues and to compare prices with prices, and prices with values. . . .

## II

The photographic dealer has a unique advantage over the vendor of almost any other article. Buy a car, and if it refuses to climb a hill, given sufficient gas, then something is clearly wrong with the car. Buy a razor, and if it refuses to shave, then something is clearly wrong with the razor. Not even the dealers will suggest that the operator was at fault when the car declined to run or the razor declined to cut.

But buy a lens or a camera, and if the pictures do not "turn out"—because the speed of the lens which is plainly marked 4.5 happens to be 6.3, or optically exactly half that claimed—or because the camera itself is a jerry-built affair—the dealer will suggest, and the buyer will humbly agree, that the operator was to blame. He underexposed or he overexposed, or he did not hold the contraption steady; or he failed to stop the rapid motion of the baby carriage because he did not set the shutter at 1/50 second (the shutter speeds, when set at 1/50, 1/100, and 1/200, being exactly the same); or he allowed his film to be finished in a rival establishment which, instead of renewing its developing solutions every now and then renews them only then; or, worst of all, he processed his film himself.

The dealer will assert that the trouble can be rectified by the purchase of (a) a faster lens, despite the fact that the slower lens, if of equal grade or quality, is invariably better corrected and more generally useful (b) a faster film or one with finer grain (c) an exposure meter (d) a range-finder (e) one or more, preferably more, "optically worked" filters (f) a trade-marked developer, being a nostrum of secret formula, alleged to permit enlargements of an unholy number of diameters, and selling at the price of a fair to middling claret. The object of the preposition in the preceding clauses does not matter at all, so long as the preposition itself follows "purchase."

The list of the amateur's presumed errors is by no means



exhausted. The film should have been hypersensitized: for the small sum of one dollar the dealer will sell an outfit comprising a mailing tube (cost 2 cents) containing a porous envelope in which is a globule of mercury or a few grains of any mercury amalgam (cost 1 cent) which will do the trick. The developer should have been agitated: it is easy enough to do it by hand, but the tank containing the precious film can be given a better (and wholly unnecessary) imitation of St. Vitus' dance by an electrically driven agitator—price \$13.50. The film should have been wiped dry with a cellulose sponge (\$1 at the dealer's, 69 cents elsewhere). It should have been dried in a neatly finished device retailing at \$25, but whose principle, as writers in the photographic magazines have shown, can be applied to the construction of driers at one-fifth the cost. And if finally printed on Brovira, Velour Black, or Vitava Projection, it should have been printed on some other one of the trio (all three being in fact excellent).

Granting that the inexperience, haste, or plain dumbness of the man behind the button are at fault 95 per cent of the time when something goes wrong, the apparatus itself is occasionally to blame. Where there is no full and free exchange of information, the average buyer is not in a position to make a correct diagnosis.

Examples on either side may prove instructive. Last winter an acquaintance showed me a batch of wretched, muddy photographs made with a Kodak Anastigmat lens in a Graflex camera, blaming lens and camera, both of recognized high quality, for the mess. He had bought and tried other lenses without success. He had tried other cameras, using the original lens, and the results had been no better. He was ready to swear that both lens and camera were hoodooed.

An instant's examination of his negatives disclosed fogged rebate edges, indicating that the darkroom in which the films had been processed had been too brightly red-

lighted, and using the same lens and camera, but developing the films in total darkness, I was able to turn out a batch as crisp and brilliant as could be desired.

But another acquaintance showed me prints falling off excessively in definition at the edges, and I recognized the work of a less well-known but widely sold lens which suffers from a bad case of spherical aberration.

In the first instance the photographer was at fault, and a trifling change in his technique remedied it. In the second, the lens was to blame: unless stopped down so far that action snapshots were out of the question, it would always stamp its unfortunate characteristics upon its work.

Still other examples may be cited. A new Super-Ikonta, one of the finest cameras to be had at any price, turned out uniformly poor pictures. It was found, upon a careful examination, that one strut had been damaged, destroying the parallelism of the emulsion plane, and making the operation of the range-finder undependable. An Argus, an inexpensive instrument, which may nevertheless turn out to be fair value at its price, produced nothing but underexposed negatives—because its owner, who had spent more for an exposure meter than for the camera, was addicted to reading the meter at a considerable distance from his subject before approaching within two or three yards to photograph it. Obviously the meter indicated the bright lighting of the background, far brighter than that of the face which was to be reproduced as a portrait.

Here, in the first example, the trouble was in the expensive camera itself, a state of affairs incredible to its owner; in the second, a much cheaper outfit, although blamed for the results, had simply not been permitted to turn out the work of which it was capable.

Admitting that the operator is usually in error, and that he should be advised to perfect his technique with what he has, before spending money on dubious helps which may only increase his state of confusion, the market is never-

theless cluttered with instruments with which no photographer, however expert, may expect to turn out a succession of good pictures. They have been designed to satisfy a demand which the manufacturers themselves have created: speed, and more speed, whatever the sacrifice. I refer particularly to the many cameras fitted with fast lenses— $f:4.5$  or better, of moderate focal length, but lacking a ground-glass or an accurate coupled range-finder. At distances of twenty feet or more their speed is a positive disadvantage, as a slower, better corrected lens will produce a finer negative than will the speed lens, even if the latter be stopped down.\* At short distances the utmost precision of focusing is called for—a precision which requires the user to estimate without erring by more than a matter of inches—and the average man's eye and brain are not capable of such exactness.

The speed-lens permits photography in poor lights (so, too, does a slower lens if used with the fast negative materials introduced during the last year); but a lack of provision for setting it correctly guarantees that the results, except for happy accidents, will be mediocre. The unsharpness of its work shows up even more plainly in enlargements. If a near subject is stationary, its distance may be measured by a tape or by a non-coupled range finder; then if the lens mount is properly calibrated, the lens may be set exactly. If the near object is not stationary, it may have moved before the reading can be applied to the lens.

Of course the range of a tree or a rock may be taken, and the moving object snapped at the instant that its range becomes the same, or a fraction of a second before; but this involves subordinating both facial expressions and composition to a technical detail.

[TO BE CONTINUED]

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\* This statement, conflicting with many articles in photographic magazines which depend on the advertising of speed-lens manufacturers for their livelihoods, but which has been investigated and demonstrated by impartial scientific research, will be dealt with at greater length in a subsequent section.

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## *No More Fairy Tales In Cosmetics*

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HAVE you noticed any startling changes in cosmetic advertisements recently? If you are one of those people who merely take a quick look at the advertisements in passing on your way to "continued on page 93," perhaps you did not realize that although the effect strived for remains the same, the words are different.

The new law called the Wheeler-Lea Act, enacted by Congress last year, gave the Federal Trade Commission power to proceed on behalf of consumers against false or misleading advertising, particularly of foods, drugs, and cosmetics. Since the Commission's great increase in activity has made plain to all concerned that it means business, steps have already been taken by the industries to curb the more imaginative ad writers.

As an article in one of the leading cosmetic journals summed up the previous happy state of affairs, "If you wanted to say the formula was the favorite of Cleopatra and the only one she used on odd Thursdays, you said it—people laughed but they bought your stuff. It was as simple as that. Of course, you developed a few gray hairs when your competitor came out with the formula Cleopatra used on even Thursdays and claimed it was so effective that she could go without cream entirely on odd Thursdays."

Now all that is over and if the consumer is intelligent, she will be able to discover for herself just how far and by what verbal devices she has been misled in the past. The cosmetic industry has set up its own Board of Standards

which will examine carefully labels and advertising matter of the trade and advise which must be modified in the interest of truth to forestall action on the part of the Federal Trade Commission. Furthermore, when the new Food, Drug, and Cosmetic Act goes into effect in June, 1939, every label must bear the name and address of the manufacturer, backer, or distributor, and also the weight, measure, or numerical count of the container's contents.

The Board of Standards advises its members that they can no longer use such names as "wrinkle remover," "anti-wrinkle cream," or "muscle oil." It suggests, however, that these products may be referred to as "wrinkle lubricant cream," "texture oil," or "emollient oil."

The Board of Standards further advises:

Don't say, "Imparts new youth to the skin." Change it to, "Imparts the appearance of youth to the skin."

Don't say, "Rejuvenates the skin." Change it to, "Hastens desquamation."

Don't say, "Tones sagging tissue." Change it to, "Improves the tone of the complexion."

Don't say, "Nourishes a dry sensitive skin." Change it to, "Contains harmonious oils for a dry sensitive skin."

Don't say, "Refines the pores." Change it to, "Imparts a fine grained appearance to the skin."

Don't say, "Corrects sluggish sallow skin." Change it to, "Aids in correcting the appearance of a sluggish sallow skin."

Whether or not the new and sudden necessity for being strictly accurate—or at least as accurate as an ad writer can be and still not become tongue-tied—will sell as many jars of face cream as the romantic appeal of being told that you are using one of Cleopatra's formulas remains to be seen. The new edition of the Barbara Gould booklet, according to Ruth Hooper Larisson, writing in *The American Perfumer*, has been revised and bears on its title page.

"Approved by Board of Standards, Toilet Goods Association." It is Miss Larisson's opinion that the new version is a stronger piece of copy than formerly. For example:

"OLD: 'It is a new defense against sagging chin and jaw lines.'

"NEW: 'It is designed particularly for the woman whose facial problem is complicated by heaviness at the jaw lines or by relaxed facial and neck muscles.'"

Whether the consumer will fare any better under the new enforced "honesty" will depend largely on the alertness and civic-mindedness of intelligent individuals and groups. Any government enforcement body is likely to go to work vigorously in the early stages of enforcing new legislation. If, however, it is not backed by strong and outspoken public opinion or if there appears to be no great desire on the part of the public for the protections of the particular law in question, then unquestionably enforcement will dwindle down to a mere gesture directed largely at the so-called lunatic fringe or those in political disfavor with the administration in power.

For those who are studying consumers' problems either in school or in connection with their club programs, a very interesting project can be developed by taking advertisements of well-known cosmetics that have appeared in women's magazines a year or two ago and comparing their wording in detail with current advertising of the same products. The difference in wording of claims should be analyzed to see whether any real change has been made or whether the wording is merely altered in an effort to conform to the letter of the law while managing to give the same misleading implications as formerly.

On the opposite page are reproduced samples of advertising which will, we hope, be modified now that we have the Wheeler-Lea Act and the new Food, Drug, and Cosmetic Act which is to go into effect next June. Watch for the new

Try the treatment that works  
**LISTERINE FOR DANDRUFF**

Keeps hair good-looking—  
 scalp youthful and healthy



**LISTERINE**  
 THE MOST EFFECTIVE  
 TREATMENT FOR  
**DANDRUFF**  
 I EVER USED ...  
 DELIGHTFUL

DON'T TAKE CHANCES

My record's "hot!"  
 But dandruff's not!

**FRECKLES**  
**DISAPPEAR**  
 in 5 to 10 days

Don't worry over unsightly freckles. Here's a sure way to remove them quickly and gently with our new NADINOLA Freckle Cream. Your skin is rich and firm all right. These marks are really disappear usually in 5 to 10 days. NADINOLA Freckle Cream is guaranteed by the manufacturer to clear freckles from your skin type of skin in 10 days. Only one or two coatings. 10¢ size at Five and Ten Cent Stores or send a dime for trial package to NADINOLA Dept. 144, Paris, France.

**NADINOLA Freckle Cream**

Now—with the active  
**"Skin-Vitamin"**  
 it **NOURISHES** Skin, too

**Blends Youth TO TIRED SKIN**

The Powder That Has No Shine

Chiffon Face Powder actually makes you look younger—it blends so naturally with your skin that it subtly removes the look of fresh vitality—the glow of youth it imparts. In even carefully blended shades. \$3 and \$1 the box. Guest room size, 50¢.

**Chiffon Powder**

Primrose House, 595 Fifth Ave., New York



*Miss Camilla Morgan*

"Pond's new 'skin-vitamin' Vanishing Cream is good news for any girl who goes in for sports and I do. A powder base that's non-grassy and not drying and that actually nourishes skin is almost too good to be true."

the out-of-doors!— outside—

**IDENT... Massage a lot!**

see what he's got!

Your skin needs **MOISTURE** TO KEEP YOUNG

Your skin will bloom with a new and youthful radiance and it will hold this freshness and loveliness through the years.

You can obtain Harriet Hubbard Ayer Preparations at the better stores.

**HARRIET HUBBARD AYER**

Copyright 1948

straight after cleansing.

...bottle, same price.

's Vanishing Cream cream with "skin" and it in the same at the same price.

USE IT IN TREATMENTS

...Chlorine, Soap, ...

1 BOTTLE  
**PEPSODENT ANTISEPTIC**  
 EQUALS 3 BOTTLES  
 OF ORDINARY KINDS

Even when diluted with 2 parts water, 1001 kills germs in seconds... Lasts 3 times as long!

**MAKES YOUR MONEY GO 3 TIMES AS FAR!**

**PEPSODENT ANTISEPTIC**  
 for LOOSE DANDRUFF

P. S. Don't forget Pepsodent Antiseptic for BAD BREATH, too!

ways in which the admen will try to express the same or similar ideas.

The Board of Standards of the Toilet Goods Association has issued a long list of claims already ruled out by warnings of the Federal Trade Commission. These will be of interest to all women who purchase their cosmetics on the basis of advertisements. Readers of *Skin Deep*, *Consumers' Research Bulletin*, and *Consumers' Digest* will already know of the falsity of the advertising claims criticized by the Commission.

The Federal Trade Commission has ruled that:

1. There is no known preparation commonly used as eye wash, which will strengthen the eyes, or restore youth to the eyes, or will have any effect upon the eyes, other than, if the preparation contains the proper ingredients, to clean the eyes or to allay irritation. Nor will any such preparation relieve the eyes of strain, or strengthen the nerves of the eyes.

2. There is no authority for the claim that vitamins which may be contained in toilet preparations, will be absorbed by the skin in sufficient quantities to be beneficial to the health of the user, or to benefit the skin, muscles, etc.

3. There is no value in the use of hormones for external application, and that even though such hormones are present in cosmetics, their therapeutic value has not yet been proved, and, in all probability, is nil.

4. Youth cannot be restored to the skin by cosmetics, although the use of cosmetics may give a more youthful appearance to the skin.

5. There is no known method by which the skin can be fed or nourished through external application, and that nourishment to the skin can only be supplied through [food and] medication taken internally.

6. There are no solutions or preparations applied externally that will dissolve fatty tissues, and that any claims that such preparations are effective as weight reducers, are without foundation in fact.

7. There is no known preparation which will restore the color to the hair, and that all preparations which will affect the color of the hair, are, in fact, dyes, and not color restorers.



8. There is no known preparation which will cure baldness, or cause hair to grow. That preparations and methods may be utilized to attempt to prevent baldness and loss of hair.

9. There are no known preparations which will remove wrinkles or crow's feet, or any similar markings. But that certain preparations properly applied with massage and exercise may prevent or retard the formation of wrinkles and crow's feet, or tend to cause them gradually to disappear, to a certain extent.

10. There is no known preparation which applied locally, will cure acne, although there are some preparations which will cause the blemishes to temporarily disappear to a limited extent.

11. There is no known preparation which will actually prevent or remove blackheads, although proper care of the skin and the use of certain preparations may tend to prevent blackheads, pimples, etc., from forming, or may tend to open the pores and loosen the foreign matter so that it may more easily be removed.

12. There are no known preparations which, if applied to the skin, will penetrate the skin so as to reach and benefit the underlying layers of flesh.

13. There is no known preparation, which, when applied locally, will rejuvenate any glands or cure or prevent double chin or flabbiness of the facial muscles, or which will restore the youthful lines of the face, or which will have any effect whatever in improving or altering the shape or structure of the face or neck muscles. But that certain preparations with proper manipulation, massage and exercise may tend to improve the facial contour.

14. There is no known preparation which can be utilized as a mouth wash, or which can be applied to the skin in any way as a cosmetic, which is in fact, absolutely antiseptic, and that there is no such preparation which will destroy all germs. There are preparations which, if utilized as a wet dressing, will tend to prevent infection.

15. There is no known preparation to be applied to the scalp which is an absolute cure for dandruff, although there are many preparations which will assist in removing the loose scales of dandruff, and which by regular use may help to prevent appearance of such loose scales.

16. The natural oils of the skin cannot be replaced through external applications, but dryness of the skin may be relieved by the application of certain preparations.

17. There is no known preparation to be used that will restore whiteness to the teeth, or protect the surface of the teeth, or which will prevent or cure pyorrhea or receding gums, but certain preparations will aid in preventing discoloration of the teeth or remove certain discolorations and in conjunction with vigorous massage, aid in curing or preventing pyorrhea or receding gums, and assist in keeping the gums clean and healthy.

18. There is no known value to the use of vitamins or hormones in the preparation of nail polish, and that there is no nail polish which will prevent or cure brittleness in finger nails when applied externally, or will nourish or feed the nails, but that there are some preparations which may lubricate or soften them temporarily.

19. There is no basis, in fact, in a statement that certain or any powders will not clog the pores.

20. There are many preparations containing ingredients which may be injurious to the health. Care should be taken to indicate the presence of such possibly injurious contents in cosmetics.

21. When hair dye contains coal tar dyes, the label should carry a prominent warning against use of the dye on eyebrows and eye lashes.

22. When cosmetics such as rouge contain coal tar dyes, the label should contain notice that such dyes are certified.

Other claims that the Board of Standards of the Toilet Goods Association finds unacceptable include:

Claims that any preparation will permanently remove freckles, moth patches, or other deep skin discolorations or safely peel the skin.

Claims that any depilatory preparation containing a sulphide can safely be used for the removal of facial hair.



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# The Painkiller—Acetanilid

By

GEORGE W. FIERO, PH. D.

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**A**BOUT fifty years ago, a new "coal-tar" drug was introduced to the medical profession. This drug was acetanilid. It is prepared by chemical reaction of acetic acid (found in vinegar) and aniline, the poisonous chemical which is the basis of many synthetic dyestuffs. Acetanilid's principal use in medicine is as a "painkiller," chiefly for headaches and colds. It is widely prescribed by physicians and it, or its derivatives, is found in many of the headache remedies and "cold-cure" compounds used in self-medication.

However, like other medicinal substances which pos-

sess definite therapeutic properties, it is potentially dangerous and should be used with caution. So dangerous is this compound that the Food and Drugs Act of 1906 required

that the presence of acetanilid or its derivatives must appear on the label of medicaments sold in interstate commerce.

In 1909 the U. S. Department of Agriculture published a bulletin dealing with the harmful effects of

the drug and its derivatives (acetphenetidin and antipyrine): "The fact that they are poisons in the true sense of the word is recognized by members of the medical profession, but it is doubtful whether the general public is

EDITOR'S NOTE: Among the better known products which have been reported to contain acetanilid at one time or another are: Bromo-Seltzer, Grove's Laxative Bromo-Quinine, Hill's Cascara Quinine Compound, McKesson Corax, Dr. Miles Anti-Pain Pills, Neuralgine, Norwich Laxative Cold and LaGrippe Tablets, Purity Quinine Tablets, Rexall Cold Tablets, Rexall Neuralgic Tablets, Shac, and 666 Tablets.

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Numerals throughout refer to the references at the end of the article.

aware either of this fact or that they possess any possibilities for harm whatever. . . . It therefore appears that the people in general should be informed of their poisonous properties and of the injurious effects which may follow their ill-advised, prolonged, or habitual use."

A survey of the literature to 1907 (about 20 years of use of acetanilid) revealed 297 poisonings by acetanilid with 13 deaths and 32 cases of habitual use. A survey of data obtained from 400 physicians in the United States indicated 614 cases of poisoning, 17 deaths, and 112 cases of habitual use. The sum total of the above is 911 poisonings, 29 deaths, and 144 cases of habitual use. The sum total of poisonings from acetanilid and its derivatives (antipyrine and acetphenetidin) was 1,669, with 54 deaths and 169 cases of habitual use. Of course, it should be understood that such statistics are exceedingly incomplete for two reasons, first that the nature of the poisoning or illness may in many cases escape detection or diagnosis by the physician, or there may be no physician in attendance; and second, because in only a small fraction of cases will such poisoning, when not resulting in death, be reported to the authorities.

The Council on Dental Therapeutics of the American Dental Association<sup>2</sup> warned dentists against indiscriminate use of the drug: ". . . the Council places on record, as a guide to dentists, the following: In view of the questionable character of the evidence upon which many of the claims for harmlessness are based, and of the possible health hazards resulting from the indiscriminate use of such mixtures, the Council desires to warn dentists against the indiscriminate use of acetanilid alone or in mixtures with other active drugs, including patented or proprietary products, until more satisfactory evidence of its harmlessness is available."

The New Hampshire State Board of Health<sup>3</sup> brands acetanilid as a "harmful and habit-forming drug" and states "The fact of the matter is that acetanilid is a highly potent drug, one profoundly capable of causing serious health impairment and the use of which has been held as directly responsible for more than a few deaths." The U. S. Department of Agriculture, in a radio release,<sup>4</sup> stated "Numerous deaths have resulted from overdosages of headache powders containing acetanilid. . . . Aside from the knockout punch of an over-

dose of acetanilid, if it's taken over long periods of time it may destroy the power of the red corpuscles to carry oxygen. The victim turns blue; serious illness and death may follow. While acetanilid is one of the few drugs the present law *does* require to be declared on the labels, the record of tragedies from its use (and the record grows longer and longer), shows that mere *label declaration* is not enough."

Acetanilid is a potent drug. Like others, if used cautiously, it has its proper use by the *medical profession*. Like other poisons, it should not be used indiscriminately. The danger with acetanilid, as with other poisons, lies both in acute toxicity resulting from an overdose and in chronic toxicity resulting from its use over a considerable period of time. Both the American Medical Association<sup>5</sup> and the American Dental Association<sup>6</sup> advise caution in its use and discontinuance at once if symptoms of poisoning occur—pallor, cyanosis (blueing of the skin, particularly the lips), faintness, or tachycardia (excessively rapid pulsation of the heart).

In the past few years there has been considerable pharmacological work on animals to determine the effect of acetanilid, particularly re-

search financed by grants from a headache remedy manufacturer. Some reports indicate that acetanilid has but little effect on the heart.<sup>7</sup> On the other hand, other pharmacological research indicates the opposite: "All [experiments] demonstrate the fact that acetanilid, like anilin, has a direct toxic action upon the heart." Chronic cases resulted in anemia and emaciation (loss of flesh) together with fall of the red blood cell count and oxygen-capacity of the blood.<sup>8</sup>

Acetanilid no longer appears in the *British Pharmacopoeia* (1932) although it was official in the 1914 edition. A British chemical dictionary<sup>9</sup> states: "The use of acetanilid as a febrifuge is now largely superseded by less harmful preparations. . . ."

There is considerable disagreement as to the habit-forming properties of acetanilid. The 1909 survey of the U. S. Department of Agriculture indicated 112 cases of habitual use; a survey of hospitals a few years ago indicated 117 poisonings, 12 deaths, and 85 cases of addiction. It is said that maniacal excitement has followed the withdrawal of acetanilid from an "addict." One research worker,<sup>10</sup> determining the effect of acetanilid on dogs,

concluded that acetanilid is habit-forming and dangerous for lay use. On the other hand,<sup>11</sup> it was found that rats developed a tolerance and no addiction. Of course, the effect upon animals often varies with different animals. It is an axiom of animal experimentation that the effect on human beings can only be very imperfectly judged by a drug's effect on the animals commonly used for experimentation.

Because the federal law requires a statement of acetani-

lid or its derivatives (acetphenetidin or antipyrine) on the label, the public should carefully examine the label of any headache remedy, painkiller, or "cold compound" to see if it contains these drugs. If they are used, they should be treated with the respect due a poisonous drug; even though the label gives directions for large or continued doses, do not repeat the dose or use continuously and one should never use a prescription for such ailments which a physician has prescribed for another person.

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## *Buying a Gas Range With Dollars and Sense*

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THE purchase of a new gas range is a household event that is not to be rushed into lightly. Once you have made your decision that the old gas stove is to be discarded, plan to take at least a month or two to make your selection of a new one. An unsatisfactory purchase hastily made can be a source of considerable and long-lasting irritation. Let's consider for a moment how to go about the purchase.

Study your present gas range and decide whether or not its type, size, and style are satisfactory. Get catalogues describing every likely brand, make a number of trips to the salesrooms to look over all the different styles and brands available in your immediate vicinity. After you have a general picture of what is available you can then make a list of the various features you consider desirable for your kitchen and your use. Then comes the most important step of all, which is the consideration of the construction and efficiency, to which beauty of line, color, and details of design should always be secondary.

### **Burners and Cooking Top**

To pick out a really efficient burner, you need the advice of a good engineer. If you are planning to go into the matter thoroughly, we suggest that you send for the leaflet, Circular 55, *Selecting Your Gas Stove*, by Arnold E. Baragar, published September, 1937, and available without charge from the University of Nebraska, Lincoln, Nebraska. This

leaflet discusses in detail the various types of burners, cooking tops, grates, etc., available. It will be worth your while to study it, if the money involved in your purchase means a great deal to you.

Briefly, one thing you want is a burner which has the flame holes or openings in its side or *vertical* surfaces. When the flame openings are arranged in this manner, they will not clog so easily when food boils over. The danger of asphyxiation is thus lessened. (There have been a number of cases where a pot boiling over has put the flame out, with fatal results.)

There is some advantage in having one of the burners a giant-size burner which will provide for more rapid heating than can be secured from the regular-size burner for foods that need to be cooked quickly, such as pan-broiled steak for example. It is desirable also to have one of the burners equipped with a simmer burner for low heat when the regular burner cannot be turned low enough. This will result in a saving of gas where, for example, water is to be kept boiling gently over a period of time, or for a long-time cooking process where it is necessary only to keep the liquid just boiling.

Most of the new stoves are equipped with a removable pan below the burners which is large enough to hold anything which might boil over. It is especially important that this be easy to clean because no matter how careful you are, food will boil over sometimes.

The so-called solid top ranges have been found to be chiefly a salesman's talking point. They cook much more slowly because the heating capacity has to be cut nearly in half to prevent formation of the dangerous carbon monoxide gas. Solid-top ranges are not so efficient as a properly adjusted open- or grate-top range.

Watch out for pilot lights or so-called automatic lighters. If they go out accidentally, unburned gas will be admitted



into the kitchen and cause a definite hazard to health. Pilot lights are also an expense and may consume as much as 25 cents' worth of gas a month. Of the various kinds of hand lighters one may use, it is best to get one of the type in which a wheel rotated by a spring projects an intense narrow stream of sparks—or plan to use matches.

### Oven and Broiler

For one who does considerable amount of baking, an efficient oven is a great boon. First of all, the door should be arranged to suit your own personal preference. You may like the traditional style in which the oven door is hinged at the bottom and drops down when opened. There is another kind where the oven door is hinged on either the right or left and swings from side to side. Some find this type extremely inconvenient because of the danger that the door may swing back and cause a nasty burn on the arm when attention is directed to examining the contents of the oven. The oven handle should be made of some noninflammable material which does not heat up easily.

If you do not use the oven much for cooking, its size is not important. If, however, you plan to roast a family turkey on Thanksgiving Day and Christmas, it is a good idea to see whether or not it is large enough to take your roaster easily. The oven door should, of course, be well fitted to prevent any heat escaping between it and the frame.

In addition, the oven should be well insulated, not only for efficiency in cooking and economy in gas consumption but for comfort in hot weather. Insulation should be, preferably, of glass or rock wool in "blanket" form. It should never be packed in solid blocks because in this form little use is made of dead air space upon which effective insulation depends. The insulation should be at least  $1\frac{1}{4}$  inches thick, according to one study. Better be sure to ask the salesman of the particular makes in which you are inter-

ested to let you see a cross section of the oven walls and a sample of the insulation. The thermostat is usually not in adjustment when the stove is received, and it may be necessary to have it accurately adjusted by the dealer or a gas company's serviceman after the stove is installed.

Just how much importance is to be placed on the arrangement or type of broiler depends entirely on how much broiling you do. If your family has a preference for broiled ham, steaks, and chops, you should give it considerable attention. (Broiling is the preferred way of cooking such meats and tends to develop the best flavor.) Usually the broiler is placed below the oven. The most efficient type is a drawer with a door which will drop down so that the broiler pan can be pulled out from the flame without burning the hands. The pan itself should, of course, be of the non-spattering type with a semi-solid rack, so designed that the contents are not likely to catch on fire when the broiler chamber is overheated; the pan should, moreover, be so constructed that it is easy to clean.

It goes without saying that all parts of the stove should be easy to clean. You yourself can determine this by pulling out and inspecting the various shelves and pans. See if they come out easily, and at the same time are not tinny or crudely built, or "loose jointed." Examine the drawers and other parts of the stove rather carefully. Be sure, for example, that they have rounded corners, which are more easily cleaned than sharp corners.

### General Advice

Before making your final decision, make a list of various gadgets which form talking points for the different models, and then decide which ones seem to you to be really important—as distinguished from those which make good points for the salesman to "bear down on" in his selling talk. It is surprising how few things are really essential

in a gas stove and how many new attachments and features the stove makers have found to attract the prospect's attention away from the basic essentials.

If you do not have a large family and do not do a considerable amount of cooking, then the simplest type with the fewest accessories will be suitable. If your family is large, high efficiency in the use of gas, especially in respect to oven insulation, will be of particular importance. Even if you do a lot of cooking, you may still have little or no use for some of the fancy accessories which add considerably to the price.

The last item—and a very important one—to be considered is the reliability of the dealer from whom you make your purchase. Investigate his standing thoroughly and particularly his previous record on servicing appliances after they have been purchased. Find out, if you can, how long he has sold the particular make of appliance he is now boosting. That will give at least some clue as to how long he is likely to continue to sell it, which may be a very important matter if you have trouble with the stove or require repairs or repair parts for it.

