# CONSUMERS UNION reports



SEPTEMBER 193



SHAMPOOS

What kind-how often

MEN'S SHIRTS

Ratings of 52 models

**HEATING Equipmer** 

Furnaces & boilers for oil & co.

Children's SHOES

Price & quality comparison



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CONSUMERS UNION OF UNITED STATES

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## CONSUMERS UNION OF UNITED STATES, INC.

55 VANDAM ST.



**NEW YORK CITY** 

#### In This Issue

CU's ratings of products are based on both quality and price. A product rated "Also Acceptable" may be of higher quality than one rated "Best Buy" but the "Best Buy" will normally give greater return per dollar. In most cases a product rated "Not Acceptable" is judged not worth buying at any price, because of inferior quality or because it is potentially harmful. Products rated "Not Acceptable" for more specific reasons are so noted.

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Photographs taken for CU by John Mills

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Consumers Union is operated on a strictly non-profit basis under the Membership Corporation laws of New York State. Its income is derived from members' fees and from small contributions by members. It has no connection with any commercial interest.

Consumers Union's own technicians conduct many of the tests and investigations on which ratings are based. The greater part of the testing, however, is done by consultants—more than 200 specialists selected for their competence and freedom from commercial bias—in university, governmental and private laboratories.

Samples for test are in almost all cases bought on the open market. Whenever time and the nature of the product allow, testing is done by actual use trials as well as by laboratory analyses.

Supplementary labor reports are published regularly. Entirely independent of the technical reports, these do not affect ratings.

Consumers Union publishes two monthly editions of the Reports
—full and limited. The full edition contains reports on many
higher-priced products not carried in the limited.

Members receive also an annual Buying Guide (full or limited)]

—a compact booklet designed for quick reference in shopping.

Membership fees are \$3, of which \$2.50 is for subscription to the full edition; or \$1, of which \$.60 is for subscription to the limited. Reduced group fees are available to students, members of trade unions, consumer clubs and other organizations.

All members have the right to vote on candidates for the Board of Directors and on resolutions on policy at the annual meetings.

## The Consumer Reporter

We don't want to bore you, but we probably ought to take some notice of Mr. J. B. Matthews' testimony before the Dies Committee last month.

Mr. Matthews is the fellow who, in the words of ex-Governor Hoffman of New Jersey, is "afraid of finding a bomb or Heywood Broun under the bed every night." He's also something like that character of Stephen Leacock's who "mounted his horse and rode off in all directions." Last month Mr. Matthews mounted a red hobby horse and rode off in so many directions that everyone for miles around was left gasping (with laughter) in a vain attempt to follow him.

By the time Mr. Matthews fell exhausted from his horse, practically everyone in the country except Donald Duck had been knocked down as a Red, or a Red "stooge," or a Red "front," or a Red "innocent." And with all that territory to cover Mr. Matthews naturally didn't have much time to give to CU. He just lumped us in with Shirley Temple.

As for ourselves, we can take it; we get called names all the time. But you can bet we're going to make Comrade Shirley be more careful in the future. To start with we're going to have her take her picture off that red-colored cereal box. Tsk, tsk. An old experienced revolutionary like Shirley ought to know better.

Truth-in-advertising note: In NYC, R. H. Macy & Co., famed for its "pay cash and save" ballyhoo, hired James Montgomery Flagg to illustrate an advertisement arguing "I don't know of any better way of saving money than paying cash." Out in Toledo, Ohio, the LaSalle & Koch store—a Macy subsidiary—apparently does know of better ways. A credit store, LaSalle & Koch used the same illustration to show that wise people shop on the "Handy Credit Plan with 20 Weeks to Pay."

Columnist Harold V. Knight observes, in The Co-operative Builder that, according to newspaper editorials, American workers enjoy the highest standard of living in the world. But the advertising departments of the same papers tell the story differently. The Detroit Free Press, for example, has issued an elaborate market guide in which it tells prospective advertisers that 45% of the city's families are below the "profit line" and not worth reaching. The Free Press' boast, of course, is that its circulation is among the high income classes.

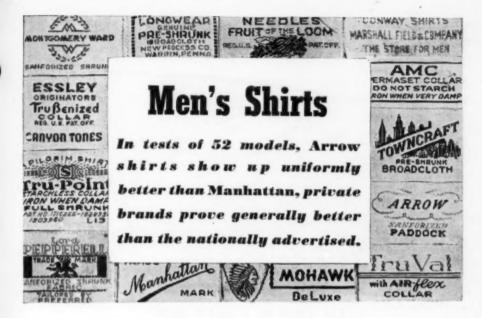
Disregarding the auto industry's claims to high wage levels, the Free Press advertising department is engagingly frank in pointing out that nearly half of this great industrial city's population can be ignored by people with goods to sell. Wonder what kind of an answer the editorial department of the Free Press can conjure up?

Poor Chicago! It used to be gangsters; now it's hospitals that make the city infamous. Florence Greenberg, Educational Chairman of the Council of Auxiliaries, Steel Workers Organizing Committee, set the National Health Conference back on its heels with the information that the nation's second city (pop. 4,500,000) contains only one general public hospital, only one public sanitarium for tuberculosis, only one public hospital for contagious diseases. The sick, if they're poor, are apt to be carried to these overcrowded institutions not in ambulances but in patrol wagons. One hospital, the Cook County, is known popularly as the "death house."

Miss Greenberg aptly points out that Chicago is the site of the National Office of the American Medical Association. Dr. Morris Fishbein should take a walk around the home town some day—with his eyes open.

According to a national survey made by Electrical Merchandising, dealers report that 12.47% of all electric shavers sold are returned by the customer because of some variety of dissatisfaction. Are we out of order in wondering whether this fact has anything to do with the current wave of price reductions (Schick, for one, has cut its price from \$15 to \$12.50)?

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The crux of a man's shirt is the collar. If it shrinks it may well turn into an instrument of torture. If it stands out an embarrassing distance from the neck it is, at the least, a thorn to vanity. A poorly made one, never devoid of wrinkles after its first laundering, becomes a trial both to the man who must wear it and the woman who must iron it. And, finally, the collar that wears out while the remainder of the shirt is good for many more months of service, is a pain to all but the most extravagant.

With these thoughts in mind, CU's technicians gave special attention to collars in their tests of 52 shirts—26 samples of nationally advertised brands and 26 samples of private brands. Whenever possible, one white and one blue shirt was obtained in each line—one with a soft collar and one with a starchless stiff collar.

Each shirt was measured, submitted to a tensile strength test, laundered twice, then again measured and tested for resistance to abrasion. Following this, the collars were removed and given eight additional washings and ironings. General examination of construction features was carried on throughout the tests.

Thirty-one of the collars were fused—that is, the lining had been treated with a compound which fuses when ironed, thus producing a semi-stiff collar without the use of starch. All 17 of the collars fused by the patented "Trubenizing" process withstood 10 launderings without injury; seven of the others, fused by other processes,

showed defects ranging from "blistering" to complete loss of fusing.

A brand of shirts should not be wholly condemned on the basis of the poor performance of one or two collars, but one poor collar in a line does indicate that the fusing process is not foolproof. Since the fusing in collars should withstand at least 25 launderings, you are certainly entitled to request a new shirt for one whose collar has failed—as indicated by blistering or marked wrinkling—after the first five launderings.

S ANFORIZING is still the consumer's best safeguard against undue shrinkage. Thirteen Sanforized collars (size 15) shrank an average of less than ½ inch—only three shrinking as much as ¾ of an inch. The worthlessness of such designations as "preshrunk," "full shrunk," &c., was shown by the fact that collars of shirts so labeled shrank, on the average, ¾ of an inch—as much as those bearing no claims whatsoever as to shrinkage.

It may be no more than coincidence, but there was also some correlation between Sanforized fabrics and correct collar size. After 10 launderings, collar dimensions on all Sanforized shirts were either exactly as marked or ½ of an inch larger. Seven of the other shirts fell below marked size, while five exceeded the correct dimensions by ¼ inch.

Several manufacturers have made some efforts to solve the problem of collars which fray prematurely by making them of heavier or more tightly woven materials than those used in the shirt itself. Mohawk guarantees its "Miracle Weave" collar to outlast the shirt. Unfortunately, however, none of the shirts with special collars had body fabrics sufficiently good to place them in the "Best Buy" group. It is impossible on the basis of the tests made to estimate accurately the life of these special collars, but consumers may find it worthwhile to try the Arrow New Trump and Mohawk.

In respect to general conclusions regarding the shirts, many of CU's previous findings (see October '36 and April '37 Reports) were confirmed. At the same price, Ward's shirts proved uniformly better than Sears'; Arrow shirts superior to Manhattan; and in general, the better buys were found among the private rather than the nationally advertised brands.

Tensile strength—which determines how much strain a fabric can withstand without tearing—varied considerably, although in none of the shirts, when new, was it found excessively low. The shirts also differed appreciably in their resistance to abrasion. Relatively high or low tensile strength and resistance to abrasion are indicated in the ratings. The higher thread counts of the finely woven fabrics make for better appearance, but not necessarily for superior wear, which depends also on the weight of the cloth and the quality of cotton used.

Insofar as possible, white and blue shirts of the same brand are covered in one rating, but where quality varies widely, they are rated separately. In several cases, but not all, white shirts were made of better fabrics than blue ones of the same brand. If you send your shirts to a commercial laundry, however, the life of the two may be much the same because of the more kindly treatment given colored shirts as a rule.

Ratings are based mainly on strength of fabric, shrinkage and dimensions, appearance of the collars after laundering, and general appearance and construction of the shirts.

#### Best Buys

Ward's Cat. No.—2954 (Montgomery Ward). \$1.29 or 2 for \$2.50 plus postage. Sanforized fabrics and Trubenized collars. White only. High thread count, heavy broad-

cloth. Cat. No.—2954, Fall '38, seems to be identical; price has been raised to \$1.39 or 2 for \$2.70.

Towncraft (J. C. Penney stores). \$1.49. Nu Craft Trubenized collars, or soft collars available. High count broadcloth. White shirt was lighter weight than blue and had very fine weave. Blue was somewhat stronger of the two. One collar and the sleeve of one shirt shrank slightly below marked size, otherwise these shirts are good.

Welwyn (John Wanamaker stores). \$1.65. High count, lightweight broadcloth. "Stay-smooth" fused collar was satisfactory. Lining in soft collar shrank slightly more than broadcloth. Good dimensions. Strong fabric.

Ward's Pima Cat. Nos.—2632 and —2637. \$1.79 or 2 for \$3.49 plus postage. Sanforized fabrics and Trubenized collars available. Very high count, medium weight white broadcloth. Strong fabrics, good dimensions.

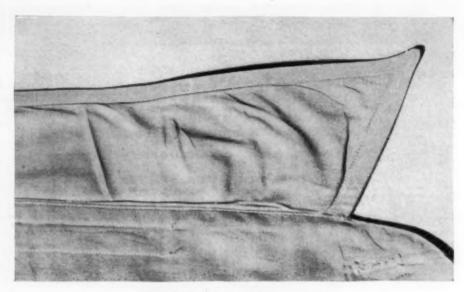
CD Cat. No.—2844 (Cooperative Distributors, NYC). \$1.95 or 3 for \$5.75 plus postage. High count, 2 x 2 ply yarn, medium weight. Very good tensile strength. Soft collar.

Arrow Paddock (Cluett, Peabody & Co., NYC). \$2.50. Soft collar Sanforized fabric. Very high count, heavy broadcloth. High resistance to abrasion. Good dimensions and appearance. Highest quality shirt tested.

#### Also Acceptable

Longwear (New Process Co., Warren, Pa.). \$1.16 postpaid. Medium count, medium weight broadcloth. One of the two fused collars tested lost its fusing in 10 washings; in addition its lining shrank more than the broadcloth. Strong fabrics and satisfactory dimensions. A "Best Buy" except for the possibility of poor collars. It is suggested that shirts be returned if fusing blisters.

Sears' Tru-Point Cat. No. —317 (Sears-Roebuck). \$1.29 or 2 for \$2.50 plus postage. Fused collars blistered in 10 washings. High count, heavy white broadcloth which has good tensile strength and resistance to abrasion. See "Not Acceptable" listing for blue shirt, Cat. No. —318, at this price.



THE CRUX OF A MAN'S SHIRT

... is the collar. The technician's report on this one read: "Fusing partly gone; lining shrunk more than broadcloth"

CD Cat. No.—2841. \$1.25 or 3 for \$3.50 plus postage. Soft collar with special heavy lining. Medium count, medium weight broadcloth. Dimensions satisfactory.

Ardsley (Mfr. Lebanon Shirt Co., NYC; distrib. Bailey Co., Cleveland, Ohio). \$1.65. Medium count broadcloth. Fused collar satisfactory. Strong fabric, satisfactory dimensions.

Super Hardwick (distrib. Allied Stores<sup>1</sup>). \$1.65. Trubenized collar. High count, medium weight fabric. Rather low resistance to abrasion. Satisfactory dimensions.

Lord Pepperell (Preferred Shirt Mfg. Co., NYC). \$1.69. Sanforized fabric. Collar of white broadcloth shirt was Trubenized. The blue shirt had weaker fabric and unless it has a Trubenized collar is "Not Acceptable." Medium count, medium weight fabric. Relatively low resistance to abrasion. See "Not Acceptable" listing below.

Kempton (R. H. Macy & Co., NYC). \$1.83. Satisfactory fused collar. Very high count, medium weight broadcloth.

Arrow Gordon. \$2. Soft collar, San-

strength but low resistance to abrasion. Good dimensions.

Tru Val (Tru Val Manufacturers, NYC). \$1.35. Satisfactory fused

forized fabric. Blue and white

oxford cloth tested. Good tensile

NYC). \$1.35. Satisfactory fused collar. High count, medium weight broadcloth. Shrank 1/8 of an in. below marked size in collar and sleeves. Very good tensile strength.

