

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. BASKIN.

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 is the first time that 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, if 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 com-

petitors 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 project is practicable 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.

DEPARTMENT OF AGRICULTURE, WASH. 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 Alberg, 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 the use of them.

The trouble was that the bureau had no way of helping people who were always wanting 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 in the bureau, the office of development work has been opened.

Many of the experiments 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 is a new and rather gasolinelike product to a comparatively liquid. When that is achieved, the qualities 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 stations, garages, and garages. 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 all necessary information regarding costs, equipment and the product.

NEED OF 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 as nor even of all that look promising as commercial ventures. The Bureau of Chemistry has a limited staff, and works under the special appropriations that are made from time to time by Congress for experiments with syrup, dyes or dehydration. Thus, if the bureau decided to develop its experiments on the uses of corncocks, the funds for development must come from the appropriation under which the corncock experiments were made.

Corncocks, 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 corncocks, 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 corn for about 15 cents. Some day the farmer may be able to sell his corncocks 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 demands of time and labor, and would be obviously ridiculous for a farmer to collect a few baskets of cobs into a corner of the barn and try to produce corncock 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, there 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

of Chemistry is 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 merits is the utilization of inferior grades of citrus fruit. California ships East only the best oranges and lemons, because prices for dull 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 lemon for citrus oil, and establishing the business on a large scale, the dull fruit can be utilized.

Largely as a result of increased interest in conservation of these imperfect fruits the price of dull oranges and lemons has gone up from \$5 to \$30 a ton, and four concern have started to manufacture 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

WE CLOSE 6 P. M. SATURDAYS

Our Prices Are Based on New Market Quotations

\$1.35 Hose, 65c
Imitation wool hose
for women. Brown
seamless, fashioneed.
"Richelleu" weave, good
weight to be worn with
silk stockings. Various
style. "Richelleu" weave
\$1.35 grade, first quality.
Extra special—
(2 pairs, \$1.25)
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, silverstone, polo and tinselton—colors are brown, taupe, open and navy. Plain and coney cape collars, silk and Venetian lined. Sizes 16 to 44.....

\$14.75

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

\$24.50

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

\$39.50

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

\$29.50

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, tricottines, serges and velvets. Nicely trimmed with braid, lace and embroidery; all sizes in the lot. A great value Saturday at—

\$29.50

Men's \$10 and \$12 SHOES

The cut of the season! Fine custom-made shoes for men and young men. Our finest and highest priced shoes at this low price Saturday. Of vici kid and calf-skin in black and dark brown, with English and blucher comfort shapes. Regular \$10.00 and \$12.00 models, choice.....

\$6.95

Women's \$6.00 Boots,
\$4.95

In black and brown kid, lace model, high or low walking heels; the new fall models—

\$4.95

Women's Up to \$10 Boots, a pr.
Boys' Double Wear Shoes

One day only—Saturday this wonderful bargain! Women's high-cut lace boots, black and colored kid, with high or low heels. Stylish boots that represent values up to \$10.00, all sizes and widths.

\$5.95

Boys' Double Wear Shoes

One day only—Saturday this wonderful bargain! Women's high-cut lace boots, black and colored kid, with high or low heels. Stylish boots that represent values up to \$10.00, all sizes and widths.

\$3.45

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