Watch out for the dealer who has a new line every year, for he is probably more interested in sales points than he is in solid performance. Even a good stove needs expert attention occasionally, and if your dealer is unobliging or if he does not have an expert serviceman available, you will do well to find another dealer who carries the same line in a nearby town, if need be, or to purchase a different make from a dealer whose reliability, both financially and with regard to servicing, is well known.

It goes without saying that a gas appliance which does not bear the approval symbol or seal of the American Gas Association should not be purchased since this seal gives some assurance of compliance with very important requirements of basic design, principally with respect to safety.

It does not assure high efficiency, but dealers will often try to give the impression that the seal represents a certification of genuine all-around excellence for the product. This is not true, and if you are interested in gas stoves, you will do well to look up the printed matter of the American Gas Association (420 Lexington Avenue, N.Y.C.) and see for yourself just what the approval seal's limitations are.

For the benefit of those who wish more concrete advice in making their purchases, the findings of preliminary tests made by Consumers' Research, which included an engineering examination and certain technical and practical tests, follow. It is possible, if there is no agent for these particular stoves in your vicinity, that you can make arrangements to secure one by writing the company direct. Before buying any stove, you should look into the matter of installation and see just what it will cost you, particularly if the stove is one that is not sold by your local gas company or any established local merchant.

#### Recommended

*Tappan*, No. W-9 (The Tappan Stove Co., Mansfield, Ohio) \$79.50. Burner efficiency 47%, much higher than average. Heat loss from oven much less than average. Oven about 6 inches lower than in some of the other ranges tested; may be a fault to some users. Oven door hinged on side in model tested; constituted serious disadvantage and burn hazard. Oven dimensions: height 12, width 16, depth 19 inches.

#### Qualified Recommendation

*Grand*, No. 10 (The Cleveland Co-operative Stove Co., Cleveland) \$69.95 list. Burner efficiency somewhat low, averaged 38%. Rate of heat loss from oven, about average. Provision made for oven flue. Oven dimensions: 13 1/4 x 16 x 18 3/4 inches.

*Chambers*, No. 11 (Chambers Corp., Shelbyville, Ind.)

\$149.50. Burner (daisy type) efficiency low, averaged 34%. Rate of heat loss from oven somewhat below average (desirable). Had a *Thermowell* insulated cooker which would permit long-time cooking operations to be carried on with the aid of only a small flame, an insulated oven equipped with dampers which closed upon turning off the flame so as to hold in the heat, and a broiler conveniently located in the range top, instead of in the more usual location in the oven. In view of the burner efficiency, and the comparatively small oven size, many readers might wonder whether the advantages claimed for this range, namely, the special type broiler, the *Thermowell* cooker, and the insulated oven with dampers, would be worth the large extra price asked for the range. Special features in gas ranges, however desirable they may be in themselves, seldom justify paying a much higher price than the prices asked for the standard or conventional types of ranges. Savings to be expected in favor of the *Thermowell* over those possible by use of a small flame were a very small fraction of a cent for each hour of use; savings would have to accrue over several thousands of hours of cooking, to repay the initial extra cost of this device. No provision for connection of oven to flue. Particularly on a high-priced range, the possibility of providing a flue connection either at the time of purchase or later, should always be assured. Oven dimensions: 12 x 18 7/8 x 17 3/4 inches.

*Magic Chef*, No. 4201-70 (American Stove Co., St. Louis) \$80.50. Burner efficiency somewhat low, averaged 39%. Rate of heat loss from oven a little below average (desirable). Oven vented through a louver in front of splasher panel with no provision for connection to flue, a disadvantageous feature. (Note comment on flue connection under *Chambers*.) Oven dimensions: 14 x 15 7/8 x 17 1/2 inches.

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# Pressing Pants-- and Other Clothing

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**P**RESSING pants—and other clothing—is an art that must be acquired by most of us just so long as the human race persists in graduating from its youthful three-cornered garment as soon as it may. The Extension Service of the State College of Washington has put out a handy little booklet on the subject that we'll use as a textbook in this article.

Is the class ready? Let's go.

We'll assume that the importance of keeping clothes pressed is known to the reader (who wouldn't be reading this if he didn't know!) and go on to the equipment needed:

1. A well padded ironing board.
2. An iron (with controlled heat if possible.)
3. Clothes brush.
4. Woolen pressing cloth.
5. Heavy muslin cloth.
6. Cheese cloth.
7. Sponge and bowl of water.
8. Strips of heavy wrapping paper.
9. Pins.
10. A sleeve board or tailor's cushion is helpful but not necessary.

While the iron is getting hot we'll explain why garments should be pressed, and not ironed. In pressing, a damp cloth or moisture applied to the garment is used with the heat of the iron to produce steam. By alternately placing and lifting the iron over the surface of the garment, the steam

together with the weight of the iron removes wrinkles and restores the nap of the fabric. If the iron is pushed over the fabric as in ironing, the nap is flattened and a shiny surface results—which may improve a mirror but is undesirable on the seat of one's pants (trousers).

The iron is nearly hot so we now brush and shake the garments, which have previously had stains removed and been thoroughly aired.

The first example for the class is a pair of woolen trousers; watch teacher closely and save yourselves a tailor bill. We place the waistline of the trousers over the end of the ironing board and, beginning at one side of the fly, cover the waistline with a woolen pressing cloth under a heavy muslin cloth (cotton cloth doesn't scorch as readily as wool and wool creates more steam than cotton through its better moisture retention properties). Applying moisture to the cloth with a sponge, we press with the hot iron, continuing this with every portion of the waistline, the fly, and pockets.

Next we place one leg of the trousers on the board with the front crease up. We cover the bulged spot at the knee with the cloth and press *just the knee*. After repeating the operation with the other leg of the trousers, our trousers are nicely debugged.

We now lift the trousers from the board and, holding them by the bottom, fold them where the crease should be. If the crease is entirely gone, we place them seam to seam along the entire length of the leg. We then lay them on the ironing board in this position and fold back the top leg. The bottom leg is covered with the pressing cloth and we begin. Steaming and pressing, we work toward the front of the leg to remove any bagginess remaining in the knee. Sharp creases are placed in the front and back but the iron is kept moving so that the cloth is not pressed completely dry.

After completing one side of the leg, we carefully turn it over and press the other side. The trousers are then turned over, taking care not to wrinkle the finished portion, and the same technique is followed with the other leg.

Hanging the trousers on a trousers hanger or laying them on a flat surface to dry, we are now ready for the coat.

First we steam and press the two fronts of the coat, using the woolen and muslin pressing cloths if the suit is wool. A fold of paper placed under the pocket flaps keeps the flap from leaving its mark on the coat. Avoid touching the buttons with the iron because they don't need pressing and they may either stain the cloth or break.

Now we turn over the coat, letting the front sides dangle over the edges of the board, and press the back.

The next step is the collar and lapels, which should be laid *flat* on the narrow end of the board with the upper side uppermost and pressed in the usual manner. *Do not crease the lapels.*

So far the coat looks pretty good but we still have the sleeves to worry about. They're easy—just lay them flat and press one at a time—but the upper sleeve and shoulder is where most people fail. The trick is to use a pressing pad or sleeve board; a large turkish towel rolled up and inserted in the shoulder serves very well for a pressing pad. Press and steam until the wrinkles are gone.

If the coat collar doesn't fit close to the neck, it may be improved by holding the collar firmly over the small end of the ironing board with the back fold standing slightly away from the board. Steam and press, putting most of the pressure along the lower edge of the collar. This shrinks the collar, making it fit more closely to the neck.

While the coat is drying on a hanger, we will have a lecture on pressing various materials.

Silk should be pressed in the same manner as for wool, using less moisture in order to avoid water spots. Placing



a dry cloth next to the garment and covering with a cloth wrung almost dry helps to avoid spotting. In pressing dresses with shirring or trimming needing much special attention, the use of cheesecloth will be found better than the heavier pressing cloth. Heavily weighted silks need considerable moisture to remove the wrinkles but they also waterspot and may become stiff if too much moisture is used. Acetate rayon materials are injured by too hot an iron, so it is wise to test the heat of the iron on an inner seam before pressing a garment.

Because of the difficulty of distinguishing types of fabrics, a good rule to follow is never use a hot iron on silk or rayon material—no matter what the salesman may have said about the quality of his wares. Rough crepes should always be tested on an inside seam to see if they lose their crinkle when pressed. For such crepes as cannot be satisfactorily pressed, steaming in the manner described in the next paragraph is the only practical way to remove wrinkles.

Velvets, corduroys, and duvetyns because of their pile surface should be steamed to lift the pile which becomes crushed through wearing. A simple way to steam these fabrics is to hang the garments in the bathroom, leaving the door and windows tightly closed and a few inches of steaming water in the tub. A tea kettle may also be used but care must be taken to avoid burns from the live steam and from the stove.

Knit garments need occasional blocking and sizing instead of pressing. This is done by laying the garment out to size, right side out, on a flat surface. If the size needs changing the garment should be measured and pinned in place. Place the damp woolen pressing cloth over the garment and steam, using very light strokes of the iron. Creases formed at the sides of skirts and any pin marks should be steamed out.

To press pleats in silk or woolen garments, cut strips of

heavy wrapping paper and slip a strip of the paper into each pleat from the outside. This prevents marks resulting from the lapping of material. Pin the pleats securely to the ironing board and press enough to set the pleat. Remove the pins and finish pressing, being sure to steam out all pin marks.

To give a well-tailored look to a home-made woolen garment the material should be shrunk before it is made up. Wet an old sheet and wring it as dry as possible. Spread it out on a flat surface and lay the woolen material, folded with the right side in, in the center of the sheet and fold the sheet over the material. Take a sheet of heavy cardboard (the ones which are in the center of a bolt of cloth are satisfactory) as long as the material is wide and roll the material in the sheet about the board. This prevents unnecessary wrinkling of the material. Lay it aside for four hours or longer. Remove the material from the sheet and press it, using a heavy pressing cloth.

In pressing a newly made garment, the use of strips of paper placed under seam edges, pocket flaps, or any area that overlaps another area, prevents marking the larger surface. Newly made garments and others which have been washed need to be pressed first on the wrong side in order to open the seams.

And now the trousers and coat are dry, so we'll end the lecture and demonstrate the pressing of a necktie. We have a cardboard form which has been cut to the shape of the large end of the tie and slip this form into the tie so that it extends under the badly wrinkled part. This is so that the seam won't show through the front after pressing. The tie is pressed in a manner depending on the material, remembering not to use too much moisture or heat if it is acetate rayon or silk.

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## *Silverware Cleaners*

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ONE way for housewives to save money is to refrain from buying "magical" silverware cleaners at the prices which could be justified only if the cleaners were indeed capable of performing miracles. Because of the glowing description of an advertisement, an ingenious "demonstration" in a department store housewares department, or the persuasive talk of a canvasser, many a housewife has paid a dollar or more for five cents' worth of materials which she already had in her kitchen. The electrolytic method of cleaning silverware has been sold to many at a price as high as \$1.50.

Putting the silverware in a bright aluminum pan and covering it with hot but not quite boiling salt water (two level teaspoonfuls of salt to a quart of water will serve, or some prefer one teaspoonful of salt and one of baking soda) will do the work. With this equipment, you will perform the same sort of magic as though you used the high-priced department store kitchen novelty and at far less cost.

### **Electrolytic Methods**

A question which is often asked by the housewife is whether the electrolytic method of cleaning will harm her silverware. The answer depends upon what kind of silverware is to be cleaned. The method should not be used on silverware with the French gray or oxidized finish common in ornate patterns unless one has no objection to the removing of this finish, nor should it be used on pieces such as silver candlesticks, or pearl-handled table knives which are made of parts that are either held together or weighted

*Condensed from Consumers' Research Bulletin*

by cement, for the hot solution will probably loosen or injure the cement or filling.

On ordinary silver flatware, however, the electrolytic method of cleaning is excellent and will injure the silverware no more and probably less than cleaning with usual types of abrasive silver polish. If the silverware is heavily tarnished, the electrolytic method of cleaning will leave a dull finish; this is not a deposit of some base metal, as many people suppose, but a spongy form of silver which can be removed quickly and easily by ordinary silver polish or can be reburnished with a little rubbing. To avoid development of the dull or matt finish, silverware should be cleaned before it becomes too much tarnished.

More rapid results are obtained with the electrolytic method if a piece of bright copper or tin is placed in the solution below the silverware. An enamelware instead of an aluminum pan may be used, but in this case, put pieces of bright zinc and tin together in the pan, being sure that each piece of silverware is in actual metallic contact, either directly or through other pieces, with these metals. After the silver is clean, wash and polish with a soft cloth or, if necessary, with a mild abrasive such as whiting (a fine grade called extra gilders is preferred) mixed with a little water or dilute household ammonia.

If an aluminum pan is used it should be clean and bright; it soon becomes dull due to deposition of products of the chemical reaction and must then be cleaned. The zinc or tin, when used, should likewise be bright; either may be cleaned by boiling in vinegar or by rubbing with sandpaper or emery cloth. In the ordinary washing of silver, always take care to rinse off the soap completely with clear hot water, for soap left on silverware greatly hastens the speed with which it tarnishes.

Silver tarnish consists chiefly of a sulphur compound of

silver. Electrolytic cleaning removes the sulphur from the compound but leaves the silver as "spongy silver" ("moss silver") not compact in structure like the rest of the silver in the ware. Cleaning with silver polish removes the silver along with the sulphur by abrasion. Although the amount of silver lost at one time is quite small, silver plate is gradually worn down to the base metal by repeated polishing with an abrasive.

### Commercial Products

Most commercial paste polishes consist chiefly of a fine abrasive, soap, and water, with perhaps some soda ash (washing soda), wax, or photographers' hypo added. The function of the soap and soda ash is chiefly to act as a cleaner by removing the film of grease and dirt from the surface; they do not remove tarnish to any important extent. Ordinary scouring powders are too abrasive for cleaning fine silver, though the advertising sometimes recommends them for this use. The abrasive used most commonly in silver polishes is infusorial earth (also known as kieselguhr or diatomaceous earth). While this substance chemically is similar to sand and quartz, it differs physically in that it usually does not possess many sharp edges. Silver polish to meet Federal Specifications must be made with an abrasive fine enough to pass through a standard Number 200 sieve.

There are numerous grades of infusorial earth. The finest is, naturally, the least abrasive, and scratches the silver surface less, but it is not so rapid in action. Unfortunately, the silver polishes which were found to be the most rapid in action invariably produced most scratching and wore away the silver fastest. There is a strong incentive to the manufacturer to use the less desirable grades and types of abrasive, because the housewife ordinarily credits the silver polish with quick action without giving a

moment's thought to the price which she pays for that speed in loss of her silver or quick depreciation of her plated ware. The informed consumer will remember that quick action in many household cleaning, scouring, and polishing agents quite commonly goes with some serious disadvantage, such as over-severe effect on the surface treated.

Some silver polishes contain chemical substances which dissolve tarnish. Potassium cyanide formerly was commonly used for this purpose, but, because it is a deadly poison, it is not now put into polishes for use in the home; it is well that this is the case because the cyanides are much too deadly to find any use whatever in the household. Unfortunately, its use is common in hotels, and occasional cases have occurred of serious poisoning of persons using the silverware soon after it was cleaned. Another method sometimes used in hotels, which also involves a poisoning hazard, is the polishing or burnishing the silver with lead "points" with which the ware is tumbled in a revolving container. Such points wears off the surface coating, but obviously leave a certain degree of deposit of metallic lead, the poisonous properties of which are well known.

Hypo (sodium thiosulphate), another substance which is found in some polishes, is not of much assistance in tarnish removal. This substance has the further drawback that, unless very completely removed from the silverware, it is liable to deposit sulphur and produce new tarnish.

### Make Your Own

A satisfactory silver polish can be made at home simply by making a paste out of a fine grade of whiting and household ammonia. It was found to be less abrasive than the finest commercial paste and, although not as rapid in action as the commercial pastes, it removed tarnish without much effort. The paste soon becomes hard and, therefore, it should be made up whenever it is to be used. A satis-

factory polish which keeps better can be prepared by dissolving  $\frac{1}{4}$  ounce of soap without builder, such as *Lux* or *Ivory* (3 level tablespoonfuls of *Ivory Snow*) in  $1\frac{1}{2}$  ounces (3 tablespoonfuls) of hot water and  $\frac{1}{2}$  ounce (1 tablespoonful) of glycerin, allowing to cool slightly and adding 1 teaspoonful of household ammonia and sufficient whiting (extra fine grade) to make a paste. Mix well, and keep in a tight container.

### Results of Tests

Substances such as jewelers' rouge, powdered pumice, rottenstone, and fuller's earth were studied, and found in the tests to be either less efficient or else more abrasive than whiting and hence were judged in every case to be less desirable.

All the polishes were examined for the presence of mercury and cyanide poisons, but none was found in any of the household silver polishes tested. Polishes were given practical tests to measure their effectiveness in polishing, and were also tested for scratching.

### RECOMMENDED

Whiting (a fine grade called extra gilders is preferred) with ammonia or with ammonia and soap (be sure to wash off the soap afterwards with warm or hot water). Directions for making are given in the preceding discussion. Not as rapid in action as commercial pastes, but effective nonetheless, and when the proper grade of whiting is used, free from any danger of scratching. A fine grade of whiting may be obtained from the Buffalo Chemical Supply Co., Box 240, Buffalo, N. Y.

Electrolytic methods.

*Electro-Silicon* Polishing Cream (The Electro-Silicon Co., N.Y.C.) 10 cents for 4 ounces. Least rapid in action of the commercial pastes, and likewise caused the least amount of scratching.

*Gorham* Silver Polish (Gorham Mfg. Co., Providence, R.I.) 33 cents for 8 ounces. Second most rapid in action; amount of scratching less than average.

*Johnson's Shi-nup* Household Cleaner and Silver Polish (S. C. Johnson & Son, Racine, Wis.) 39 cents for 16 ounces. Slightly less rapid in action than *Gorham*; amount of scratching about the same.

#### QUALIFIED RECOMMENDATION

*Life* Polish (Liquid) (E. Keller & Sons, 711 Hamilton St., Allentown, Pa.) 35 cents for 8 fluid ounces. Less rapid in action than the recommended pastes and caused about the same amount of scratching.

*Noxon* (Liquid) (Noxon, Inc., N.Y.C.) 50 cents for 8 fluid ounces. Less rapid in action than the recommended pastes and caused somewhat more scratching.

*Trā-lure* (B. S. Felvey Co., 228 N. La Salle St., Chicago) \$1.50. One of many cleaners of the electrolytic type of which scores of different "brands" are sold in department and variety stores. The metal part of the outfit of this brand was in the form of a tray useful for holding the silver to be cleaned. Functioned satisfactorily, but price, of course, was very high.

One fact which seems to stand out clearly is that many consumers have money and need to buy but are very skeptical about getting their money's worth. These years of depression seem to have brought with them a great lack of confidence between the consumer on one side of the counter and the merchant on the other. The problem is how to get this confidence back. One solution which we believe has merit is to try a new mode of selling—that is, selling strictly on the basis of fact.

—Ruth O'Brien in *Standards for Consumers' Goods*.



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## TO HUMIDIFY OR NOT—

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*Artificial humidification of homes in winter has commonly been supposed to be a highly desirable improvement in home heating, from the standpoint of health, economy, and prevention of excessive drying out of furniture. It appears, however, that the first two of these suppositions are not supported by the facts: that the usual relative humidity, without special adjustment or equipment, is sufficiently high, and that there is an important disadvantage to humidifying. This disadvantage is one that applies with particular force to houses with outside walls that have been insulated without being specially and carefully moistureproofed. Unless such walls have been made impermeable to water vapor on the room side, artificial humidification had best be avoided.*

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THERE are scores of devices being currently sold for the purpose of supplying rooms, or the whole house, with artificial humidification. Some are electrical and some mechanical, for attachment to the light socket, or to radiators, or to the cellar furnace. Brand names run through the alphabet from A to Z—as it were, from *Aquadripper* to *Zonowetter*.

Those of us who have lived in northern climates have observed the drying out of furniture and the shrinking of doors and other woodwork in winter. But little—if any—scientific work has been done that would tend actually to establish any ill effects whatever of dry air on health or comfort. In fact, most people seem to have found dry air preferable and some have at great expense, and upon their physicians' advice, changed their residence so as to live in a region which is noted for having dry air in the seasons when the normal American climate is rainy and damp—Arizona affords such a climate, for example, and one that is highly prized in many conditions of ill-health.

On the subject of humidity, the official organ of the American Society of Heating and Ventilating Engineers

presents what might be termed the present official opinion of the heating and ventilating industry and its experts and consultants: "Relative humidities below 30 per cent may prove satisfactory from the standpoint of comfort, so long as extremely low humidities are avoided. From the standpoint of health, however, the consensus seems to favor a relative humidity between 40 and 60 per cent."

But now, contrary to the suppositions about relative humidity so often taken for granted, and to the position at least implied in the American Society of Heating and Ventilating Engineers' statement, a Committee of the American Medical Association which has been making a study of air conditioning assures us that artificial humidification is "relatively unimportant from the standpoint of comfort and, so far as is known, not essential from the standpoint of health." The membership of the American Medical Association's committee was: Carey P. McCord, Emery R. Hayhurst, William F. Petersen, Horatio B. Williams, and Constantin P. Yaglou—all distinguished researchers in fields related to the subject under investigation. Says the Committee, "extremely low humidities of the order of 15 per cent or less may affect our comfort and possibly our health by drying the mucous membrane of the nose, but such humidities are unusual unless the air is overheated. During the coldest months of the year the ordinary variation is between 20 and 30 per cent, [because] the walls and furnishings of a room, although apparently dry, are capable of storing large quantities of moisture when the humidity is relatively high and releasing it when the humidity falls."

After disposing of the arguments of the advertisers of humidifiers claiming profound effects on health and comfort of the occupant of the home, the Committee of the American Medical Association then shows that humidification does not even save fuel. Thus it disposes of an argument long used by humidification equipment salesmen

and sales engineers to deal with the doubts and hesitation of the consumer who was inclined to give much weight to his own hunch that there was no harm to health implied in normal or ordinary humidity in the home. "An increase of 20 per cent in the relative humidity (from 20 to 40 per cent)," says the American Medical Association committee, ". . . permits a temperature reduction of but 2 degrees F. from about 72 to 70 F. No fuel economy results from this reduction in temperature, as it takes more fuel to raise the humidity 20 per cent than to keep the building at a temperature 2 degrees F. higher. While on first thought one would expect a material reduction in heat loss from the structure, when the temperature is lowered 2 degrees there is a simultaneous increase in the heat conductivity of building material with humidity, the importance of which is not appreciated at present."

Having demolished the reasons which have served to impress upon the consumer a belief in a thorough-going scientific basis for artificial humidification of the home and in public buildings, the committee sets forth an important statement of reasons for not humidifying. Added humidity may cause serious "damage to exposed walls and roof by absorption and penetration of moisture. Fungus growth or chemical disintegration may result from accumulation of condensed water in certain building materials composing the outside walls. The wallpaper may loosen. Moreover, if the water should soak through to the outside sheathing, frost may cause serious damage. Artificial humidification, therefore, is not recommended in buildings of usual construction, as the natural humidity prevailing therein is as high as can be carried safely. If humidification is desirable, the building must be specially designed and built, with suitable insulation and moistureproofing of all exposed surfaces [on the room side]. The attic space must be well ventilated or else no humid air must be allowed to escape

there. Even with these precautions, relative humidities in excess of 40 per cent are not to be recommended in cold weather." And high humidity is undesirable in homes using wallboard of certain types impregnated with a chemical material intended to prevent infestation by termites and other insects.

If you feel you must humidify your house or apartment, the old-fashioned method of placing a jar of water on the radiator is the best method to use because it is inefficient and does not raise the humidity significantly or, of course, to any harmfully high value. The case for humidifiers in the home reminds one of the case for plenum fan ventilation in schools. After elaborate sales tricks had brought about the spending of millions of dollars by school authorities, it was determined by qualified researchers that the old-fashioned method of ventilation by not specially ventilating at all, but by merely opening a window or two when required, was the best method in fact and served every purpose of the more elaborate and costly mechanical systems.

Those who live in houses not thermally insulated will be glad to know, and those who live in houses with expensively insulated walls will perhaps be somewhat unhappy to note that the danger of moisture condensation in the walls and the damage to the walls thereby is greatly lessened if means for thermal insulation, especially of certain types, has not been used in the construction of the house. From this it follows that houses which have had costly installation of insulating materials, in the exterior walls especially, should not be artificially humidified unless particular care is taken to ensure a surface layer impervious to moisture on the room side of the walls. In a word, artificial means of humidification of the home cannot safely be used in a house which has been equipped with insulating materials in the walls unless the wall surfaces themselves have been specially prepared to meet the difficulties raised by humidification.

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## *If You're Buying a Kitchen Knife*

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**N**OWADAYS when even the bread and bacon are sliced at the factory, the need for an extensive collection of kitchen knives for a variety of uses is probably not so great as it was in grandmother's day. It is helpful, nevertheless, to know the distinguishing characteristics of the various types available, in order that the three or four which the average housewife needs will be of the proper design. Here, in brief, are descriptions of the more commonly used types.

A *bread knife* should have a thin, broad, flexible blade,  $7\frac{1}{2}$  to 8 inches long, with straight cutting edge and rounded point. The cross section should show a taper from back to cutting edge. The steel should be harder than for most other knives because the cutting of bread dulls a blade rapidly. A blade with a sharp, *finely* serrated (saw-like) edge is desirable, as it will cut the bread without tearing.

A *butcher knife* had best have a heavy, stiff blade, much stiffer than is common, about 7 or 8 inches long, with sharp point and curved cutting edge.

A *carving knife* requires a rather stiff blade, making easier the cutting of hot, soft, yielding meat. The length should be about  $8\frac{1}{2}$  to 9 inches. A flexible, thin blade is best for slicing cold meat.

A *cleaver* should have good balance of blade and handle. The blade, for ordinary use, should be about 6 inches long.

A *cook's knife* ought to have a rather stiff blade, 8 inches

long, with an arrow point and deep choil<sup>1</sup> or heel. This is probably the best all-around large knife for kitchen use.

A *grapefruit knife*, if properly designed, has a thin, flexible blade about  $3\frac{1}{2}$  inches long, curved to conform to the shape of the fruit so as not to puncture the skin as the fruit is being cut.

*Paring knives* are available in a number of different styles. These are suitable for special kinds of work where one's kitchen equipment is elaborate enough to warrant such specialization. In one type, the blade of the paring knife should have a straight cutting edge and a sharp point for ordinary peeling or cutting, and for slicing articles held in the hand. The blade should be from  $2\frac{1}{2}$  to 3 inches long. ¶Another type has a thin blade with a slight concave curvature to the cutting edge, for paring round fruits and vegetables like potatoes. ¶A knife with a pointed blade, about  $1\frac{1}{2}$  inches long, is advantageous for removing eyes of potatoes, pineapples, etc., and taking pits and seeds out of fruit. ¶Still a fourth type, with a rocker-shaped blade anywhere from  $2\frac{1}{2}$  to 4 inches long, may be used for "cutting down" or mincing vegetables, etc., on a board, for general peeling, and for slicing.

A *skinning knife* used on the farm for butchering has a strong, stiff, narrow, pointed blade, about 6 to 7 inches long.

A *slicing knife* should have a thin, narrow, flexible blade, 8 to  $8\frac{1}{2}$  inches long, blunt or pointed.

A *narrow spatula* has a flexible blade anywhere from  $4\frac{1}{2}$  to 8 inches long, with the greatest flexibility at about one-third of the distance from the end; it is used for cleaning bowls, removing cake or muffins from pans, etc. (This is not to be confused with the broad spatula, or cake turner.)

<sup>1</sup>Choil—The part of the cutting edge at the opposite end from the point. A knife with a deep choil or heel is one in which a considerable part of the blade extends below the lower side of the handle.

## SHAPES OF BLADES ON PARING KNIVES



STRAIGHT CUTTING EDGE WITH SHARP POINT



CONCAVE CUTTING EDGE



POINTED BLADE - BOTH EDGES TAPERED



CONVEX OR ROCKER-SHAPED CUTTING EDGE

A *steak knife* (for table use) has a somewhat flexible blade and a curved tip. The blade is usually about 5 inches long.

A *utility* or *boning knife* should have a semi-flexible, pointed blade; it is used for boning fowl and ham, and for slicing fruit and vegetables. The blade may be  $4\frac{3}{4}$  to 6 inches long. Another type of utility knife, having a finely serrated edge, is desirable for slicing citrus fruit. The blade is  $4\frac{3}{4}$  to 6 inches long.

The recommendations which follow can be regarded as of only general guidance value since quality ratings need to be applied to specific items and types of goods if high reliability in ratings is desired. As it is not yet practicable to do this for table and kitchen knives, the consumer must use the foregoing information to guide his selection when purchasing knives from the following companies. Both of these companies are reported never to put their name upon a piece of cutlery which does not conform to reasonable minimum specifications of quality and performance.

Recommendations are taken from a Consumers' Research *Handbook of Buying*.

#### RECOMMENDED

J. A. Henckels, Inc. (Solingen, Germany; 456 Fourth Ave., New York City.) Manufacturer and importer of high-grade cutlery (*Twin* brand), both carbon and stainless steel, almost all forged. Paring knives have unusually good cutting edges and well-fitted handles. Handles reported to be not so well finished as many of the American knives.

John Russell Cutlry Co. (Turners Falls, Mass.) American manufacturer of high-grade forged and double-beveled steel knives, both carbon and stainless steel.





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# Virgin Wool vs. Reclaimed Wool

*Brief Presented by*

JULIUS FORSTMANN, PRESIDENT

*Forstmann Woolen Co.*

to the Federal Trade Commission at the  
*Trade Practice Conference for the Wool Industry*

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MANUFACTURERS of wool and part-wool products purchase their raw materials with full knowledge of their requirements and insist on obtaining delivery of the grade and qualities which they specify, without any concealment or deception on the part of their resources. We can see no reason in equity or in logic why the consumer, who is the ultimate customer of the manufacturer, is not entitled to the same privilege.