CD Cat. No. —2842. \$1.39 or 3 for \$4 plus postage. Trubenized collar. Medium count, medium weight fabric. Only fair buttons and workmanship. Sleeve was marked wrong length. Blue faded slightly in two launderings.

Stratford Purple Label (Mfd. Lebanon Shirt Co., NYC; distrib. Lit Bros., Philadelphia). \$1.48. Satisfactory fused collar. High count, medium weight broadcloth and madras. Collars and sleeves somewhat oversized. Good tensile strength, especially in the madras. No abrasion figures available.

Conway (Marshall Field, Chicago). \$1.65. Soft collars. White shirt made of high count, heavy broadcloth, which was stronger than the medium count, medium weight blue fabric. Both had satisfactory dimensions.

Mohawk (Superior Shirt Co., Philadelphia). \$1.65. Outer fabric of collar made of very high count

<sup>1</sup> Hovey's and Jordan Marsh, Boston; L. S. Donaldson Co., Minneapolis; Bon Marche, Seattle; Golden Rule, St. Paul; Rollman & Sons, Cincinnati; Titche-Goettinger, Dallas; Dey Bros., Syracuse; and stores in other cities.

special Sanforized fabric, which is guaranteed to last as long as the shirt does. Satisfactorily fused. Shirt itself made of medium count, medium weight broadcloth. Relatively low tensile strength. Good dimensions. Warp of fabric runs across back instead of up and down.

Gimbel's Special (Gimbel Bros., NYC, Philadelphia, Pittsburg and Milwaukee). \$1.69. Soft and Trubenized collars. High count, lightweight broadcloth. Rather low resistance to abrasion.

E&W (Ely & Walker, St. Louis).
\$1.69. Soft collar, oxford cloth.
Good tensile strength but low resistance to abrasion.

Sear's Nobility Cat. No.—216. \$1.89 or 2 for \$3.69 plus postage. Trubenized collar. Very high count, lightweight fabric. Somewhat low resistance to abrasion.

Arrow New Trump. \$2. Special high count fabric, soft collar. Sanforized fabric. Shirt made of medium count, medium weight fabric. Rather low resistance to abrasion.

Arrow Trump. \$2. Sanforized fabric, soft collar of same fabric as shirt. Medium count, medium weight fabric. Abrasion resistance average.

Manhattan (Manhattan Shirt Co., NYC). \$2.50. High count, lightweight broadcloth; tensile strength slightly below average. Sleeve shrank 3/8 of an in. below marked size.

Hardwick. \$1.39. Satisfactory fused collar. Medium count, medium weight broadcloth. Relatively low tensile strength and low resistance to abrasion. Good dimensions.

Eclipse 3 Star (Eclipse Needles, Philadelphia). \$1.95. Soft collar, very high count broadcloth. No abrasion figures. Sleeves slightly longer than marked size.

Needles' Fruit of the Loom (Eclipse Needles). \$1.65. One of the two fused collars lost nearly all of its fusing in 10 launderings. Collar on white shirt shrank ½ of an in. below marked size. Medium count, medium weight fabric. The white shirt had low tensile strength.

Romar (Gerson, Goodman, Tutelman Co., Philadelphia). \$1.65. Has special Clipper Cloth collar which is a 2 x 2 ply yarn, high count broadcloth and should give good wear. The shirt itself is made of medium count broadcloth with low tensile strength.

Essley (Essley Shirt Co., NYC). \$1.65. Trubenized collar. Medium count, medium weight, slub weave broadcloth. Low tensile strength and resistance to abrasion.

Criterion (Tutelman, Kohn & Co., Philadelphia). \$1.65. Special Byrd Cloth, 2 x 2 ply twill fabric collar, which had very high resistance to abrasion. Shirt made of medium count, medium weight broadcloth. Relatively low tensile strength and resistance to abrasion. Sleeves shrank ½ in. below marked size.

AMC (distrib. Associated Merchandising Corp.<sup>2</sup>). \$2. Satisfactory fused collar. Lining in soft collar shrank more than broadcloth. Very high count, medium weight broadcloth. Low tensile strength; good resistance to abrasion.

Manhattan. \$2. Medium count, lightweight blue broadcloth. Low tensile strength and resistance to abrasion. Dimensions satisfactory.

Eagle (Jacob Miller Sons Co., Philadelphia). \$1.85. Soft collars. Lining of one shrank slightly more than broadcloth. Blue shirt made of very high count, lightweight fabric. White made of medium count, medium weight fabric. Blue shirt shrank ½ of an in. below marked

<sup>9</sup> Bloomingdale's, NYC; Abraham & Straus, Brooklyn; Filene's, Boston; Strawbridge & Clothier, Philadelphia; J. L. Hudson, Detroit; Bullock's, Los Angeles; The Emporium, San Francisco.

size in collar and ½ in. in sleeve. Both had rather low tensile strength and resistance to abrasion.

Van Heusen (Phillips-Jones Corp., NYC). \$2. Special one-piece collar woven of heavy fabric to match shirt. Medium count, very lightweight blue madras. Relatively low in resistance to abrasion and in tensile strength.

#### Not Acceptable

Van Heusen. \$2. Special collar of heavy fabric to match. White shirt of medium count, lightweight broadcloth. Relatively low in resistance to abrasion. Collar shrank \(^1\)/4 in. below marked size.

Tru Val. \$1.15. Trubenized collars.

Low count, medium weight broadcloth, and lightweight printed percale. The broadcloth had low tensile strength, and the percale had
very poor resistance to abrasion.

Both badly skimped in the chest,
and shrank below marked size.

Sears' Tru Point Cat. No.—318. \$1.29 or 2 for \$2.50 plus postage. Fused collar blistered in 10 washings. Medium count, medium weight blue broadcloth, which had low tensile strength and resistance to abrasion. See "Also Acceptable" listing for white shirt at this price.

Lord Pepperell. \$1.69. Sanforized fabric. Medium count, medium weight blue broadcloth; collar not Trubenized and blistered after 10 launderings. Relatively low resistance to abrasion. See "Also Acceptable" listing above.

#### Labor in the Shirt Industry

THE average wage in dress shirt factories organized by the Amalgamated Clothing Workers of America is about 45¢ an hour. Skilled workers such as cutters earn approximately \$1 an hour. Hours in Amalgamated shops are limited to 40 a week, with time and one-half for overtime.

Contrasted with union shops, unorganized firms, with few exceptions, pay extremely low wages. Hourly rates as low as 10¢ are not uncommon; the majority of non-union shops pay from 20¢ to 25¢. And within recent months, according to the Amalgamated (CIO),

certain non-union factories have compelled their employees to report seven days a week. Wages as low as \$6 to \$7 a week are reportedly paid for as much as 60 hours work.

According to the Monthly Labor Review, "the most significant technological development that has taken place in the cotton-garment industry in recent years has been the introduction of a new system of shop production, known as the straight-line system."

This system is simply a rationalization of production similar to the conveyor belt system familiar in heavy industry, notably automobile production. One of its immediate results, the Monthly Labor Review reports, is a gain of about 20% in man-hour output. And eventually it will mean the displacement of thousands of shirt workers, adding new recruits to the rolls of the technologically unemployed.

Where the straight-line system has been introduced in union shops, by agreement between management and union, the rate of production appears to have been held to a reasonable amount. Although Folkert Allen Schmidt, industrial engineer who developed the new system, has stated publicly that he is opposed to the abuse of it "by those who engage in its unsocial exploitation," the Amalgamated claims that the speed-up is so exhausting in some non-union shops that workers have been forced to quit due to excessive strain.

In addition to the Amalgamated, there is another union, the United Garment Workers (AFL), operating in the industry. But the great majority of workers are members of the Amalgamated. Both organizations have union labels but only the UGW makes their use obligatory. Hence consumers seeking union-made goods must reckon with the obstacle that many so made will bear no identifying label.

Brands tested by CU which are not listed below as union or non-union are distributors' brands, made by various unknown manufacturers. As the distributors order from a number of manufacturers, and change manufacturers from time to time, it is impos-

sible for CU to present accurate labor information on their brands.

The following brands reported on above are made under contracts with the Amalgamated Clothing Workers or are made by members of the Amalgamated under union wages and working conditions:

CD (Brewster Shirt Co., NYC).

Criterion (Tutelman, Kohn & Co., Philadelphia).—This firm is union. We do not know, however, whether or not other companies use the same brand name.

Eagle (Jacob Miller Sons Co., Philadelphia).

Essley (Essley Shirt Co., NYC).

Romar (Gerson, Goodman, Tutelman Co., Philadelphia).

Tru Val (Tru Val Mfrs., NYC).

The following brands and firms are non-union:

Ardsley (Lebanon Shirt Co., NYC).

Arrow (Cluett, Peabody & Co.,
NYC).

E&W (Ely & Walker, St. Louis).
Eclipse (Eclipse Needles, Philadelphia).

Manhattan (Manhattan Shirt Co.,

Mohawk (Superior Shirt Co., Philadelphia).

Needles' Fruit of the Loom (Eclipse Needles).

Stratford (Lebanon Shirt Co.).

Van Heusen (Phillips-Jones Corp., NYC).—A strike led by Amalgamated is now in progress against one plant of this firm. Other plants apparently are organized under the UGW.

uct will "restore natural or youthful shade or coloring to the hair or 'wash out the gray'" are to be discontinued.

## THE FEDERAL TRADE COMMISSION HAS ISSUED A COMPLAINT AGAINST:

Knogray (Madame Marguerite Turmel, Inc.). The complaint charges that Knogray advertising has represented or implied that this product is not a dye, that its use restores the natural color of the hair, and that when it is applied the hair which subsequently appears will not be gray. The complaint alleges that Knogray is a dye and that the color of hair which appears after its use is affected only if Knogray is reapplied.

The advertising for Knogray and Roux Shampoo Tint (cited above) is similar to that for many other hair dyes. Women should be wise to the fact that no preparation will "restore" gray hair to its original color. All "restorers"—if they are effective—are dyes.

### NOTICES OF JUDGMENT UNDER THE FOOD & DRUG ACT:

Apples: Notices of Judgment most recently issued record the seizures of 164 shipments of apples because of contamination with lead or arsenic and lead in amounts which might have rendered them injurious to health. CU members may recall (see June Reports) that it was the International Apple Association which devised the court review section in the new Food, Drugs & Cosmetics Act (fortunately somewhat modified before passage, thanks to consumer protest) as the best way to stymie any effort of the Food & Drug Administration to regulate poisonous spray residue.

Country Club Apple Butter (Kroger Grocery & Baking Co.). Consisted in part of a filthy vegetable substance; contained worm and insect fragments and rodent hairs.

Del Monte Alaska Red Sockeye Salmon (Alaska Packers Association). Consisted in whole or in part of a decomposed animal substance.

Swift's Brookfield Butter (Swift & Co.). Adulterated in that a substance deficient in fat had been substituted wholly or in part for butter and that the article consisted wholly or in part of a "filthy decomposed or putrid animal substance."

### Jhe DOCKET

## Notes on government actions against misleading advertising, false claims, dangerous products

THE notes that follow are taken from Federal Trade Commission releases on its stipulations with and complaints against advertisers.

The Notices of Judgment under the Food & Drug Act refer to individual shipments of the products involved.

We urge CU members to send in to the FTC any and all advertisements that appear to violate law or honesty. Ask that the FTC give its opinion of them; and ask what it intends to do about them. THE FEDERAL TRADE COMMISSION HAS TAKEN ACTION AGAINST:

Ingram's Milkweed Cream (Bristol-Myers Co.). This company has agreed to cease advertising that Ingram's Milkweed Cream "removes or corrects skin blemishes, lines and loose folds of the skin, and that it contains precious oils that help the skin remain young."

Roux Shampoo Tint (Roux Distributing Co.). Claims that this prod-

## **Shampoos: Some Test Results**

The best can do no more than clean your hair and scalp. The worst can be harmful

THE single, total purpose of a shampoo is to clean the hair and the scalp. No matter what the price, and no matter what the claims on the bottle, that is all a shampoo can do; it can't do any more.

If we appear to be unduly emphatic about this it is because, in all the welter of promises made by the shampoo sellers, the simple truth tends to become obscured.

The wise consumer automatically dismisses the promises. But she is hard put to it to choose intelligently among the products. They run the gamut from plain soap shampoos to preparations supposed to clean the hair without benefit of water. Most of them look alike and most of them smell alike. CU has tested samples of all kinds and herewith reports on more than 50 brands.

They can be divided into two types: soap and soapless. The great majority of both are liquids which contain from 50% to 90% water.

It is, of course, much cheaper to use an ordinary toilet soap. But the liquids can more evenly and adequately be applied to the scalp, and they are less apt to leave solid soap particles in the hair—advantages more important to women, with their longer hair, than to men. If you believe that 'every strand of hair is like a little heartstring," in the words of an advertisement for one well-known shampoo, you will doubtless be disposed to pay the premium for the somewhat better care that a shampoo makes possible,

#### Soap Shampoos

THE first measure of a good soap shampoo—and this type far outnumbers all others—is the amount of dry soap contained in it. The dry soap content determines the cleansing action. And it must be known, furthermore, before any real cost comparison between brands can be made.

As a case in point, a 4-oz. bottle of *Pinaud* shampoo at 39¢ would appear to be only about three times as expensive as an 8-oz. bottle of *CD Liquid* 

Castile at 26¢. Actually, however, on the basis of the dry soap content, the more diluted Pinaud product turns out to be over seven times as expensive as CD's.

Inasmuch as it's the soap that does the work in a soap shampoo, the various brands were rated primarily on the basis of dry soap content in relation to price—providing, of course, that they met other requirements set by CU's technicians.

Foremost among these other requirements was that the shampoos be sufficiently free of chemical impurities and that they contain no excessive amount of certain other substances which may harm the hair even though they cannot be classed as impurities.

