

CHEMISTRY TO BE APPLIED TO U.S. PRODUCTION

Plan to Bridge Chasm Between
Scientific Discovery and
Practical Use.

SMALL START IS MADE

By FREDERICK J. HASKIN.
WASHINGTON, Nov. 12.—The Government has at last started in a small way a much-needed enterprise. One bureau in the Department of Agriculture—the Bureau of Chemistry—is going to turn some of its discoveries to practical use by finding out their commercial possibilities, and giving the public the benefit of its research.

This means that if the chemists of the sugar experiments laboratory, for instance, find an improved method of making cane syrup the bureau may not, as heretofore, announce the big discovery to the country and then start something else.

Instead, it seems likely that the new process could be developed profitably by syrup manufacturers, and if there is a special need for it, chemical engineers of the bureau will take up the matter. Data will be obtained to show the con-

dition of the market, whether a higher price can be obtained for the better product, whether new machinery is needed for the new process, and the cost, whether the process is profitable on a small scale. Equipped with facts, figures, and perhaps a small working plant where syrup has been successfully made by the Government process, the bureau is in a position to furnish help to any one who is interested.

DEVELOPMENT WORK BRANCH.
The branch of the Bureau of Chemistry which is to form this liaison between science and the public is called the office of development work. It was planned by Dr. Carl A. Albers, chief of the Bureau of Chemistry, who felt that the discoveries of his bureau were not often enough understood by the people who could have made use of them. The trouble was that the bureau had no way of helping people who were always writing to know if each new process would be a good commercial venture and if so how to go about starting work. To help these business men and manufacturers, and also private citizens who might be interested in the use of a discovery made by the bureau, the office of development work has been opened.

Many of the processes worked out by the Government chemists are practical only on a large scale, in an elaborately equipped plant. But in some cases the farm or housewife profits by the chemical experiments.

It is hoped that this may be true in the case of the straw gas experiments now being conducted at the Government

experimental farm at Arlington, Va. Gas was several years ago obtained from straw. During the war England eked out her gasoline supply by attaching bags containing the straw gas to the top of automobile buses. The difficulty with straw gas can be seen right there. It has never been satisfactorily reduced to a compressed liquid. When that is achieved, and the quality of gas obtained from different kinds of straw have been studied and compared the bureau of chemistry hopes to be able to show the farmer how to make his own gas for light, heat and power for stationary engines and tractors. The Government chemical engineers could not, of course, go to every farm and give actual assistance in establishing a gas production plant, but it could furnish the necessary information regarding costs, equipment and the product.

STAFF LIMITED.
The office that is to furnish this service is so new that it has scarcely mapped out its campaign. It cannot work out the development of all of its discoveries nor even of all that look promising as commercial propositions.

It has a limited staff, and works under the special appropriations that are made from time to time by Congress for experiments with groups, dyes or dehydration. Thus, if the bureau decided to develop its experiments on the uses of corn cobs, the funds for development must come from the appropriation under which the corn cob experiments were made.

Corn cobs, which are now usually burned up, furnish a good example of wasted material. Government research

has shown that a number of products can be made from corn cobs, among them adhesive for fiber board sizing, paper, and a high-grade brown dye which sells for \$25 a pound and can be made from cobs for about 15 cents. Some day the farmer may be able to sell his corn cobs for a very good price, but it is not likely that he would ever be able to extract dye or glue from them himself, because that is a proposition which demands development on a fairly large scale to obtain sufficient profits. It would be obviously ridiculous for a farmer to collect a few baskets of cobs into a corner of the barn and try to produce corn cob dye to compete with the product of a big, efficiently-run dye factory.

SHOES WEAR OUT BY IMPROPER TANNING.

The Bureau of Chemistry is at present working on a number of experiments which, if later developed by its engineers, would be of great service to the country. For example, these are the tanning experiments. Farm hides generally sell for considerably less than those put out by big tanneries, because a lot is either not so well-skinned and preserved, or else there are apt to be some carelessly tanned hides, possibly with cuts in them. In an otherwise good assortment, improper tanning partly explains why some shoes wear out so quickly. The Bureau

is now making a study of improved methods of tanning and as a result of its work has got out a bulletin telling how to tan hides. Formerly this was as far as the bureau could go. But now, if the office of development work should turn its attention to the bureau's leather work there would be a far better chance for the Government's findings to be of practical use to the tanners and to the public.