It is a matter of common knowledge in the wool industry that for years the undisclosed use of reclaimed wool in wool products has been increasing steadily, and that this increase has been accelerated during those periods when prices for virgin wool have shown an upward tendency. During this same time the undisclosed use of fibers other than wool has also increased tremendously in products sold as being made of wool. . . .

Our arguments are directed mainly toward clarifying the intrinsic differences between virgin wool fibers and reclaimed wool fibers. The term "virgin wool" is universally understood in the trade to mean wool that has never been spun or woven or knitted or felted, nor used for any other purpose. The term "reclaimed wool" as used

in this brief means wool which has been reconverted into a loose fibrous state after it has been spun, woven, knitted or felted, or otherwise made into a wool product. We believe the term "reclaimed wool" as a generic term for such wools is the correct one, because it has behind it the authority of all standard dictionaries and encyclopedias. This wool is also identified in the trade by various other terms, including the descriptive phrase "reworked wool." We regard this phrase as inadequate and confusing because it can and might be applied equally to virgin wool which has been improved by repeating processes, such as for example to obtain recombined tops. . . .

There are many kinds and qualities of virgin wool. They vary in wide ranges in their physical properties, depending on the breed and quality of sheep, goat, camel, etc., and also on the part of the fleece from which they are derived. These variations include fineness, flexibility, length of staple, crimp, lustre, softness, and strength. The finer and more expensive wools in many cases are not as strong and resistant as cheaper, coarser wools. In turn, they make fabrics of finer texture than do the coarser wools. Mohair and alpaca have a distinctive crisp touch and lustre; camel's hair, in turn, has characteristics not possessed by other wools, and so on. Similar variations exist in practically all graded commodities and represent their fitness for certain definite purposes and usages, their prices, and other established factors. In its long existence, which is as old as the history of mankind itself, the wool industry has, on its part, found specific uses for the various types and qualities of virgin wool fibers in making different types and qualities of wool products.

There are an even greater number of kinds and qualities of reclaimed wool. Reclaimed wool fibers of a given grade, in all instances, must be reconverted from a like grade of virgin wool by a rigorous and destructive tearing and

shredding process. In addition to the wide varieties and grades of reclaimed wool fibers which can be substituted for similar varieties and grades of virgin wool, there exist also additional lower grades of reclaimed wool which are classified according to the degree in which their original resemblance to virgin wool has survived repeated conversions into a fibrous state.

Reclaimed wool, under any and all circumstances, is inferior to the virgin wool from which it has been obtained, and no reclaimed wool fiber has the intrinsic properties of any virgin wool fiber. By far the largest proportion of reclaimed wool is obtained by reconvertng it again and again from worn out wool products of every character which themselves contained reclaimed wool. This reconversion continues until the reclaimed wool fibers are too short and weak even to be combined with stronger wool fibers. The very processes by which these worn rags are reconverted again and again into a fibrous mass by tearing and garnetting them, and by stripping them of their dye through acid baths, eliminate progressively the basic properties which make virgin wool the most important and unique of all fibers.

The constantly repeated argument that there are certain grades of reclaimed wool which are superior to certain grades of virgin wool has no application in fact. It is a catch phrase which has been exploited by users of the inferior substitute material "reclaimed wool" in order to avoid being forced to use the original and superior raw material "virgin wool." Proponents of this claim content themselves with a broad general statement. They do not and cannot answer why or how reclaimed wool at any time is better than, or, for what particular purposes in the manufacture of any given wool product, it is superior to, virgin wool. If there do actually exist isolated instances where reclaimed wool of a given grade possesses a partial advan-

tage in some respects to entirely different grades of virgin wool, the instances are rare and prove the occasional exception to the general rule. Standards must always be based on the prevailing superiority of first-grade qualities, not on the occasional values of second-grade qualities. . . .

The inherent differences in quality, intrinsic merit and value between virgin wool and reclaimed wool has been traditionally recognized and defined not only in the wool industry, but in all standard dictionaries and encyclopedias. Price fluctuations in the various grades of virgin wool and reclaimed wool are carried separately in the market reports of all recognized trade media. Rags from which reclaimed wool fibers are obtained are likewise graded and quoted, and the prices which the reclaimed wool fibers bring in the market are determined by the grade of the rags from which they are made. The same differentiation between virgin wool and reclaimed wool is made in tariff schedules of the United States and other countries. Under such specific terms as "wool shoddy," "wool extract," "mungo," "wool rags," and "flocks," special schedules for different classes of reclaimed wool are set up in our tariff regulations. In each case, the duties on these various grades of reclaimed wool are lower than the duties on virgin wool. On the other hand, all grades of virgin wool, with the exception of grades below 44's and carpet wools, are listed under one heading and pay exactly the same rate of duty. . . .

Opponents of wool fiber identification make great capital of the fact that it is difficult to detect the presence of reclaimed wool in a wool or part-wool product. This is quite true, even for experts, without microscopic or other analyses. But just this difficulty is the impelling reason why manufacturers should be forced to provide this information from their own manufacturing records. These records are a primary necessity of production. Without them no manufacturer could produce or establish costs of his products.

The wool manufacturer, and not the intermediate jobber, wholesaler, or retail merchant, is responsible for the wear, service, and protection which his products give to millions of consumers, to whom their purchase represents an important part of the family budget. It is the manufacturer, and the manufacturer only, who knows from his records the kind and quality of wool fibers or other fibers which he has utilized in his products. Therefore he, and he alone, should provide this information in a complete form through all channels of trade up to and including the consumer, and he should be held strictly accountable for any false or deceptive claims which he makes knowingly, either by inference or direct statement in the sale of his products.

Another argument used to confuse this issue of wool fiber identification is, that the use of virgin wool in products now made with reclaimed wool would increase the price to a point which would place these products beyond the reach of a large portion of the consuming public.

It is conceded that the cost of virgin wool fibers is higher than the cost of reclaimed wool fibers. The costs of manufacturing virgin wool and reclaimed wool, however are the same or, if anything, are higher in the manufacture of wool products from reclaimed wool due to the character of the reclaimed wool fibers. If the wool product is further converted into an article of apparel or usage, the cost of conversion, whether the product is made of virgin wool or of reclaimed wool, is the same. Therefore, the sole theoretical economy resulting from the use of reclaimed wool instead of virgin wool is the difference in the cost of the two fibers.

If, as we assume, regulations requiring proper identification of the kind of wool fibers used in wool products result in an increased demand by the public for virgin wool products, the added cost will be comparatively slight. This difference in cost will be more than compensated for in longer wear, permanent superiority in appearance, and

greater protection; and these benefits will accrue in the greatest measure to the masses of people to whom these practical economic values are of greater importance than a comparatively small increase in initial outlay.

All government and all other informed buying organizations everywhere which purchase wool products on the basis of obtaining the ultimate in wear, service, and usage, well understand the necessity of specifying virgin wool fibers and of excluding, wherever possible, reclaimed wool fibers. The specifications of the United States Government for military uniforms are but one illustration of this, and it is interesting to note that these specifications are the direct result of the disastrous experiences which resulted from using large quantities of reclaimed wool in army uniforms at the outbreak of the World War. These results are a matter of public record, and we therefore will not dilate upon them.

The specifications of the United States Navy require the use of virgin wool in all of its wool fabrics. Its standard formula reads in part as follows: "Stock—shall be fleece wool . . . and shall be free from the admixture of vegetable matter, reworked wool, waste, or any other adulterants." The United States Army is equally strict in its specifications. With the single exception of the 32-ounce overcoating, it requires the use exclusively of virgin wool in all its uniform materials.

In conclusion, we summarize our attitude as follows:

A clear differentiation has always existed in the trade between virgin wool and reclaimed wool fibers. Virgin wool is the superior original raw material; reclaimed wool is the substitute recovered from the original fibers after they have been manufactured, and in most cases repeatedly worn or used. Reclaimed wool is employed entirely as a substitute for virgin wool to cheapen the cost of the fiber content. Its use is not disclosed to the public, although it

results in an inferior product which gives less wear, less service, and less protection than a like product made of virgin wool fibers. This is against public interest and should be corrected.

Opponents of this disclosure of wool fiber content plead that such a course will reduce the salability of wool products containing reclaimed wool fibers, because the term "reclaimed wool" connotes inferiority in the minds of the consuming public. If this prejudice is not justified in fact it will be quickly overcome if products made of reclaimed wool provide wear or service which the public deems satisfactory. The consumer, properly informed, may be trusted to make his own decisions regarding the kind of wool product he wants to buy. Today he is denied that right.



### *Points to Remember When Buying a Cloth Coat*

Warmth, comfort, service, and pleasing appearance are what a woman looks for when she selects a cloth coat. Materials, designs, and workmanship affect these qualities. To be sure of satisfaction, read informative labels and check such points as the following:

An outer cloth of good-quality fibers and well-constructed yarns.

Firm, close weave that will not stretch out of shape or snag.

Lining of firm construction, without excessive weighting.

Lightweight interlining proportionate in warmth to the type of coat.

All materials thoroughly shrunk.

Colors fast to sun, rain, cleaning, and perspiration.

All parts cut accurately with the grain of the goods.

Precise workmanship, short stitches, and strong thread.

Thorough pressing done as the coat was put together.

Tape and fabric stays at all places likely to stretch.

Trim and fastenings equal to coat in wearing qualities and colorfastness.

A becoming design that keeps out cold, and allows ample freedom of activity.

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# New Processes Improve Cheap Furs

By Charlotte Hughes

Reprinted by permission from The New York Times

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**T**HE wholesale fur district, lying just below the wholesale clothing district on Seventh Avenue, is as busy these [August] days as an excited anthill. The Winter's fur styles are being shown. In paneled showrooms decorated like early American homes or English hunting lodges svelte models are showing the new coats and wraps. The girls swelter under Klieg lights in weather hot enough to melt the asphalt paving of the streets outside.

The democratic process is at work in the fur hierarchy. This season more than ever humble furs are being stepped up in the ranks to look like others reputed much their superiors. It is estimated that nowadays only 10 per cent of all furs sold are natural or undyed furs. The bulk of the natural furs are mink, leopard, and fox. These aristocrats need not be made to look like anything else. The other 90 per cent are merely dyed, or dyed and treated so that the animals the furs are taken

from would certainly never recognize them.

This dressing up of furs, processors say, is not done to addle the heads of the customers. Buying from a reliable fur merchant, any one may be told what animal the fur of a given coat came from. This is according to a ruling of the Federal Trade Commission. The whole idea, according to the processors, is to make handsome fur coats available to women who cannot afford to spend from \$2,500 to \$7,500 on a fine mink coat.

## Some of the New Favorites

Skunk this year is masquerading as sable, baum martin, and silver fox. And possum is masquerading as skunk. Muskrat and fitch are fixed up to resemble mink. None of this fools an expert, but the fact remains that the humbler furs in their dressed-up state are infinitely handsomer than they are in their natural state.

New developments in the scientific wizardry of fur dressing make all this possible.



One firm of processors has been working for a year on a method that makes the skins thinner, and the result is that coats so processed may weigh a whole pound less than an unprocessed coat. The skin is shrunk, without affecting the fur, so that the roots of the hairs sink less deeply into the pelt. This allows more of the skin to be shaved off, and is supposed to strengthen the pelt. These more supple skins are as soft on the inside as chamois. Such a process results in dressmaker lines and more modish fashioning of sleeves and collars than has been possible before in the less expensive furs.

Hudson seal, made from muskrat fur, is thinner this year than ever before. The long hairs of the fur are plucked out by machine, leaving a soft fur only three-quarters of an inch thick, with a thinner skin in back of it. Somewhat the same process is applied to skunk to make it look like sable, mink, or baum martin. The marked furs are blended, or dyed on top, by hand. Feathers are used to apply the color. . . .

#### Plucking and Blending Processes

Fitch, naturally an ochre yellow fur with long black guard hairs, goes through a similar process before blending to make it look like mink

or sable. The long guard hairs of Chinese lamb are plucked out, leaving a low, tightly curled fur which is then dyed in irregular gray and white streaks to resemble natural Persian lamb. In turning possum into silver fox, the under fur dyed black; the long hairs are left silvery.

Alaska seal really comes from the animal whose name it bears. This dressier fur can be recognized because coats of it have big pelts, while Hudson seal, made from muskrat fur, has pelts six or eight inches long sewn together.

Rabbit fur is made to look like so many other things that some of the results resemble no animal that ever grew. A "snow beaver" is the child of the furrier's imagination, and of his technique. The rabbit furnishes the skin, which is dyed brown or black underneath, with a thin fuzz of white, like a drift of snow, on top. Rabbit is also made to look like beaver, leopard, cat.

Most reputable stores, furriers point out, make no bones about this expert faking of furs. They advertise "sable-blend muskrat" and so on, and make no effort to hoodwink the customer. Rather, they are pleased that they can offer less costly furs dressed up so effectively.

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# IS IT CHEAPER TO WALK?

## *The Cost of Operating Your Car*

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DO you know how to determine the cost of operating your automobile? Or does it cost "three cents a mile" when bragging about your family chariot and "ten cents a mile" when the boss wants you to drive fifty miles away to see that important client?

Both estimates are shots in the dark and, to help solve this important problem, *Consumers' Digest* presents a summary of a study made by the National Bureau of Standards so that the motorist whose car is one of the big three of the low-priced group (*Ford, Plymouth, or Chevrolet*) may obtain a pretty good idea of how much it costs to operate his car.

The consumer must consider, in addition to first cost: cost of spare parts, trade-in value, "swank" value, body style, speed and quick depreciation vs. durability, riding qualities, and ability to withstand rough usage. It is generally impossible to combine all the desired qualities in one car, and it is therefore necessary to choose the particular make and model of car that most nearly answers to the individual requirements.

The cost of owning and operating a car involves two distinct classes of expenditures, (a) fixed expenses and (b) running expenses. For instance, if a car is bought for \$750 and not used for a year, the cost of owning the car would be largely that of storage and the depreciation (the difference between the original \$750 and the resale value—and you'd be surprised!). On the other hand, if the car is driven 10,000 miles during the year, it will depreciate in resale value by about the same amount or perhaps some-

what more, but additional expenses, such as gasoline, oil, upkeep, repairs, etc., will have been incurred for each mile of travel.

### Fixed Expenses

Fixed expenses incurred in the ownership of a car, independent of operating expenses, include such items as depreciation, insurance, licenses, taxes, interest, and "housing."

If a passenger car is turned in each year in exchange for a new car, the difference which must be paid represents the total annual cost of depreciation. If the car is turned in at the end of two or three years, the annual depreciation is less but the added cost of replacement of tires and equipment together with the fixed maintenance charges will partly offset this cost differential. Depreciation figures which are not given because they vary with locality and dealer (the average is \$200 to \$300 for low-priced models and \$250 to \$375 for the next higher price group) are influenced by operating conditions, care taken by the driver, and the popular fancy at the moment for a given car.

The cost of insurance varies greatly with the class of the car, the locality, and the total amount of insurance carried. It might be well for the prospective buyer to consult a reliable insurance agent before purchasing a car.

License fees, taxes, etc. (exclusive of gasoline and oil taxes) average throughout the country about \$7.62 per year. Personal taxes on the car, drivers' license fees, and similar items vary in different states and are estimated to be about \$12.50. The average of these items is estimated to total \$20 per year.

If the car is purchased with borrowed money, either on deferred payments or with money borrowed from a bank, interest is part of the total cost. This varies, of course, with the amount borrowed and the finance charges.

The cost of housing an automobile depends upon the locality and the owner. If a car is housed in a rented

garage or in space the owner has built for that express purpose, the cost of renting or owning the housing space must be included as a fixed expense. If the car is housed in a shed or barn that would otherwise be idle, or if it is not housed at all, housing charges should not be included in the cost. If a car is not housed, the loss through depreciation will be greater, at least after the third year.

### Running Expenses

Running expenses are charges which vary proportionally with the number of miles traveled and can be expressed in terms of cents per mile. This includes such items as gasoline and oil (and fuel and oil taxes!), greasing, washing, repairs, parking charges, etc. Again there is a variation between different parts of the country, different drivers, speeds of operation, types of cars, and age of cars considered. Figures available set the average at two cents per mile for the normal driver. A car that covers a very large mileage per year may cost more because of wearing out of parts, gears, engine, body, etc.

An example will show how the car owner may compute his approximate cost of ownership and operation. Figures may be corrected by the reader to apply to his own locality and conditions:

#### Fixed Expenses

Depreciation . . . . .	\$200	per annum	
Insurance . . . . .	50	" "	
License fees, taxes, etc. . . . .	20	" "	
Interest . . . . .	10	" "	
Housing . . . . .	100	" "	
Total fixed expenses . . . . .	—	" "	\$380
Running Expenses			
10,000 miles at \$0.02 . . . . .			200
Total cost per year . . . . .			\$580
Total cost per mile . . . . .			\$0.058

Many letters have been received by *Consumers' Digest* asking if it is cheaper to drive one's own car or use other means of transportation for any given trip.

As the figures already given show, fixed charges run on whether the car is used or not. The only difference in car cost made by taking a trip is in the running expenses, which have been estimated to be about two cents per mile for a new car and perhaps a little higher for an older car.

One may safely estimate, therefore, the cost of driving his car (providing it is a *Chevrolet*, *Ford*, or *Plymouth*) compared with leaving it home, to be two cents per mile. This figure should be divided by the number of passengers on the trip to obtain the cost per passenger mile. Two passengers, for instance, would reduce the cost to one cent per passenger mile, and for four persons the cost would be reduced to one-half cent per passenger mile.

The foregoing figures apply to relatively new cars, up to perhaps four years old. After that age the fixed expenses may decrease because the cost of depreciation lessens with increased age of the car. On the other hand, if repair work is paid for at regular rates instead of being done by the owner, any saving in rate of depreciation may be more than offset by the cost of repairs as the car grows older.



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## WHO GETS YOUR FOOD DOLLAR?

A Book Review

By

CHARLES S. WYAND

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IF you are interested in knowing what happens to the money you lay out for food, you will find *Who Gets Your Food Dollar?*\* informative reading. Both authors are executives of the Cooperative Food Distributors of America and, according to their publishers, have had extensive experience in the food field.

Both also seem to share a somewhat exaggerated opinion of the uniqueness of their study. For, despite the obvious limitations of all statistical data, they insist that in this short book of 121 pages they have told "the unvarnished truth, the whole truth and nothing but the truth" about the distribution of the consumer's dollar. They are also laboring under the delusion that they are the *first* to tell "the truth" about this vast and complex subject. Nonetheless their book is a good one, worthy of an hour of any consumer's time. Those who think statistics dull will find the basic data painlessly presented in some 26 of those interesting graphic charts produced by Pictorial Statistics Inc.

Using the "typical" American family's weekly outlay for food (\$12.50) as a budget allowance, the authors had a home economist prepare a series of meals adequate for a family of four for a week. The purchase price of these foods was determined and then analyzed to learn who got the money.

The general findings are worth quoting. Out of the

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\* Lazo, H. and Bletz, M. H., *Who Gets Your Food Dollar?*, Harper & Bros., N. Y. C., 1938. \$1.25.

\$12.50 spent for food, the farmer got the largest share, \$4.57; the broker's share was 20 cents; transportation took 90 cents; manufacturers who processed the foods received \$3.38; wholesalers got 73 cents; and the balance (\$2.72) went to the retailers. Total net profits amounted to 89.7 cents which is the equivalent of about 7 cents of every dollar spent for food. Of the 7 cents, something over one cent went to the farmer. The rest was divided among all of the people who processed, transported, and distributed the products. No group made what might be called a high profit, the maximum in any one case being 2.7%, which went to the manufacturers and processors. Analysis of the various food fields showed, of course, wide variations in costs, income shares, and profits.

The concluding chapter offers some interesting comments on the causes of "high" food prices. Among other things it states bluntly the obvious fact that a relatively wide differential between what the farmer gets and the consumer pays is normally justifiable. There is, for example, quite a difference between a handful of wheat and a loaf of bread. The housewife could save money if she bought her own wheat, carted it home, ground it into flour, prepared dough, and then baked the family bread herself. But if she wishes to avoid all of this effort, someone else must be paid to transport wheat, make flour, bake bread, etc. From this angle, therefore, some fee to processors is not an outrageous levy by industrial parasites, but a legitimate charge for services rendered.

There is, however, one type of food costs which the authors of this book feel the consumer could eliminate if she wished to. I refer to the expense involved in providing all of the little extras which make for "service." Thus, "it costs the retail grocer 4 to 5% more to give credit and delivery service than it does to deal strictly on a cash and carry basis." Another notable observation concerns the re-

lationship between wage rates and food prices. "An increase of 5% in the payroll of a food manufacturer means that more than half a cent is added to the cost of producing a dollar's worth of food." This additional levy must in most cases be passed on to the consumer for the simple reason that profit margins are, on the average, too small to absorb it. The inconsistency of fighting for high wages and low prices at the same time thus becomes apparent.

By way of suggestion, the authors urge the consumer to weigh the value of the various services she now demands, against their cost. It is also suggested that a more intelligent study of the needs of the family and a more careful selection of the goods with which to satisfy these needs would reduce selling costs and therefore prices. More active participation in consumer clubs and an intensive boycott of products which are "extravagantly" or falsely advertised would, it is thought, help to correct many malicious retail practices.

All things considered, it is doubtful whether this book will help you lower your food bills. But it does offer both an interesting answer to an old question and a short but sensible discussion of a few of the problems of modern food production which directly concern the consumer.

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## *Hints to the Advertisers*

Four elements of advertising much in the disfavor of the public are: Advertising's tendency to outsmart the buyer; the spending of millions in defense against the anti-advertising movement, and not 1 cent for the improvement of conditions giving rise to such movement; advertising's propaganda in presenting goods and the practice of some of "pulling the wool" over consumers' eyes in selling, and the attitude on the part of advertising that consumers are not quite human beings but "high-grade morons" designed for experimentation and exploitation.

—*The New York Times*, quoting Mr. Harry Eckhardt,  
Past President American Association of Advertising Agencies



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## Is *Home* the Most Dangerous Place?

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**T**WO types of accidents—falls, and burns or scalds—cause more than 60 per cent of the serious injuries in the home. Two other causes, not so numerous, but always dangerous, are asphyxiation from gases, and the drinking of poisonous liquids. There are countless minor cuts received from the careless handling of sharp instruments, and there are a great many injuries that come from causes not usually classified in groups.

### **Injuries From Burns and Scalds**

About one-fourth of the home accident injuries are caused by burns and scalds. They strike a different section of humanity than do falls. Whereas in falls, those most severely injured are the elderly people, burns and scalds strike the younger age brackets; 51 per cent of the total cases studied in the Boston hospitals were of children 15 years of age and younger.

Physical health conditions do not furnish many contributory causes to these accidental home injuries. Except in a few cases of falls on stoves, by elderly people with a history of heart ailments, this factor is negligible. The prevention of burns and scalds is definitely a matter of adult supervision, care, and planning. With 26 per cent of the cases occurring to children four years of age and under, it is obvious that more care in handling hot tea and coffee, guarding stoves, keeping matches in a safe place, and general care in

handling of boiling liquids while on the stove and while being carried from the stove, is necessary. . . .

Carrying hot water is an adult's job. Do not assign it to a child. And when you are handling a pail of boiling water in a room where a little child is playing, do not leave the two together while you answer a telephone call. Children of this age should not be left unwatched in the kitchen when food is cooking in hot water on the stove. Their curiosity tempts them to tilt the handle of the pan if it is within their reach. There are frequent serious scalding accidents at the breakfast table, because the child in a high chair is near enough to the table to upset the hot coffee or tea.

Children who are scalded by falling into very hot water are often dangerously injured, especially when more than half of the body has been immersed. They require immediate hospital treatment, and a doctor should be called without delay. Wrap the burned area loosely with sterile gauze or clean linen soaked in a solution of three tablespoonsful of baking soda to a quart of warm water. (Never use cotton batten.) Cover with blankets to keep the patient warm until taken to the hospital.

Children who are burned when lighting matches often find an open box on the corner of the gas range, or a nearby table. When their clothing catches fire, their instinct is to try to blow out the flame, causing it to spread the more rapidly. There is one remedy for this hazard; keep the matches beyond the reach of children. Women who smoke at home have greatly increased this fire risk, and have made the striking of a match more familiar to children, their close imitators.

The practice of smoking in bed appears to be on the increase. Fourteen per cent of the hospital burn cases studied were from this cause, and the injuries received are usually severe. Alcoholism was a factor in 50 per cent of these cases of smoking in bed. (An unusual case of record is that

of a woman who, having attained the notable age of 108 years, escaping the increasing hazards of civilization, finally fell asleep in her chair while smoking, set fire to her shawl, and died from smoke or flame inhalation.)

#### New Styles in Poisons

When we are warned against the hazard of poisonous liquids and substances in the homes, we are likely to conjure up the picture of somebody waking in the dark to go to the medicine closet and taking out the wrong bottle by mistake. Well, the times have changed. There ought not to be a poisonous liquid in the medicine closet, anyhow, because there is now a non-poisonous substitute to replace it. And make certain that all medicine bottles are properly labeled. When emergency cases are rushed from the home to the hospital for treatment today, the substance that caused the trouble is likely to be kerosene, shoe polish, household ammonia, drain cleaner, oil of wintergreen, or insecticides carelessly left within the reach of infants and very young children. And many cases of adult poisoning are caused by overdoses of phenobarbital, luminal, veronal, and other such drugs. Overdoses of "sleeping powders" are becoming an increasing hazard.

Taking these varied poison cases as a whole, it is, as we have pointed out, the children who need greater protection from the hazard. In one group of 89 poison cases studied, 52 of the patients were children under four years of age. There were 22 small children who had swallowed kerosene or fuel oil, 14 who had experimented with a polish or a powder containing lye, nine who had been poisoned by cleaning fluids, and seven who had taken an insecticide, left within their reach.

In cases of poisoning, speed in emptying the stomach of the poisonous substance is essential. Do not stop to think or try to remember the particular antidote for the poisonous substance. The cardinal first aid principle involved is DI-

**LUTE and WASH OUT.** Get quantities of warm water, mustard water, or soapy water into the victim's stomach; two or three quarts if possible. This will induce vomiting and clean out the stomach. Then the antidote, if known, can be given. Get the services of a physician as quickly as possible. But the preventive method is to inspect your home, and remove all of the poisons listed above from within sight or reach of your children.

### **The Danger From Gases**

There are two gases occasionally responsible for a serious home accident; carbon monoxide and illuminating gas. The carbon monoxide is caused by faulty combustion, and it is without odor or color. It will prove dangerous in a garage if the engine of an automobile is kept running for five minutes with the garage doors closed. It sometimes is thrown off through a sheet iron stove in a living room, when all the windows are shut tight to keep out the cold, and a dirty flue is given insufficient draft, and the coal burns with incomplete combustion.

Illuminating gas does not give trouble when used in a first-class range, but it may do so when coffee boils over and extinguishes a flame, or when leaky rubber hose pipe is used to carry it to a portable heater. The foe to both of these gases is fresh air. Throw open the windows and doors at once. If the person overcome is unconscious, and there appears to be no heart action, call the nearest boy scout, or an employee of a lighting or telephone company, to get to work at once on the prone pressure method of resuscitation. Moments are precious. Have this done even while your doctor, summoned by telephone, is on the way.

### **Other Causes of Injuries**

If you make your home as safe as possible against the principal causes of accidents, as discussed in the previous pages, there will still remain one chance in five of being in-

jured in some other manner. Cuts and scratches are of common occurrence, due to handling sharp instruments or broken glass, or opening cans with the wrong instrument. Prompt and simple first aid treatment in the home will remove the hazard of infection. The small, deep puncture of the skin is more likely to become infected than a longer scratch on the surface. A wound inflicted by metal that is rusted is likely to contain harmful germs. Some people develop infection more quickly than do others, as do persons whose health is below par at the time. Therefore, do not neglect the small wound. Give it the protection of a clean bandage. A hot iron on a clean piece of cloth will render the latter sterile. To reduce the hazards of cuts and scratches, keep the points of sharp knives at the back of the kitchen drawer; make a quick disposal of used razor blades, broken bits of glass, and cans with jagged edges; do not leave needles and pins on chairs or stuck in upholstery.

Overbusy housewives overload cupboard shelves and are sometime hit by falling objects. Overtired mothers turn the lights out for the night with toys still strewn about the floor, a mop and pail on the cellar stairs, and the bicycle where some child carelessly left it. These create temporary accident hazards, and the records show that many mishaps occur in the dark.



Strains and sprains are often suffered by older members of the family. There are two simple rules to avoid them. Don't undertake alone a lifting job that requires two persons; and when you lift a heavy object, distribute the strain among three sets of muscles, instead of those of the back alone, by keeping the back straight and nearly vertical, and bending the knees.

In seeking to make the home entirely safe for its occupants, remember, in addition to all the facts that we have cited, that:

Out of every 100,000 babies born, 97 die the first year as the result of an accident, and heavy bed clothing and soft pillows are most often the cause of suffocation, the first hazard that the babe encounters.

The safety pin was inaccurately named, since so many young children swallow it. Keep it out of their reach.

During the four months of legal hunting season, 1500 men and boys manage to shoot themselves accidentally, but 918 of these deaths occur from the careless handling of these firearms in the home.

The street in front of your house, when used constantly by passing motor vehicles, is a hazard, and should not be considered a playground. Parents cannot keep the autos out of the highway; but they can restrain their children from playing there. In our larger cities some child, while at play in the street, is struck down almost daily.

The home itself is not the cause of a majority of the accidents that occur there. The infirmities of old age, or of previous accidents, and the careless acts of individuals, are most often the factors that result in injury or death.



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# Picking Your Pictures

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THE first ratings of motion pictures appeared in the November, 1937, issue of *Consumers' Digest*. The entire list has been revised monthly by recording the opinions of additional reviewers.