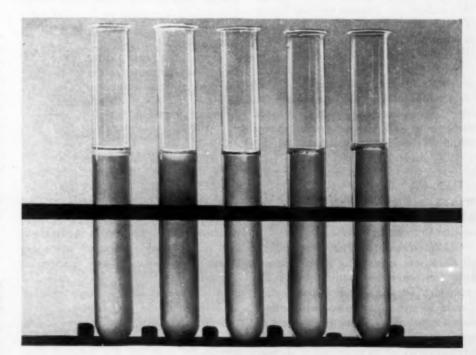
Chemical tests, based on Federal specifications for liquid soap, showed several brands to have a chloride content in excess of the 0.3% permitted. Chloride is not necessarily

harmful in a shampoo; but it is indicative of poor manufacturing procedure, and its presence means that the quality of the product may be variable. Shampoos with an abnormally high chloride content (indicated in the listings) were therefore rated lower than they would have been otherwise.

Happily, none of the brands tested contained an excess of free alkali, which may irritate the scalp and make the hair dry and lusterless. The tests threw an interesting sidelight, however, on the enthusiasm of manufacturers' claims. According to its label, Woodbury's Liquid Castile is a "bland, absolutely neutral soap." According to the tests, it was the most alkaline of all under conditions of use.

A NUMBER of the shampoos contained pine and tar oils, perborates, or alcohol in excess of 40%. All such were rated "Not Acceptable"; for any of these substances can be hard on the hair or scalp, and they are not necessary to the effectiveness of a shampoo.

Although pine and tar oils are sometimes used by dermatologists in treating certain skin diseases, they



#### FIVE SHAMPOOS

They look alike—actually they're very different. From left to right: Drene a sulfated alcohol; Mar-o-oil, a sulfonated oil; Hennafoam—it's only the "foam" that counts since henna has no effect in an alkaline solution; Fitch's Dandruff Remover Shampoo—thanks to the F.T.C. claims for this product as a dandruff remover must be greatly tempered; Laco Castile—it will clean your hair, but it won't "feed your scalp", as the maker has claimed.

may irritate a normal scalp. Perborates, added to shampoo powders because of their slight bleaching effect (considerably less than that of hydrogen peroxide), tend to leave the hair dry and brittle. An excess of alcohol may have both an irritating and a dry-

ing effect.

It is required by law to declare the alcohol content of proprietary preparations: so read the label of any shampoo you plan to purchase and reject it if the alcohol comes to more than 40%. Tincture of green soap, which contains about 30% alcohol, is much cheaper than most alcoholic commercial shampoos, and is sometimes helpful in the treatment of dandruff. But it should be used only by people with oily hair and its use should be discontinued at any sign of

The presence of large amounts of coconut or palm-kernel oil, indicated in the ratings, was not counted as a factor in evaluating the merits of the different shampoos. But bear in mind that while many people can use coconut or palm-kernel soaps with complete satisfaction, for others they are definitely irritating. Indeed, some cases of scalp inflammation which have stubbornly resisted various forms of treatment have improved markedly as soon as the use of a soap of high coconut oil content was stopped.

Since a pure olive oil soap lathers poorly, practically all shampoos and toilet soaps contain sufficient coconut oil to give satisfactory suds, although the amount of lather a soap produces actually has little, if anything, to do with its ability to remove dirt and oil. If a shampoo with much coconut or palm-kernel oil in it causes itching. dryness, scaling or other adverse reactions, switch to one containing a smaller amount of these oils.

CU has rated as "Not Acceptable" all shampoos containing henna, camomile and other dye materials or their extracts. Dyeing and shampooing should be two separate operations and manufacturers who have put out preparations supposed to accomplish both have ignored, or been unaware of, certain rather elementary facts. Henna, for instance, dyes best in slightly acid solutions and will not dye at all in an alkaline solution. Yet several soap and henna preparations are sold, despite the fact that the alkalinity of the soap makes them obviously worthless as

A more blatant imposition on a gullible public are "vitamized" shampoos, which may be disposed of very briefly. There is no significant evidence that any single vitamin or combination of vitamins has any beneficial effect when applied to the hair or scalp. And claims of special merit because of the presence of "vitamin F" are especially absurd since no "vitamin F" is recognized by science.

THE temperature at which the best cleansing action is obtained from a shampoo varies for different types of soaps-a true olive oil soap, for example, will clean in lukewarm water, while a tallow soap requires water which is quite hot. Obviously it is important that a shampoo work well at the water temperature customarily used. All the liquid shampoos analyzed cleaned satisfactorily in lukewarm water. But the shampoo powders tested required hotter water for satisfactory cleaning and rinsing, and were all rated "Not Acceptable" for ordinary conditions of use. In addition, these powders are excessively priced considering their ingredients (essentially the same as in many cake soaps) and less convenient to use than either cakes or liquids.

Of the five cake soaps examined, Ivory was somewhat more satisfactory for use in warm water than were Lux, Lifebuoy, Camay and Palmolive.

#### Soapless Shampoos

THE soapless liquid shampoos advertised and distributed most extensively are "sulfonated oils" and "sulfated alcohols." In contrast to the slightly alkaline soap shampoos, these products are very nearly neutral-a fact made much of by the manufacturers who, without any particular scientific justification, have raised a great clamor about the importance of avoiding alkaline preparations.

Sulfonated oils, which are practically latherless, are good cleansing agents. So, too, are the sulfated alcohols, which produce a definite but "thin" lather. The chief advantage of the sulfated alcohols, however, is their effectiveness in hard water-probably the only justification for their use, in view of their high price,



IT'S "VITAMIZED"

... especially absurd (see text)

Drene, best known of the sulfated alcohol shampoos, usually has been found in use tests to have a drying effect on the hair; it should be used, if at all, only by people with oily hair. Special Drene for Dry Hair seems to have less drying effect. But some physicians have reported undesirable reactions from the use of sulfated alcohol shampoos.

Because of the comparative newness of these preparations, and because of the lack of complete information about them, CU cannot do more than list them as "Also Acceptable" without recommendation.

HAIR POWDERS are usually made up of two or more of the following ingredients: starch, talc, colloidal clay, baking soda, borax and boric acid. Directions call for dusting the powder in the hair, combing it out later. Such a procedure has little to recommend it, even though it is common for removing grease spots from clothing; the powders are "Not Acceptable."



IT'S INFLAMMABLE

... and "Not Acceptable" (see text)

Even less acceptable are the dry cleaner preparations, since their use may present a definite health hazard. The past history of such preparations for the hair provides sufficient cause to make the consumer wary of any new one which may appear. Ethyl alcohol, gasoline, and carbon tetrachloride, a highly toxic substance, have been among the ingredients of some of those placed on the market. Serious and even fatal accidents and poisonings have been caused by their use.

The label of the only brand of this type examined, Vapon, reads "IN-FLAMMABLE . . . a new petroleum antiseptic cleansing agent derived from petroleum . . . entirely free from benzine, naphtha, either wood or ethyl alcohol."

The company is perfectly willing to tell what Vapon is not, but shows no similar readiness to disclose its actual composition. Chemical analysis showed it to be isopropyl alcohol with a little added perfume. As such, it possesses few properties to recommend it for use as a shampoo.

#### How Often Should the Hair Be Washed?

The question has no single answer. Some people with much-admired hair wash it daily, and other people for whom shampoos are rare events have hair that is no less luxuriant. One dermatologist tells of a pair of lovely Southern ladies who were famed for never shampooing at all. Probably a safe rule to follow is to shampoo your hair enough to keep the scalp clean.

If you live where the air is heavily contaminated with dirt and smoke (as it is in almost any sizeable city), or if your hair is oily, you should probably shampoo comparatively often—say, at least once a week. Frequent shampooing is not likely to harm the hair, so long as a good soap is used, although expert opinion differs on this point.

It is better to apply a small amount of shampoo, wash and rinse the hair, and repeat this process two or three times, than to wash only once with a heavy application of the shampoo liquid. Rinsing is best done under a shower or spray. Begin the final rinsing, which should be especially thorough, with water at least as warm as any used during the shampooing, and end it with cool or cold water.

If hard water only is available, vinegar or lemon juice added to the rinse water will remove the mineral salts deposited on the hair by the combined action of the soap and water. These rinses leave some free fatty acids on the scalp and hair, but the acids are generally considered less harmful than the mineral salts they replace and certainly their use leaves the hair softer. Some beauty parlor operators claim that acid rinses injure permanent waves, but we have no information to substantiate this point.

After drying the hair, persons with dry and semi-dry scalps may find it advantageous to apply a little lotion made by dissolving one part of castor oil (tasteless type) in three parts of pure alcohol.

B EAUTY parlor shampooing possesses no advantages whatever over good home shampooing, and may be definitely inferior. A trade magazine which recently investigated several New York City beauty parlors, including both expensive Fifth Avenue and smaller, low-priced shops, concluded that many of the managers purchased soaps without regard for quality and that the operators "do not know a great deal about what they are doing." One of CU's consulting dermatologists reports numerous instances of beauty parlor operators suffering from dermatitis of the hands caused by the cheap soaps they were using!

The use of rather intense artificial heat to produce rapid drying—a common beauty parlor practice—is anything but beneficial to the hair.

Prices given in the ratings below are those prevailing in many retail stores. But "list" prices are maintained for only a very few shampoos; apparently there is no expectation of selling the majority of them at the prices printed on the containers. The small 1-oz. bottles at 10¢ are generally less economical.

Shampoos not otherwise described are liquid soap shampoos. \*Soaps with high coconut oil content are preceded by an asterisk. Cost per oz. means cost per ounce of dry soap.

#### Best Buys

CD Liquid Castile (Cooperative Distributors, NYC). 8 fl. oz., 26¢ plus postage; cost per oz., 11¢. Large size, 1 qt., 75¢ plus postage; cost per oz., 8¢.

Palmotive Shampoo (Colgate-Palmolive-Peet, Jersey City, N. J.). 4 fl. oz., 23¢; cost per oz., 27¢. Coconut oil content lower than in these brands marked with asterisks but higher than in most of the others.

Marchand's Castile (Charles Marchand Co., NYC). 4 fl. oz., 29¢; cost per oz., 27¢.

\*Wildroot Instant (Wildroot Co., Buffalo, N. Y.). 6 fl. oz., 50¢; cost per oz., 29¢.

#### Also Acceptable

(In order of increasing cost of dry soap content)

Macy's Olive Oil Shampoo (R. H. Macy & Co., NYC). 1 pt., 37¢; cost per oz., 8½¢. Large size, 1 qt., 69¢; cost per oz., 8¢.

Macy's Castile Shampoo. 1 pt., 41¢; cost per oz., 9¢. Large size, 1 qt., 74¢; cost per oz., 8¢. Had it not been for their high chloride content, this and Macy's Olive Oil Shampoo would have rated as "Best Buys."

Laco Castile (Lockwood-Brackett Co., Boston). 5 fl. oz., 45¢; cost per oz., 33¢. The company recently signed a stipulation with the Federal Trade Commission agreeing to cease making certain claims, including the statement that Laco "feeds the scalp" and that it is made only of olive oil, soda and water.

Kreml (R. B. Semler, NYC). 6 fl. oz., 49¢; cost per oz., 30¢. High chloride content prevented this from being a "Best Buy."

Conti Castile Shampoo (Conti, NYC). 5 fl. oz., 42¢; cost per oz., 31¢.

Daggett & Ramsdell Perfect Oil Shampoo (Daggett & Ramsdell, NYC). 5½ fl. oz., 60¢; cost per oz., 38¢. Coconut oil content lower than in those brands marked with asterisks but higher than in most of the others.

\*Klenzo Cocoanut Oil (United Drug Co., Boston). 6 fl. oz., 50¢; cost per oz., 41¢.

\*Edna Wallace Hopper's Fruity (Edna Wallace Hopper, NYC). 4 fl. oz., 49¢; cost per oz., 41¢.

\*Mulsified Cocoanut Oil (R. L. Watkins Co., NYC). 4 fl. oz., 39¢; cost per oz., 48¢.

\*Barbara Gould Shampoo (Barbara Gould, NYC). 4 fl. oz., 50¢; cost per oz., 49¢.

Canthrox (H. S. Peterson & Co., Chicago). 3-oz. box, 49¢; cost per oz., 46¢. Cylindrical pellets of solid soap; price excessive. Must be dissolved before using. Coconut oil content lower than in those brands marked with asterisks but higher than in most of the others.

Packer's Olive Oil . Shampoo (Packer Mfg. Co., Mystic, Conn.). 5 fl. oz., 49¢; cost per oz., 52¢.

Woodbury's Liquid Castile (John H. Woodbury, Cincinnati). 5½ fl. oz., 42¢; cost per oz., 54¢. Most alkaline of all the liquid soaps examined. Contained more coconut oil than most "Castile" soaps.

Van Ess (Van Ess Laboratories, Chicago). 4 fl. oz., 49¢; cost per oz., 55¢.

\*Pinaud Shampoo (Pinaud, NYC). 4 fl. oz., 39¢; cost per oz., 81¢.

Mary Scott Rowland Liquid Castile

(Mary Scott Rowland, NYC). 6 fl. oz., approx. 50¢; cost per oz., approx. 30¢. High chloride content.

The following are liquid shampoos of the soapless type, listed here without recommendation (see text). Listings are in order of increasing cost per detergent (cleansing) unit.

#### SULFATED ALCOHOLS

Drene and Special Drene for Dry Hair (Procter & Gamble, Cincinnati). The largest (6-oz.) bottles are the most economical.

Ward's Glisteen. Cat. No.-6611 (Montgomery Ward). 3 fl. oz., 37¢.

SULFONATED OILS Venida Oil Shampoo (Reiser Co., NYC). 8 fl. oz., 45¢. Cost rating,

17¢ per unit.

Marrow's Mar-O-Oil (J. H. Marrow Mfg. Co., Chicago). 6 fl. oz.. 50¢.

Cost rating, 17¢ per unit.