Another line of chemical research which has already shown its results is the utilization of inferior grades of citrus fruits. California ships East only the best oranges and lemons, because prices for cull fruit do not warrant shipping it any distance. How to conserve the great quantities of slightly imperfect or small fruit has always been a problem. But now the California laboratory of the Bureau of Chemistry has shown that by using the peel for marmalade and oil, and the lemons for citric acid, and establishing the business on a large scale, the cull fruit can be utilized. Largely as a result of increased interest in conservation of these imperfect fruits the price of cull oranges and lemons has gone up from \$5 to \$20 a ton, and four concerns have started to manufacture by-products of citrus fruit.

These are two of the many experiments which the bureau is making and which the office of development work could promote with profit to the country. The main difficulty, so often associated with new Government projects, is to get Congress to provide enough money for the work to be really of benefit.

WE CLOSE 6 P. M. SATURDAYS

Our Prices Are Based on New Market Quotations

\$1.35 Hose, 65c

Imitation wool hose for women. Bureau seamless fashions. "Richelle" weaves, good weight to be worn with low shoes; heavier mixture styles. Our regular \$1.35 grade, first quality. Extra special—(3 pairs, \$1.35)

Fair, 65c
(Main Floor)

Over Thirty-two Years in This Same Location.
The Star Store
360-370 W. Wash. St.
"Come Out of the Beaten Path"

Coat Event

Of Great Importance!

Saturday the Day!

THIS sale is the result of recent breaks in the wholesale market. Not much room for long talks—but the main thing you are interested in is that every coat is the latest style, the materials the newest and the workmanship the best. Saturday is the day to buy a coat, and the place is HERE!

COATS, of velour, silvertone, polo and tinseltone—colors are brown, taupe, Copen and navy. Plain and cone cape collars; silk and Venetian lined. Sizes 16 to 44.....

\$14.75

COATS, of Bolivia, silvertone, crystal cord, suede velours, plush, etc. Colors—Brown, reindeer, deep sea, navy and black; large cape sealine collars; fancy silk lined. Sizes 16 to 44.....

\$24.50

COATS, of Bolivia, crystal cord, suede velours, silvertip, suedine and plush. New wrappy models, loose ripple back—straightline belted styles, etc.; collars of opossum, sealine, nutria, racoon, etc., in brown, taupe, etc....

\$39.50

Up to \$39.50 Dresses

A LOT of about 25 women's dresses that formerly sold up to \$39.50. There are satins, messalines, wool velours, tricotines, serges and velvets. Nicely trimmed with braid, beads and embroidered; all sizes in the lot. A great value Saturday at—

\$29.50

A Smashing Sale of
Overcoats
Prices Hit a Low Level



THE warm weather has something to do with it; the lower wholesale prices also another reason for these lower overcoat prices. What you want to know most is that every overcoat in our stock has been reduced.

This great gathering includes heavy weight winter overcoats, double-breasted ulsterettes and long ulster models, full belted and half belted, trimmed and lined with Venetian; sizes up to 44.

\$50 Overcoats	\$30 Overcoats
\$38.75	\$25.00
\$40 Overcoats	\$25 Overcoats
\$32.50	\$17.95

Entire Stock of Boys'
Dubbelbilt Suits and Overcoats

Less Than Cost!

\$22.50 to \$32.50 Dubbelbilt

Suits and Overcoats

Dubbelbilt suits and overcoats for boys are nationally known and nationally advertised. These clothes need no introduction to our customers. We have also included other makes of best manufacturers to be closed out at the same price.

\$17.50

Warmer Underwear
For Men, Women and Children

WOMEN'S VESTS AND PANTS, 75c—Elastic knit, heavy lined, pure bleached; vests, high neck, long sleeve style; ankle length pants, with elastic bands. Regular and extra sizes; seconds, former \$1.25 grade, garment.....

75c

WOMEN'S \$2.50 AND \$2.75 UNION SUITS, 1.95—La Falso brand, fine ribbed, combed cotton, fleece lined union suits, high and low neck styles; also heavy weight, velvet lined suits, regular and extra sizes, former prices 2.50 and 2.75, sale.....

\$1.95

MEN'S HEAVY RIBBED PEELER COTTON UNION SUITS—Oneida knit, finely tailored, perfect fitting, closed crotch, large button seat, military shoulders, sizes 36 to 44; our \$3.00 value, special 2 suits.....

\$2.39

MEN'S HEAVY WEIGHT WOOL, MEXICAN "ELASTIC" RIBBED UNION SUITS, silver gray; a fine union suit for warmth and service; sizes 36 to 44; special Saturday, suit.....