The ratings of pictures given herewith are based upon an analysis of the reviews published in the following periodicals:

*Boston Transcript, Box Office, Christian Century, Christian Science Monitor, Commonweal, Cue, Film Weekly, Harrison's Reports, Hollywood Spectator, Judge, Liberty, Minneapolis Journal, The Nation, The New Republic, New York Herald Tribune, New York Sun, New York Times, New York World-Telegram, New Yorker, News Week, Philadelphia Exhibitor, Stage, Time, Variety, Variety (Hollywood), Weekly Guide to Selected Pictures*, and the bulletins of the American Legion Auxiliary, Daughters of the American Revolution, General Federation of Women's Clubs, National Council of Jewish Women, National Legion of Decency, National Society of New England Women, Women's University Club of Los Angeles.

Films are rated "AA," "A," "B," and "C," which designate them as *highly recommended, recommended, intermediate, and not recommended* respectively. The figures preceding each picture indicate the range of critical opinion regarding that picture as determined by an analysis of the reviews published in the aforementioned periodicals. Thus, "The Good Earth" is *highly recommended* by twenty-five of these judges, *recommended* by four, and rated *intermediate* by one.

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

*adv*—adventure  
*biog*—biography  
*com*—comedy  
*cr*—crime and capture of criminals  
*f*—foreign language  
*hist*—founded on historical incident  
*mel*—melodrama

*mus-com*—musical comedy  
*mys*—mystery  
*nov*—dramatization of a novel  
*rom*—romance  
*soc*—social-problem drama  
*trav*—travelogue  
*wes*—western

AA	A	B	C	
4	6	5	5	Adventures of Marco Polo ....adv-com A
19	7	—	—	Adventures of Robin Hood .....adv AYC
7	12	3	1	Adventures of Tom Sawyer .....adv AY
—	10	6	1	Affairs of Annabel .....com AY
—	—	—	9	Air Devils .....mel A
8	8	3	1	Alexander's Ragtime Band ....mus-com A
10	8	1	1	Algiers .....mel A
10	8	—	—	All Quiet on Western Front .....nov AY
9	6	4	5	Always Goodbye .....soc AY
—	—	4	4	Always in Trouble .....com AYC
1	15	5	1	Amazing Dr. Clitterhouse .....cr A
2	—	1	—	Angels with Dirty Faces .....mel AY
—	3	5	—	Arkansas Traveler.....com AYC
1	11	7	—	Army Girl .....mel AY
—	11	4	—	Arsene Lupin Returns .....mys AY
—	—	6	—	Arson Gang Busters .....cr A
—	4	3	2	Avocate d'Amour .....com f AY
1	11	8	2	Baroness and the Butler .....com A
—	4	7	3	Bar 20 Justice .....wes AY
—	6	13	3	Battle of Broadway .....com A
—	5	10	4	Beloved Brat .....com AY
—	2	3	1	Billy the Kid Returns .....wes AYC
—	6	1	—	Birth of a Baby .....soc AY
—	6	6	3	Blind Alibi .....mys AY
—	1	6	8	Block Heads .....com AYC
—	1	4	5	Blonde Cheat .....com A
—	5	2	—	Blondes at Work .....mys AY
5	13	8	—	Bluebeard's Eighth Wife .....com A
—	7	5	15	Boolo .....adv AYC
—	7	3	1	Border G-Man .....wes AYC
—	—	1	4	Border Wolves .....wes AY
—	—	2	3	Born To Be Wild .....adv A
8	8	3	1	Boy Meets Girl .....com AY
13	7	1	1	Boys Town .....soc AY
1	5	5	5	Breaking the Ice .....com AYC
7	13	5	1	Bringing Up Baby .....com AYC
—	1	2	2	Broadway Musketeers .....mel A
3	3	—	—	Brother Rat .....com AY
11	13	3	—	Buccaneer .....adv AYC
—	6	7	4	Bulldog Drummond in Africa ....mys AY
—	3	9	4	Bulldog Drummond's Peril .....mys AY
—	—	4	—	Call of the Rockies .....wes AYC
1	2	7	2	Call of the Yukon .....adv AY
—	4	6	5	Campus Confessions .....rom AY
5	12	3	1	Carefree .....com AY
—	1	3	1	Cattle Raiders .....wes AYC
2	7	2	—	Charm of La Boheme ....mus-rom f AY
—	7	6	3	Chaser .....com A
—	1	3	—	Childhood of Maxim Gorky .....mel f AY



AA	A	B	C	
2	2	—	—	Citadel .....mel AY
—	1	3	5	City Streets .....mel AY
1	—	—	3	Clown Must Laugh .....rom A
—	10	11	3	Cocoanut Grove .....mus-com AY
—	—	2	2	Code of the Ranger .....wes AY
—	2	10	13	College Swing .....mus-com A
—	—	3	3	Come On Leathernecks .....rom AY
—	4	8	8	Condemned Women .....mel A
—	—	1	3	Convicted .....mel AY
—	3	4	—	Country Bride .....rom f AY
2	6	1	—	Courier of Lyons .....hist f AY
1	7	8	4	Cowboy from Brooklyn .....com AY
—	7	9	7	Crime of Dr. Hallet .....mel A
—	1	1	5	Crime Over London .....cr AY
—	2	8	2	Crime Ring .....cr A
2	20	7	2	Crime School .....mel A
—	2	3	—	Crime Takes a Holiday .....cr AY
—	11	4	1	Crowd Roars .....com AY
—	2	5	5	Danger on the Air .....mel AY
1	3	5	3	Dark Eyes .....rom f A
4	7	—	—	Dark Rapture .....trav AY
—	3	6	2	Dark Sands .....adv AY
—	—	2	3	Dawn Over Island .....adv AY
—	—	2	2	Delinquent Parents .....soc A
—	1	2	6	Desperate Adventure .....com AY
—	1	7	5	Devil's Party .....mel A
3	13	7	1	Doctor Rhythm .....mus-com AY
—	7	1	—	Down on the Farm .....com AYC
7	6	1	1	Drums .....adv AYC
4	5	3	—	Edge of the World .....adv AY
—	—	1	4	Emil .....adv A
—	—	2	3	Extortion .....mys A
5	11	4	—	Farewell to Arms .....nov A
2	12	3	2	Fast Company .....mys AY
1	5	5	—	Fight for Peace .....trav AY
1	14	7	2	First Hundred Years .....com A
—	4	6	2	Five of a Kind .....com AYC
—	4	4	3	Flight into Nowhere .....adv A
—	1	9	15	Fools for Scandal .....com A
7	7	3	1	Four Daughters .....mel AY
1	11	9	1	Four Men and a Prayer .....mel A
2	10	7	4	Four's a Crowd .....com AY
—	—	4	4	Freshman Year .....com AYC
—	2	2	—	Frontier Scout .....wes AYC
—	—	2	8	Fugitives for a Night.....mys AY
—	2	7	—	Gangs of New York .....cr A
—	5	4	—	Garden of the Moon .....mus-com AY

AA	A	B	C	
—	1	8	8	Gateway .....rom <i>AYC</i>
—	5	4	1	Girls on Probation .....cr <i>A</i>
—	5	2	—	Girls School .....mel <i>AY</i>
—	5	8	5	Give Me a Sailor .....com <i>AYC</i>
1	5	2	1	Gladiator .....com <i>AYC</i>
—	2	7	7	Go Chase Yourself .....com <i>A</i>
—	7	6	8	Gold Diggers in Paris .....mus-com <i>A</i>
3	14	7	4	Gold Is Where You Find It .....hist <i>AY</i>
—	5	3	1	Gold Mine in the Sky .....wes <i>AYC</i>
10	9	8	1	Goldwyn Follies .....mus-com <i>AY</i>
25	4	1	—	Good Earth .....nov <i>A</i>
—	3	4	8	Goodbye Broadway .....com <i>AY</i>
1	4	—	—	Grand Illusion .....adv f <i>AY</i>
—	5	1	1	Great John Erickson .....hist f <i>AY</i>
—	6	3	2	Gun Law .....wes <i>AY</i>
3	10	3	4	Having Wonderful Time .....com <i>AY</i>
—	—	—	5	Held for Ransom .....cr <i>AY</i>
—	—	—	4	He Loved an Actress .....mus-com <i>A</i>
—	1	11	8	Her Jungle Love .....adv <i>A</i>
—	2	4	—	Heroes of the Hills .....wes <i>AYC</i>
—	—	6	—	Higgins Family .....com <i>AYC</i>
—	1	3	1	High Command .....nov <i>AY</i>
—	—	5	2	Highway Patrol .....mel <i>AY</i>
3	12	3	1	Hold that Co-ed .....com <i>AY</i>
—	12	5	4	Hold that Kiss .....com <i>AY</i>
14	9	1	—	Holiday .....rom <i>AY</i>
—	1	4	—	House of Mystery .....mys <i>AY</i>
—	7	10	1	Hunted Men .....cr <i>AY</i>
2	9	3	—	I Am the Law .....mel <i>AY</i>
10	6	—	1	If I Were King .....hist <i>AY</i>
—	1	2	5	If War Comes Tomorrow .....mel <i>A</i>
—	9	7	3	I'll Give a Million .....rom <i>AYC</i>
—	—	2	3	I Married a Spy .....mel <i>A</i>
—	3	2	7	I'm from the City .....com <i>AYC</i>
15	12	—	—	In Old Chicago .....hist <i>AYC</i>
—	4	3	1	In Old Mexico .....wes <i>AYC</i>
—	2	8	1	International Crime .....mys <i>A</i>
—	4	4	4	Invisible Enemy .....mys <i>AY</i>
—	10	7	2	Island in the Sky .....mys <i>A</i>
6	10	7	3	Jezebel .....mel <i>A</i>
—	7	11	6	Josette .....rom-com <i>A</i>
1	17	9	1	Joy of Living .....rom <i>AY</i>
—	14	8	—	Judge Hardy's Children .....com <i>AY</i>
—	—	1	7	Juvenile Court .....mel <i>AY</i>
—	10	4	1	Keep Smiling .....rom <i>AYC</i>
2	9	4	3	Kentucky Moonshine .....com <i>AY</i>
3	6	8	5	Kidnapped .....adv <i>AY</i>

AA	A	B	C	
—	2	5	1	King of Alcatraz .....mel A
—	—	5	6	King of the Newsboys .....rom A
—	—	4	—	Knight of the Plains .....wes AYC
—	—	7	1	Ladies in Distress .....cr A
—	8	5	1	Lady in the Morgue .....mys AY
—	1	2	1	Lady Objects .....rom A
—	4	1	—	Lady Vanishes .....mys AY
—	3	4	3	Last Stand .....wes A
—	1	3	—	Law of the Plains .....wes AYC
—	1	9	10	Law of the Underworld .....cr A
2	10	5	1	Letter of Introduction .....rom AYC
—	1	7	4	Lie of Nina Petrovna .....rom f A
6	4	5	—	Life Dances On .....rom f A
2	14	10	—	Little Miss Broadway .....com AYC
—	1	5	4	Little Miss Roughneck .....com AY
—	1	9	4	Little Miss Thoroughbred .....com AY
1	4	6	8	Little Tough Guy .....cr AYC
18	4	1	1	Little Women .....nov AYC
—	5	4	—	Lonely White Sail .....hist f AY
—	1	3	3	Lone Wolf in Paris .....mys AY
—	1	3	1	Look Out for Love .....rom A
4	13	4	1	Lord Jeff .....cr AYC
23	5	1	1	Lost Horizon .....nov AYC
5	19	3	1	Love Finds Andy Hardy .....com AYC
—	3	14	8	Love, Honor, and Behave .....com AY
16	10	—	—	Mad About Music .....mus-rom AYC
1	5	2	2	Mad Miss Manton .....com AY
—	—	1	5	Maid's Night Out .....com AYC
—	—	3	3	Main Event .....cr A
—	1	4	5	Making the Headlines .....mys AY
—	2	5	—	Man from Music Mountain .....wes AYC
—	1	3	—	Man's Country .....wes AYC
—	5	3	—	Man to Remember .....mel AYC
13	5	3	1	Marie Antoinette .....hist AYC
—	—	5	5	Meet the Girls .....com A
—	—	—	3	Meet the Mayor .....com A
—	2	2	12	Men Are Such Fools .....rom A
1	4	3	—	Men with Wings .....adv AY
—	—	3	2	Mexicali Kid .....wes AYC
—	—	—	7	Missing Guest .....mys AY
—	—	2	5	Mr. Chump .....com A
—	3	3	2	Mr Doodle Kicks Off .....com AY
—	1	3	—	Mr. Moto's Last Warning .....mys AY
—	—	2	4	Mr. Moto Takes a Chance .....mys AY
—	1	3	—	Mr. Wong, Detective .....mys AY
—	—	3	2	Mother and Sons .....adv f AY
3	7	3	1	Moonlight Sonata .....mus-rom AY
2	11	7	2	Mother Carey's Chickens .....nov AYC

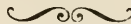
AA	A	B	C	
1	4	6	8	Little Tough Guy ..... <i>cr</i> <i>AYC</i>
18	4	1	1	Little Women ..... <i>nov</i> <i>AYC</i>
—	10	9	3	Live, Love, and Learn ..... <i>com</i> <i>AY</i>
—	5	4	—	Lonely White Sail ..... <i>hist f</i> <i>AY</i>
—	1	3	3	Lone Wolf in Paris ..... <i>mys</i> <i>AY</i>
—	1	3	1	Look Out for Love ..... <i>rom</i> <i>A</i>
4	13	4	1	Lord Jeff ..... <i>cr</i> <i>AYC</i>
23	5	1	1	Lost Horizon ..... <i>nov</i> <i>AYC</i>
—	14	9	3	Love and Hisses ..... <i>com</i> <i>A</i>
5	19	3	1	Love Finds Andy Hardy ..... <i>com</i> <i>AYC</i>
—	3	14	8	Love, Honor, and Behave ..... <i>com</i> <i>AY</i>
16	10	—	—	Mad About Music ..... <i>mus-rom</i> <i>AYC</i>
—	—	1	5	Maid's Night Out ..... <i>com</i> <i>AYC</i>
—	—	3	3	Main Event ..... <i>cr</i> <i>A</i>
—	1	4	5	Making the Headlines ..... <i>mys</i> <i>AY</i>
—	2	5	—	Man from Music Mountain ..... <i>wes</i> <i>AYC</i>
—	—	—	5	Man Hunters of Caribbean ..... <i>adv</i> <i>A</i>
—	1	3	—	Man's Country ..... <i>wes</i> <i>AYC</i>
13	5	3	1	Marie Antoinette ..... <i>hist</i> <i>AYC</i>
15	12	1	—	Maytime ..... <i>mus-rom</i> <i>AYC</i>
—	—	5	5	Meet the Girls ..... <i>com</i> <i>A</i>
—	2	2	12	Men Are Such Fools ..... <i>rom</i> <i>A</i>
1	4	2	1	Merlusse ..... <i>youth f</i> <i>AY</i>
—	16	5	—	Merrily We Live ..... <i>com</i> <i>AYC</i>
—	—	3	2	Mexicali Kid ..... <i>wes</i> <i>AYC</i>
—	5	5	3	Midnight Intruder ..... <i>mys</i> <i>A</i>
—	—	—	7	Missing Guest ..... <i>mys</i> <i>AY</i>
—	—	2	5	Mr. Chump ..... <i>com</i> <i>A</i>
—	2	2	—	Mr. Doodle Kicks Off ..... <i>com</i> <i>AY</i>
—	5	7	4	Mr. Moto's Gamble ..... <i>mys</i> <i>A</i>
—	1	3	—	Mr. Moto's Last Warning ..... <i>mys</i> <i>AY</i>
—	—	2	4	Mr. Moto Takes a Chance ..... <i>mys</i> <i>AY</i>
—	5	—	—	Monastery ..... <i>trav</i> <i>AY</i>
3	7	3	1	Moonlight Sonata ..... <i>mus-rom</i> <i>AY</i>
2	11	7	2	Mother Carey's Chickens ..... <i>nov</i> <i>AYC</i>
30	—	—	—	Mutiny on the Bounty ..... <i>adv</i> <i>AY</i>
—	5	6	5	My Bill ..... <i>soc</i> <i>AY</i>
—	3	6	4	My Lucky Star ..... <i>com</i> <i>AY</i>
—	—	3	3	My Old Kentucky Home ..... <i>rom</i> <i>A</i>
—	10	2	2	Mysterious Mr. Moto ..... <i>mys</i> <i>AY</i>
—	1	3	—	Mysterious Rider ..... <i>wes</i> <i>AYC</i>
—	—	4	3	Mystery House ..... <i>mel</i> <i>A</i>
24	6	—	—	Naughty Marietta ..... <i>mus-rom</i> <i>AYC</i>
—	1	4	5	Night Spot ..... <i>mel</i> <i>A</i>
—	2	5	6	No Time to Marry ..... <i>com</i> <i>A</i>
8	18	2	—	Nothing Sacred ..... <i>com</i> <i>AY</i>
—	—	4	3	Numbered Woman ..... <i>mel</i> <i>A</i>

AA	A	B	C	
—	4	12	—	Nurse from Brooklyn .....mel A
8	17	4	—	Of Human Hearts .....hist A
19	2	—	—	100 Men and a Girl .....mus-rom AY
—	2	7	7	One Wild Night .....mys A
—	—	3	4	Outlaw Express .....wes AYC
—	2	3	—	Outlaws of Sonora .....wes AYC
—	—	5	—	Outlaws of the Prairie .....wes AYC
—	1	3	1	Outside of Paradise .....mus-com A
1	5	1	—	Overland Express .....wes AYC
—	3	5	6	Over the Wall .....mel AY
—	2	3	1	Painted Desert .....wes AYC
—	—	5	1	Painted Trail .....wes AYC
—	—	4	—	Pals of the Saddle .....wes AYC
—	1	1	2	Panamint's Bad Man .....wes AYC
—	2	4	10	Passport Husband .....com A
1	7	5	—	Pearls of the Crown .....hist f AY
1	6	4	1	Penitentiary .....soc A
—	6	3	—	Penrod's Double Trouble .....com AY
—	1	1	2	Phantom Ranger .....wes AYC
—	—	—	4	Pioneer Trail .....wes AYC
10	13	5	2	Plough and the Stars .....hist AY
—	—	1	6	Port of Missing Girls .....mel A
—	8	7	4	Port of Seven Seas .....rom A
—	3	1	2	Pride of the West .....wes AYC
11	19	—	—	Prince and the Pauper .....nov AYC
—	1	7	5	Prison Break .....mel AY
—	1	6	5	Prison Farm .....cr A
—	2	6	3	Prison Nurse .....mel A
21	9	—	—	Prisoner of Shark Island .....biog AY
20	6	—	—	Prisoner of Zenda .....mel AY
5	14	7	2	Professor Beware .....com AYC
—	—	5	—	Purple Vigilantes .....wes AYC
—	5	12	—	Racket Busters .....cr AY
1	5	12	6	Radio City Revels .....mus-com AY
4	14	3	—	Rage of Paris .....rom-com AY
—	—	3	1	Rangers Roundup .....wes AY
—	2	5	7	Rascals .....com A
—	—	4	7	Rat .....mel A
—	8	7	2	Rawhide .....wes AYC
3	9	11	—	Rebecca of Sunnybrook Farm .....com AYC
—	3	6	5	Reckless Living .....com AY
—	—	4	4	Reformatory .....soc AY
—	—	2	2	Religious Racketeers .....cr AY
1	8	5	3	Return of Scarlet Pimpernel .....adv AY
—	3	9	6	Rich Man, Poor Girl .....rom AY
—	2	1	2	Riders of the Black Hills .....wes AYC
8	8	1	—	River .....trav AY

AA	A	B	C	
5	13	6	6	Road Back .....mel AY
—	1	5	3	Road Demon .....mel AY
—	2	3	1	Road to Reno .....com A
1	2	—	—	Robinhood .....adv AY
2	12	8	1	Romance in the Dark .....mus-rom AY
—	1	6	3	Romance of the Limberlost .....rom AY
—	—	5	2	Romance on the Run .....mys-rom AY
24	5	1	—	Romeo and Juliet .....rom AY
1	5	4	—	Room Service .....com AY
—	1	5	2	Rose of the Rio Grande .....adv AY
—	4	7	1	Safety in Numbers .....com AYC
—	7	10	3	Sailing Along .....mus-com AY
—	11	7	1	Saint in New York .....mys A
—	—	1	4	Saleslady .....rom A
—	4	11	1	Sally, Irene and Mary .....mus-com AY
23	7	—	—	San Francisco .....hist AY
—	2	2	—	Says O'Reilly to McNab .....com AY
—	1	3	10	Scandal Street .....com A
—	10	11	—	Second Honeymoon .....com A
—	—	3	1	Sharpshooters .....rom AY
—	4	6	1	She Loved a Fireman .....com AY
—	3	5	2	She Married an Artist .....com AY
5	10	8	1	Shopworn Angel .....rom A
—	—	4	13	Show Goes On .....rom A
5	12	4	1	Sing You Sinners .....com AYC
—	13	12	—	Singing Marine .....mus-com AYC
—	2	9	6	Sinners in Paradise .....adv A
—	1	2	1	Six Shootin' Sheriff .....wes AYC
—	5	—	—	Ski Battalion .....mel f A
—	5	2	—	Ski Chase .....trav f AYC
—	7	15	4	Sky Giant .....mel AY
5	12	5	1	Slight Case of Murder .....com AY
—	1	1	4	Slipper Episode .....com f A
—	5	6	3	Smashing the Rackets .....mel AY
31	—	—	—	Snow White and Seven Dwarfs .adv AYC
—	—	1	4	Sons of the Legion .....mel AY
3	4	6	1	South Riding .....rom AY
2	9	2	3	Spawn of the North .....mel AY
—	2	4	2	Speed to Burn .....cr A
—	—	2	2	Squadron of Honor .....mys A
—	1	7	4	Stadium Murders .....mys A
—	—	4	2	Starlight Over Texas .....wes AYC
—	1	8	3	State Police .....cr A
12	8	2	—	Stella Dallas .....soc A
1	12	9	2	Stolen Heaven .....mel A
23	7	—	—	Story of Louis Pasteur .....biog AYC
—	2	2	—	Straight, Place and Show .....com AY
—	2	3	1	Strange Boarders .....mys AY
2	17	6	—	Submarine D1 .....mel AY

AA	A	B	C	
1	8	12	1	Super Sleuth ..... <i>mys AY</i>
1	—	5	9	Swiss Miss ..... <i>com AY</i>
—	—	1	3	Tarzan and Green Goddess ..... <i>adv AY</i>
—	—	2	3	Telephone Operator ..... <i>mel AY</i>
1	2	3	2	Tender Enemy ..... <i>rom f A</i>
—	1	4	4	Tenth Avenue Kid ..... <i>mel AY</i>
—	4	3	—	Terror of Tiny Town ..... <i>wes AY</i>
20	9	1	—	Test Pilot ..... <i>adv AY</i>
1	2	—	—	There Goes My Heart ..... <i>com AY</i>
6	11	4	—	There's Always a Woman ..... <i>mys A</i>
1	8	9	5	The Texans ..... <i>adv AY</i>
—	7	4	—	They Were Five ..... <i>rom f A</i>
—	11	2	1	Think Fast, Mr. Moto ..... <i>mys AY</i>
—	1	7	6	This Marriage Business ..... <i>com A</i>
—	16	3	3	Three Blind Mice ..... <i>rom AY</i>
11	5	7	1	Three Comrades ..... <i>nov AY</i>
2	5	4	—	Three Loves Has Nancy ..... <i>com AY</i>
—	7	2	2	Three on a Week End ..... <i>rom AY</i>
10	18	2	—	Three Smart Girls ..... <i>rom-com AY</i>
—	1	2	2	Thunder in the Desert ..... <i>wes AY</i>
—	5	5	3	Time Out for Murder ..... <i>mys AY</i>
—	4	7	—	Tip-off Girls ..... <i>cr A</i>
1	3	—	—	Too Hot to Handle ..... <i>mel AY</i>
8	13	2	—	To the Victor ..... <i>adv AY</i>
—	—	7	7	Torchy Blane in Panama ..... <i>mys A</i>
2	6	6	9	Toy Wife ..... <i>rom A</i>
16	13	—	—	Treasure Island ..... <i>adv AY</i>
—	11	3	—	Trip to Paris ..... <i>com AY</i>
3	12	4	—	Troopship ..... <i>adv A</i>
—	5	6	6	Tropic Holiday ..... <i>mus-com AY</i>
—	2	3	2	Two Gun Justice ..... <i>wes AY</i>
—	2	2	2	Under the Big Top ..... <i>rom AY</i>
—	12	4	1	Under Western Stars ..... <i>wes AY</i>
1	9	2	1	Valley of the Giants ..... <i>adv AY</i>
8	17	1	—	Vivacious Lady ..... <i>rom AY</i>
—	1	1	3	Volga Boatman ..... <i>rom f A</i>
—	4	4	—	Wajan ..... <i>trav A</i>
—	2	8	2	Walking Down Broadway ..... <i>com A</i>
—	—	2	2	Wanted by the Police ..... <i>mel A</i>
—	12	5	2	We're Going to Be Rich ..... <i>rom A</i>
—	1	4	4	When G-Men Step In ..... <i>cr AY</i>
—	2	9	3	When Were You Born? ..... <i>mys A</i>
7	8	4	3	White Banners ..... <i>nov A</i>
—	—	3	6	Who Killed Gail Preston? ..... <i>mys A</i>
—	4	3	5	Wide Open Faces ..... <i>com AY</i>
—	3	5	4	Wife of General Ling ..... <i>mel AY</i>

—	5	6	4	Wives Under Suspicion .....	mel A
—	—	—	5	Woman Against the World .....	mel A
—	4	7	4	Woman Against Woman .....	rom A
—	—	3	9	Women Are Like That .....	com A
—	—	3	6	Women in Prison .....	mel A
5	12	5	1	Yank at Oxford .....	rom AYC
10	13	2	—	Yellow Jack .....	hist AYC
—	5	4	15	You and Me .....	cr A
14	1	—	1	You Can't Take It With You .....	com AY
—	2	3	6	Young Fugitives .....	mel AYC



**STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933**

Of Consumers' Digest, published monthly at East Stroudsburg, Pennsylvania, for October 1, 1938.

State of New Jersey } ss.  
County of Warren }

Before me, a Notary Public in and for the State and county aforesaid, personally appeared M. C. Phillips, who, having been duly sworn according to law, deposes and says that she is the Managing Editor of the Consumers' Digest and that the following is, to the best of her knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Consumers' Institute of America, Inc., Washington, N. J.; Managing Editor, M. C. Phillips, Washington, N. J.
2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.) Consumers' Institute of America, Inc., a non-profit organization which has no stock, no dividends, and no stockholders.
3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.
4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.
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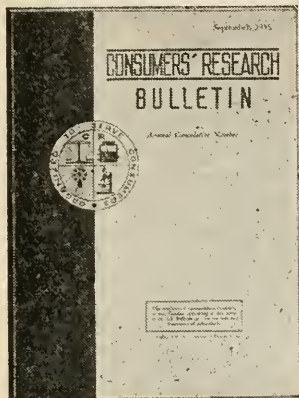
M. C. PHILLIPS,  
Managing Editor.

Sworn to and subscribed before me this 27th day of September, 1938.  
[SHAL]

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Single copy .....15 cents

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All unexpired subscriptions will be extended to conform with the new rate. *The address label of the January, 1939, Consumers' Digest mailed to all subscribers will give the month and year of the last copy due them under the new rate schedule.*

The bound-in envelope is for the convenience of those whose subscriptions expire with this issue and for those who wish to enter subscriptions at this new rate. — Use it also to send in your gift subscriptions. —

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Consumers' Digest presents only recommended products in its listings, with the exception of motion pictures. It is to be noted that the absence of any brand from the recommended lists does not imply a non-recommendation.

**Address all communications to Editorial Office, Washington, N. J.**

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# CONSUMERS' DIGEST



*The enlightened consumer is a necessary  
encouragement to merchandising integrity*

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## If a Friend Tells a Friend...

“THIS magazine,” said an enthusiastic reader of *Consumers' Digest*, “should be in every library in the country, and every intelligent person ought to have a copy but your price is too high.” To have every intelligent person in the country reading his magazine is the secret dream of most editors. Would reducing the price of *Consumers' Digest* help us increase the number of readers? Could we afford to cut the price in half?

Several experts in these matters were consulted. “Yes,” said one, “cutting the price in half ought to double your circulation, but it's a pity to do so because your article on razor blades alone can save a man the price of a year's subscription.”

The possibility of multiplying by two the number of readers of *Consumers' Digest* by cutting the price in half was like an electric light to a summer moth. Would it work? Pencils were sharpened. Estimates were carefully prepared. The result is that we have decided to reduce the number of pages by eight and cut the price of *Consumers' Digest* to 15 cents a copy on the newsstand, \$1.50 a year on subscription.

Frankly, we need your help to make this work because there is little money left for promotion and advertising. It is well known, however, that the most effective advertising is that of a friend who tells a friend how much money he can save by reading the article on “How to Buy a Watch”, for example. The new rate also provides an attractive inducement for making some extra Christmas presents of subscriptions to friends with Yankee instincts.

There will be a new style of cover on *Consumers' Digest* next month. Watch for it on the newsstand. When buying your morning or evening paper say to the friend with you, “Have you seen this little magazine, *Consumers' Digest*? It's a big help in giving you the low-down on things you buy.”

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# *How to Pick a Good Watch*

By  
F. J. SCHLINK

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IMPROVEMENTS made in watches during the last thirty years are few except in price classes beyond your pocketbook and mine. In fact, most old watches are better than most watches sold today. Too many modern watches tend toward novelty and thinness and smallness rather than precision of timekeeping.

It should be remembered that both novelty and smallness require new dies and tools, and since it costs a good many thousand dollars for these manufacturing tools and changes are made frequently, not too much time is spent in refining the various parts. Responding to the changing demand in fashions thus directly interferes with development of good timekeeping performance and durability, and adds considerably to the selling price of a watch.