Hairtone Soapless Oil (McKesson & Robbins, NYC). 4 fl. oz., 39¢. Cost rating, 19¢ per unit.

Admiración Olive Oil Shampoo (Admiración Laboratories, Harrison, N. J.). 4 fl. oz. 44¢. Cost rating, 22¢ per unit.

Admiración Foamy Oil. 4 fl. oz., 44¢. Cost rating, 31¢ per unit.

#### Not Acceptable

Shampoos containing 40% or more alcohol.

Shampoos containing pine, tar or crude oils.

Shampoos containing sodium perborate.

Shampoos containing henna and other dyes, or their extracts.

"Hair Powders."

"Dry Cleaning" shampoos.

The following contained excessive alcohol:

\*Fitch's Dandruff Remover Shampoo (F. W. Fitch Co., Des Moines). The company recently signed a stipulation with the Federal Trade Commission to cease many of its advertising claims, admitting that it had made "certain representations for its product in excess of its known therapeutic properties." (See June Reports.)

Lucky Tiger Magic Shampoo and Dandruff Remover (Lucky Tiger Mfg. Co., Kansas City, Mo.).

\*Walter's Shampoo and Dandruff Remover (Sears-Roebuck). This product has been represented as "Vitamized."

The following contained pine, tar or crude oils:

Admiración Pine Tar Shampoo Treatment. Sulfonated oil type. \*Harriet Hubbard Ayer Pine Tar (Harriet Hubbard Ayer, NYC).

Juvenile Pine Tar.

Lustrite Pine Tar (Lustrite Corp., Brooklyn, N. Y.).

Mary Scott Rowland Essence of Pine.

Mary Scott Rowland Essence of Tar.

Packer's Pine Tar Shampoo. Packer's Tar Soap (cake). \*Wildroot Taroleum Crude-Oil.

The following shampoo powders required water too hot for ordinary conditions of use. If the user has adequate hot water available, and makes sure that he uses it for both washing and rinsing, these preparations (except Nestle Golden) may be "Acceptable":

Amami Shampoo (Prichard & Constance, NYC).

Blondex, New Blondex (Swedish Shampoo Laboratories, NYC). The selling agents have agreed with the Federal Trade Commission to cease making certain unwarranted claims.

Brunex (Swedish Shampoo Laboratories).

Golden Glint (Golden Glint Co., Seattle).

Nestle Golden (Nestle-LeMur Co., NYC). Contained perborate.

The following contained henna or other dyes:

\*Hennafoam (Hennafoam Corp., NYC).

Nestle Henna. Soap powder. Required water too hot for satisfactory use.

Juvenile Henna.

Lusterole Chamomile (Whip Products, NYC).

Lusterole Henna.

Macy's Henna.
"Hair Powders":

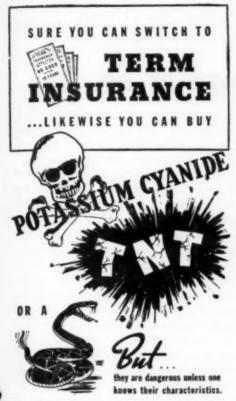
Swedish Hair Powder (Waldeyer & Betts, NYC).

Amami Dry Shampoo.

The following consisted of isopropyl alcohol:

Vapon (Petroleum Derivatives Co., Montclair, N. J.).

## This Ad Needs An Answer



RECENTLY, some on-called "Insurance Advisors" or "Counselors" have been recommending the discarding of time-provid types of insurance in favor of Term insurance. Yet how often the switch is to the advantage only of the advisor."

Hed not the experience of the insufnare business in the 19th century provedthat Term insurance has definite limitations, the advice of these "wise across" might at least be novel. All well-pushed measurance authorities know that the early legisimate excuse for Term insurence is to cover short! term contingensees to protect reeditors and business obligations—and the best answer to the "course-for" who suggests that it is levier than your present policy is that those whis ready! know life insurance, ask-owner and home office workers, early with now recovered farming in insurance,

The charge has been made that the salesman makes more money on the sale of permanent insurance than on Term insurance. So does the naissmans for the \$4,000 automobile ears more than the salesman of the \$700 care-but which would you rather own?

Almost my insurance salesman has Term insurance for sale, but the doesn's neagenst it because he wants you permanegement in the consultance of the sale, but the doesn's neagenst it because he wants you permanent in the sale of th

Almost my insurance salements have been from insurance for safe, but be for safe, but be for suggest it because he want you permanently nationfie. If third party advice is desired, don't depend on the word of sufficiently invited or say your State Insurance Commissioner in stead. The supersyldioned advice of this public efficial will be choorfully give without any face or commission. It is in office for your protection—use his provious.

An advertisement, writing for the protection of all who costs life insurance and all who will life insurance, mid-for by

#### AMERICAN UNITED LIFE INSURANCE CO.

ESTIBLISHED 1877 . INDIANAPOLIS, INDIANA

## - Here It Is

THE real function of life insurance companies is to provide an endless stream of ready capital for investment in modern industry. The sale of life insurance as such has come to be only secondary, a come-on for the companies' major task of directing the scattered savings of the American people into banking operations.

Pure protection policies, unlike all others, create no reserves or savings, and thereby thwart the companies' banking and investment ambitions. So the sale of renewable term insurance must not be encouraged. Just as business often resorts to misrepresentation to promote the sale of an inferior product, so do the life insurance companies resort to misrepresentation to discourage the sale of a good product—the best one, from the policyholder's point of view, that they have for sale.

The advertisement reproduced here from the September 3rd issue of Collier's strikingly illustrates what we mean. Inasmuch as CU has been analyzing insurance policies, and recommending renewable term strongly, we assume that the American United Life Insurance Co. is aiming its barbs at us. We have no doubt that CU members who have followed the life insurance articles in the Reports will readily enough see through the numerous distortions in this advertisement. For the record, we should like to ask a few questions of the company which signs it:

1. Does not American United remember that it was banking and investment operations which caused 40 companies to fail during the last depression, damaging thousands of policyholders; that no company failed in its insurance department; that in the companies which failed, only those policyholders who had term insurance came through without a loss?

2. Is American United, which labels the facsimile of the term insurance policy in its ad "No Good After 10 Years," unaware that there are renewable term policies which can be continued indefinitely without medical re-examination; that the Metropolitan Life Insurance Co., largest in the world, sells a 10-year renewable term policy?

3. Does American United really believe that a letter to a State Insurance Commissioner will bring "unprejudiced advice"? Doesn't it know, as CU knows from the experience of many members, that letters to most Commissioners bring no real advice, prejudiced or unprejudiced?

4. And, finally, does American United know that when the New York Life Insurance Co. and its vice-president, the late Calvin Coolidge, made misrepresentations similar to those in the advertisement, they were sued for \$100,000; and that the settlement which was finally reached outside of court included a letter of apology from Mr. Coolidge?

These questions cover some of the points which emerge from the advertisement's misrepresentations. CU would be very interested to know American United's answer to them.

## Advisory Service

THE article in CU's series on life insurance originally scheduled for this issue of the *Reports* was withheld to permit space for the answer to the advertisement reproduced on this page. It will appear next month, beginning a general discussion of industrial insurance which will run over several issues.

Meantime, in response to numerous requests from members, we reprint below the schedule of fees for CU's Life Insurance Advisory Service.

As pointed out previously, no member of CU's staff is equipped to advise on individual insurance problems. All requests for such information are therefore referred to CU's consultant, who is paid on a fee basis averaging about one-fifth of the lowest fees generally prevailing for insurance counsel.

Since the *Reports* articles have been written to cover as many of the common insurance problems as possible, members are urged to consult them carefully before using the Advisory Service.

The fees:

General insurance counsel (what kind of policy to buy, comparisons of companies, etc.) ..... \$ 2.00 Specific recommendations and analyses (including advice on any necessary changes in the insurance program) of policies up to \$5,000 ..... 3.00 Over \$5,000 and up to \$10,000 ... 5.00 Over \$10,000 and up to \$15,000 ... 7.50 Over \$15,000 and up to \$20,000 ... 10.00 Over \$20,000 and up to \$25,000 ... 12.50 Plus 50¢ per thousand for each \$1,000 additional,

Fees are payable in advance. If policies are submitted for examination, they should be sent by registered mail, with postage enclosed for their return.

Members wishing this service should send for a special questionnaire, covering such information as the following (all information is kept confidential):

Amount of outside investments; outside savings.

Home rented or owned; amount of mortgage, if any.

Loans other than insurance.

Monthly income your family would require at your death.

Present state of health; date of last examination; details of any rejections you may have had.

## The Labor Reporter

#### Gem, Eveready, et al

• Users of Gem, Eveready, Star, Treet and Continental razor blades (all manufactured by the American Safety Razor Corp.) have been urged not to purchase these brands by 800 members of the United Razor Workers (CIO), who have been on strike for eight weeks. The American Safety Razor Corp. is charged by the union with refusal to arbitrate wages or vacations and to renew the old contract which expired July 1, 1938.

#### Union Blade

• Addition to our razor blade labor notes in the March 1938 Reports: The Official blade, manufactured by the Club Razor & Blade Mfg. Co., is union-made, we are informed. These blades are manufactured under a closed shop contractural relation with the International Association of Machinists (AFL). In addition, the carton and individual packaging and other printing bears the union label of the printing trades.

#### Brown & Williamson

· Three hundred Negro tobacco stemmers and cleaners have just won a three-week's strike against the Export Leaf Tobacco Co., subsidiary of Brown & Williamson, makers of Wings, Kools, Raleigh, Avalon and Viceroy cigarettes. Under the leadership of the Tobacco Stemmers' and Laborers' Local Industrial Union (CIO) the workers won approximately \$1.25 weekly pay increase, checkoff of dues, seniority rights, improvement in health hazards and vacations with pay. During the strike 200 white Southern workers from the Amalgamated Clothing Workers marched with their Negro fellow-workers on the picket line.

#### Kroger

 Workers of 300 Kroger grocery stores in the Detroit area are on strike for union working conditions and union wages under the leadership of the Food, Beer and Beverage, the Bakers', and the Food Handlers' local unions in that area. Testimony to the support being given the strike by Detroit consumers is an apparently authenticated report in the Bakers' Journal that Kroger business has fallen off from one-third to two-thirds. With Kroger strikebreakers

under the "protection" of the police, the strikers have suffered from much terrorism. The Kroger Co., however, has not been able to get similar protection from the Michigan State Food & Drug Dep't. This latter body has just charged the Kroger Co. with retailing eggs "unfit for human consumption."

## More on the Case of No. 2A

As CU members will remember, the May issue of the Reports told of the finding of five deadly nightshade buds in a can of Libby's Sweet Variety peas. Basis for this report was the written statement of a government grader which read: "For your information, can of peas 2A¹ on Certificate 20947 was marked 'illegal' due to the presence of five nightshade buds in the can. This, as you no doubt know, is the bud of the deadly nightshade or belladonna plant."

The finding of the government grader was promptly transmitted to the Food & Drug Administration, which promised an investigation. Our members were assured that the results of this investigation would be published in the *Reports*.

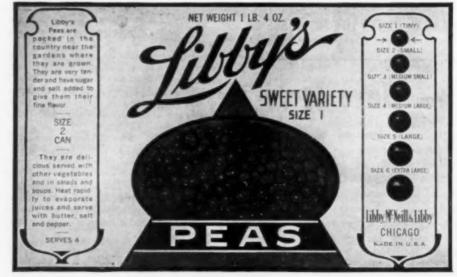
The Western Division of the Administration has now examined a number of cans of *Libby's* peas. Deadly night-shade buds were found in none of the samples, but several were found to

<sup>1</sup> CU's code number for the *Libby* sample in this test. Canned goods sent by CU to government graders for testing are stripped of their labels.

contain the immature berries of black nightshade. This variety, rather common in the pea fields of the Northwest, is non-poisonous. Its presence, however, in excess of the amount permitted by the Federal minimum standard for canned goods would make the peas substandard or possibly adulterated.

As a still further check on the original government report, CU asked the Bureau of Agricultural Economics if additional tests could be run on the nightshade which had been found in the CU samples. We were informed that this would be impossible. It was the opinion of the Bureau that the government grader had been in error, and that the nightshade found in the CU samples was not of the deadly variety.

In view of the results of the Food & Drug Administration's investigation and of the statement of the Bureau of Agricultural Economics, CU, through no fault of its own, appears to have been in error. Our apologies to Libby, whose peas might have been described as adulterated, but not as poisonous.



LIBBY LABEL

The nightshade was not deadly

## Shoes for your Child

Here is one product whose price is a fair indication of quality. CU rates 20 brands

Foot troubles in adults all too often trace back to poorly designed, illfitting shoes in childhood. But in this respect your children are getting a better break than you did. For shoes for children have by now become fairly well designed in the better lines. All the samples of 20 leading brands tested by CU at least approached satisfactory dimensions.

Shoe design, however, is only a part of the problem of fitting children's feet. The judgment of parents, who do the buying, is no less important. And, since nothing seems to change size quite so fast as a child's foot, this part of the problem is not without its complexities.

Shoes which fit perfectly when purchased may cramp and bind seriously before they are half worn out. It is therefore advisable as a rule that shoes be purchased at least 3/4 of an inch longer than the foot, and perhaps 1/4 of an inch wider (when the child is standing with his full weight on his feet). This leeway will allow for several months' normal growth-sufficient time for most children to wear out reasonably durable shoes.

For the same reason-growth-it is doubly important that children's shoes lace, or at least have adjustable straps, which can be drawn tighter at first and loosened as the foot grows. Buttoned shoes or pumps are definitely undesirable. It is also important that the heel be shaped to fit snugly, so that it will not rub up and down and cause blisters.

Do not purchase shoes so durable that they will be outgrown before they wear out. For one thing, it is a temptation not to discard such shoes when they become too small. And for another, stiff, heavy shoes hamper the natural movements of the foot. It is not likely, however, that many parents will find excessive durability in their children's shoes a serious problem.