\$3.00

FOR SATURDAY—4 OFF MARKED PRICE WOMEN'S MERODE BRAND UNION SUITS

—Spring needle knit, fashioned, perfect fitting, unadorned, advertised underwear; various styles and weights. Saturday at 25% off marked price.

\$1.00

Saturday Blanket Sale

Sold up to \$8.00

Genuine Beacon 60x90 Blankets
Genuine Woolnap 60x90 Blankets
Genuine Wool nap 64x90 Blankets
2-in-1 Comfortables, 60x84.

All the known fancy plaids and checks, all colors; extra heavy wool finish and can hardly be told from a wool blanket, but they are all cotton. These blankets formerly sold up to \$8.00, choice.....

\$4.95

—Basement.

OPEN
SATURDAY
NIGHT

"Stylish Stouts—Our Speciality"

THE PARIS

COR. WASHINGTON and ALABAMA

OPEN
SATURDAY
NIGHT

A Sensational Sale of
COATS

Fur Trimmed or Plain
Values Up to \$29.75

\$16.95
ALTERATIONS FREE

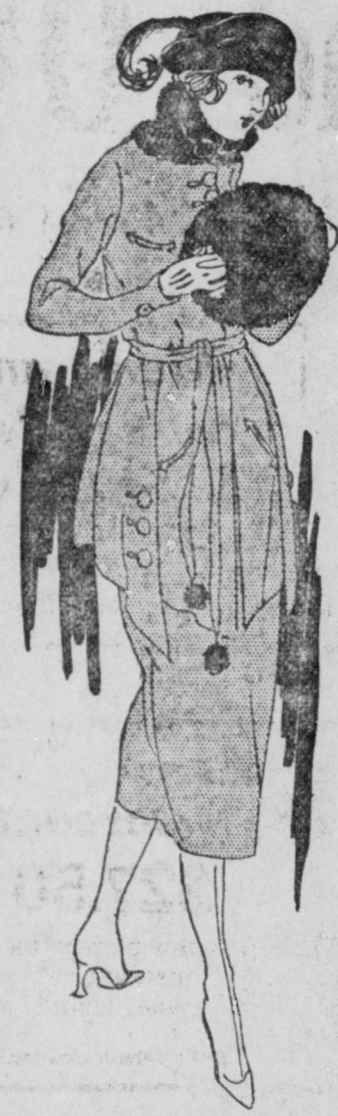
Both long and short Coats in this selection, belted or loose back Coats. Fur collars and plain. All styles and colors. This is an offering which we know every woman who wants to economize will appreciate. Many to choose from and all sizes up to 44, at.....**\$16.95**



Great Savings on
SUITS

Radical Reductions on all values up to \$60

\$29.75
ALTERATIONS FREE



Another sharp reduction on new plain and fur-trimmed suits of high-grade quality. The new price reductions will distinguish this offering as the biggest ever presented! Perfect tailoring, shape retaining qualities and exquisite silk linings make these suits altogether unrivaled at the price.

Finest Tricotines, Silvertones, Tinseltone, Velours, etc. Distinctive lines are set off by huge collars of richest furs. Wonders!

SATURDAY
MORNING
ONLY!
8:30 to 12:00

76 DRESSES

\$15, \$18 and \$20 values.

16, 18, 36 and 38 sizes
Tricotines, Satins, Serges, Tafetas, Messalines, Poplins.

If you want a DRESS BARGAIN, you will be in our store tomorrow morning between 8:30 and 12:00 o'clock, as these are values long to be remembered.

No exchanges, refunds or layaways on these dresses.

\$6.98

Saturday We Will
Offer Great
Savings on
Dresses

Beaded tricotines, satins, serges, beaded georgettes, tricolettes, velours, silvertone and tafetta; all colors and sizes; in models for every type, every purpose, every occasion.

Not one worth less than \$25.

\$16.95

Alterations Free.

"Style, Without Extravagance"

THE PARIS

COR. WASHINGTON & ALABAMA



SATURDAY
MORNING
ONLY!
8:30 to 12:00

12 COATS

Sizes 36 to 44.

This model is a plaid coat in sizes up to 44. It is a long coat and full flare. The woman who wants to save on a winter coat will be here tomorrow morning for this exceptional value.

No exchanges, refunds or layaways on these coats.

\$15 value

\$7.98

THE STAR STORE

THE STAR STORE