Small movements are much more sensitive than large ones to temperature changes, humidity, and stiffening or gumming of the oil. They are particularly bad in hot climates or near the seashore. Hot climate dries out the oil in a watch and usually presents the problem of much fine, penetrating dust. The seashore has both fine sand and salt in the air which get into the movement, and also has a higher humidity which affects the timekeeping qualities. An expensive small movement is no more proof against these adverse conditions than an inexpensive one.

The safe general rule about cleaning a watch is to have it cleaned and adjusted once every year, or every two years.

It is a good rule to leave it for cleaning and inspection as soon as it starts to run irregularly or shows a marked change in daily error from that which it had when last cleaned and regulated. If the watch is a small one and good timekeeping is expected, cleaning even oftener than once a year may be necessary.

### Shapes

Avoid fancy shapes and trick outlines because they often require movements which may be of untried design or distorted in arrangement in order to fit the case. Special style features in a watch, too, may greatly affect the jeweler's charges for repairs. When something goes wrong, it frequently takes the watchmaker longer to find out why, if the watch is unusually small or is of "trick" construction. For example, 1/10,000th of an inch in the fit of a pivot in the jewel may result in a difference in the action of the escapement and can cause the watch to perform well or badly.

### General Buying Advice

Remember that you can often get the most watch for the least money by sticking to the larger sizes and standard shapes. The smallest-sized man's watch, to be practical, is 12. A 16 size is better, will stand more knocking about, and will go longer between cleanings and oilings.

The difference between 17 jewels and 7 is not very important for long life. The 7 jeweled watch will keep time. When buying an old watch, however, where the price will be only a fraction of the original price asked, it may be worth while to spend the additional money required to get a 21 or 23 jeweled watch to secure better finish, finer workmanship and adjusting.

If you merely want a good timepiece, a secondhand watch of well-known make will be good enough. You can probably get a really good one of 21 or 23 jewels for \$15 to



\$25. A cheap new watch can give you plenty of trouble and, in the long run, involves the probability of greater cost in keeping it in good running order.

Don't buy a department store watch, which is advertised on the strength of the number of diamonds in its case, or some other non-essential, or which gives no maker's name. Buy a watch for timekeeping, and your diamonds as jewelry. (Department store advertising of watches is hopelessly uninforming. It nearly always gives the impression that the watches were bought in a "12-gross-assorted-with-jewels" fashion.)

Watches are bought much more safely from jewelry stores, preferably a jewelry store which employs its own watch repairman or started as a watch and clock repair shop. A watch is a delicate instrument and represents a great deal of mechanical skill; it is not likely to be intelligently sold and serviced by people who look upon it as a mere luxury or jewelry item.

Don't buy a watch without the name of its maker unless it bears on its face the name of a well-known and highly reputable retailer such as *Tiffany*; *Bailey, Banks & Biddle*; *Marcus & Co.*; *Theo. B. Starr*; *Black, Starr & Frost*; or some other house known to be reliable and discriminating.

Be sure the case is well made and tight fitting, otherwise it may let dirt in and require the movement to be cleaned oftener than once a year.

### Buying a Secondhand Watch

Buying a secondhand watch is not as risky as buying a secondhand automobile. Remember that old watches which sold for \$100 to \$300 when new can sometimes be picked up for \$2 to \$10. You might buy a movement and have it put in a case. Many watches have been sold recently for the value of the gold in their cases, and the movements can

be obtained cheaply from old gold shops or the better type of pawnbrokers. Cases need not be expensive but can be made of a base metal, such as chromium or steel, which looks very well and costs very little (\$2 or \$3, maybe, for standard makes and sizes of movements; considerably more perhaps—as high as \$15 to \$20—where the movement is of unusual make and requires special fitting).

Often you can buy rare prizes, such as repeaters, chronographs, and combination repeaters and chronographs, for \$50 or less. When such a movement is found, it should be taken to a high-grade casemaker (usually, in fact, an old-case fitter, because it is often a problem of fitting an old case to the movement by trimming and modification here and there) who will usually be found only in the largest cities, or sent to an expert casemaker through your local jeweler for an estimate.

When buying a secondhand watch for timekeeping ability and economy is important, look for a secondhand *Elgin*, *Waltham*, *Illinois*, or *Dueber-Hampden*. Finer movements will perhaps be found with the name *Hamilton* or *Howard*, or in movements marked with well-known Swiss names. It will be much cheaper to buy an old movement in a new chrome-plate or stainless steel or gold-filled case than to buy a new jeweled watch of corresponding grade. The old watches may be good for twenty to thirty years more of regular use and still keep good time.

Don't risk over \$8 or \$10 unless you have a feeling for fine watches—or have with you a friend who does. As a rule it will be best not to buy from a pawnbroker because he may tend to overprice old watches.

Don't buy an expensive or complicated watch without having an appraisal made by another jeweler or watchmaker.

Don't buy a watch in a hurry because you are told that

it is a wonderful bargain. The secondhand market is full of wonderful bargains if you know where to look for them.

Don't buy any secondhand watches with duplex, verge, or cylinder escapement. (The dealer will tell you what kind of an escapement a watch has.) These are not in common use any longer, but you will occasionally run into them in secondhand stores. They are not good, lasting timekeepers.

If you have any doubt as to the dealer's reliability, have him specifically state on the sales slip the type of escapement, name of the watch's maker, number of jewels, and whether the watch is sold as in good running order. Sometimes a dishonest dealer will put a dial from a good make of watch on a poor watch; there is no way for the average consumer to tell if the dial matches the movement by looking at it, but definite statements on the sales slip will give some protection.

In buying an expensive watch, insist that cleaning, oiling, and close timekeeping adjustment be included in the purchase price.

It is often advisable to buy a movement only after it has actually been put into first-class running order. This will insure you against buying a watch that the dealer claims will run after it has a "little cleaning" but which turns out to require extensive and expensive repairs before you really have a working movement.

Everybody interested in studying or collecting old watches should own a jeweler's glass. Only by opening the back and examining the works with a glass can you determine whether (1) the hairspring is free from rust and (2) that the balance wheel runs true and does not wobble or show any appreciable unevenness or unsteadiness in oscillation.

A *Breguet* hairspring makes a much more fine timekeeping adjustment of the watch possible than the old flat hairspring which was formerly used in all kinds of watches

and which is still used in many cheaper watches. The *Breguet* spring can be distinguished by the fact that its outermost coil has been bent inward and upward to stand a little bit above the other coils.

\* \* \*

To repeat a previous warning, let me again caution you to avoid very thin, very small watches with tricky shapes. Remember that in spite of all the vaudeville jokes, Grandpa's "turnip" was a good and lasting timepiece.

### Advertising Faces Censorship

From an Article by H. R. Van Deventer, in "Public Relations," First Quarter 1938, International Bldg., Rockefeller Center, New York.

"Back in the mauve decade when most of the paunchy looking 'executives,' who are now running around looking for jobs, were young, happy, and prosperous, the world moved along pretty well by reason of every man's faith in himself and his neighbor and some of us even believed in God.

"Advertising in those days was a simple thing. The advertisers really believed that they should try to tell the public the Truth about their products. They described them accurately and their emphasis was more on quality and reliability than anything else. . . .

"There was dignity then in advertising. There was a code of public manners that governed the public relations of the advertiser. That was before the high-pressure copywriter arrived.

"Cigarettes in those days were cigarettes. We bought different brands because they packed different pictures in them, and not because we selected a certain flavor. Everyone but the moron knew they all contained tobacco, and no one cared whether it was roasted, toasted or 'secret processed.' What most of us wanted was 20 for a nickel and a picture thrown in; we got it until the advertising curse and high taxes descended on us.

"People smoked cigarettes because then they liked to smoke. They had no idea they could cure 'that tired feeling' or win success, or take off fat, or keep it off . . . .

"Now we are confronted on every side with beautiful girls stripped to their panties or less, as a selling lure which has no more relation to cigarette smoking or cigarette quality than a Blind Venetian has to a Venetian Blind."

—*Domestic Commerce*

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## Antifreeze Solutions For Your Automobile

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THE choice of a proper antifreeze is not an easy one because there is no antifreeze satisfactory in all respects. To avoid risk of doing serious damage to one's car or one's health, it will be worth while to take the trouble to understand the fundamentals of the problem.

The most practical antifreezes are certain *alcohols*, of which ethyl (grain) alcohol and ethylene glycol are probably the best so far used. Ethyl alcohol evaporates far more rapidly than ethylene glycol and must be replenished as evaporation occurs. A small modern car which has no leaks in hose, pump, or radiator and which does not overheat through hard driving or hard climbing on warm days can, with average driving, go through a northern winter with three gallons of 188 proof denatured ethyl alcohol. (Modern cars in most cases run cool—too cool for best efficiency.)

Cost for succeeding years may be reduced by withdrawing the solution from the radiator at the end of the winter season and saving it in corked cans or jars for subsequent use. In case of such re-use, the dilution of the alcohol-water mixture, when it is put to use again, should be carefully tested with a hydrometer lest the amount of alcohol present should have become reduced below the safety limit by evaporation.

Alcohol can, it is believed, be used more safely than glycerin or ethylene glycol in radiators which have had small leaks repaired with such powders and liquids (flaxseed meal or flaxseed extract) as are often used to seal off bad joints in the radiator or small cracks in the engine water jacket.

Ethylene glycol (*Eveready Prestone*), although it gives "permanent" radiator protection, is expensive. Before using it, make certain that there are no leaks in the cooling system, since it can leak from a system which appears to be quite tight for water.

A half-and-half mixture of ethyl alcohol with ethylene glycol has the advantage of being cheaper than ethylene glycol and of allowing a higher engine temperature (obtained by a higher temperature thermostat) than permitted by ethyl alcohol. The higher temperature for the cooling system gives greater efficiency in gasoline consumption and helps to maintain engine efficiency for a longer period and increases the engine's life.

A half-and-half mixture by volume of denatured ethyl alcohol with ethylene glycol will give slightly greater protection than the same quantity of alcohol alone; hence the half-and-half mixture may safely be substituted for the alcohol in measuring out the antifreeze to obtain protection to a given low-temperature limit. Your dealer will tell you what this should be in your locality. Measure with a hydrometer the specific gravity of the solution giving the desired degree of protection, and record it where you can find it for use in subsequent checking. As evaporation occurs, alcohol and water may be added in such proportion as to maintain the original reading on the hydrometer. (Assuming that protection obtained from the alcohol-ethyleneglycol-water solution used is to a temperature a little below 0 degrees Fahrenheit, about three times as much alcohol as water must be used for replacing; for protection

down to  $-20$  degrees Fahrenheit, about four times as much alcohol as water will be required.)

Glycerin is another "permanent" antifreeze but, like ethylene glycol, is expensive and will leak easily from a system that would otherwise appear to be quite watertight. It is rather more likely than the other substances described to cause corrosion of parts of the cooling system. Neither glycerin, because of its high viscosity at low temperatures, nor alcohol, because of its low heat capacity and high volatility, should be used in the old-fashioned thermosiphon (pumpless) cooling systems.

Methanol, which is the modern synthetic wood alcohol, is the kind of alcohol one usually *gets* when asking for denatured alcohol for antifreeze purposes. It is cheaper, but extremely poisonous—especially dangerous to the eyes. Even continued inhalation of its fumes, often noticeable in the car when driving in winter, is fraught with a hazard that must not be taken lightly.

The solutions of salts such as calcium chloride, which used to be widely sold, cause such prompt and extensive radiator and engine damage that they are now only infrequently offered. Kerosene and sugar or honey solutions, often recommended, are not, for a number of reasons, satisfactory. Since there are on the market so many solutions which must be avoided, the wise consumer will in no case assume the risk of purchasing an antifreeze whose constituents are unknown.

Manufacturers of the so-called permanent antifreezes, glycerin and ethylene glycol, now according to report, advise against their re-use a second season. On account of the gradual development of acidity in these antifreezes, the consumer had better not plan to re-use them. (The chemically-minded person, if he is in a position to make a chemical test for acidity at the beginning of the second season and at intervals thereafter, might continue the use of the

product, discarding the solution when its pH becomes 6 or less. Litmus changes at pH 6 from violet to red-violet and then on to red at still higher acidity.)

On the basis of first cost, assuming that the solution will not be saved from year to year, denatured ethyl alcohol is the most economical of the recommended types. The chances of being able to carry the solution over safely from year to year are perhaps not so great for the average motorist as to make ethylene glycol economical, under present jacket-water temperature conditions. It may be recommended for those to whom the relative cost of antifreeze is not a primary consideration.

#### RECOMMENDED

Denatured Ethyl Alcohol.

Ethylene Glycol.

*Eveready Prestone* (National Carbon Co., 30 E. 42 St., N.Y.C.) Mainly ethylene glycol with a little added oil.

\* \* \*

The following were mainly denatured ethyl alcohol:

*Blue-Flo* (Carbide & Carbon Chemicals Corp., 30 E. 42 St., N.Y.C.)

*Five Star* (E. I. du Pont de Nemours & Co., Wilmington, Del.)

*Gamble's Bond* (Gamble-Skogmo, Inc., Minneapolis)

*Super Pyro* (U.S. Industrial Alcohol Co., 60 E. 42 St., N.Y.C.)

*Super-Thermo* (Publicker Commercial Alcohol Co., 260 S. Broad St., Philadelphia)





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# Vacuum Cleaners

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**J**UST what do you expect of a vacuum cleaner? A really efficient cleaner should take up dirt easily and quickly with a minimum of wear on rugs. The purchase price alone is only one of the factors to be considered. It is the number of years of service and repair costs that count in the case of a purchase which should have a long life.

Vacuum cleaners are somewhat like automobiles in that a new model with brand new accessories usually appears each year or at frequent intervals. Don't be too hasty about giving up your old reliable for a new streamlined vacuum cleaner with accessories for spraying, painting, mothproofing, and other operations. The chances are that after the novelty wears off, you will find that practically all of the attachments and accessories will spend the major parts of their lives in the box in which they were delivered. The vacuum cleaner will be used for what vacuum cleaners are chiefly intended and used for, namely, cleaning rugs and carpets.

## Take a Look at Your Old One

Let us consider your old vacuum cleaner for a moment. Have you emptied the dust bag and thoroughly cleaned it before replacing it? Has the mechanism been oiled at regular intervals? If you really have found it satisfactory in design and performance, you may save money—nearly the price of a new vacuum cleaner—by calling the repair department of the manufacturer (not the sales department) and having them send a serviceman to look it over thoroughly. Or better still, take it to the service department if there is one in your city, and so save a part of the cost necessarily added for a special trip of the repair station's

*Adapted from Consumers' Research Bulletin*

representative. It is quite possible that you may find that for a small sum your vacuum cleaner can be put into excellent running condition. Be sure, however, to obtain a statement of the total or maximum repair charges, in writing, before sending it for extensive overhauling.

If, however, you decide that the old model has seen its last days, you may wish to try out a number of different makes before buying a new one. Get descriptions and prices of all the known makes in your vicinity. Pick out the models best suited to your purse, and make arrangements to have models delivered for demonstration. As a rule, most companies will arrange to have a demonstration model left for 24 hours. It is a good idea to make your trial when doing your regular Saturday cleaning. A superficial trial on one rug, such as the demonstrator makes in your home or you make under his direction, may lead to wholly misleading conclusions. It's only in practical service that you can see whether you find a vacuum cleaner convenient and in every way satisfactory in use.

### When Buying a New One

It is important to remember that you are buying the vacuum cleaner. Don't allow yourself to be sold one. The salesman should show you how the machine is to be connected to the current, where it turns on, and what adjustments need to be made for various operations. This, however, is about all that you need him for. There are certain favorite stunts of the trade which are calculated to demonstrate just how wonderful a particular brand is. Each demonstration is worked out to favor the points in which a given machine is best—or seems best, and each demonstration, naturally, is carefully designed so that it does not show up the machine's weaknesses or deficiencies. It will be to your advantage, on the whole, to be quite "hardboiled" in refusing to allow the salesman to stage his

"demonstration." Remember that the demonstration is to make it easier to sell you rather than to make it easier for you to choose one machine as compared with another.

One practice commonly used in a vacuum cleaner demonstration, for example, is to "shampoo" half of a rug, leaving the other half dirty "for comparison." One salesman, after this demonstration was over, made no attempt to finish "cleaning" the rug and had to be asked to do so. Here again any such demonstration fools the prospect into believing that the process is much more effective than it actually is, because the part of the rug that has been treated only *looks* cleaner as a result of its being damp. A little of its surface dirt and dust has perhaps been removed, and hence it is brighter looking. The salesman, of course, does not tell you, but it is bad for a rug to leave it in that condition. He is taking advantage of the fact that you will be the more tempted to purchase his cleaner because of your perhaps unconscious wish to finish the job which he has begun. That is the sort of subtle approach which nowadays is sometimes called "creative salesmanship."

### Types of Cleaners

There are two main types of vacuum cleaners: the straight suction type which includes the *Electrolux* and *Magic-Aire*, and the more orthodox sweeper type with the motor-driven brush, represented by *Westinghouse*. It is not possible for an engineer to tell you which type you should buy, since with some people much may depend on individual likes and dislikes. Tests made by Consumers' Research over a period of many years show that a straight suction type cleaner has picked up more actual dirt, as measured by careful laboratory methods under the conditions of test, than the revolving brush type. The brushing action of the sweeper type with the motor-driven brush may, however, give carpets and rugs a much cleaner surface appearance

than when they are cleaned by the straight suction type cleaner.

### Wear on Rugs

A frequently asked question is, "Are vacuum cleaners hard on rugs?" It is the opinion of the technicians of Consumers' Research and others who have investigated the subject that the amount of wear caused by the use of a motor-driven brush type vacuum cleaner (not to be confused with the type using a combination brush and beater) on *Arminster* rugs, for example, is slightly greater than that caused by the straight suction type. The wear in either case, however, should not cause any great concern unless you are the possessor of exceptionally valuable rugs, or unless you are one of those housekeepers who use a vacuum cleaner more frequently or for a longer period on each rug than most.

On this point it is perhaps worth noting for those who wish to prolong the lives of fine rugs or carpets that it may be worth while to use a carpet sweeper for daily cleaning, reserving the vacuum cleaner for more thorough occasional cleaning. The carpet sweeper removes only surface dirt (though, of course, that is the dirt that shows) and is wholly ineffective on imbedded dirt.

The maker's instructions should be followed carefully in using a carpet sweeper and emptying the collecting pan frequently. With either a carpet sweeper or vacuum cleaner, it is important to see that the revolving brushes are kept clean and free from hairs, lint, and ravelings.

### Secondhand Cleaners

It is quite possible for those who live in or near large cities to purchase secondhand vacuum cleaners which have been rebuilt by the manufacturer or by reputable dealers. Consumers' Research, for example, has reported that rebuilt machines can be obtained from Re-New Sweeper Co.,

9591 Grand River Avenue, Detroit, Michigan, and from United Radio Co., 58 Market Street, Newark, New Jersey. A careful buyer will insist on a written statement from the rebuilder on his billhead to the effect that the machine under consideration has been carefully overhauled and all worn parts replaced, and is in first-class working order in all respects. If there is an engineer among your relatives or acquaintances, take him along, if possible, to inspect the models you are considering. His advice may be helpful in deciding whether a particular model is a good buy.

### Hazards and Radio Interference

Just a word about disadvantages and hazards in the use of a vacuum cleaner. It is impossible for the average person to tell whether or not there is any shock hazard involved in the use of a particular machine. You will be wise, therefore, not to handle a vacuum cleaner that is connected to the electric circuit, either when it is standing unused or is in active use, and at the same time move lamps, fans, or other electrical appliances in your cleaning operations. Take both hands *entirely* off the cleaner first.

In trying out the new cleaner, be sure to ascertain whether or not it causes excessive interference with the radio when both are turned on. (To make this test, the radio should be tuned in on a rather weak station because on a loud station the interference noises may be relatively unobjectionable.) This point is sometimes of no consequence since the cleaner is run at a time when the radio is not likely to be in use. It is important, however, if there is an invalid nearby, for example, whose enjoyment of the radio will be greatly impaired by the loud cracks and roars caused by radio interference. (It is not, of course, necessary that the radio should be in the same room or even in the same building with the vacuum cleaner for this interference with radio reception to be annoying.)

For the benefit of those who wish some definite recommendations by brand name, we list a few makes. It is unfortunate that the recommended and qualified recommended lists cannot be larger, but a surprising number of brands tested by Consumers' Research were found not worthy of recommendation. *Consumers' Digest*, therefore, in accordance with its policy of giving only recommended brands, is obliged to omit listings of a number of models which Consumers' Research has tested and found wanting.

Prices given in all cases in the following listings were the manufacturers' list prices. The year in which the model appeared is given in parentheses following the price.

#### RECOMMENDED

*Westinghouse*, Model RS 3 (1938) (Westinghouse Electric & Mfg. Co., Springfield, Mass.) \$49.95. Watts 315. Revolving brush type. Weight, 13 pounds.

*Electrolux*, Model 30 (1938) (Electrolux, Inc., 500 Fifth Ave., N. Y. C.) \$78. Watts 507 (475). Straight suction cylinder type. Total weight (unit, wand, and nozzle), 20½ pounds.

#### QUALIFIED RECOMMENDATION

*Magic-Aire*, Model 145 (1938) (The Cleveland Suction Cleaner Co., Cleveland) \$59.50. Watts 500. Straight suction cylinder type. Total weight (unit, wand, and nozzle), 19 pounds.

*General Electric*, Model AV 2 (1936) (General Electric Co., Bridgeport, Conn.) \$59.95. Revolving brush type. Weight, 18 pounds.

*Eureka*, Model G (1936) (Eureka Vacuum Cleaner Co., Detroit) \$44.75. Weight, 15 pounds. Revolving brush type. (Latest model has the number "G-2" and is believed to be the same as Model G.)

## Rebuilt Vacuum Cleaners

### RECOMMENDED

*Hoover* Rebuilt Models, designated as *Hoover Specials*, when purchased from the manufacturer. Retail for about \$20 to \$40. Select one of the following: Model 105, from 575,000 to 5,003,662; Model 541, from 5,300,000 to 5,947,097; or Model 725.

*Electrolux* (1932 and 1934 models), when fully rebuilt.

*New Eureka De Luxe*, Model K, when fully rebuilt. May have slight shock hazard.

## A New Gas Range

A new gas range approval scheme has recently been started. The so-called Certified Performance Ranges are said to be the result of new specifications rendered necessary by the demands of consumer groups who "want to know," and the Certified Performance Ranges are supposed to be produced at a somewhat higher level of quality and performance than the regular American Gas Association ranges.

In the industry's language, they "possess certain high-quality features." It is too early to say whether this represents a distinct advance in gas range quality certification or whether it is mainly developed as a promotional device. However, in a number of respects, of which the following are some of the more important, the new "CP" ranges are planned to exceed the standard requirements for the American Gas Association approval seal:

The oven heats up faster;

Oven thermostat is required equipment;

Oven efficiency is slightly increased;

Broiling temperature is to be reached more quickly;

Simmer burners are required;

One or more giant or large heating capacity top burners is required;

Top burner heads are to be either of rust-resisting metal or porcelain enamel finish;

An effective smokeless type of broiler is required;

Top burners have improved thermal efficiency.

It is understood from trade papers that the gas range industry is to present this "CP" range as a revolutionary, entirely new cooking device. It is not believed, on present information, that from the consumer's standpoint "CP" ranges will represent revolutionary or outstanding performance. Their effect probably will be to raise the average of gas range performance appreciably.

# Little Digests

By

ROBERT S. KNERR

THE September issue of the *Drug and Cosmetic Industry* says, "It is an open secret that certain federal food and drug officials do not like the idea of the department [Food and Drug Administration] being responsible for the safety of new drugs. . . ." That's really too bad, but do those officials ever stop to think that perhaps the taxpaying consumers don't like the idea of irresponsible drug manufacturers having free rein to market their products on a basis of profit merely, rather than safety?

✕ ✕

THE same issue of the same magazine says that it will no longer be necessary to secure approval of the Council on Pharmacy and Chemistry of the American Medical Association or the Good Housekeeping Seal (!) for drugs or cosmetics. If the Food and Drug Administration approves a product, the A.M.A. okay will be unnecessary, and if the government body disapproves a drug, its use may even be forbidden to physicians.

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THE Dolomite Marine Corporation, Rochester, N. Y., has a new freighter on the Great Lakes that should cheer consumers. Nickel-lined holds permit the boat to carry loads *in bulk* both ways—kerosene one way and grain the other. Steam jets are used to clean and deodorize the holds, but we wonder how efficient the steam cleaning is when the cargoes consist of "grain, molasses, oil, caustic soda and *other products*" [italics mine], as will be carried



on the winter deep-sea service between Louisiana and Virginia.

§ §

THE American Medical Association, not long ago, had its own chemists analyze a "cancer cure" called *Collodaurum* and found it to contain, as claimed, colloidal gold, which makes the compound not only delightfully expensive but actually dangerous in itself because of the cumulative poisoning qualities of gold taken internally. Here's what the A.M.A. has to say about *Collodaurum*: "After reviewing the product . . . the Council again declared *Collodaurum-Kahlenberg* unacceptable . . . because in the opinion of the Council (1) it is promoted with unwarranted, exaggerated and misleading therapeutic claims and (2) it is apparently useless in the treatment of cancer. . . ."

§ §

WHEN Howard Hughes wound up his round-the-world flight, some testimonial buyers were flustered. Abercrombie & Fitch tied in Hughes with a New York *Times* ad plugging flying suits and boots—and the party left the plane in "battered hats, wrinkled suits, and dirty shirts," according to *Business Week*. From the same source comes the sad tale of *Packard Lectro Shaver* whose tie-in ad was in the New York *Herald Tribune*, but nobody on the flight shaved until the trip was over. The cruelest blow to Packard, though, was a story in a New York evening paper saying that the shaver was the only gadget in the plane that didn't work!

§ §

THE first seizure under the new Food, Drug, and Cosmetic Act of June 25 was made when a consignment of "*Lash Lure the New and Improved Eyebrow and Lash Dye*" was confiscated. The government alleged that the

dye contained paraphenylenediamine, a poisonous coal-tar compound. The dye is manufactured by the Cosmetic Manufacturing Company, Los Angeles. Instances of severe eye injury to women who have used the product are on record. The company apparently sought to protect itself from claims arising out of the use of the product by including in each package slips to be signed by the customer absolving the beauty parlor, distributor, and manufacturer from blame if use of *Lash Lure* resulted in injury. In the past the government was unable to prevent continued traffic in this article, but under the new Act interstate shipments of dangerous cosmetics may be immediately prohibited. The Act, in most of its provisions, does not become effective until June 25, 1939.



HAVE you noticed the soft pedal on *Fleischmann's* Yeast ads? There's a reason: the Federal Trade Commission clamped down on Standard Brands, makers of the yeast, not only for its claims but for omissions of fact, and now there really isn't much left to be said. Last year \$10,000,000 worth of *Fleischmann's* Yeast was sold, and the advertising bill was close to \$2,000,000.



UNDER a new agreement between the Toilet Goods Association and a retailers committee, the manufacturer of a cosmetic will try to scoop his retailer out of the jam if the latter gets caught by the Federal Trade Commission with a mislabeled product. Manufacturers of about 80 per cent of the total volume of cosmetics produced have joined the party, which holds them responsible for what they say (or don't say) in the labels, pamphlets, and advertising copy handed out to the trade. The agreement should result in consumers having a better idea of what they buy when they read the labels put out by manufacturers who are party to the plan.

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## A Look At Cigarette Advertising

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THE cigarette business is like the current glamour-girl fashion built up by lavish publicity and having pictures taken with the right people in smart places.

Back in 1884 J. B. Duke set out to capture the market with his brand of cigarettes by enclosing photographs of stage celebrities in each package. In six years his firm became the largest in the industry.

The early tobacco manufacturers' war for the market was ended only when the five leading firms combined as the American Tobacco Company. Gradually this company absorbed in one way or another nearly all leading units and dominated the industry until in 1911 it was ordered dissolved by the Supreme Court. Out of the unscrambling process emerged three large companies: Liggett & Myers, P. Lorillard, and the American Tobacco Company, which together with the R. J. Reynolds Company later came to be known as the Big Four.

*Camel* cigarettes, put out by the R. J. Reynolds Company, were the leading cigarettes introduced a year before the outbreak of the World War. Popularization of this brand was quickly followed by the introduction of *Chesterfields* (Liggett & Myers) and *Lucky Strikes* (American Tobacco). *Old Golds* (Lorillard) did not make their appearance until 1926.

Advertising men may well brag about the power of their trade to sell goods when their performance in the tobacco industry is considered. The sales of cigarettes have increased from 47 billion in 1920 to 162 billion in 1937. Terms such as the "filthy weed," the "coffin nail," "dope-stick," and pathetic pictures of homes broken up by Lady Nicotine, all have been ineffective against the appeal of a

beautiful girl smoking *Camels* for digestion's sake or reaching for a *Lucky* instead of a sweet or finding not a cough in a carload of *Old Golds*. Crabbing about cigarette advertising, however, is the favorite indoor sport of many intelligent people, and it is even on the conscience of some advertising men.

### Lucky Strikes

Although *Camels* had been the best seller in the early days of cigarettes with its "I'd walk a mile for a Camel" slogan, *Luckies* are believed to have taken the lead away from them several times by the famous advertising campaigns of George Washington Hill, president of the American Tobacco Company. "It's toasted," and "Reach for a Lucky instead of a sweet" provoked innumerable discussions and arguments among consumers and even in the trade. Tobacco men were quick to point out that the toasting process was not exclusive with *Luckies*. The Schrafft stores (being in the sweets business on a large scale) refused to sell *Luckies* at their counter, and Senator Smoot from beet-sugar Utah rose in Congress, according to a story in *Fortune*, to attack the entire tobacco industry. After the Federal Trade Commission took a hand, the candy slogan was finally modified to a general caution against overindulgence of any kind and passed on to more innocuous forms of advertising, such as "Do You Inhale?" and "Luckies, Please."