Points to look for in judging durability include reinforcements at

exposed ends of seams, and sharkskin or other special toetips, valuable for preventing early scuffing. The lining in the forepart ("vamp") of the shoe should be of sturdy fabric-canvas or a heavy twill-and in the back part ("quarter") of good-quality leather. Manufacturers of cheaper shoes sometimes extend the cloth lining of the vamp to cover part of the quarter, thus skimping on the leather lining. In examining linings, look for looseness which may develop into wrinkles.

In cu's tests the soles of the shoes were worn through mechanically under controlled conditions to determine their durability, and the strength of upper leather and cloth linings was measured to give some indication of wearing qualities. In addition, all samples were dissected and examined for quality of materials, sturdiness of construction and workmanship.

Probably because of their uni-

#### **Quality Ratings**

THE following ratings based on materials and workmanship are given for those parents who wish to buy shoes on a quality basis alone, irrespective of price. Shoes of poor design are not included in this rating.

BRAND	QUALITY SCORE	
Kali-sten-iks	177	
Pediforme	165	
Indian Walk	163	
Tru-form	156	
Pro-tek-tiv	150	
Dr. Posner's	142	
Buster Brown	141	
Dr. Scholl's	138	
Classmates	136	
Edwards	135	
Pied Piper	134	
Weatherbird	114	
Educator	99 -	
Sears'	99	

formity of style, which limits the effectiveness of high-pressure salesmanship and excessive ballyhoo, quality was found to be fairly closely related to price. Not only were construction, materials and workmanship generally better in the higher-priced lines, but, with few exceptions, design also. Highest quality score went to four high-priced shoes - Kali-sten-iks, Indian Walk. Pediforme and Tru-Form. Lowest score was received by Thom McAn, the cheapest shoe.

Seven of the brands tested had soles

of chrome-tanned leather, which will withstand approximately twice as much abrasion as leather tanned by the vegetable process. Chrome-tanned leather normally has the disadvantage that it absorbs moisture much more readily and becomes quite slippery when wet. Limited tests by CU, however, showed some of the chrometanned soles to be fully as resistant to water as the vegetable-tanned, or even more so. This may have been due to special treatments used by the manufacturers.

All the shoes were generally similar in style: oxfords in Blucher cut (the lacing flaps being free to open all the way to the bottom, not fastened down over the base of the tongue). Except for Dr. Posner's, all were "elk-tanned," which means calf-, steer-, or cow-hide finished to resemble elk leather.

Most of the cheaper shoes had rubber heels; most of the more expensive had "spring" heels. In the latter type, which many authorities recommend for children, the sole extends under the heel portion of the shoe, the heel being raised moderately by insertion of a wedge of leather above the sole.

Two of the shoes were of "stitchdown" construction-a type fairly common in cheaper children's shoes. Though somewhat less durable than Goodyear welt construction and more difficult to resole acceptably, properly made stitchdowns can give quite satisfactory wear for the price.

THE comparative ratings of the shoes are based on the sum total of all the quality points in relation to price. Details are given concerning good and bad features of each shoe. Examine your child's discarded shoes to see where he wore them out, and select from the recommended list a brand which shows strong construc-

tion in those places.

Samples for test were selected in size 12D except in a few cases where this size was not in stock. In most cases, shoes of similar style are available in larger sizes as well as smaller, though usually the larger sizes are higher priced.

#### Best Buys

Classmates (Ideal Shoe Mfg. Co., Milwaukee). \$2.95. Goodyear welt construction with rubber heels. Durable chrome-tanned soles; strong upper leather; medium-quality cotton twill and leather linings; leather counters. Toetips of special leather. Stitching none too strong; fairly good workman-

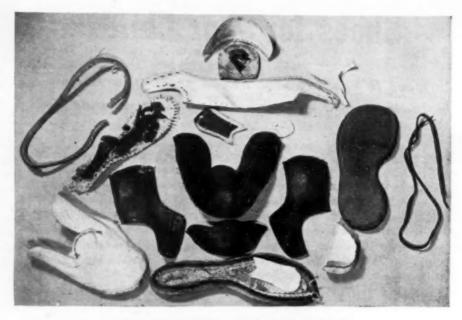
ship. Fair design.

Weatherbird (Peters Div., International Shoe Co., St. Louis). \$2.50. Goodyear welt construction with rubber heels. Fairly durable vegetable-tanned soles which appeared to be specially oiled; strong upper leather; medium-quality cotton twill lining in forepart (vamp); skimped leather lining in rear (quarter); leather counter. Sharkskin in place of regular leather toetips. Fairly strong stitching, fairly good workmanship. Fair design. Sold in California under Gallen Kamp's label.

Buster Brown (Brown Shoe Co., St. Louis). \$3.50. Goodyear welt construction with rubber heels. Durable chrome-tanned soles; fairly strong upper leather; medium-quality cotton twill and leather linings; leather counters. Toetips of special leather. Stitching fairly strong; fairly good workmanship. Fair

design.

Kali-sten-iks (Gilbert Shoe Co., Thiensville, Wis.). \$4.50. Highest quality of those tested. Goodyear welt construction with rubber heels attached with fiber pins and cement rather than nails; rear part of upper (quarter) made of one piece of leather, eliminating back seam. Durable chrome-tanned sole; fairly strong upper leather; medium-quality cotton twill and leather linings; leather counters. Extra, scuff-resisting leather tips. Well sewed; good workmanship. Roomy, well-shaped toes, and good design.



THIS IS WHAT A SHOE LOOKS LIKE

by the time CU's technicians have finished their tests

#### Also Acceptable

(In approximate order of merit)

Pied Piper (Pied Piper Shoe Co., Wausau, Wis.). \$3.75. Modified Goodyear welt construction with low spring heels. Rear of upper wellconstructed of one piece of leather. Vegetable-tanned soles had poor resistance to abrasion; fairly strong leather; medium-quality cotton twill lining in forepart (vamp), somewhat wrinkly in sample tested; good-quality leather lining in rear (quarter); leather counters. Style tested had soft toe, but sharkskin tips were said to be available at 25¢ extra. Strongly stitched; fairly good workmanship. Good design.

Dr. Scholl's (distrib. Scholl Mfg. Co., Chicago). \$3.95. Goodyear welt construction with low spring heels. Fairly durable vegetable-tanned soles; upper leather rather low in tensile strength; medium-quality cotton twill and good leather linings; leather counters. Extra sharkskin toetips. Strongly sewed; good workmanship. Roomy, well-shaped toes and good design.

Edwards (J. Edwards & Co., Philadelphia). \$4. Goodyear welt construction with low spring heels. Vegetable-tanned soles had poor resistance to abrasion; fairly strong upper leather; medium-quality cot-

ton twill and leather linings; leather counters. Style tested had soft toe, but sharkskin tips were said to be available at no extra cost. Strongly stitched; good workmanship. Toe somewhat low, but generally good design. Edwards shoes are sold in many department stores under the store's own label.

Pro-tek-tiv (Curtis-Stephens-Embry Co., Reading, Pa.). \$4.65. Goodyear welt construction with rather high spring heels, pinned and nailed instead of stitched. Fairly durable vegetable-tanned soles; fairly strong upper leather; high-quality canvas and leather linings; leather counters. Extra sharkskin toetips. Strongly sewed; good workmanship. Fairly good design.

Dr. Posner's Pli-Tred (Dr. A. Posner Shoes, Allentown, Pa.). \$4.50. Goodyear welt construction with low spring heels. Vegetable-tanned soles had low resistance to abrasion. Upper leather appeared to be kidskin-low in tensile strength, but light and flexible. High-quality canvas and leather linings; leather counters. Extra sharkskin toetips and sharkskin heel guards around back part of shoes (the other section besides the toes where uppers first show scuffing). Strongly stitched; fairly good workmanship. Roomy, well-shaped toes, and good design.

Indian Walk (Foot Form Shoe Shops, NYC and vicinity). \$5.30. Goodyear welt construction with low spring heels. Fairly durable vegetable-tanned soles; strong upper leather; high-quality canvas and leather linings; leather counters. Extra sharkskin toetips. Strongly sewed; excellent workmanship. Roomy, well-shaped toes, and good design.

Pediforme (Pediforme Shoe Co., NYC and vicinity). \$5.75. Goodyear welt construction with low spring heels. Fairly durable vegetable-tanned soles; strong upper leather; high-quality canvas and leather linings; leather counters. Extra sharkskin toetips. Strongly sewed; excellent workmanship. Roomy, well-shaped toes, and good design.

Tru-Form (Tru-Form Shoes, NYC). \$5.95. Goodyear welt construction with spring heels. Durable vegetable-tanned soles; strong upper leather; high-quality canvas and leather linings; leather counters. Extra sharkskin toetips. Strongly sewed; good workmanship. Toes slightly low, but wide; generally good design. A high-quality shoe but expensive.

Thorogood (Albert H. Weinbrenner Co., Milwaukee). \$2.40. Toecaps too low; quality otherwise average. Stitchdown construction with rubber heels. Durable chrome-tanned outsoles and fiber midsoles; upper leather rather low in tensile strength; medium-quality cotton twill lining in forepart (vamp), made of two pieces stitched down the center; skimped leather lining in rear (quarter); fiber counters. Extra sharkskin toetips. Strongly

sewed, but workmanship judged only fair.

Educator (G. R. Kinney Co. stores). \$2.29. Goodyear welt construction with rubber heels. Vegetable-tanned soles had very poor resistance to abrasion; strong upper leather; medium-quality cotton twill lining in forepart (vamp), somewhat wrinkly in sample tested; skimped leather lining in rear (quarter); fiber counters. Toetips of special leather. Stitching none too strong; fairly good workmanship. Fair design.

Sears' Frolic (Sears-Roebuck, stores only). \$2.69. Goodyear welt construction with rubber heels. Vegetable-tanned soles had poor resistance to abrasion; upper leather low in tensile strength; medium-quality cotton twill and leather linings; fiber counters. Sharkskin in place of regular leather toetips. Stitching none too strong; good workmanship. Fair design.

The following shoes were found to be of poor design and should be purchased only if a more suitable brand cannot be found. Special care should be taken in fitting.

Sunny Tucker (J. C. Penney Co. stores). \$1.95. Toe lower and narrower than is compatible with good design; quality otherwise fair. Stitchdown construction with no midsole; rubber heels. Chrometanned soles had comparatively low resistance to abrasion; fairly strong upper leather; medium-quality cotton twill lining in forepart (vamp) was wrinkly in sample tested; skimped leather lining in rear (quarter); leather counter. Special tip over regular leather toes. Stitching

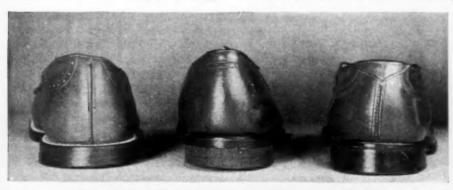
none too strong; workmanship fairly good. Insole bunchy under arch in sample tested.

Pollyanna (A. S. Kreider Shoe Co., Annville, Pa.). \$3. Toe lower and narrower than is compatible with good design; quality otherwise good. Goodyear welt construction with rubber heels. Very durable chrometanned soles; strong upper leather; medium-quality cotton twill lining in forepart (vamp), somewhat wrinkly in sample tested; leather lining in rear (quarter); fiber counters. Sharkskin in place of regular leather toetips. Fairly strong stitching. Workmanship judged only fair.

Thom McAn (Thom McAn stores). \$1.95. Toe lower and narrower than is compatible with good design; quality otherwise low. Goodyear welt construction with rubber heels. Durable vegetable-tanned soles, which appeared to be specially oiled; upper leather rather low in tensile strength; medium-quality cotton twill lining in forepart (vamp), somewhat wrinkly in sample tested; skimped leather lining in rear (quarter); fiber counters. Sharkskin in place of regular leather toetips. Stitching none too strong.

Endicott-Johnson (Endicott-Johnson Corp., Endicott, N. Y.). \$3. Toe lower and narrower than is compatible with good design; quality otherwise average. Goodyear welt construction with rubber heels. Chrome-tanned soles showed comparatively poor resistance to abrasion; strong upper leather; medium-quality cotton twill and leather linings; fiber counters. Sharkskin in place of regular leather toetips. Fairly strongly sewed; fairly good workmanship.

Bonnie Laddie (International Shoe Co., St. Louis). \$3. Toe lower and narrower than is compatible with good design; quality otherwise fair. Goodyear welt construction with rubber heels. Fairly durable vegetable-tanned soles; fairly strong upper leather; medium-quality cotton twill lining in forepart (vamp); skimped leather lining in rear (quarter); leather counters. Sharkskin in place of regular leather toetips. Stitching only fair; good workmanship.



#### DO YOUR CHILD'S SHOES RIP DOWN THE BACK?

The shoe in the center can't be guilty of this failing; the one on the right is well protected against it; the one on the left may rip during the first week or two of ordinary wear

## The State of the Union

Annual report of Technical Supervisor D. H. Palmer, and report for the staff by Madeline Ross

#### **Technical Report**

In the last 12 months (ending with May) CU has tested or analyzed and reported upon about 2,000 products. Of this total, CU's technical staff tested over 500 items, including electrical appliances, food and cosmetic products, and such goods as razor blades, lisle hose, lubricating oil and anti-freeze. Although the testing program was considerably increased over last year's, the technical staff was not enlarged, and the total budget for the work has remained very moderate.

The largest proportion of the tests was conducted in outside laboratories by consulting engineers and technical experts with special training and facilities for testing products in a given field. Almost 900 products were thus tested, consisting chiefly of canned foods, large electrical appliances and textile products. For reports on the remaining 600 items CU is indebted to its numerous consultants in the medical, radio and engineering fields. But for the valuable cooperation afforded by these experts, there would have been no reports on automobiles, trailers, automobile tires, sewing machines, bicycles, special radio equipment, mattresses, tennis equipment, coffee, laxatives and drug products.

Acknowledgment must also be made for the help given by many Federal and State agencies in solving specific problems relating to the testing of consumers' goods. As an example of the excellent work being done by some State departments, attention is called to the reports issued by the North Dakota Regulatory Department and the New Hampshire State Board of Health.

In addition to its function as a testing agency, CU also acts as a medium through which the knowledge and expert opinions of scientists and engineers may be made available to the lay public. Practically no publica-

tions from which the layman gets his impressions about the multitudinous brands of products on the market are free to express a critical appraisal of a particular make or brand. Did anyone, for example, ever see a newspaper or magazine which compared the Ford with the Chevrolet or Ivory soap with Camay on the basis of important quality and utility factors?

Testing and preparing reports for the monthly issues and the annual Buying Guide is only a part of the work in which the technical staff engages. As relatively few acceptable standard methods for testing and rating consumers' goods are available, quality standards and test procedures must be developed before tests can be gotten under way. This is one reason for the delay in reporting on several important types of products.

In the last year an average of more than 600 inquiries from members have been answered each month. Approximately 45% of these inquiries have entailed some type of special investigation on the part of the staff or consultants. This adds a heavy load to the work of the technical staff and members should keep in mind the fact that the more time spent on answering special inquiries, the less time there is available for testing and preparing reports.

Members have sometimes expressed their dissatisfaction with our lack of promptness in supplying information about a particular product or our inability to make specific recommendations. Limitations on our resources and staff time make it impossible to rate every product as soon as it comes on the market or include all brands in any one project. From the type of inquiries we receive, it is evident that some members feel that CU has a limitless knowledge of any and all subjects. It is impossible for us to give adequate recommendations on such items as outboard motors, new products such as the Bendix Home Laundry, lawn mowers, cooking utensils,

and locally manufactured food and cosmetic products until actual tests can be made or data are forthcoming from other reliable sources. Folding canvas boats, \$1,500 yachts and hand clippers for dogs must wait until we have been able to cover more thoroughly those necessities and products in which all members are interested. One member inquires about ratings of second-hand elevators. Another asks: "What about battleships, why don't they sink, being made of steel?"

The program for the coming year must include retesting of a large number of the items already reported on and, in addition, testing of many items which we have not been able to cover to date. Food, clothing and household supplies, particularly, must be tested at regular intervals if our reports are to be of practical value to the members. Plans are now under way to cover cooking utensils, cheap watches, furniture and radio-phonographs.

Work on the new chemical laboratory is being pushed ahead. Total contributions for new equipment now amount to \$5,200. The new laboratory will enable CU to expedite its testing program and increase the brand coverage of cosmetics, toothpastes, soaps, milk products, beverages, jams and jellies and other food items. This work will continue to be under the able supervision of Dr. Charles A. Marlies of the College of the City of New York.

There is a great need for inaugurating a long-time research program in connection with special consumption problems. Such a program would help us to answer some of the following questions: (1) what are the relative nutritive values of the various types of fats and oils on the market (can one safely substitute oleomargarine in the diet for butter?): (2) has government regulation in recent years lessened the danger of lead and arsenic poisoning from jams and jellies, maple syrup, cocoa, fresh fruits and vegetables, etc.; (3) what hazards, if any, to the public health are involved in the regular use of the various types of cooking utensils and of leaded gasoline?

Public-supported agencies, including State universities and State experiment stations, might well include projects of this sort in their research programs. However, it is likely that many

of these special research problems will not be undertaken until an organization such as Consumers Union is better able to underwrite the cost for work on them.

#### Staff Report

THERE are 51 employees on the staff of Consumers Union.¹ They receive an average of \$24.15 a week. A year ago, at the time of the last membership meeting, there were 41 employees who were being paid an average of \$20.65 a week. The continuing growth of the working staff and the appreciable increase in wages—about 17%—are two of the encouraging developments of the past year deserving special note.

It is likewise encouraging to report that the employees of CU work under a contract calling for a closed shop; that a 5-day, 35-hour week is in effect; that overtime work, while still not paid for regularly, is more often paid for in cash than not, and is at the least made up to the employees in equivalent time off. So much for the specifics. More generally, it is a pleasure to report that the executive committee of the organization has brought to its relations with the staff a degree of social consciousness not common these days. The directors of the Republic Steel Corporation, to cite a distinguished example, would hardly know what to make of it.

Even so, something more than social consciousness and good will are necessary to an altogether successful economy. It remains a fact that the wages at CU, even with this year's increase considered, are on the low side. \$40 is top pay for any staff worker, which means that a number of employees in the more responsible positions are still decidedly below prevailing levels. \$18 is the minimum pay, and while that compares favorably with the prevailing rate for similar work in many offices, it is, of course, not sufficient to provide staff members with the things that Consumers Union believes every consumer should have.

We do not think that the standards implied here are by any means too high. In fact, a recent survey made under the direction of Frieda S. Miller of the New York State Department of Labor set \$22.93 as the minimum weekly pay designed to provide "adequate maintenance and protection of health" to a girl living alone; and \$20.30 for a girl living at home.

Obviously enough, the staff members feel that the way they live and the work they do both have their roots in the pay they receive, and if the pay falls short, their comfort and work fall short, too. Members of CU will understand that the relationship of union and management in regard to this point is not paralleled by the customary relations between a group of workers and their boss. Consumers Union is a non-profit organization with an aim of social usefulness. And the staff, recognizing this, recognizes also the financial problems that attend such an organization.

A good many of the employees consider working for CU something of an opportunity. Which is not to say, of course, that they will consider it less of one if the wages improve. It is the expectation of the employees that a more adequate scale of wages will accompany an improving financial condition at CU, as has been the case during the last year.

Since the last annual meeting, the shop group has been transferred from membership in the Bookkeepers, Stenographers and Accountants Union to membership in the Book and Magazine Guild. Both are local unions affiliated with the United Office and Professional Workers of America, a CIO international union.

Several members of the CU shop group have taken an active part in general affairs of the Book and Magazine Guild. A former shop chairman John Heasty, has been elected to the Guild's executive committee.

If any directors of the Republic Steel Corporation, mentioned a little while ago, happen to be in the audience, they will probably be interested to learn that the vicious checkoff system of union dues payment is in operation at Consumers Union, and has been proceeding smoothly for many months.

It is fair to say that the shop group is doing its best to adhere to sound principles of unionism, and to show what can be accomplished when enlightened employees and enlightened management get together to talk over their problems.

	CONSUMERS UNION 55 VANDAM ST., NYC
	Please send me back copies as indicated. I enclose:  \$\text{\$\subseteq\$ \$\\$1 for all 1936 issues.}\$ \$\text{\$\subseteq\$ \$\\$1.50 for all 1937 issues.}\$ \$\text{\$\\$3.75 for the following five 1936 or 1937 issues:}\$
1	***************************************
1	<ul> <li>\$4.50 for all issues through August, 1938.</li> <li>\$5.50 for all issues plus two binders.</li> </ul>
1	NAME
1	ADDRESS
L	

#### **Back Issues at Low Prices**

This listing gives partial contents of all issues of CU Reports published through August, 1938.

MAY, 1936—Hosiery, Alka-Seltzer, Toilet Soaps, Milk, Toothbrushes

JUNE-Vegetable Soup, Vegetable Seeds, Anacin,

JULY—'Used Cars, Travel, Cooperative Distributors.

AUG.— Heating Equipment, Hoisery (higher priced),
Bread, Laundry Soaps, Coney Island (bacterial tests).

SEPT .- Shoes, Tires, Whiskies, Hot-Water Bottles, Rubbers.

OCT.—Dentifrices, Men's Shirts, Coal and Oil, Brandies, Gins, Rums & Cordials.

 $NoV_{\bullet}$ —Children's Shoes, Electric Toasters, Baking Powder, Wines.

DEC.—Vacuum Cleaners, Mineral-Oil Nose Drops, Electric Irons, Fountain Pens, Woolen Blankets, Tomato Juice.

JAN.-FEB., 1937—Men's Suits, Shaving Aids, Hand Lotions, Maple Syrup.

MARCH-Sheets, Face Powders, Flour, Canned Asparagus & Cherries.

APRIL—Aminopyrine, Cold Cream, Men's Shirts.

MAY—Trailers, Washing Machines, Constipation.

JUNE-Large Cameras, Sanitary Napkins, Constipation.

JULY-Miniature Cameras, Fans, Ice Boxes, Constination.

AUG.-SEPT.—Ice Cream, Photographic Equipment, Inner Tubes, Fish Baits, Raincoats, Electric Clocks, Constipation.

OCT .- Auto Radios, Cereals, Heating Equipment, Constipation.

NOV.—Anti-Freezes, Portable Typewriters, Men's Hats, Constipation (concluded), Sewing Machines.

DEC.—Electric Shavers, Lipsticks, Cigars, Toys, Dolls, Radios.

JAN., 1938—Lisle & Rayon Stockings, Men's Shorts, Batteries, Vitamins.

Shorts, Batteries, Vitamins.

FEB.—1938 Automobiles (ratings), Vitamins A & D.

MARCH—Coffee, Razor Blades, Mechanical Pencils, Depilatories, Women's Shorts, Canned Corn, Vacuum Cleaners.

APRIL—Tuna Fish, Electric Ranges, Electric Heating Pads, Mattresses, Radio Antennas.

MAY—Permanent Waves, Waffle Irons, Razor Blades, Canned Peas & Apricots, Bicycles & Velocipedes, Springs.

JUNE—Canned Dog Foods, Refrigerators, Canned Fruits & String Beans, Men's Handkerchiefs, Cleansing Tissues.

JULY-Cigarettes, Sunburn Preventives, Sunglasses, Gasolines, Motor Oils.

AUG.—Coca-Cola, Catsup, Cameras & Equipment, Sneakers, Furs.

<sup>&</sup>lt;sup>1</sup> The figures given here applied at the time of the Annual Meeting and do not include the Director and the Technical Supervisor.

publications—newspapers and magazines—have refused to carry CU's advertising.

CU charges that these publications are deliberately boycotting this organization.

CU charges that many of them are doing so as a direct result of pressure from advertisers.

CU charges that it is being denied the right to tell its story to the public—and the public the right to know that story.

Why this boycott? Because CU tells the truth about products without bias, without distortion, without concealment. And certain advertisers cannot stand this scientific approach—because their products cannot stand it.

CU intends to go on telling the truth. And we don't doubt that frightened advertisers and a subservient press will continue trying to stop us.

Will CU members help in this fight? Will you spread the story of CU that 60 publications are afraid to carry? Will you help bring in the members they are working to keep out?

	NSUMERS UNION Vandam St., NYC
but ver	e's a new member—my contri ion to CU's fight against the ad ising boycott. I enclose the \$3 nbership fee.
Naz	ne
Add	ress
Му	name
Add	lress
	Check if you want a handy bool of subscription blanks.

## Heating Equipment: Oil, Coal, Gas

With ratings of boilers and furnaces for hand-firing, for oil-firing, and for stokers

M ust you hang your head in shame if you still handle a coal shovel? Can you look your neighbor square in the eye if you haven't a thermostat? Forceful salesmen and advertisements imply (1) that you must and (2) that you can't. To avoid going off half-cocked and putting your signature to a contract while under the spell of a skillful salesman's arguments and "demonstrations," you need a clear head and unbiased facts.

And you should know—the heating equipment salesman will not tell you—that out of 100 American homes nearly half are heated by the parlor and kitchen variety of stove; nearly 40 by furnaces and boilers fed with the good old coal shovel; less than nine by oil; about five by gas; and approximately two by coal stokers.

The amount you can afford—or wish—to pay for fuel must largely determine your choice of heating equipment. Coal still remains cheapest in most localities, and an increasing number of people who wish to use coal but balk at the chore of hand-firing are turning to stokers. If the house is not kept warmer than previously, their use may appreciably reduce fuel costs, since cheaper grades of coal can be used.

A stoker offers particularly welcome relief when bituminous coal is burned; anthracite can be hand-fired more easily and satisfactorily. An extra incentive for the use of an anthracite stoker, however, lies in the fact that many of the best makes have ash-removal devices not generally available on bituminous stokers.

Oil heating offers certain advantages over the coal stoker system. But unless your fuel prices are exceptional, oil will cost more than stoker coal. Also there is some reason to believe that fuel oil prices may go higher in the near future. The questions you must

decide here are: (1) how much more will oil heating cost?; and, (2) is it worth the difference?

And remember that when a salesman reports that in a certain house fuel costs dropped 25% to 50% after a switch from coal to oil, there is usually a catch somewhere. The owner may have wasted coal in a wholesale fashion; a new, highly efficient boiler or furnace may have been installed with the burner; or insulation and weatherstripping may have been added to the house.

Except where cheap natural gas is available, gas heat cannot be considered by the great majority of homeowners because of its cost. Owners report gas bills up to \$45 and \$55 monthly during the three coldest months. In one instance, heating a seven-room residence by hand-fired anthracite coal cost \$156 yearly; costs with oil during a comparable Winter ran to \$172, plus \$27 for electricity and for servicing the burner; and gas costs amounted to \$283 for a Winter during which an efficient, modern gas conversion burner was used in the same boiler.

If you decide to use oil or gas, insulation of the walls and top floor ceiling and installation of double windows and weatherstrips in your house will appreciably reduce heat losses, and therefore fuel costs (see "Heat and Cold Protection," August 1938 Reports).

Even a heating engineer cannot easily make an accurate estimate of future fuel costs. Fuel consumption va-

#### **Next Month**

A SECOND article will continue CU's examination of heating equipment with a discussion and ratings of oil burners and automatic stokers.

ries widely even in houses identical in structure and heating system. In many cases, although the installation of a stoker or oil burner should, according to engineering estimates, reduce fuel bills, it may actually increase them because the house is kept warmer. A conservative attitude to take is not to buy a stoker or burner unless you would be satisfied with it even though it should use up to 25% more fuel than estimated.