### Camels

About this time *Camels* took the spotlight from *Luckies* with their "It's fun to be fooled but it's more fun to know" series, which outraged the magicians and brought lively protest from the Society of American Magicians as one by one the secrets of the favorite items in their repertoires were exposed to public gaze. From this campaign, *Camels* went on to "Get a Lift with a Camel." This claim was impressively backed up by some studies made in

Sweden in 1929 by two eminent scientists which showed that smoking stimulated the adrenal glands, thereby releasing blood sugar into the circulation, which in turn gave rise to a feeling of additional energy. This piece of research was important to biochemists and physiologists, but it received little notice, according to *Time*, until it was dug out of the library as the basis for the new *Camel* slogan. *Camel's* admen attempted to give further plausibility to the slogan by citing the researches of two Yale physiologists who reported that tobacco smoking, presumably of any cigarette, might delay hunger and relieve fatigue. Dr. Haggard, who was one of the two mentioned, was reported to have been quite annoyed at the use of his work as the foundation of a *Camel* ad. Then came the theme "For Digestion's Sake—Smoke Camels" for which, it is believed, no "scientific" evidence has been produced.

#### Old Golds and Chesterfields

All cigarette manufacturers endeavor to prove, or at least imply, that their brand is somehow better than all others. A few years ago *Old Gold* introduced a clever advertising stunt of the blindfold test. The idea, no doubt, that was supposed to be conveyed was that *Old Gold* was so outstandingly different in flavor that the smoker could instantly identify it when comparing it with a number of others. It was a most amusing parlor game for a time, but unfortunately for *Old Gold* it revealed to the consumer a fact already generally known in the trade—namely, that virtually all the big popular brands are made by the standard process, and that the differences between one brand and another are, in the main, trifling and related to the more or less secret formulas used for "flavoring" the tobacco before making it into cigarettes.

*Chesterfield* has probably the most innocuous advertising. Before it became respectable for nice girls to come

right out and admit in a full-page ad that they smoked, *Chesterfield* showed a romantic moonlit scene with a pretty girl saying to a handsome youth, "Blow some my way." This brand's theme has pretty consistently been the somewhat mild-mannered slogan, "They Satisfy."

### What's In a Cigarette?

Before discussing some of the other types of cigarettes, such as the mentholated and "denicotinized" varieties, let us consider just what goes into a cigarette. The raw materials are leaf tobacco, a hygroscopic (moisture-retaining) agent, a small amount of flavoring and sweetening materials, and cigarette paper. The tobacco is dipped in syrup—glucose, brown sugar, or honey. Then the excess is removed. The "flavoring" materials are later applied by spray and help in furnishing the pleasing odor to a newly opened package of cigarettes. Cocoa, chocolate, licorice, ginger, cinnamon, vanilla, rum, brandy, maple syrup, oil of juniper, and oil of cloves are among the flavoring agents reported to have been used.

The moisture-retaining ingredients are added to help the manufactured cigarettes retain their moisture so that they will not reach the consumer in a dry, stale condition. Glycerin has been chiefly used in the past, but in the last few years a new product has made its appearance. This is diethylene glycol which is used in *Philip Morris* cigarettes and reported to be used in *Pall Malls*. It is claimed for this new product that it renders the smoke less irritating. Impressive advertisements have appeared in the *Journal* of the American Medical Association and other professional journals heralding the new discovery.

Whether it really is a boon to the smoker remains to be seen. The most impressive research job in its favor was done by two chemists on a fellowship subsidized by Philip Morris Company. A year or two ago diethylene glycol

featured heavily in the news in connection with the deaths of some ninety persons from an "elixir" of sulphanilamide. It was found that the particular form of sulphanilamide which caused the trouble was a medical "elixir" in which the drug had been dissolved in diethylene glycol. (The product would have been safe except for the diethylene glycol which, it was definitely determined, was the cause of the fatal poisonings.) It may well be said that the amount of diethylene glycol found in a single cigarette is probably very small indeed, but the fact remains that no extensive research by independent and unbiased scientists has yet been done on the toxicity of this chemical in cigarette smoke. It may be entirely or practically harmless, but science has not as yet spoken finally and certainly on this point.

#### The Mentholated Cigarette

Mildness, smoothness, and coolness in cigarettes are all agreed to be desirable qualities. If mildness is believed to be added by "sweetening" tobacco, why not secure coolness by some chemical means? This effect has been accomplished by using menthol as a flavoring agent. The two best-known brands are *Spuds* and *Kools*. Although attempt is made to encourage the all-round use of mentholated cigarettes, many veteran smokers are inclined not to favor this type for regular use, but rather when they have colds.

Whether or not smoking a mentholated cigarette is more desirable or less desirable in its effect on the health than the ordinary cigarette is another subject upon which scientists have not spoken with authority and upon which, certainly, careful research is needed. While up to the present time little of a thorough nature has been done on this subject, one competent observer, after a survey of the literature on the toxicity of menthol, concluded that the excessive smoking of mentholated tobaccos over a period of time might prove more harmful than smoking an equivalent number of unmentholated cigarettes.

### The Health Appeal

One of the outstanding factors which has contributed to the success of advertising in general has been the ability of the advertising gentry to ground his appeals on the fears and superstitions of the average man. It is not surprising, therefore, to find cigarettes sold on the "health" appeal of low nicotine content. At one time the Bonded Tobacco Company, makers of Sackett De-Nicotined Tobacco Products, adopted as their slogan "Smoke to your heart's content and with content to your heart." The *Journal* of the American Medical Association has called attention to the fact that an increase in smoking from the false sense of security in the use of "denicotinized" cigarettes might result in greater absorption of nicotine than in the smoking of a smaller number of ordinary cigarettes. Some—but not all—nicotine is removed from this type of cigarette.

A few years ago interesting comparisons were made by a qualified laboratory of the nicotine content of various brands of cigarettes, showing the total quantities present in ordinary and so-called "denicotinized" brands. The findings of some of the better-known brands follow:

Brand	Total Nicotine Content (air-dry basis)
<i>Benson and Hedges</i> -----	1.26
<i>Melachrino</i> -----	1.31
<i>Pall Mall</i> -----	1.38
<i>Philip Morris</i> -----	1.44
<i>Lucky Strike</i> -----	1.88
<i>Marlboro</i> -----	1.94
<i>Old Gold</i> -----	2.17
<i>Camel</i> -----	2.21
<i>Chesterfield</i> -----	2.53
<i>Piedmont</i> -----	3.11



Brand	Total Nicotine Content (air-dry basis)
	"Denicotinized"
<i>Sano</i> -----	0.79
<i>O-Nic-O</i> -----	0.94
<i>Carl Henry</i> -----	0.95
<i>Sackett</i> -----	1.03

It should also be borne in mind that the nicotine content of tobacco varies constantly, and what was true of a given brand at a particular time may be only approximately true at some later date. In connection with this question of nicotine it is also interesting to note the results of another study of amounts of nicotine present in various *types* of cigarettes:

Type	Per Cent Nicotine (approximate)
"Denicotinized" -----	0.8-1.4
Levantine ("Turkish," "Egyptian") -----	1.0-1.5
Blended -----	1.9-2.7
Virginia -----	2.5-3.4

Nicotine has been held responsible for a number of functional disturbances. For those who do not wish to pay the extra price involved for "denicotinized" cigarettes but who prefer to smoke a brand low in nicotine, the Turkish or Egyptian brands may be substituted—unless, of course, you are one of those fortunate people with strength enough to give up whatever does not agree with you or is not good for you.

#### What About the Future?

Much has been written about the harmful effects of cigarettes on the human system. There is one aspect, however, on which both pros and antis are agreed: the cigarette industry contributes a whale of a lot to the upkeep of the Federal Government. Possibly this fact helps to account for its tender treatment even in the days of the NRA's cracking down on big business. Revenue from cigarette taxes

as of June 30, 1935, brought in over three hundred eighty-five million dollars—over twice as much as the revenues from gasoline taxes. Consumers who have been watching the Federal Trade Commission catch up with *Lifebuoy* and *Lux* Toilet Soap and many other products will wonder whether cigarette companies whose advertising has been objectionable to intelligent people for years haven't fared rather better than most misleading advertisers at the hands of federal and state authorities. As the result of the Federal Trade Commission's proceedings against Lever Brothers Company, they have agreed to cease representing: "My skin's improved 100 per cent since I've been using Lifebuoy! It's never dull or blotchy any more"; and "You'll like the way Lux Toilet Soap keeps skin clear, smooth, fresh-looking." On the other hand, Reynolds Tobacco Company continue to advertise "Get a Lift with a Camel . . . And Camels are so mild . . . really *gentle* to my throat." *Old Gold* claims that "that *extra* jacket of Cellophane delivers *every single* Old Gold to me as dewy *fresh* and flower *fragrant* as my girl's lips." *Luckies* assert that they "give you *throat protection*."

The Federal Trade Commission is to be applauded for the promptness with which it has availed itself of newly granted powers to take action against misleading claims for cosmetics, drugs, and patent medicine. When the most flagrant cases in these particular fields are cleared up, however, particularly those that have a bearing upon consumers' health and safety, consumers have a right to expect that objectionable and misleading claims for cigarettes be eliminated. It is to be hoped that the Federal Trade Commission will extend its activity soon into the lush field of national cigarette advertising.

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## WHAT IS A "MARASCHINO" CHERRY?

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**T**HAT spot of color on a halved grapefruit, a fruit cup or fruit salad is somewhat erroneously called a maraschino cherry. Historically speaking, this type of cherry came from Marasca in the Dalmatian Mountains. The so-called maraschino cherries sold in this country are for the most part manufactured and packed domestically.

The procedure as described by a canning journal leaves the reader with little appetite for the finished product. According to this report the cherries are picked with the stems on before they are completely ripe. They are bleached in a solution of sulphurous acid, sodium sulphite, and water, or with sulphur dioxide fumes. If there is no immediate demand they may be stored for a lengthy period of time. (They are in no danger of spoiling. The heavy dose of chemicals has prevented that.) When they are removed from storage, they are washed, sometimes boiled, and pitted. The next step is to dye, candy, and flavor them. The commonly used flavoring materials are oil of bitter almonds, amyl acetate, orange flower water, and benzaldehyde. (Bitter almond oil is a rather poisonous substance.)

It may be of further interest on this point to quote from a patent assigned to the California Packing Corporation on the method of preparing maraschino type cherries:

"In preparing maraschino type cherries, the cherries are first treated in a bleaching solution containing approximately 1% sulphurous acid, or are subjected directly to the action of sulphur dioxide fumes. Whatever the particulars of the method used, it is essentially a bleaching process during which the reds of the cherries are bleached. When the

cherries are not ripe and have no color, this process turns them into a canary or straw yellow color.

"If there are any such marks as bruise marks from the wind, handling, sunburn, or the like, this reducing agent will not bleach out the stains of these colors produced in the bruised portions of the fruit. These off-color cherries will not dye uniformly and are therefore of very inferior quality.

"It is therefore an object of my invention to provide a method of preparing maraschino type cherries so that all cherries will be of a uniform color and texture . . ."

The resulting product, as the reader will readily gather, is a highly synthetic one which should be considered solely as a decoration and not a food. For the benefit of those who nevertheless like to see this type of decoration on their grapefruit, fruit cup, and salad we reproduce a recent report from the office of the Food Commissioner and Chemist of North Dakota Regulatory Department.

#### Modified (Imitation Maraschino) Cherries

Modified cherries, used principally for the decoration of fancy beverages and desserts, are prepared from firm ripe cherries by bleaching and hardening with sulphite liquor, leaching out the excess sulphur dioxide, and adding artificial color and flavor.

It can readily be seen that careless processing could result in excessive sulphur dioxide.

The legal limit in this state for sulphur dioxide in fruit products is 350 milligrams per kilogram (parts per million). [It is interesting to note in this connection that the allowance of the Federal Government, operating through its Department of Agriculture which must not offend the far western dried-fruit producers, runs as high as 3500 milligrams per kilogram, or ten times the more reasonable figure tolerated by North Dakota—Editor's Note.]

## Maraschino Cherries

Brand <i>Manufacturer or Jobber</i>	Net Weight		Sulphur Dioxide (ppm.)
	Claim (oz.)	Found (oz.)	
Astoria Cherries <sup>1</sup> <i>Fruit Prod. Corp., Belleville, N. J.</i>	8	8 7/32	65.0
Carol Cherries <i>Winston and Newell Co., Minneapolis, Minn.</i>	5	5	27.2
Don Juan Cherries <sup>1</sup> <i>S. J. Valk and Son, New York City</i>	3	3 7/32	46.0
Falcon Brand Cherries <i>Falcon Packing Co., Inc., New York City</i>	2½	1 19/32	85.1
Fairway Red Modified Cherries <i>Twin City Wholesale Groc. Co., St. Paul, Minn.</i>	5	5 15/32	80.3
Fontaine Brand Cherries <i>James P. Smith &amp; Co., New York City</i>	5	5 5/32	199.8
Golden Crown Cherries <i>International Fruit Prod. Co., Cincinnati, Ohio</i>	2	2	37.3
Hillcrest Cherries <i>Hancock-Nelson Merc. Co., St. Paul, Minn.</i>	3	3 7/32	260.9
Home Brand Cherries <i>Griggs, Cooper and Co., St. Paul, Minn.</i>	3	3 11/32	103.0
Imperial Crown Cherries <i>Henry H. Shufeldt and Co., Peoria, Ill.</i>	8	8 7/16	136.6
Liberty Cherries for Cocktails <sup>1</sup> <i>Liberty Cherry &amp; Fruit Co., Inc., Covington, Ky.</i>	7	7 3/32	39.4
Monarch Cherries <i>Reid, Murdoch and Co., Chicago, Ill.</i>	5	5 1/16	42.6
Neopolitan Brand Cherries <i>Mawer-Gulden-Annis, Inc., Chicago, Ill.</i>	5	5 5/32	218.6
Old Monk Brand Cherries <i>Old Monk Olive Oil Co., Chicago, Ill.</i>	5	5 1/4	179.2
Omena Cherries <i>J. C. Morgan Co., Traverse City, Mich.</i>	5	5 19/32	445.8
Our Family Cherries <i>Nash Finch Co., Minneapolis, Minn.</i>	5	5 7/16	259.8
Peerless Brand Cherries <i>Peerless Packing Co., Chicago, Ill.</i>	5	4 1/4	326.1
Red and White Cherries <i>Red &amp; White Corp., Chicago, Ill.</i>	5	5 1/4	247.7
Rite-Pak Brand Cherries <i>Henry H. Shufeldt and Co., Peoria, Ill.</i>	4	4 1/16	191.2
Sterling Cherries <i>B. M. Reeves Co., Inc., Chicago, Ill.</i>	5	5	80.3
Sun Ripe Cherries <i>Cherry Specialty Co., Chicago, Ill.</i>	5	4 3/4	30.7

Note: All samples claimed presence of sulphur dioxide except those marked <sup>1</sup> which made no claim and <sup>2</sup> which claimed no preservatives.

## Maraschino Cherries

Brand <i>Manufacturer or Jobber</i>	Net Weight		Sulphur Dioxide (ppm.)
	Claim (oz.)	Found (oz.)	
Tea Garden Cherries <sup>1</sup>			
<i>Tea Garden Prod. Co., Portland, Ore.</i>	6	6 1/8	49.6
Time O'Day Brand Cherries			
<i>Jordan-Stevens Co., Minneapolis, Minn.</i>	5	5 5/8	169.0
White Swan Cherries			
<i>International Fruit Prod. Co., Cincinnati, Ohio</i>	8 1/2	8 3/16	230.4
<b>The Following Contained Excess Sulphur Dioxide</b>			
Don Pedro Cherries			
<i>S. J. Valk and Son, New York City</i>	5	5 9/16	392.6
G&S Cherries			
<i>National Fruit and Extract Co., Chicago, Ill.</i>	5	5 3/8	858.9
Imperial Crown Cherries			
<i>Henry H. Shufeldt and Co., Peoria, Ill.</i>	3	3 3/8	527.0
Omena Cherries			
<i>J. C. Morgan Co., Traverse City, Mich.</i>	5	5 1/2	585.5
Park Hills Brand Cherries			
<i>Park Hills Co., Covington, Ky.</i>	5	5 5/16	385.9
Realm Cherries			
<i>Household Prod. Co., Chicago, Ill.</i>	5	5 1/32	174.1
Richelieu Brand Cherries			
<i>Sprague, Warner &amp; Co., Chicago, Ill.</i>	8	8 17/32	442.2
Rite-Pak Brand Cherries			
<i>Henry H. Shufeldt and Co., Peoria, Ill.</i>	4	4	471.4
	5	4 15/16	1147.5
	5	5 1/32	529.3
	5	5 5/32	578.9
	5	5 1/8	624.6

The results of a survey of twenty-nine brands of modified cherries marketed in this state [N. Dak.] are shown in the previous table. These twenty-nine brands are marketed under the names of twenty-six packers or jobbers.

Fifteen of forty-four samples contained excess sulphur dioxide. These fifteen samples represent seven brands. Nine samples of the two brands of one packer were analyzed. Seven of the nine samples contained excess sulphur dioxide.

The fact that the greater portion of samples examined were within the legal limit leads us to believe that the presence of excess sulphur dioxide is due to careless processing or lack of control.

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# People Don't Know What They Drink

By

WILLIAM A. CONSODINE AND ERMA ALBRIGHT

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“BOY that's strong!”

That, with or without a wry face and a re-strained shudder, echoes the external comment of an internal reaction by the great American public as it drinks some of the whiskey, rye and bourbon, straight or blended, consumed throughout the year and especially during the holiday season. That it is consumed is best evidenced by the tremendous amount of taxes collected by Federal and State Governments on consumption of liquid corn or rye.

Recent consumption figures indicate that in the first eight months of 1938, over 32,000,000 gallons of straight whiskeys of all kinds were consumed by the American public. During the same period, 16,000,000 gallons of blended whiskeys, both straight and alcoholic blends, and over 3,000,000 gallons of Scotch whiskey were also consumed. And still 10,000,000 gallons more of rums, gins, and brandies were consumed in the United States in the same period of time.

Startling are the analyses of liquor consumption in the seven states on whose sales such a breakdown has been possible. Briefly, these analyses of Michigan, Ohio, Oregon, Pennsylvania, Virginia, Washington, and West Virginia show that the cheaper whiskeys—especially young, straight whiskeys of approximately two years of age and alcoholic blends—are the favorite drink of the American consumer

who drinks. The following table, taken from a trade journal, is worthy of reproduction.

### Percentage Analyses of Consumption

Type of Liquor	Mich.	Ohio	Oreg.	Pa.	Va.	Wash.	W Va
Bottled in Bond	.4	1.1	2.1	1.6	.4	1.8	.5
Canadian	6.1	1.9	7.2	1.1	.6	8.0	.8
Scotch and Irish	5.9	3.1	10.1	3.6	1.3	8.1	.9
Blends of Straights	4.5	6.9	2.8	5.1	8.4	2.3	6.5
Spirit Blends over \$1	20.9	8.8	12.6	3.8	5.3	17.4	5.3
Spirit Blends under \$1	14.4	14.1	11.6	41.5	21.9	23.6	15.1
Straights	21.9	42.3	32.3	22.7	42.4	23.4	55.3
Young Whiskeys	25.9	21.8	21.3	20.6	19.7	15.4	15.6
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### Alcohol and the Human System

Although the authors do not wish to enter the controversial field regarding the use of alcoholic liquors a reference to research regarding alcohol and its effect on the human system is in order. A resumé of the literature in that field was recently written by Dr. A. P. Sy, researcher in physiological and food chemistry at the University of Buffalo.

Briefly, Dr. Sy's work can be summarized as follows:

1. To a very limited extent, alcohol has a food (fuel) value. Much depends upon circumstances and conditions.

2. Alcohol is the causative and aggravating factor of a great variety of serious histological, pathological, and physiological disturbances. This is recognized in medicine by using the adjective "alcoholic"; e.g., alcoholic dementia, etc.

3. Its use in medicine depends on the slight but quickly effective food value, but only to a very limited extent. It is not a cure for any known disease. It is being used decreasingly, and far less than formerly, by doctors in treating disease.



4. It is least effective as a poison when taken with meals. When used moderately it has certain social value; when taken immoderately, all its physiological effects are bad.

### Read the Label

There are many things to be learned about a liquor by simply reading its label. The following brief points should give anyone a good start:

*Proof* signifies the alcoholic content and should be twice the percentage of the latter, i.e., 90 proof should mean 45% alcohol.

*Rye* is made primarily from rye, with the addition of other grains, and barley malt. Proof: 80-100.

*Scotch* is made from barley malt, cured over peat fires. Proof: 70-98. Scotch whiskey is always a blend of straight whiskeys.

*Bourbon* is made primarily from corn, with the addition of other grains. Proof: 80-100.

*Irish Whiskey* is made from barley malt, also, but cured over coal fires. Proof: 80-100.

*Bottled-in-Bond* liquor is that which has been put in casks and stored in a government bonded warehouse for four or more years. The year is usually indicated on the seal. United States bottled-in-bond revenue seals are green. Under United States bond regulations, no other whiskey or neutral spirits may be added during aging or before bottling. Canadian bond regulations permit the addition of neutral grain spirits to replace loss by evaporation during aging. This creates a light whiskey.

*Blends* are composed of a blend of grain alcohol (neutral spirits) and whiskeys, or a blend of whiskeys. The latter are "blended straights."

The Federal Law requires the distiller to state the content of the bottle on the label, and this is adhered to by the distillers with the single laxity of the Federal Government

that allows them to refer to the added alcoholic content as neutral grain spirits, when the consumer would better understand it as just plain alcohol.

### "Hyperbolic" Content

No attempt has been made to discuss whiskeys on the basis of melodramatic advertising, such as is used by Calvert, or the extravagantly homespun advertising of Wilken Family, the elegant you-and-I-sit-by-the-fire type, or the artistic or conservative advertising favored by other popular brands.

In the opinion of many well-qualified experts, alcoholic (neutral spirits) blends should be labeled artificial or imitation whiskey. Yet available data indicate that the consumption of alcoholic blends is so high in comparison with that of other types of whiskeys that one must believe that the public, perhaps because it has been influenced by advertising, or perhaps because of purely economical reasons, is drinking them—bad or good.

### Taste Test and Test Method

Since it is believed that most drinkers select their liquor on taste, the authors had twenty-seven nationally advertised rye and bourbon whiskeys and blends tested for taste by a jury of men and women. The jurors were chosen from various walks of life, were of different racial antecedents, came from different geographical sections of the United States, and represented urban, suburban, and rural community life.

The modus operandi of the test was to give each juror a tasting portion of the same whiskey at the same time without knowledge as to the name of the brand he was tasting. Black coffee and hard bread were used as neutralizers between each taste test.

The following table lists the various brands tested with

columns for A (good), B (intermediate), and C (poor) ratings. Under the appropriate column appears the number of jurors giving each brand that rating.

A study of the taste reports would seem to demonstrate but one fact—that people don't know what they drink.

A	B	C	Straight Ryes
4	7	7	<i>Gibson's</i> , Bottled in Bond (Gibson Distilling Co.) 100 proof. Five years old. \$1.64 a pint.
3	6	8	<i>Mt. Vernon</i> , Bottled in Bond (National Distillers Prod. Corp.) 100 proof. \$1.64 a pint.
4	8	5	<i>Old Overholt</i> , Bottled in Bond (National Distillers Prod. Corp.) 100 proof. \$1.64 a pint.
—	11	5	<i>Old Quaker</i> (Schenley Products Co.) 90 proof. Three years old. \$1 a pint.
5	6	5	<i>Town Tavern</i> (National Distillers Prod. Corp.) 90 proof. Two years old. \$.95 a pint.

#### Blended Straight Whiskies

2	5	9	<i>Carstairs</i> (Carstairs Bros. Distilling Co.) 86.8 proof. 57½% straight whisky, four years or more old; 42½% other whisky four years or more old. \$1.60 a pint.
3	5	8	<i>Four Roses</i> (Frankfort Distilleries, Inc.) 90 proof. 51% rye whisky, three and one-half years or more old; 49% other straight whiskies. \$1.69 a pint.
1	7	8	<i>Golden Wedding</i> (Schenley Products Co.) 90 proof. 80% straight whisky, two years eight months old; 10% straight whisky, five years old; 10% straight whisky, eight years old. \$1.39 a pint.
2	10	4	<i>Paul Jones</i> (Frankfort Distilleries, Inc.) 92 proof. Straight whiskies, one and one-half years or more old. \$1.50 a pint.

#### Spirit Blends

1	3	8	<i>Calvert's "Reserve"</i> (The Calvert Distilling Co.) 90 proof. 65% alcohol; 25% straight whiskies, four years old; 10% straight whiskies, five years old. \$1.45 a pint.
2	8	13	<i>Calvert's "Special"</i> (The Calvert Distilling Co.) 90 proof. 72½% alcohol; 71½% straight whiskies, three years old; 10% straight whiskies, four years old; 10% straight whiskies, five years old. \$1.16 a pint.
2	9	13	<i>Green River</i> (Oldetyme Distillers, Inc.) 90 proof. 70% alcohol; 20% straight whisky, two years old; 10% straight whisky, three years old. \$1 a pint.

Prices are "fair trade" [resale-price-maintained] prices in New Jersey.

1	2	9	<i>National's Eagle</i> (National Distillers Prod. Corp.) 90 proof. 60% alcohol; 15½% straight whisky, three and one-half years old; 24½% straight whisky, two years four months old. \$1 a pint.
—	6	6	<i>Old Drum</i> (The Calvert Distilling Co.) 90 proof. 75% alcohol; 19% straight whiskies, two and one-half years old; 6% straight whiskies, four years old. \$1 a pint.
1	4	7	<i>P. M. De Luxe</i> (National Distillers Prod. Corp.) 90 proof. 49% alcohol; 51% straight whisky, four years old. \$1.21 a pint.
2	7	8	<i>Seagram's "5 Crown"</i> (Joseph E. Seagram & Sons, Inc.) 90 proof. 72½% alcohol; 15½% straight whiskies, four years old; 12½% straight whiskies, five years old. \$1.20 a pint.
—	7	5	<i>Seagram's "7 Crown"</i> (Joseph E. Seagram & Sons, Inc.) 90 proof. 60% alcohol; 28% straight whiskies, four years old; 12% straight whiskies, five years old. \$1.48 a pint.
—	6	11	<i>Three Feathers</i> (Oldetyme Distillers, Inc.) 90 proof. 75% alcohol; 10% straight whisky, two years old; 15% straight whisky, eight years old. \$1.15 a pint.
3	4	11	<i>Wilken's Family</i> (The Wilken Family, Inc.) 90 proof. 75% alcohol; 20% straight whisky, two years old; 5% straight whisky, five years old. \$.99 a pint.
—	9	8	<i>Wilson's</i> (Wilson Distilling Co., Inc.) 90 proof. 75% alcohol; 10% straight whisky, two years old; 15% straight whisky, seven years old. \$1.16 a pint.

### Straight Bourbons

—	5	7	<i>Bonded Belmont</i> , Bottled in Bond (Schenley Products Co.) 100 proof. \$1.59 a pint.
3	3	6	<i>Kentucky Tavern</i> , Bottled in Bond (Glenmore Distilleries Co.) 100 proof. \$1.59 a pint.
4	7	1	<i>Old Grand-Dad</i> , Bottled in Bond (National Distillers Prod. Corp.) 100 proof. \$1.82 a pint.
1	5	5	<i>Old Taylor</i> , Bottled in Bond (National Distillers Prod. Corp.) 100 proof. \$1.82 a pint.
5	4	3	<i>Crab Orchard</i> (National Distillers Prod. Corp.) 90 proof. Two years old. \$1 a pint.
1	9	2	<i>Cream of Kentucky</i> (Schenley Products Co.) 90 proof. Two years old. \$1 a pint.
3	3	4	<i>Ten High</i> (Hiram Walker & Sons, Inc.) 90 proof. Two years old. \$.99 a pint.
1	8	3	<i>Windsor</i> (National Distillers Prod. Corp.) 90 proof. Two years old. \$.95 a pint.

Prices are "fair trade" [resale-price-maintained] prices in New Jersey.

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## Handbags—\$1.95 and Up

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*Have you often wondered whether a \$5 handbag was really a better buy than one at \$2.95? This article will help you decide. Although it was originally intended primarily for the salesgirl, it is also of interest to the woman who is planning to buy a new bag.*

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THE price structure in the handbag market is strictly standardized. There are bags made to sell over the retail counter for \$1, for \$1.95, for \$2.95, for \$5, and for \$7.50. There are, with one exception (\$4), no other prices than these save in higher-priced bags. The prices may be, of course, slightly varied, according to stores' policies, from 5 to 15 cents. Thus a \$1.95 bag is often marked \$2 or \$1.85. Special sales and special promotions are, of course, an entirely different matter. We are referring here only to regular handbags at regular day-in-and-day-out prices.

Because of these standard prices, there are handbag manufacturers who make only \$1 bags. There are others who make only \$1.95 bags, and still others who specialize in \$2.95 bags, etc. It is easy to see from this that competition is extremely keen, that when one handbag manufacturer concentrating on a \$5 range, for example, gives more than he has given in the past, his competitors must immediately offer the same value, and thus, *as much value as can possibly be offered* at a fair profit to both manufacturer and retailer is found in each price range.

Reprinted from the *Handbag Buyer* for September, 1938, published at 1170 Broadway, New York City.

**Advantages of \$1.95 bags over \$1 bags**

1. Genuine leather—cowhide, calf, suede, etc.
2. Slightly better grade of fittings, linings, etc.  
(size is not a factor)

**Advantages of \$2.95 bags over \$1.95 bags**

1. Workmanship
  - a. Seams have a nicer appearance, change purse well attached
  - b. Handles and backstraps well attached
  - c. Ornaments have better finish and are better applied
  - d. More details—shirring, pleats, tucks, flares
2. Real grains, buffalo, and seal, are guaranteed
3. Leathers grade up slightly

**Advantages of \$3.95 bags over \$2.95 bags**

1. Larger and more fully cut
2. Details better in interior
3. Better styling

**Advantages of \$5 bags over \$3.95 bags**

1. Workmanship shows vast improvement
  - a. Individual attention has effect on final appearance
  - b. Quality of inner linings, backings, rubberizings, and pastes improve
  - c. Fittings show improvement
  - d. Better mirrors and coin purses (individually covered), more durable, easier to work, solid knobs
2. Frames
  - a. Finish notably better
  - b. More elaborate
  - c. Better quality locks
  - d. Handmade clasps

- c. Mitered corners for finished appearance to covered frames
- 3. Linings
  - a. Change purse lined with skiver [a soft leather]
  - b. Bag lining greatly improved
  - c. Leather sometimes used
- 4. Styling is finer
- 5. Superior leathers

#### **Advantages of \$7.50 bags over \$5 bags**

- 1. Difference lies almost entirely in detail
  - a. More expensive ornaments
  - b. Satin linings often used
  - c. Finer fittings
- 2. Frames more expensive, in handwork and jeweled ornaments

#### **Advantages of \$10 and up over \$7.50 bags**

- 1. Customers buy for different reasons. Care less for value *per se* than for styling, originality, and newness of design
- 2. Complete exclusiveness, excellent timeliness of color and design
- 3. General improvement in leathers, fittings, and all material used
- 4. Luxury leathers used—pig, reptile, alligator, etc.



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## Are You A Guinea Pig?

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**T**HAT there is a rising tide of consumer discontent with advertising and the manner in which it sells products and services is a fact that no well-informed advertising man will deny. The time is past when this discontent can be ignored or pooh-pooed by sending speakers around to address women's clubs or other groups on what a boon advertising is to American culture for having sold more bathtubs, telephones, and electric lights than in any other country in the world.

Advertisers and large distributors seem unwilling to take the simple and obvious method of dealing with this problem of rising consumer dissatisfaction with advertising and its expenditures. That method would be to see to it that standards of quality are set up, that products are offered in retail stores plainly labeled according to these standards, and sold on the basis of truthful claims free from overstatement, exaggeration, and down-right falsehoods. Some businessmen still prefer to beat the tom-tom as it were and try to charm the consumer into her old happy belief that (1) advertising always tells the truth, and (2) that a product that is nationally advertised must be good because it is nationally advertised, and (3) that only nationally advertised goods are worth buying.

Take, for example, a recent advertisement in *Hearst's International-Cosmopolitan*, issue of November, 1938, which is reproduced on the opposite page. The lady in the picture is, according to the text, one of those people who still believe that "the manufacturer who makes his product nationally known through advertising wins success because of the proved merits of his goods," and, furthermore, that "the widely advertised product shows by its widespread



AN ADVERTISEMENT BY AMERICAN DRUGGIST MAGAZINE

# WHO'S a guinea



of his goods. He sets a standard of quality and service and maintains it because he cannot afford to risk disappointing me and thousands of others who use his products. He has his good name to uphold.

"I know that the widely advertised product shows by its widespread use that it must be satisfactory.

"And I know that responsible publishers protect me further by refusing to accept the advertising of products which fail to pass tests for quality and performance.

"Thus no matter how tempting the bargains in unknown, unbranded merchandise, I know—and tell all my friends—that it is still the better part of buying wisdom to prefer the products you see regularly advertised—and to refuse all substitutes for them."

● "After all, I'm perfectly sure about the quality of the products I buy. Because I buy only products which are backed by a well-known reputation. I KNOW I never take a chance this way!

"Despite sensational, destructive propoganda, I know for example, that when I buy nationally known drug products I don't have to wonder about their quality, purity, and ability to give me my money's worth in satisfaction.

"The real guinea pigs are the people who experiment . . . take chances . . . with products which are NOT backed by a well-known house.

"I know that exact methods and precise tests maintain the high quality of drugs and cosmetics which bear a nationally known name, and that therefore I can buy with complete confidence.

"And I know that, all in all, I don't pay more for this extra assurance. In fact, my dollars go farther because I don't risk them on un-

known and untried merchandise.

"I know that the manufacturer who makes his product nationally known through advertising wins success because of the proved merits

## LOOK FOR THESE PRODUCTS ON DISPLAY THIS MONTH IN YOUR FAVORITE DRUG STORE

ABSORBINE, Jr.*	GILLETTE Brushless Shaving Cream	PEPSODENT Tooth Paste
ALKA-SELTZER*	GILLETTE Safety Razors and Blades	PRO-PHY-LAC-TIC Tooth Brushes
APRIL SHOWERS TALC*	HEINZ 57 Varieties*	PYREX Nursing Bottles
ASTRING-O-SOL*	INGERSOLL Watches and Clocks	RAY-O-VAC Flashlights and Batteries
BAYER ASPIRIN	IPANA Tooth Paste*	SARAKA Laxative
B-D Fever Thermometers	JEROENS Lotion	SCHICK Injector Razor
BLUEJAY Corn Plasters	JOHNSON & JOHNSON Band Aid	SCOTT'S Emulsion
BOND Flashlights and Batteries	Drybak Corn Plaster	SEBERLING Drywear Lotion, Baby Powd
BROMO-SELTZER	Rad Cross Cotton	SERGEANT'S Dog Medicines
CALOX Tooth Powder	KOTEX Sanitary Napkins	SILEX Glass Coffee Makers
CHAMBERLAIN'S Lotion*	LISTERINE Antiseptic*	SIROL Aids Prostate
COLGATE Dental Cream	LUXOR Face Powder	TAYLOR Kinoc Fever Ther- monitors
DAVOL "Anti-Colic" Nipples	MENNEN Antiseptic Oil	TEK Tooth Brushes
DR. SCHOLL'S Foot Remedies	MENNEN Lather and Brushless Shaving Cream	WHEATAMIN EXTRACT Vitamin Products
FEEN-A-MINT Laxative	MILLER Water Bottles	*Please refer to advertisement in this issue of Cosmopolitan.
FITCH'S Dandruff Remover shampoo	MODESS Sanitary Napkins	
FLETCHER'S CASTORIA Laxative	MUM Deodorant*	
GEM MICROMATIC Single-Edge Razor Blades	NEW HAVEN Watches and Clocks	

use that it must be satisfactory," and that it is "the better part of buying wisdom to prefer the products you see regularly advertised." The long list of products included in the advertisement are presumably the brands which this lady would buy and would have you buy.

Whole books have been written on the typical faults and deficiencies of some of the types of products listed. Let's just take a few examples which illustrate why *Consumers' Digest* believes that the mere fact that a product is nationally advertised and widely sold is not sufficient guaranty that it will be desirable, economical, or even safe for consumers to buy and use. Consider briefly just three of the products listed in the advertisement: *Alka-Seltzer*, *Bromo-Seltzer*, and *Feen-A-Mint Laxative*.

*Alka-Seltzer* is a patent medicine sold for various human ills including headache, hangover, fatigue, colds, and indigestion. According to an analysis made by the North Dakota Regulatory Department, Division of Foods and Chemistry, the essential ingredients of *Alka-Seltzer* are aspirin, baking soda, and citric acid. The dose sometimes recommended in advertisements is two tablets every two hours until six or eight are taken. The North Dakota Regulatory Department points out that if this advice were followed a person would receive 35 grains of aspirin a day, a truly dangerous dose. For some people who are specially sensitive to aspirin, it might be an almost fatal dose.

*Bromo-Seltzer* has for its basic ingredient the drug *acetanilid*. The dangers of this drug were discussed in the November, 1938, issue of *Consumers' Digest* by Dr. G. W. Fiero who very ably pointed out that research not subsidized by a headache remedy manufacturer has found that *acetanilid* has a poisoning effect on the heart and presents other dangers as well. Furthermore, it is this drug which has been responsible for more than a few deaths. Like other drugs it may have its proper use in a doctor's pre-

scription but had best be avoided in proprietary nostrums which are self-administered without medical supervision.

The third product under consideration sold by Health Products Corporation is *Feen-A-Mint* Laxative, called "The Chewing Gum Laxative." This company agreed a few years ago to "cease representing that '*Feen-A-Mint*' is the only thing that will relieve constipation troubles satisfactorily, and that it is the most scientifically modern way to get rid of constipation and headaches." This stipulation was signed after the Federal Trade Commission had taken action against the company for misleading claims. *Feen-A-Mint*, according to the North Dakota Regulatory Department, contained phenolphthalein. (This drug was also discussed by Dr. G. W. Fiero in an article on "Phenolphthalein Laxatives," in the September, 1938, issue of *Consumers' Digest*.)

Perhaps because of its difficult name, phenolphthalein is not commonly known to the average consumer. It is not, however, as harmless a drug as laxative manufacturers would have you believe. Reputable authorities agree that its use is a source of danger to people who are sensitive or allergic to it. Because of the way it is administered, there is definite possibility of taking an overdose of it. There is also a possibility of an unexpected reaction after long use of a phenolphthalein laxative. A trade journal has reported recently that a middle-aged woman took a popularly advertised brand of medicated chewing gum for constipation for ten years. Prolonged use brought about an itchy, pigmented eruption which lasted for six years and ended in death, attributed to the phenolphthalein present in the gum. It would be hard to argue with the relatives of a person believed to have died from such a cause, that widespread use of the product brought about by its wide advertising offers any proof whatever that the product is satisfactory.

These are fair examples of the dangers that the consumer who is not informed on medical drugs and medical matters may encounter in uncritically following the advice given in advertisements. Yet, all three of these products meet the standards set down in this Hearst advertisement. They are nationally advertised; they are widely sold; and advertising is accepted by reputable magazines and, in the cases of the first two, by radio stations. Is the lady a guinea pig? You decide.

Now let us look at the other side of the balance sheet. In the list of products is *Gem Micromatic*. In a test made by Consumers' Research of some forty razor blades, *Gem Micromatic* Double Edge blade was found to be very good as to initial sharpness and durability but somewhat higher in price than the three best Gillette-type razor blades tested. The single edge blade of the same make, however, was found to be unsatisfactory. *Mennen* Lather Shaving Cream was found by Consumers' Research to be fairly good in quality although high in coconut oil, which is one of the less desirable ingredients in shaving cream. *Mum* Deodorant was reported by the book, *Skin Deep*, to consist essentially of zinc oxide and benzoic acid. It was effective as a deodorant but high in price.

Nationally advertised products in other words, are sometimes good, sometimes bad. The fact that they are nationally advertised, well known, sold widely, is one which stands by itself in determining the expense of marketing the product but has no relation—favorable or unfavorable—to the possible value of the product to the consumer. Sometimes we wonder why advertising men do not frankly say to consumers, "Certainly we make money out of advertising and you pay for it. What's more, so long as you continue to pay and we continue to make money, we will keep on doing it." The consumer, thus put on notice, would not be so resentful when he discovers that he has

been misled and deceived. He justly resents the hypocrisy by which advertising men justify their asking the consumer to pay more for the advertised product that may be of an inferior or a harmful quality while at the same time pretending that they are somehow doing the consumer a generous wholehearted service at someone else's expense.

If advertising men would quit trying to give advertising a halo, those of us who criticize it vigorously would not have such a conspicuous target for our criticisms. There isn't any special virtue about a nationally trade-marked article except that maybe you can get the same thing in San Francisco as in Chicago, New Orleans, and New York. If the product happens to be a good one, and, of course, some advertised products are, then the consumer is better off than if he just took a chance and bought the product of a manufacturer he had never heard of—and the quality of whose product he had no means of determining for himself. If, however, the nationally distributed product is in fact a poor one, as will happen in 50 per cent of the cases, perhaps more, then the consumer might have done better to buy a local brand.

Advertising should be a technique and not a cult. It is a business, not a profession, and should be so treated by consumers. The consumer is justified in following the advice of advertising only when it is good and should ignore bad, misleading, or definitely harmful advertising or put a stop to it by complaints made to the Federal Trade Commission, the Food and Drug Administration, or those departments of his state and city governments which have control locally of false advertising.

Advertising men are all right, but they should be kept in their place, and their place is not in pretending to consumers that advertising is in business for its health or that consumers should place their trust in the advertising man as a sort of George Washington.

# Says a California Subscriber

The Editor, CONSUMERS' DIGEST

Dear Sir:

I have now read carefully the August and September issues as a result of my recent trial subscription, and frankly I am disappointed. Your article about electric refrigerators was almost worthless to us out here for, believe it or not, a national mail-order house sells more refrigerators than all other electrics combined in Los Angeles County, and we have more mechanical refrigerators per capita than any county in America.

Likewise your razor blade article as to Gillette-type blades—not one familiar name in the recommended. In qualified recommendations you did better, Marlin is quite a seller out here; Barbasol very limited. . . . Wexteel is unknown. On the other hand, Westminster does a tremendous mail-order business from New York out here on one cent blades and frankly they are far better than Marlin.

I realize that it is very difficult to edit any magazine for a country as large as ours, especially the type of material you use. Scribner's, Harpers, and others in the "quality group" have killed themselves out here because of their insular New York viewpoint. On the other hand, the Saturday Evening Post has more circulation in California than any *daily* newspaper in the State, and Time has probably close to 10 per cent of its circulation in California.

I still think you are overlooking a bet in not enlightening the public about woolens—the importance of checking weights and wool content in buying blankets; the difference between genuine tweeds, cheviots, worsteds, Shetlands, and cashmeres, etc. You would be surprised how many retailers selling woolens know little or nothing about them. . . . Please think of California in editing future articles containing trade names.

Yours very truly,

[SIGNED] PAUL BRINDEL

SUBSCRIBER Brindel is a consumer keenly interested in getting his money's worth, particularly in buying a house. His article, "Eighty-Seven Questions to Ask Your House," which appeared in the *Saturday Evening Post*, February 20, 1937, contained some excellent advice for consumers who are considering buying a moderately-priced house.

*Consumers' Digest* thoroughly agrees with Writer Brindel that a national consumers' magazine must give as much attention to brands sold in California and Chicago as to those sold in eastern states. Perhaps we ourselves have been misled by advertising claiming nation-wide distribution for certain products. Most decidedly we don't aim to cater to easterners' needs, particularly or exclusively. On this point, the editor is reminded of an annual conference of a social service organization some years ago at which a speaker from a point slightly west of New York cautioned the members present against giving undue weight to the ideas and views of the members from New York. "You've got to realize," he said, "that there are a lot of able and intelligent people living considerably to the west of Hoboken [N. J]."

This criticism seemed to your editor not only good common sense but an absolutely necessary consideration for an organization aiming to be national in scope. It was therefore astonishing to hear a youthful leader rise during the discussion period to defend the New York point of view. It was, he said, his firm conviction that all bright people were either in New York to start with or came to New York eventually from other parts of the country, so it was only natural to give chief consideration to the ideas of New York people.

We disagree. Let's hear some more from California and other points west.

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## Do's and Don'ts in Jewelry Buying

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**D**IAMOND and jewelry buyers should try to find a reliable man who really knows the business—one who makes a study of the goods and the trade rather than advertising and ballyhoo.

Ballyhoo never made a fine watch or a good diamond.

There are good dealers who depend on their knowledge and fair dealing to advance their business. They are not always in the finest looking, most advertised places; they are as apt to be in rather modest shops. Find one and you have a gem. His stock may not be large, but it will be of good quality and fair in price.

A small jeweler, however, will handle so few diamonds in a year, say fifty or so, that he will probably not have sufficient experience to tell a good one from a bad one. If a jeweler was first a gem cutter or setter, he can distinguish a good stone. On the other hand, a jeweler who has been a watch repairman will not necessarily be expert at evaluating diamonds. The best dealer is one with a large turnover, a diamond broker or a pawnbroker who must know his values. In the case of a pawnbroker, buy what's *in the window*, if you don't know stones.

Don't buy a "cut rate" diamond; there is no such thing.

Don't buy because it is a dollar down and a dollar a week; prices are apt to be higher and quality poorer. Buy diamonds, not credit.

Don't buy diamonds because the dealer says they are an investment. When you buy at retail prices and probably have to sell at wholesale prices you are bound to lose. The only return to be expected on such investments is the pleasure of owning and wearing a diamond or giving it as a gift.

Don't buy from "money back" places. When you get your



money back it will usually be as a credit on the purchase of a larger diamond, with the credit often being added to the price of the larger one as well.

Before buying or selling have an appraisal made by a good diamond man if possible—or take it to a pawnbroker.

When you take a diamond or other valuable to a jeweler or a pawnbroker for appraisal do not ask "What is it worth?" but "What will you give me for it?" If he will give you fifty per cent of the price, it is probably a fair buy.

The policy of many stores is to make liberal valuations on stones brought in for appraisal. The idea is to please the owner and advance the idea that diamonds are good property. Stores seldom back their appraisals with cash.

Don't have a diamond judged in its setting. "Japanese" settings with the gold completely surrounding the stone may conceal rough edges and flaws. Ink may be put under the edges to make a yellow diamond look blue white; or two stones (one a diamond, the other a cheaper stone) may be glued together with the white of an egg to look like a large diamond. These flaws can usually be detected only by removing the stone from its mounting.

It is not feasible to lay down rules so the tyro can judge a diamond safely. Most of it must be left to the dealer.

Platinum diamond mountings are the most durable, yellow gold next, then white. Yellow gold mountings with platinum claws or plates for holding the stones are better than all gold. White gold is brittle.

Silver wears too fast to make good rings.

The terms "carat" and "karat" so much used by the trade are generally confusing. Carat is a precious stone weight (about 3 grains) and is used only for weighing diamonds and precious stones. Pearls are usually weighed by grains. Karat is used only in stating quality of gold, not quantity. Twenty-four karat means pure or fine gold.

Twelve karat means one half gold and one half alloy. Eighteen karat means 18 parts gold and six parts alloy (or "base metal").

The term "points," so much used by some dealers in describing diamonds, means 1/100 of a carat in weight. A 50-point stone is half a carat. 100 points is a full carat. Beware of terms like 95 per cent or 98 per cent perfect in describing diamonds. There is no recognized system for grading by percentages.

And terms like "eye perfect," "commercially perfect," "first water," "crystal white," etc., mean little and are confusing to the inexperienced.

Stainless steel of the best kinds, now used for low-priced watch cases, bracelets, etc., is quite satisfactory. It is strong, corrosion free, durable, always bright and clean looking, and matches white gold closely. The poorer kinds soon acquire a dull iron-like color, and while they do not corrode they look unattractive.

Chromium plate, and nickel alloys, and white gold should not be worn next the skin. They corrode and often cause verdigris burns and sores in warm weather.

Silver worn next the skin will tarnish and blacken, but it does not corrode and is not believed to harm the skin.



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# Hocus Focus

By  
PERCIVAL WILDE

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### III

**W**HY are cameras so expensive? The buyers, frequently parting with a sum running into the hundreds of dollars, reflect, that (a) "they represent the loving craftsmanship of master-workmen" (b) if imported, they have paid a duty of at least 100 per cent (c) there is the United States excise tax of 10 per cent on cameras and lenses.

He is wrong on all three counts.

Cameras are costly because the public has been trained to associate high prices with superlative merit, and because, while traveling the long route between the factory and the actual user, they are called upon to pay liberal profits into a whole series of bank accounts. Yearly models have come into being, each boasting some refinement which may add little or nothing to the cost but which adds in a major way to the selling price. The demand whipped up by well-placed and ingeniously contrived publicity is enormous, the public is willing to pay, and factories, entrepreneurs, distributors, and dealers can be persuaded into taking a series of profits which are reflected in the final price of the product.

If there is any other reason for present prices, forty

EDITOR'S NOTE: This is the second of a series of articles on photography by Mr. Wilde. The first installment appeared last month.

years of playing at my hobby, a first-hand knowledge of the manufacturers of half a dozen different countries, and frequent discussions with dealers have failed to disclose it to me.

I have before me at the moment literature describing two cameras which I consider of precisely equal grade. Both are dependable, though neither bears one of the few brand names that are world famous. Each makes the same size picture, is equipped with a good range finder, and has its quota of recent refinements, including automatic film-lock and counter, button-on-the-body release, and the rest. Both instruments are fitted with identical lenses of identical focal length, operating in identical Compur Rapid shutters.

I have examined both, and see no reason to prefer one to the other: except for unimportant details they are as like as two peas. Yet the first sells, both in England and in America, for one third more than the other, and since neither is cheap, the difference is large. One inference must be that since the merits of the instruments are equal, the higher price of one attracts buyers of the shortsighted class which believes that more money expended for a purchase inevitably correlates with better quality. Another inference is that the average buyer is a poor judge of values. It may be added that the advertising appropriation for the more costly twin of the two cameras discussed appears to be the more generous: if so, it is being recovered nicely.

Returning to the points stated in the first paragraph, it may be admitted at once that there is craftsmanship in the *design* of any camera; but the quotation, with its reference to "loving" and to "master-workmen," reprinted, by the way, from the advertisement of an instrument selling at \$3.98 but alleged to have "every feature of more expensive miniature cameras" is unadulterated poppycock. How much "loving" goes into a \$3.98 creation, fitted with a meniscus lens inferior to many supplied in magnifying

glasses? If the workman tends so few as one hundred spindles, each operating on a dozen or more lens-blanks, how much "loving" will each get? And how many "master-workmen" are necessary—or desirable—in a kind of manufacture in which the precision and speed of the machine far exceed the cunning of any hand?

The public does not realize how automatic machinery, jigs, multiple drills, straight-line assemblies, quantity outputs, and the thousand wrinkles of the modern shop have simplified production and reduced its costs. Gone are the days when a workman, loving or otherwise, sawed and planed carefully inspected and seasoned high-quality boards; tongued, grooved, fitted, and glued them together; covered them with real or imitation leather; fitted into place, one by one, springs, rachets, pawls, gears, catches; spent hours filing, tinkering with, and adjusting them; finally installed a lens, slipped a plate-holder into position, and took the apparatus out-of-doors to see if it would make a negative that would "turn out."

It is good that those days are gone, for the master workman, at his best, could not make parts possessing the uniformity and the interchangeability of those spewed out by machines; but it is not good that prices demanded in this year of grace are alleged to be based on methods and costs which went into the discard decades ago. The workman may keep an eye on the spindles while lens-blanks are being polished, a thousand at a time, within better than micrometer tolerances: the newest machines even apply the polishing liquid automatically; but were he to attempt to finish a blank himself, the result would be a mess. The Eastman Kodak Company truthfully states "Nothing that could be well done by machinery was left to be done by hand. The quality of the Kodak Anastigmat has again proved that a scientific tool is more accurate than a skilled hand and a practiced eye."

Specialization has become the rule, either in the creation of departments in large establishments, or the use of entire factories for the production of a limited number of kindred parts. Several makers, for example, specialize in bellows, selling them to camera manufacturers. Many specialize in lenses, turning them out at wholesale prices lower than can be met by their less experienced competitors. There are only a few brand names of shutters and diaphragms, and still fewer makers.

The sponsor of a new camera, therefore, may buy or build a body, may assemble to it bellows, lens, shutter, and minor fitments—or, if he has the proper connections, may have the work done in some establishment which can do it more cheaply. That finished, it remains only to give the instrument a name, appropriate funds with which to advertise and sell it (the co-operation of established distributors and dealers being quite essential), price it at the highest figure which the public will pay, and choose the securities in which he will invest his profits. A large part of processing the raw materials, woods, metals, plastics, glass, may take place in countries where labor is cheap: Germany, Austria, Czecho-Slovakia, and Japan; and many brands sponsored by American manufacturers are in fact either manufactured abroad or are assembled in America from parts of foreign origin. The making of cameras has been standardized, exactly as has that of the automobile; but the large discounts to every middleman in the procession remain, dating from the days when a twenty-dollar bill bought a pretty good "outfit." The instrument which emerges from the factory at a cost of \$20 may, according to one outspoken dealer, carry a \$100 price tag when it is finally offered for sale to the ultimate consumer.

In the meantime the myth of the master-workman continues to be nurtured—by the employer who does not employ him.

## IV

Reference was made to the popular belief that the duty on imported cameras is staggering.

It is not.

The following letter is official and recent:

TREASURY DEPARTMENT  
UNITED STATES CUSTOMS SERVICE  
NEW YORK, N. Y.

August 17, 1938

...  
Cameras and parts thereof are dutiable under paragraph 1551 of the Tariff Act at 20% ad valorem, provided that if the photographic lens is the component of chief value of the camera or of the part in which it is imported such camera or part, including the photographic lens, shall be dutiable at the rate applicable to the photographic lens when imported separately. Paragraph 228 (b) provides for duty at the rate of 45% ad valorem on lenses for cameras.

Photographic dry plates, not specifically provided for, 20% ad valorem; photographic films, sensitized but not exposed or developed, of every kind except motion-picture films having a width of one inch or more, 25% ad valorem.

...  
Unsensitized basic paper to be sensitized for use in photography is dutiable at 5% under paragraph 1405. Sensitized paper to be used in photography is dutiable at 30% under paragraph 1405 of the tariff.

Respectfully,  
G. W. O'KEEFE,  
Assistant Collector.

Such a duty, as customs tariffs go, is reasonable, and there are many who hold it to be a necessary protection of American manufacturers and workmen, though on that point there is much room for argument. One argument advanced in favor of high duties on optical instruments is that they are a necessary encouragement to put manufacturers into a position to supply the great variety of optical instruments required by the army, navy, and air forces when a war emergency arrives.

The American dealer is not taking advantage of his

customers if he passes on to them such a duty. Here, for example, are the British and American prices of a few well-known British-made lenses:

	British list, £ 1 = \$5 <sup>1</sup>	Medo Photo Supply Corp., New York City
Ross Xpres Lens, f:2.9 .....	5 $\frac{5}{8}$ " \$ 77.50	\$118.00
" " " .....	6 $\frac{1}{2}$ " 87.50	133.00
" " " .....	8 $\frac{1}{2}$ " 125.00	190.00
" " " .....	10 " 175.00	267.00
Ross Xpres Lens, f:3.5.....	1 $\frac{1}{2}$ " 32.50	50.00
" " " .....	2 " 32.50	50.00
" " " .....	4 " 45.00	68.00
" " " .....	6 " 63.75	97.00
" " " .....	10 " 150.00	229.00
Ross Wide-Angle, f:4 .....	4 " 60.00	102.00
" " " .....	10 " 165.00	281.00
Dallmeyer Adon Telephoto ...	35.00	56.00
Dallmeyer Dalmac, f:3.5 .....	2 " 30.00	45.00
Dallmeyer Tele. Anas., f:5.6 ..	4 " 25.00	38.00

It will be evident that the New York dealer is merely recovering his investment cost, plus duty, plus a profit calculated on both items, both calling for a cash investment. This is considered an equitable arrangement and the dealer's percentage of gain is probably identical with that of a London dealer.

The prices of accessories sometimes bear a less clear relation to foreign prices. Here, for another example, is a comparison of the list prices of a first-class British maker of bromoil supplies and those of his American distributor:

	British Price	American Price
Bromoil inks, in tubes per tube .....	\$ .30	\$ .60
Bromoil medium per tube .....	.56	1.10
Etching instrument, 20 lancets and holder	.50	—
same instrument, 1 lancet and holder ....	—	.20
Bromoil transfer desk .....	6.88	13.25
Cleaning fluid (believed to be carbon tetra- chloride) small bottle .....	.62	1.00

<sup>1</sup> Sterling has been taken at \$5 because it was in that neighborhood at the time the dealer was presumably purchasing the lenses priced in his current (summer, 1938) catalogue. The recent decline in sterling may influence his subsequent prices, but cannot affect costs which have already been paid.



<i>Bromoil brushes</i> .....	No. B	.16	.50
" .....	No. C	.18	.55
" .....	No. D	.20	.65
" .....	No. 1	.38	.85
" .....	No. 2	.40	.90
" .....	No. 5	.63	1.50
" .....	No. 10	1.50	3.75
" .....	No. 12	1.88	4.75
" .....	No. 14	2.38	6.00

A comparison of the two tables is suggestive. An assortment of lenses ties up much capital, while a stock of bromoil supplies may be laid in for a very small percentage of that amount. One might expect the larger ratio of profit to be taken on the wares in which the initial investment is heavy. The opposite is true. A possible explanation is the fact that goods whose unit price is small may be marked up indefinitely, particularly when there is little competition in the field. The high-priced article cannot be marked up similarly without disastrous effect on its sales and without stimulating the competitive activity in other makes.

As has been previously indicated, when a camera is made abroad for an American distributor, its price may be controlled only by his conscience and the law of supply and demand. But the standard foreign instrument is not cheap in the country of its origin, if its price is measured by the local purchasing power of money, and the extent of its sales in the home country is determined by that factor.

An American crowd at a parade will be thickly dotted with expensive cameras. The number in similar European crowds is always far smaller. I estimate that one of every five of my American friends has invested over \$100 in photographic apparatus. Among my English friends there may be one high-priced camera for every twenty to forty individuals. In Germany cheap cameras, selling under 100 marks, are fairly abundant, while the costly miniatures and reflexes, so common among us, are rare.

The American dealer handles anything and everything, sure that his compatriots will buy even if they have to resort to the installment plans now offered by so many concerns, some of which permit him to pay, at the interest rate of nearly 20 per cent per annum, for the credit he desires. The British dealer sells his home output, beautifully made (in the better grades) if often unnecessarily heavy and bulky, and specializes in the "tropical camera," a work of art manufactured nowhere else, created out of mahogany and teakwood, and sold at staggering prices to those of his countrymen who prefer the climates of India, Egypt, and Honduras to that of England. He supplements his stock of domestic goods with German imports, heavily taxed, and American cameras manufactured on British soil by Kodak, Ltd. The German dealer imports nothing whatever, concentrates on the cheaper lines, and resigns himself to the fact that the most celebrated makes are so very high that only rich men and foreigners can buy them.

Reference should be made to the manner in which the atrocious German fiscal policy mulcts the American buyer. Dorothy Thompson refers to "her [Germany's] barter policy, which makes her a parasite upon the whole world economy and its chief underminer."