By collecting data from friends and from salesmen of different types of automatic heating equipment, you can with no great difficulty determine relative fuel costs within this 25% margin. An analysis similar to the one given in the table on page 21 will assist you. In so far as possible, substitute fuel amounts and prices that fit your case.

#### Your Present Heating Plant

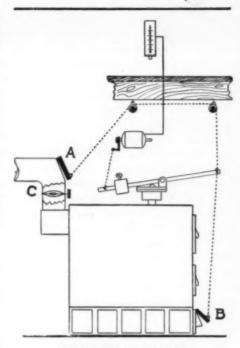
SKILLFUL dealers repair and modernize old heating plants when converting them to automatic firing. They clean smoke pipes, furnaces and chimneys as these have never been cleaned before, and induce homeowners to remedy defects that result in heat losses and high fuel bills.

Many times these changes by themselves result in satisfaction at a fraction of the cost of new equipment. Therefore, before purchasing an automatic plant ask yourself whether you would not be satisfied with your present heating equipment if it were modernized and its efficiency improved.

CU's field surveys have shown that three out of four homeowners have inefficient heating plants. Most of them limp along because of defects whic's could be eliminated for \$10 to \$70. Possibly a new radiator will suffice to make a certain room heat satisfactorily; and perhaps an inexpensive room thermostat and damper control motor will solve your problem of uneven heating.

If you have difficulty keeping the house sufficiently warm in severely cold weather, if you must tend the plant too often, if you have trouble bringing up the heat quickly on the coldest mornings, it may be that you need a larger furnace or boiler. Such troubles will not be remedied if you buy a stoker, an oil burner or a gas burner for your present boiler.

Though many householders con-



#### CONTROLS for COAL

For best results with coal, complete controls are necessary. This boiler is controlled by an electric thermostat and a mechanical control which closes the dampers whenever steam pressure exceeds proper limits. Every boiler should have both a check damper (A) and a butterfly damper (C), and the latter should always be installed between the check damper and the boiler's smoke outlet as shown. If draft is inadequate, a mechanical blower may be installed at B.

sider themselves born firemen, at least half the heating complaints of those who use coal can be laid to poor firing. Call in your coal company representative to determine if a change in your firing and control methods would not give you greater comfort at no increase in costs and with no outlay for new equipment.<sup>1</sup>

Do not overlook the fact that handfired coal heating is the best answer for the heating problems of thousands of families; that, no matter what fuel is used, the heating plant must be free of defects to yield comfort and low fuel bills; that in the last 10 to 20 years there have been important improvements in heating plants and boilers and furnaces built for hand-firing.

#### Warm-Air Heating

In its simplest form the warm-air central heating plant is the most inexpensive and, except in the north-eastern part of the country, the most popular. It has a steel or cast-iron furnace in a sheet-metal casing; cold-air and warm-air ducts; registers; and usually a humidifier, but no blower or air cleaners. When the furnace is well designed and sufficiently large and the ducts well planned and installed, it easily heats a compact house of seven or eight rooms.

Keep in mind, however, that if your house is not compactly built you may have difficulty with warm-air heating. Rooms on the windward side of the house, especially if they are far removed from the heating plant, may be hard to keep warm. But if you are planning a new home or renovating an old one, by all means consider a simple "gravity" warm-air system.

If you already have one, keep up your guard against salesmen who tell you it is obsolete and then proceed to recommend a new "Winter air-conditioning" system or a radiator-type plant. Like any heating equipment in use for many years, an old gravity warm-air plant may, of course, need repairs or additions to bring it up to date. (It is especially important that there be no leaks in the furnace to let smoke and gas into the warm-air ducts.) But fundamentally it is a sound design and a "Best Buy" in heating.

Potential fire hazard in a warm-air heating system-and especially in one with a fan-is greater than it is with a steam or hot-water system, because the ducts may serve as conductors of fire and smoke and because the fire is separated from the air stream by no more than a casting or steel plate. Contracts for air-heating plants should specify that the installation conform with the regulations of the National Board of Fire Underwriters, which are given, along with those for the installation of so-called air-conditioning systems, in the Board's pamphlet No. 90. Increased fire hazard and a higher insurance rate may be the penalties for failure to obtain this provision.

A humidifier—generally part of the warm-air furnace—is desirable; but it is not the ultra-modern, unique device pictured in advertisements. Advertising claims for the *Holland* furnace,

<sup>&</sup>lt;sup>1</sup> See Saving Fuel in Heating a House (Technical Paper 97, Bureau of Mines, Dep't of the Interior. Available from Sup't of Documents. Washington, D. C., for 5¢).

for example, give the impression that the humidifier alone is worth the price of the furnace. Actually this particular humidifier is not as good as many others on the market and is comparable with, or possibly inferior to, the pan arrangements that, for years have been standard equipment on even some of the cheapest furnaces.

#### Winter Air-Conditioning Plants

DD a circulating blower and an air filter or cleaner arrangement of some type to a warm-air heating plant and you have what is widely featured as a Winter air-conditioning system. Such plants very often have no right to the name. True air conditioning, as defined by the Federal Trade Commission, signifies control of the temperature, humidity and circulation of the air. And many of the devices sold as air conditioners fail to perform one or more of these functions.

The blower does help greatly in homes which have long wings or rooms relatively distant from the furnace. In all houses it will be an aid to more uniform heating and in some cases will permit the use of smaller feed and return ducts, thus partially compensating for the purchase and installation cost. Also, the blower may

be a distinct advantage in an automatically fired system, whether new or old. Disadvantages are that it is noisy, will require service, and generally consumes \$5 to \$10 worth of electricity yearly.

The typical air-cleaning arrangement offered in modern "conditioning" plants of the warm-air type costs the furnace manufacturer very littleand may be worth even less to the consumer. For example, the manufacturer pays less than \$2.50 for the three 16" x 25" filters used in one plant. These and similar filters can hold so little of the dust and dirt present in the air of a small home that they are practically worthless. If they are a part of any equipment you purchase, after a year's use you may well discard rather than replace them.

#### **Boiler-Radiator Heating**

ESPITE unsightly and space-consuming radiators, the boilerradiator system gives a positive, controlled heating of each room that can be paralleled with a furnace-type plant only when a supply register and a return register are in every room and forced circulation is used. Since the typical warm-air system does not have a return register in each room, poor circulation of heat results when the doors are closed. Return ducts eliminate this difficulty, but, of course, add appreciably to the cost of the system.

The boiler-radiator system which has the lowest initial cost is a onepipe steam plant equipped with modern adjustable radiator vent valves of the non-vacuum type. Properly installed, such a system will give satisfactory service, but it is difficult to get even heating from it and its fuel consumption is apt to be high. A close second in value is the forced-circulation hot-water heating plant. Main disadvantages of this system are the noise from the motor and the added cost of operating the electric circulator.

An investigation of a wide variety of Winter air-conditioning equipment to be used with a boiler-radiator system showed that without exception they were inferior in their results even to the generally cheaper furnacetype "conditioning" equipment. If, despite warnings, you are determined to have "Winter air-conditioning," buy a furnace type, not a boiler-radiator plant.

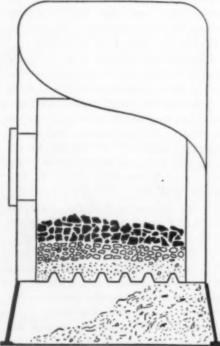
#### Magazine-Feed Boilers and Furnaces

For large numbers of homeowners, magazine-feed boilers and furnaces are the happy medium between handfiring and the automatic stoker or oil burner. Several well-known makes have excellent performance records.

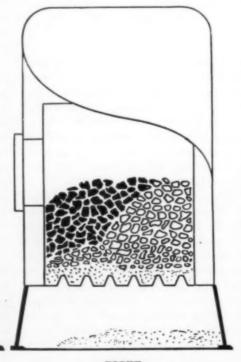
Because of their efficient design and because they use small, inexpensive sizes of anthracite coal, these boilers give appreciably lower costs than ordinary flat-grate boilers (see table of comparative fuel costs). And they have two money-saving advantages over stokers and oil burners: (1) there is no electric motor, which may mean a saving in electricity amounting to the cost of almost two tons of coal; (2) periodic service such as is required by the stoker or oil burner is not needed.

Other advantages of the magazinefeed boiler are its silence and its independence of electric service-especially important where electricity is costly or where storms may interfere.

If the boiler is large enough, the magazine will need filling only two to four times a week in mildly cold weather and no more than once a day at any time. The work involved



Fresh coal should be added . . .



RIGHT ... this way

## **Comparative Heating Costs**

This table is for comparative purposes only. Homeowners desiring to get accurate cost data must incorporate prices that prevail in their own localities. The sample figures given are for a typical 6-room dwelling.

All figures assume an equal amount of heat. However, as the accompanying text explains, a switch from handfiring to automatic heating may increase heating costs 25% or more.

**Using Special Boiler or Furnace for** 

Automatic Firing

#### Using Installed Boiler or Furnace 1

									Maior	HULLU A	ming		
	HAND-FIRED CO BOILER OR FURNACE			NVERSION BURNER IN INSTALLED FURNACE OR BOILER				FEED	CIENT FOR FUEL AND FIRING METHOD				
	Anthra- cite	Bitum- inous	Anthra. Stoker	Bitum. Stoker	Oil Burner	Mfd. Gas	Nat. Gas		Anthra. Stoker	Bitum. Stoker	Oil Burner		Nat. Gas
A Original Cost — Installed \$			240	220	200	195	195	190	410	390	480	320	320
B Yearly Bill \$	108 2	72	764	52 5	111	182	95 8	68	61	43	88	155	7 818
C Yearly Electric Cost 9 \$			17	17	13	1	1		17	17	13	1	1
D Service \$			8	8	12	10	10		8	8	12	10	10
E Actual Yearly Outlay (B+C+D) \$		72	101	77	136	183	96	68	86	68	113	156	82
F 5% Interest on Investment \$			12	11	10	10	10	10	21	20	24	16	16
G Depreciation $\{\ldots \}$			(8%)	18 (3%)	(8%)	(5%)	(5%)	(5%)	25 (6%)	(6%)	(6%)	16 (5%)	16 (5%)
H Total Yearly Costs (E+F+G) \$		72	132	106	162	203	116	88	132	112	166	188	114

<sup>1</sup> Because continued use of your present boiler or furnace involves no further expenditure, no depreciation or interest on original cost is included in the charges.

<sup>2</sup> Anthracite nut coal at \$12 per ton.

<sup>3</sup> Bituminous coal at \$8 per ton. Bituminous coal sells at widely different prices depending on distances from coal fields supplying it, coal quality and grade, and other factors.

<sup>4</sup> Anthracite buck wheat or stoker coal at \$8.50 per ton.

<sup>5</sup> Bituminous stoker coal at \$6 per ton. See note 3.

Anthracite buckwhent of several and the several and the several at \$6 per ton. See note 3.
No. 2 or No. 3 fuel oil at 6½ per gal.
Manufactured gas (520 Btu. per cu. ft.) at 65½ per 1,000 cu. ft. average price

for all purchased. Do not confuse this with the minimum price often featured prominently by gas company salesmen. Average price generally is considerably higher than minimum.

8 Natural gas (1,000 Btu. per cu. ft.) at 65¢ per 1,000 cu. ft.

9 Electricity at 5¢ per kwh.

10 Service charges can be considered as included in gas costs when the gas company will give a written guarantee that for 5 or 10 years no charge will be made for adjustments and attention. If such a guarantee is not obtainable, add a service charge of \$15 yearly. Salesmen's verbal assurances that no service charges will be made in future years are valueless.

is comparable to filling the hopper of a stoker not having a bin-feed, though the coal may have to be lifted a foot or two higher. As with any grate boiler, ashes must be removed by hand.

An electric thermostat is highly advantageous. It means that except for filling of the magazine and removal of ashes, operation is automatic.

Magazine-feed furnaces and boilers are recommended mainly for homeowners using anthracite coal. If you burn bituminous coal, do not buy magazine equipment unless the dealer can prove by existing installations that a bituminous coal which will give good results is available in your city.

#### Buying Boilers and Furnaces

NONSIDER three points in buying Cany furnace or boiler: (1) durability; (2) performance and ability

to heat the house; (3) fuel economy.

Most well-known boiler and furnace manufacturers offer equipment sufficiently durable to give purchasers little cause for apprehension on this score. Yet in several instances known to CU, steel boilers have needed retubing two or three times in 10 years. and cast-iron boiler sections have cracked during the first few years'

Some manufacturers do not value customer satisfaction highly enough even to investigate such troubles (which may be due to abuse or other causes outside the manufacturer's control); others try to find the cause of the failures, then help their customers in making repair or replacement arrangements and in avoiding repeat trouble. Try to buy a product backed up by its manufacturer, and sold by a contractor known for conscientious business methods. Also select a boiler or furnace of rugged construction, one of orthodox rather than "tricky" design, and one which has been on the market for some time.

Salesmen frequently will try to sell you a boiler with a fancy jacket or false cover. They will probably fail to tell you that without the cover the boiler may cost \$20 to \$30 less. False covers add nothing to efficiency, and most modern boilers look well enough without them.

Increasing numbers of architects and heating engineers are ordering boilers and furnaces only on the basis of guaranteed performance, and you should do the same. Otherwise you will have no comeback in case of inefficiency or wastefulness. Obtain a written guarantee signed by the contractor, and, if possible, also by the manufacturer, specifying that stack temperatures shall not exceed 500°F. when the heating plant is working at its maximum. Temperatures higher than this mean that too much heat is going up the chimney and indicate wasteful and inefficient operation.

If you wish to reduce first cost by buying a smaller furnace than is otherwise desirable—at the expense of having little reserve capacity for extra load and of slightly higher fuel bills—you may raise the guarantee maximum to 600°.