The "free" mark, which alone may be used to pay for exports, has been pegged between 39.99 and 40.565 cents. The "travel" mark, obtainable by visitors at the rate of not more than 50 a day on the understanding that it is to be used for personal expenses exclusively, has fluctuated between 19.25 and 26.05. It is the latter, or "travel" mark, and not the "free" mark, that is held by many economists to represent the real value of the German export; yet its use for the purchase of goods which are not to be consumed on the spot is expressly prohibited. A theatre ticket, for instance, may be paid for with "travel" marks; but the thousand and one exportable articles whose values may be

measured by the number of theatre tickets they are worth must be paid for at a rate of exchange twice as unfavorable to the foreign visitor.

The law is widely disregarded. Every steamer sailing from a German port carries Americans who have hoarded their rationed "travel" marks and have bought cameras with them. I have met many such thrifty souls on shipboard, boasting their acquisitions and shooting "candid" photographs at the rate of three dozen in five minutes. I have admired their bravery, if it may be called that, in daring fines and German prison sentences, but never enough to imitate them. Their activities, however, do nothing to relieve the situation—except for themselves—and they may, if they wish, cherish the memory that at considerable personal risk they have obtained bargains which they may import duty free if the total of their acquisitions is under \$100.

The working of the system in Europe may be illustrated by two perfectly legal transactions in which the writer took part.

Traveling through Germany a few months before the creation of the "travel" mark, I paid 11 marks—then \$2.25—for an optical-wedge exposure meter. I imported it, paying the small duty. Two years later, after the pegging of the "free" mark at an artificially high price had greatly affected prices, I decided to acquire one of the then new light-sensitive meters. The first dealer at whose shop I inquired offered to allow me \$10 for the used meter in a trade for a new Weston, an offer which was promptly accepted.

But that transaction emboldened me to order photographic goods from Austria, directing an agent to make payment out of a Viennese credit balance which might legally be used to pay for commodities but could not itself be exported. The goods arrived promptly—but instead of

being charged at the Austrian catalogued price, they were billed, in imitation of the German system, at a special export price, and cost me, landed in New York, somewhat more than the amount for which I could have bought them at a local dealer's.

Original German prices continue high, encouraged by a heavy North and South American demand. A catalogue sent me from Berlin offers a simple attachable view-finder for 12 marks—\$4.80 *in Germany*, transportation and duty to be added, for the honest visitor who pays with "free" marks, as against \$3 or \$4 for an equally good finder made in Rochester. A sunshade, consisting of a plain metal cylinder, crimped and threaded at one end, and sprayed inside with dead black lacquer, lists at 12 marks or about \$4.80. A famous professional photographer writes me that it may cost all of twenty-five cents to make. A small soft-leather case, zipper equipped, fetches 13.50 marks or about \$5.40. Hard-leather cases, not "ever-ready," similar to those priced at \$2 and \$3 in America, list at 18 marks or about \$7.20. A light metal tripod with a revolving head is offered for a little under 50 marks, about \$20.

Such home prices explain the lofty disregard for the value of the dollar displayed in the catalogues of some American dealers handling German goods: a lens cap of molded-plastic material, manufacturing cost comparable with that of plastic cups and saucers in the five-and-ten stores, 65 cents; a neck-strap with two snaps, 95 cents; a spirit-level, \$2.10; a template for use in cutting up sensitive materials, which is to say a bit of punched metal whose outlines are to be followed with a cutting knife, \$1.50; a plumb bob weight for use in copying pictures, \$3.60.

Such prices indicate how firmly the German manufacturer keeps his eyes fixed on the trans-Atlantic market.

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# Check List For Buying Hose

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## OBSERVE

### *Informative labels*

*Weight.* Service, semi-service, chiffon

*Freedom from rings*

*Stretch at top and from instep to heel*

*Length.* The standard length is 30 inches with a variation of plus or minus one inch. Still longer and still shorter hose are manufactured.

*Gauge.* The number of wales per 1½ inches determines the gauge and influences the beauty and elasticity of hose. The higher gauges are used for the most beautiful hose.

*Thickness and size of reinforcements at heel, toe, and foot.* Are they sufficient for your needs?

*Joining at corners of heel reinforcement.* If the gauge has been skimped, or if the hose has been narrowed too much toward the ankle, the hose will be too small or have too little elasticity from heel to instep to withstand the strain of wear and of being pulled on and off the foot. If the thread in the corner stitch is split when the hose is put on the footer machine, the thread will break where strain is exerted on the ankle.

*Garter run stops*

*Shadow welt.* A shadow welt is the area just below the welt, or hem, which is slightly heavier than the rest of the hose but not so heavy as the welt.

*Yarn tightly or loosely twisted*

*Closeness of stitches in back seam*

*Color.* Select fashionable colors that harmonize with your wardrobe.

Reprinted from *How to Buy Values in Textiles and Clothing*, prepared by Mary C. Whitlock, issued by the Extension Service, University of Illinois.

*Shaping:* (1) *Full-fashioned hose* fit and hold their shape; have even texture and color because not stretched unduly at larger areas. They are knitted in a flat piece and then seamed. One can see where stitches have been dropped to narrow the areas under the toes, heel, sides of heel, calf of leg, and under knee.

(2) *Circular-knit hose* are cheaper. They are knitted in tubular form and blocked to fit the leg. There is no seam in the bottom of the foot and no true seam down the back though mock fashioning marks are sometimes added. These hose have uneven color and texture due to stretching at calf of leg; they do not hold their shape and are apt to shrink. Some women prefer them because they cost less and do not have bottom foot seam.

#### ASK CONCERNING

*Fiber*—whether silk, rayon, wool, or cotton.

*Colorfastness* to laundering and sun.

*Quality*—whether firsts or seconds.

*Guarantees* against unreasonably short service or faulty construction.

Much pessimistic talk is heard from people who wonder how this industry is going to exist under the Wheeler-Lea Act and the Federal Food, Drug, and Cosmetic Act. These people will tell you that the power which the government departments have under these two laws is so great that they can put this industry out of business.

No such thing is going to happen. . . .

The only difference will be that the methods of doing business in this industry will be changed somewhat. . . .

It must be realized that the trend in the industry was toward the methods of doing business which will more or less be required under these new laws. *The people of this country are so well educated in health matters today that the old methods of merchandising the products of this industry no longer have the broad appeal that they once had.* [Italics ours.]

—*The Drug and Cosmetic Industry*

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## *Some Rules for Safe Driving*

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1. Keep on your own side of the road and in your own traffic lane.
2. Never exceed a speed from which you can stop safely within the clear distance you can see ahead. At night this distance is limited to the field clearly illuminated by your headlights. Don't outdrive your lights.
3. Don't pass another vehicle anywhere unless you are sure the road is clear far enough ahead to make passing safe.
4. At night when you meet a car that is standing still with its headlights on, slow down and keep well away from the standing car. You can see practically nothing beyond these headlights, and almost anything may be there. If your own car is standing still, dim your lights.
5. Be on your guard for unexpected actions of pedestrians, children, bicycle riders, inexperienced drivers, and stray animals. Don't expect them to get out of your way. The full responsibility is yours not to hit them.
6. Avoid doing the unexpected. Do not pull out from the curb, cross from one traffic lane to another, turn, or stop without making sure that the way is clear.
7. At railroad crossings look both ways before crossing, and if there are two or more tracks look out for moving trains temporarily hidden by standing cars or other trains. The fact that one train has just passed is no guarantee that there will not be another.
8. Don't hold up normal traffic by slow driving on a busy highway. If many cars are passing you, without exceeding the legal speed, you are driving too slowly; speed up.

Reprinted from Letter Circular (LC 517) of the National Bureau of Standards

9. Train yourself not to try to get back on the pavement at once if for any reason your right front wheel runs off the shoulder of the roadway. Slow down until you can get back safely. The natural impulse to get back on the pavement suddenly has been responsible for many serious accidents. Even a slight shoulder may cause your car to dart to the left, into the stream of on-coming traffic.
10. Look ahead and avoid trouble by anticipating it. The safe driver keeps out of trouble instead of showing how skillful he is in getting out of it.





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## Picking Your Pictures

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THE first ratings of motion pictures appeared in the November, 1937, issue of *Consumers' Digest*. The entire list has been revised monthly by recording the opinions of additional reviewers.

The ratings of pictures given herewith are based upon an analysis of the reviews published in the following periodicals:

*Boston Transcript, Box Office, Christian Century, Christian Science Monitor, Commonweal, Cue, Film Weekly, Harrison's Reports, Hollywood Spectator, Judge, Liberty, Minneapolis Journal, The Nation, The New Republic, New York Herald Tribune, New York Sun, New York Times, New York World-Telegram, New Yorker, News Week, Philadelphia Exhibitor, Stage, Time, Variety, Variety (Hollywood), Weekly Guide to Selected Pictures*, and the bulletins of the American Legion Auxiliary, Daughters of the American Revolution, General Federation of Women's Clubs, National Council of Jewish Women, National League of Decency, National Society of New England Women, Women's University Club of Los Angeles.

Films are rated "AA," "A," "B," and "C," which designate them as *highly recommended, recommended, intermediate, and not recommended* respectively. The figures preceding each picture indicate the range of critical opinion regarding that picture as determined by an analysis of the reviews published in the aforementioned periodicals. Thus, "The Good Earth" is *highly recommended* by twenty-five of these judges, *recommended* by four, and rated *intermediate* by one.

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

*adv*—adventure  
*biog*—biography  
*com*—comedy  
*cr*—crime and capture of criminals  
*f*—foreign language  
*hist*—founded on historical incident  
*mel*—melodrama

*mus-com*—musical comedy  
*mys*—mystery  
*nov*—dramatization of a novel  
*rom*—romance  
*soc*—social-problem drama  
*trav*—travelogue  
*wes*—western

AA	A	B	C	
4	6	5	5	Adventures of Marco Polo ....adv-com A
19	7	—	—	Adventures of Robin Hood .....adv AYC
7	12	3	1	Adventures of Tom Sawyer .....adv AY
—	10	6	1	Affairs of Annabel .....com AY
—	—	—	9	Air Devils .....mel A
8	8	3	1	Alexander's Ragtime Band ....mus-com A
10	8	1	1	Algiers .....mel A
10	8	—	—	All Quiet on Western Front .....nov AY
3	6	4	5	Always Goodbye .....soc AY
—	—	4	4	Always in Trouble .....com AYC
1	15	5	1	Amazing Dr. Clitterhouse .....cr A
2	—	1	—	Angels with Dirty Faces .....mel AY
—	3	5	—	Arkansas Traveler.....com AYC
1	11	7	—	Army Girl .....mel AY
—	11	4	—	Arsene Lupin Returns .....mys AY
—	—	6	—	Arson Gang Busters .....cr A
—	4	3	2	Avocate d'Amour .....com f AY
1	11	8	2	Baroness and the Butler .....com A
—	4	7	3	Bar 20 Justice .....wes AY
—	6	13	3	Battle of Broadway .....com A
—	5	10	4	Beloved Brat .....com AY
—	2	3	1	Billy the Kid Returns .....wes AYC
—	6	1	—	Birth of a Baby .....soc AY
—	6	6	3	Blind Alibi .....mys AY
—	1	6	8	Block Heads .....com AYC
—	1	4	5	Blonde Cheat .....com A
—	5	2	—	Blondes at Work .....mys AY
5	13	8	—	Bluebeard's Eighth Wife .....com A
—	7	5	15	Boo-oo .....adv AYC
—	7	3	1	Border G-Man .....wes AYC
—	—	1	4	Border Wolves .....wes AY
—	—	2	3	Born To Be Wild .....adv A
8	8	3	1	Boy Meets Girl .....com AY
13	7	1	1	Boys Town .....soc AY
1	5	5	5	Breaking the Ice .....com AYC
7	13	5	1	Bringing Up Baby .....com AYC
—	1	2	2	Broadway Musketeers .....mel A
3	3	—	—	Brother Rat .....com AY
11	13	3	—	Buccaneer .....adv AYC
—	6	7	4	Bulldog Drummond in Africa ....mys AY
—	3	9	4	Bulldog Drummond's Peril .....mys AY
—	—	4	—	Call of the Rockies .....wes AYC
1	2	7	2	Call of the Yukon .....adv AY
—	4	6	5	Campus Confessions .....rom AY
5	12	3	1	Carefree .....com AY
—	1	3	1	Cattle Raiders .....wes AYC
2	7	2	—	Charm of La Boheme ....mus-rom f AY
—	7	6	3	Chaser .....com A
—	1	3	—	Childhood of Maxim Gorky .....mel f AY

AA	A	B	C	
2	2	—	—	Citadel .....mel AY
—	1	3	5	City Streets .....mel AY
1	—	—	3	Clown Must Laugh .....rom A
—	10	11	3	Cocoanut Grove .....mus-com AY
—	—	2	2	Code of the Ranger .....wes AY
—	2	10	13	College Swing .....mus-com A
—	—	3	3	Come On Leathernecks .....rom AY
—	4	8	8	Condemned Women .....mel A
—	—	1	3	Convicted .....mel AY
—	3	4	—	Country Bride .....rom f AY
2	6	1	—	Courier of Lyons .....hist f AY
1	7	8	4	Cowboy from Brooklyn .....com AY
—	7	9	7	Crime of Dr. Hallet .....mel A
—	1	1	5	Crime Over London .....cr AY
—	2	8	2	Crime Ring .....cr A
2	20	7	2	Crime School .....mel A
—	2	3	—	Crime Takes a Holiday .....cr AY
—	11	4	1	Crowd Roars .....com AY
—	2	5	5	Danger on the Air .....mel AY
1	3	5	3	Dark Eyes .....rom f A
4	7	—	—	Dark Rapture .....trav AY
—	3	6	2	Dark Sands .....adv AY
—	—	2	3	Dawn Over Island .....adv AY
—	—	2	2	Delinquent Parents .....soc A
—	1	2	6	Desperate Adventure .....com AY
—	1	7	5	Devil's Party .....mel A
3	13	7	1	Doctor Rhythm .....mus-com AY
—	7	1	—	Down on the Farm .....com AY
7	6	1	1	Drums .....adv AY
4	5	3	—	Edge of the World .....adv AY
—	—	1	4	Emil .....adv A
—	—	2	3	Extortion .....mys A
5	11	4	—	Farewell to Arms .....nov A
2	12	3	2	Fast Company .....mys AY
1	5	5	—	Fight for Peace .....trav AY
1	14	7	2	First Hundred Years .....com A
—	4	6	2	Five of a Kind .....com AY
—	4	4	3	Flight into Nowhere .....adv A
—	1	9	15	Fools for Scandal .....com A
7	7	3	1	Four Daughters .....mel AY
1	11	9	1	Four Men and a Prayer .....mel A
2	10	7	4	Four's a Crowd .....com AY
—	—	4	4	Freshman Year .....com AY
—	2	2	—	Frontier Scout .....wes AY
—	—	2	8	Fugitives for a Night.....mys AY
—	2	7	—	Gangs of New York .....cr A
—	5	4	—	Garden of the Moon .....mus-com AY

AA	A	B	C	
—	1	8	8	Gateway .....rom <i>AYC</i>
—	5	4	1	Girls on Probation .....cr <i>A</i>
—	5	2	—	Girls School .....mel <i>AY</i>
—	5	8	5	Give Me a Sailor .....com <i>AYC</i>
1	5	2	1	Gladiator .....com <i>AYC</i>
—	2	7	7	Go Chase Yourself .....com <i>A</i>
—	7	6	8	Gold Diggers in Paris .....mus-com <i>A</i>
3	14	7	4	Gold Is Where You Find It .....hist <i>AY</i>
—	5	3	1	Gold Mine in the Sky .....wes <i>AYC</i>
10	9	8	1	Goldwyn Follies .....mus-com <i>AY</i>
25	4	1	—	Good Earth .....nov <i>A</i>
—	3	4	8	Goodbye Broadway .....com <i>AY</i>
1	4	—	—	Grand Illusion .....adv f <i>AY</i>
—	5	1	1	Great John Erickson .....hist f <i>AY</i>
—	6	3	2	Gun Law .....wes <i>AY</i>
3	10	3	4	Having Wonderful Time .....com <i>AY</i>
—	—	—	5	Held for Ransom .....cr <i>AY</i>
—	—	—	4	He Loved an Actress .....mus-com <i>A</i>
—	1	11	8	Her Jungle Love .....adv <i>A</i>
—	2	4	—	Heroes of the Hills .....wes <i>AYC</i>
—	—	6	—	Higgins Family .....com <i>AYC</i>
—	1	3	1	High Command .....nov <i>AY</i>
—	—	5	2	Highway Patrol .....mel <i>AY</i>
3	12	3	1	Hold that Co-ed .....com <i>AY</i>
—	12	5	4	Hold that Kiss .....com <i>AY</i>
14	9	1	—	Holiday .....rom <i>AY</i>
—	1	4	—	House of Mystery .....mys <i>AY</i>
—	7	10	1	Hunted Men .....cr <i>AY</i>
2	9	3	—	I Am the Law .....mel <i>AY</i>
10	6	—	1	If I Were King .....hist <i>AY</i>
—	1	2	5	If War Comes Tomorrow .....mel <i>A</i>
—	9	7	3	I'll Give a Million .....rom <i>AYC</i>
—	—	2	3	I Married a Spy .....mel <i>A</i>
—	3	2	7	I'm from the City .....com <i>AYC</i>
15	12	—	—	In Old Chicago .....hist <i>AYC</i>
—	4	3	1	In Old Mexico .....wes <i>AYC</i>
—	2	8	1	International Crime .....mys <i>A</i>
—	4	4	4	Invisible Enemy .....mys <i>AY</i>
—	10	7	2	Island in the Sky .....mys <i>A</i>
6	10	7	3	Jezebel .....mel <i>A</i>
—	7	11	6	Josette .....rom-com <i>A</i>
1	17	9	1	Joy of Living .....rom <i>AY</i>
—	14	8	—	Judge Hardy's Children .....com <i>AY</i>
—	—	1	7	Juvenile Court .....mel <i>AY</i>
—	10	4	1	Keep Smiling .....rom <i>AYC</i>
2	9	4	3	Kentucky Moonshine .....com <i>AY</i>
3	6	8	5	Kidnapped .....adv <i>AY</i>

AA	A	B	C	
—	2	5	1	King of Alcatraz .....mel A
—	—	5	6	King of the Newsboys .....rom A
—	—	4	—	Knight of the Plains .....wes AYC
—	—	7	1	Ladies in Distress .....cr A
—	8	5	1	Lady in the Morgue .....mys AY
—	1	2	1	Lady Objects .....rom A
—	4	1	—	Lady Vanishes .....mys AY
—	3	4	3	Last Stand .....wes A
—	1	3	—	Law of the Plains .....wes AYC
—	1	9	10	Law of the Underworld .....cr A
2	10	5	1	Letter of Introduction .....rom AYC
—	1	7	4	Lie of Nina Petrovna .....rom f A
6	4	5	—	Life Dances On .....rom f A
2	14	10	—	Little Miss Broadway .....com AYC
—	1	5	4	Little Miss Roughneck .....com AY
—	1	9	4	Little Miss Thoroughbred .....com AY
1	4	6	8	Little Tough Guy .....cr AYC
18	4	1	1	Little Women .....nov AYC
—	5	4	—	Lonely White Sail .....hist f AY
—	1	3	3	Lone Wolf in Paris .....mys AY
—	1	3	1	Look Out for Love .....rom A
4	13	4	1	Lord Jeff .....cr AYC
23	5	1	1	Lost Horizon .....nov AYC
5	19	3	1	Love Finds Andy Hardy .....com AYC
—	3	14	8	Love, Honor, and Behave .....com AY
16	10	—	—	Mad About Music .....mus-rom AYC
1	5	2	2	Mad Miss Manton .....com AY
—	—	1	5	Maid's Night Out .....com AYC
—	—	3	3	Main Event .....cr A
—	1	4	5	Making the Headlines .....mys AY
—	2	5	—	Man from Music Mountain .....wes AYC
—	1	3	—	Man's Country .....wes AYC
—	5	3	—	Man to Remember .....mel AYC
13	5	3	1	Marie Antoinette .....hist AYC
—	—	5	5	Meet the Girls .....com A
—	—	—	3	Meet the Mayor .....com A
—	2	2	12	Men Are Such Fools .....rom A
1	4	3	—	Men with Wings .....adv AY
—	—	3	2	Mexicali Kid .....wes AYC
—	—	—	7	Missing Guest .....mys AY
—	—	2	5	Mr. Chump .....com A
—	3	3	2	Mr Doodle Kicks Off .....com AY
—	1	3	—	Mr. Moto's Last Warning .....mys AY
—	—	2	4	Mr. Moto Takes a Chance .....mys AY
—	1	3	—	Mr. Wong, Detective .....mys AY
—	—	3	2	Mother and Sons .....adv f AY
3	7	3	1	Moonlight Sonata .....mus-rom AY
2	11	7	2	Mother Carey's Chickens .....nov AYC

AA	A	B	C		
—	5	6	5	My Bill .....	<i>soc AY</i>
—	3	6	4	My Lucky Star .....	<i>com AY</i>
—	10	2	2	Mysterious Mr. Moto .....	<i>mys AY</i>
—	1	3	—	Mysterious Rider .....	<i>wes AYC</i>
—	—	4	3	Mystery House .....	<i>mel A</i>
—	—	4	—	Night Hawk .....	<i>cr AY</i>
—	—	4	3	Numbered Woman .....	<i>mel A</i>
—	4	12	—	Nurse from Brooklyn .....	<i>mel A</i>
8	17	4	—	Of Human Hearts .....	<i>hist A</i>
—	2	7	7	One Wild Night .....	<i>mys A</i>
—	—	3	4	Outlaw Express .....	<i>wes AYC</i>
—	2	3	—	Outlaws of Sonora .....	<i>wes AYC</i>
1	5	1	—	Overland Express .....	<i>wes AYC</i>
—	3	5	6	Over the Wall .....	<i>mel AY</i>
—	2	3	1	Painted Desert .....	<i>wes AYC</i>
—	2	6	—	Pals of the Saddle .....	<i>wes AYC</i>
—	1	1	2	Panamint's Bad Man .....	<i>wes AYC</i>
—	2	4	10	Passport Husband .....	<i>com A</i>
1	7	5	—	Pearls of the Crown .....	<i>hist f AY</i>
—	6	3	—	Penrod's Double Trouble .....	<i>com AY</i>
—	—	6	7	Personal Secretary .....	<i>mys AY</i>
—	1	1	2	Phantom Ranger .....	<i>wes AYC</i>
—	—	—	4	Pioneer Trail .....	<i>wes AYC</i>
—	8	7	4	Port of Seven Seas .....	<i>rom A</i>
—	3	1	2	Pride of the West .....	<i>wes AYC</i>
—	1	7	5	Prison Break .....	<i>mel AY</i>
—	1	6	5	Prison Farm .....	<i>cr A</i>
5	14	7	2	Professor Beware .....	<i>com AYC</i>
—	5	12	—	Racket Busters .....	<i>cr AY</i>
4	14	3	—	Rage of Paris .....	<i>rom-com AY</i>
—	2	5	7	Rascals .....	<i>com A</i>
—	8	7	2	Rawhide .....	<i>wes AYC</i>
—	3	6	5	Reckless Living .....	<i>com AY</i>
—	—	4	4	Reformatory .....	<i>soc AY</i>
—	—	2	2	Religious Racketeers .....	<i>cr AY</i>
1	8	5	3	Return of Scarlet Pimpernel .....	<i>adv AY</i>
—	3	9	6	Rich Man, Poor Girl .....	<i>rom AY</i>
—	2	1	2	Riders of the Black Hills .....	<i>wes AYC</i>
—	1	5	3	Road Demon .....	<i>mel AY</i>
—	2	3	1	Road to Reno .....	<i>com A</i>
1	2	—	—	Robinhood .....	<i>adv AY</i>
—	1	6	3	Romance of the Limberlost .....	<i>rom AY</i>
—	—	5	2	Romance on the Run .....	<i>mys-rom AY</i>
1	5	4	—	Room Service .....	<i>com AY</i>
—	1	5	2	Rose of the Rio Grande .....	<i>adv AY</i>
—	—	1	4	Rothchild .....	<i>com f AY</i>

AA	A	B	C	
—	4	7	1	Safety in Numbers .....com AYC
—	7	10	3	Sailing Along .....mus-com AY
—	11	7	1	Saint in New York .....mys A
23	7	—	—	San Francisco .....hist AY
—	1	—	4	Secrets of an Actress .....rom A
—	3	5	2	Service de Luxe .....com AYC
—	2	2	1	Shadows Over Shanghai .....mel AY
—	2	3	1	Sharpshooters .....rom AY
5	10	8	1	Shopworn Angel .....rom A
—	—	4	13	Show Goes On .....rom A
—	12	4	1	Sing You Sinners .....com AYC
—	2	9	6	Sinners in Paradise .....adv A
2	10	3	1	Sisters, The .....rom AY
—	1	2	1	Six Shootin' Sheriff .....wes AYC
—	5	—	—	Ski Battalion .....mel f A
—	7	15	4	Sky Giant .....mel AY
—	—	3	2	Slander House .....mel A
5	12	5	1	Slight Case of Murder .....com AY
—	1	1	4	Slipper Episode .....com f A
—	5	6	3	Smashing the Rackets .....mel AY
31	—	—	—	Snow White and Seven Dwarfs .adv AYC
—	—	1	4	Sons of the Legion .....mel AY
3	4	6	1	South Riding .....rom AY
2	9	2	3	Spawn of the North .....mel AY
—	2	4	2	Speed to Burn .....cr A
—	4	4	—	Stablemates .....mel AYC
—	1	7	4	Stadium Murders .....mys A
—	—	4	2	Starlight Over Texas .....wes AYC
—	1	8	3	State Police .....cr A
1	12	9	2	Stolen Heaven .....mel A
2	3	2	—	Story of a Cheat .....mel f AY
3	4	2	1	Straight, Place and Show .....com AY
—	2	3	1	Strange Boarders .....mys AY
1	2	1	1	Suez .....rom AY
1	—	5	9	Swiss Miss .....com AY
—	—	1	3	Tarzan and Green Goddess .....adv AY
—	—	2	3	Telephone Operator .....mel AY
1	2	3	2	Tender Enemy .....rom f A
—	1	4	4	Tenth Avenue Kid .....mel AY
—	4	3	—	Terror of Tiny Town .....wes AYC
20	9	1	—	Test Pilot .....adv AY
6	3	1	—	That Certain Age .....com AYC
4	16	5	1	There Goes My Heart .....com AY
6	11	4	—	There's Always a Woman .....mys A
1	8	9	5	The Texans .....adv AYC
—	7	4	—	They Were Five .....rom f A
—	1	7	6	This Marriage Business .....com A
—	16	3	3	Three Blind Mice .....rom AY

AA	A	B	C	
11	5	7	1	Three Comrades ..... <i>nov AY</i>
2	5	4	—	Three Loves Has Nancy ..... <i>com AY</i>
—	7	2	2	Three on a Week End ..... <i>rom AY</i>
10	18	2	—	Three Smart Girls ..... <i>rom-com AYC</i>
—	1	2	2	Thunder in the Desert ..... <i>wes AY</i>
—	5	5	3	Time Out for Murder ..... <i>mys AY</i>
—	4	7	—	Tip-off Girls ..... <i>cr A</i>
6	6	2	1	Too Hot to Handle ..... <i>mel AY</i>
—	—	7	7	Torchy Blane in Panama ..... <i>mys A</i>
—	2	2	—	Torchy Gets Her Man ..... <i>com AY</i>
—	1	3	5	Touchdown, Army ..... <i>mel AYC</i>
2	6	6	9	Toy Wife ..... <i>rom A</i>
16	13	—	—	Treasure Island ..... <i>adv AY</i>
—	11	3	—	Trip to Paris ..... <i>com AYC</i>
3	12	4	—	Troopship ..... <i>adv A</i>
—	5	6	6	Tropic Holiday ..... <i>mus-com AY</i>
—	2	3	2	Two Gun Justice ..... <i>wes AYC</i>
—	2	7	4	Under the Big Top ..... <i>rom AY</i>
—	12	4	1	Under Western Stars ..... <i>wes AYC</i>
—	5	1	2	Vacation from Love ..... <i>rom AY</i>
1	9	2	1	Valley of the Giants ..... <i>adv AYC</i>
8	17	1	—	Vivacious Lady ..... <i>rom AY</i>
—	4	4	—	Wajan ..... <i>trav A</i>
—	2	8	2	Walking Down Broadway ..... <i>com A</i>
—	1	2	2	Wanted by the Police ..... <i>mel A</i>
—	12	5	2	We're Going to Be Rich ..... <i>rom A</i>
—	1	4	4	When G-Men Step In ..... <i>cr AY</i>
—	2	9	3	When Were You Born? ..... <i>mys A</i>
7	8	4	3	White Banners ..... <i>nov A</i>
—	—	3	6	Who Killed Gail Preston? ..... <i>mys A</i>
—	4	3	5	Wide Open Faces ..... <i>com AY</i>
—	5	6	4	Wives Under Suspicion ..... <i>mel A</i>
—	—	—	5	Woman Against the World ..... <i>mel A</i>
—	4	7	4	Woman Against Woman ..... <i>rom A</i>
—	—	3	9	Women Are Like That ..... <i>com A</i>
—	—	3	6	Women in Prison ..... <i>mel A</i>
5	12	5	1	Yank at Oxford ..... <i>rom AYC</i>
10	13	2	—	Yellow Jack ..... <i>hist AYC</i>
—	5	4	15	You and Me ..... <i>cr A</i>
14	1	—	1	You Can't Take It With You ..... <i>com AY</i>
—	9	1	—	Young Dr. Kildare ..... <i>soc AYC</i>
—	2	3	6	Young Fugitives ..... <i>mel AYC</i>
—	3	2	1	Youth Takes a Fling ..... <i>com AY</i>



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