Stack temperature is determined by inserting a special thermometer in the smokestack close to the boiler or furnace where it will come in contact with the hottest gases leaving the flues. Many heating contractors and fuel dealers will make this test free of charge.

Since inefficient combustion due to improper firing methods may increase stack temperatures as much as 100°. the boiler or furnace dealer and manufacturer may want to word the guarantee this way: "The seller and manufacturer guarantee that with efficient combustion, as evidenced by a minimum of 10% CO2 (carbon dioxide) content of the flue gases, the stack temperature will not run higher than 500° on the coldest morning when the house temperature is being brought up to 70° by the heating plant working at maximum capacity." When such a qualification is made it is up to the dealer to make the CO2 determinations.

No matter which make of furnace or boiler is purchased, if it is not greatly oversize according to most manufacturers' standards it will give high stack temperatures, high stack losses, and, therefore, oversize fuel bills. It is essential to keep this in mind because, in order to quote a low price, far too many dealers offer equipment barely able to carry the heating load.

Excellent design, however, permits some smaller, less expensive boilers and furnaces to give low stack temperatures. If two boilers each give 500° stack temperature while carrying a certain load, and one is half the size and weight of the other, the smaller is the "Best Buy," superior in performance, and more efficient.

The ratings of furnaces and boilers which follow reflect this fact. The "Best Buys" are more likely to give high efficiencies because of better internal design. "Not Acceptable" furnaces and boilers tend to give high stack temperatures, and, when sized to give 500° stack temperatures, they are as a rule relatively high-priced and bulky.

#### **Hot Water**

EQUIPMENT for heating hot water the year around may be connected to an automatically fired steam or hot-water heating boiler and is, in most cities, by far the least expensive method of heating domestic water. Monthly fuel costs may run up to \$3 or \$4.50 in Summer, but in Winter the costs are practically nothing. For minimum fuel bills, the hot-water storage tank and the heating boiler must be well insulated.

A water leg or coil in the combustion chamber of a warm-air furnace will give an excellent supply of hot water in the Winter, but cannot be used in the Summer. Best results are obtained by exposing as much of the water heating surface to the fire as is possible without causing the water in the storage tank to boil on extremely cold days. Your local plumber or steamfitter should be able to advise you about location and size of the water leg.

More detailed consideration of water heating equipment will be included in an early issue of the Reports.

THE order of listing within the "Best Buy" and "Also Acceptable" groupings in the ratings below carries no significance if stack temperature guarantees are obtained. In that case buy on the basis of price.

#### **Hand-Fired Boilers**

#### Best Buys

Fitzgibbons (Fitzgibbons Boiler Co., NYC). Steel boilers only.

National (National Radiator Corp., Johnstown, Pa.). Series AH castiron boilers. Sound and efficient in design and construction. Usable developments: foot-pedal control for ashpit door; good damper adjustments; special heating surfaces.

H. B. Smith and Mills (H. B. Smith Co., Westfield, Mass.). Rectangular "water-tube" cast-iron models only; efficient, low fuel costs.

Indestructo (Sears-Roebuck, Chicago). Round and rectangular castiron boilers.

Weil McLain (Weil McLain Co., Chicago). Round and rectangular cast-iron boilers.

Burnham (Burnham Boiler Corp., Irvington, N. Y.). Both steel and cast iron.

Thatcher DeLuxe (Thatcher Furnace Co., Newark, N. J.).

#### Also Acceptable

Arco No. 7 (American Radiator Co., NYC). Purchaser is warned to make sure the size will be sufficient for economical operation, as well as large enough to carry the heating load.

Richmond (Richmond Radiator Co., NYC).

Richardson (Richardson & Boynton Co., NYC).

Pierce and Pierce-Eastwood (Pierce, Butler & Pierce, NYC).

Royal (Hart & Crouse Co., Utica, N. Y.).

Kohler (Kohler Co., Kohler, Wis.).
Capitol (U. S. Radiator Corp., Detroit).

Kewanee (Kewanee Boiler Corp., Kewanee, Ill.).

Crane (Crane Co., Chicago).

International (International Boiler Works Co., East Stroudsburg, Pa.).

#### Not Acceptable

Arco Red Flash (American Radiator Co.).

#### **Warm-Air Furnaces**

Where available, special models should be purchased for oil burners and stokers. However, many furnace manufacturers offer as "special" their regular models minus the grates. For this reason, plus the fact that sufficient data on special models are not yet available, all warm-air furnaces are grouped together regardless of whether automatic heating or hand-firing are to be used. For fullest protection, insist on the stack temperature guarantee.

#### Best Buys

Mueller (L. J. Mueller Furnace Co., Milwaukee). Hercules and Indestructo (Sears-Roebuck, Chicago). Have shown high stack temperatures but are low-priced by a considerable margin compared with other makes giving similarly high stack temperatures.

#### Also Acceptable

Weir and Meyer (Meyer Furnace Co., Peoria, Ill.).

Lennox (Lennox Furnace Co., Syracuse, N. Y.).

Directaire (Fitzgibbons Boiler Co., NYC). Special oil-fired "Winter airconditioner" gives admirably low stack temperatures but is priced high for the unimportant extra features included in it.

Round Oak (Round Oak Co., Dowagiac, Mich.).

Sunbeam (Fox Furnace Co., Elyria, Ohio).

Hess (Hess Warming & Ventilating Co., Chicago).

Royal (Hart & Crouse Co., Utica, N. Y.).

Moncrief (Henry Furnace & Foundry Co., Cleveland).

#### Not Acceptable

Holland (Holland Furnace Co., Holland, Mich.). Has antiquated major design features; high-pressure sales methods exaggerate unimportant features; both stack temperatures and prices run considerably above range of most "Acceptable" furnaces.

#### **Magazine-Feed Boilers**

#### Best Buys

Spencer (Spencer Heater Co., Williamsport, Pa.). CU's investigations of a considerable number of installed Spencer magazine-feed boilers showed low stack temperatures and excellent economy records, due to the use of boilers of ample size, and to design incorporating unusually efficient flue passages. All data indicate that you can trust a factory representative to select proper size and model.

Anthra-Heat (designed by Anthracite Institute, and offered in similar models by Burnham Boiler Corp., Irvington, N. Y., and by Fitzgibbons Boiler Co., NYC). Compared with Spencer magazine-feed unit, the Anthra-Heat has these disadvantages: (1) it is offered for a narrow range of small heating loads; (2) it burns larger, more expensive coal; (3) it cannot be converted to oil, gas or stoker firing. Nevertheless, for many small homes where only anthracite coal is to be used, this unit is a "Best Buy."

#### Also Acceptable

Ideal (American Radiator Co., NYC).
Weil McLain (Weil McLain Co., Chicago).

Molby (Molby Boiler Co., NYC).

Newport (Richardson & Boynton Co., NYC).

#### **Boilers for Oil-Firing**

The following boilers, when equipped with good oil burners, are generally better buys than boilers with built-in burners. The latter type will be covered in next month's Reports.

#### Best Buys

Fitzgibbons Oil-Eighty (Fitzgibbons Boiler Works, Oswego, N. Y.). Steel.

Burnham Cast-Iron (Burnham Boiler Corp., Irvington, N. Y.).

Kewanee Type R (Kewanee Boiler Corp., Kewanee, Ill.). Steel.

H. B. Smith (H. B. Smith Boiler Co., Westfield, Mass.).

Capitol Series O (U. S. Radiator Corp., Detroit).

Pacific (Pacific Steel Boiler Div., U. S. Radiator Corp.). Requires unusually high and steady chimney draft.

Ti-Scot (Titusville Iron Works, Titusville, Pa.). Exceptionally efficient Scotch Marine design; ratings are truly conservative.

#### Also Acceptable

Pierce (Pierce, Butler & Pierce, NYC).
Weil McLain (Weil McLain Co., Chicago).

National Bonded (National Radiator Corp., Johnstown, Pa.).

#### Not Acceptable

Tests of numerous installations show

that the following boilers, when bought in sizes recommended for different loads by the manufacturers, are apt to give excessive stack temperatures and very high fuel bills. These boilers are "Acceptable" when backed up by a strong guarantee from the manufacturer that the stack temperature at full fire for the load will not exceed 500°.

Crane Fin Type Boiler (Crane Co., Chicago).

Kohler Models H and 22 (Kohler Co., Kohler, Wis.).

Arco Oil Furnace Nos. 11 and 12 (American Radiator Co., NYC).

Hercules (Sears-Roebuck, Chicago).

#### **Boilers for Stokers**

#### Best Buys

Kewanee (Kewanee Boiler Corp., Kewanee, Ill.).

National Multi-Finger Heat Extractor Boiler (National Radiator Corp., Johnstown, Pa.).

Timatic (Titusville Iron Works, Titusville, Pa.).

Spencer Steel Boiler (Spencer Heater Co., Williamsport, Pa.).

Fitzgibbons Coal-Eighty (Fitzgibbons Boiler Works, Oswego, N. Y.).

#### Also Acceptable

Arco Water Tube (American Radiator Co., NYC). Much superior to Nos. 11 and 12 listed below.

Burnham Steel Coal-Burning (Burnham Boiler Corp., Irvington, N. Y.).

Capitol (U. S. Radiator Corp., Detroit).

SO & WO Crane (Crane Co., Chicago).

Arco Nos. 11 and 12 (American Radiator Co.).

#### Magazine-Feed Warm-Air Furnaces

The following is a good buy for those who wish to install a warm-air furnace with magazine feed.

Spencer (Spencer Heater Corp., Williamsport, Pa.).

## **★ The Staff Reports ★**

A NNOUNCEMENT has been made that Charles Wesley Dunn, attorney for the Associated Grocery Manufacturers of America as well as other trade associations, is preparing a "model" State food, drugs and cosmetics bill.

Some 35 State legislatures meet next year and, aware of the fact that the recent enactment of a new Federal law (see July Reports) gives impetus to similar State laws, the trade associations are hoping that these legislatures will pass the Dunn bill before the end of 1939.

And so the fight for decent legislation moves to new fronts. It cannot be emphasized too strongly that passage of the new Federal law is no cause for consumers to call off their fight in the national arena; strengthening amendments must be worked for. But it is most urgent now that consumers turn their attention to the States.

Despite a few encouraging exceptions—Maine's regulation of cosmetics, for example—most States provide their citizens with little protection. In almost all States enforcement of whatever law exists is inadequate.

CU has not had an opportunity to see Mr. Dunn's bill. Probably it will be patterned after the new Federal law. And it seems safe to assume that any deviations will be in the direction of weakened consumer protection.

Mr. Dunn's record alone justifies the assumption. During the five years between the introduction of the original Tugwell bill and the signing of the Copeland Bill he did yeoman service for his clients in working against any provisions which might jeopardize their interests.

Unless consumers wish to accept State food, drug and cosmetic laws which have been dictated by the very industries in need of regulation, they must work vigorously for the passage of their own bills.

For those consumers who ask "What can I, as an individual, do?" we herewith suggest the following steps.

First of all, get your church, club, study group, professional society, or any other organization with which you are affiliated, to give State food and drug legislation an important place on its program for the coming year.

Once a study of food and drug legislation is decided on, committees should be appointed to investigate: (1) the existing State law; (2) the adequacy of its enforcement; (3) the need for a new law as exemplified by the sale of dangerous or worthless products in your State.

To obtain a copy of your State law, write to either the Dep't of Agriculture or the Dep't of Health, one or the other of which is usually entrusted with enforcement. If in doubt, write to the Food & Drug Administration, Washington, D. C. An evaluation of the law must, of course, be preceded by a study of the requirements of a good one. In this connection the following references should be helpful:

Consumers Union Reports, April, 1937; March, 1937; July, 1938. "100,000,000 Guinea Pigs," by Arthur Kallet and F. J. Schlink. "American Chamber of Horrors," by Ruth de Forest Lamb. Dep't of Agriculture press release for June 27, 1938, regarding

provisions of the new Federal iaw.

"How the 1906 Food and Drug Act Does Not Protect You," a study outline issued by the Nat'l League of Women Voters, 726 Jackson Place, Washington, D. C.

"Making Pure Food and Drug Legislation Effective," by Rep. John M. Coffee, *Congressional Record*, July 21, 1937 (reprints available from CU on request).

But the best of laws is worthless unless it is rigorously administered. Find out the amount of the annual appropriation for enforcement, the number of inspectors and other staff members employed—obtainable from the department administering the law or possibly from one of its local representatives. Find out how many violations have been punished during the year and what penalties were inflicted.

At this point look over the products on sale in your local drugstores. Try to find out what foods, drugs and cosmetics are prepared in your own State and are therefore immune from the new Federal law so long as their manufacturers keep them in intrastate commerce (manufacturers are apparently doing just that with their more disreputable products). Your druggist may help you with his. If he is unwilling or unable to do so, get in touch with the local representative of the Federal Food & Drug Administration.

Once your investigations are completed, and the need for a new law established, your group should decide on a model food, drugs and cosmetics bill to sponsor.

Many local organizations may wish to sponsor the State version of the Coffee bill, drawn up under CU's supervision, and already introduced in Wisconsin and New York. Copies are available from CU on request.

One local organization cannot, of course, exert sufficient pressure to get a bill passed. Consumer cooperatives, medical societies, branches of the National League of Women Voters and the American Association of University Women—two bodies which have given much study to food and drug legislation—are among the organizations with which you should be able to cooperate fully.

The next step should be the formation of a broader committee, representative of a number of organizations, to get a member of your legislature to introduce the bill.

He will need to know the data you have gathered during your investigations in order to speak effectively for the new measure. Arrange for speakers, if you can, at as many meetings as possible. See that State legislators are flooded with letters asking for their support of the measure.

Even this bare outline makes it plain that the task which confronts consumers is a tough one. To those who feel they can undertake it, CU will be glad to offer counsel and aid in every way possible. Tell us at what points you encounter special difficulty, thus to guide us in helping you. Working together, consumers can successfully challenge those business interests which seek to write their own laws.

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