

conditioning, then is air-cooled, granulated in a revolving cylinder, and screened. Oversize material is recycled to the conditioning mixer and the product is passed through a rotary louver dryer that is externally heated to between 350° to 500° F., where moisture is reduced to less than 2%. The output is dry and homogeneous and can be stored or bagged without caking.

Another pilot plant operation discussed, by J. J. Dorsey, was Commercial Solvents Corp.'s Stenga! process for reacting preheated ammonia and nitric acid in a packed reactor to form ammonium nitrate. The process, now in commercial operation at Sterlington, La., produces a dry material without requiring dryers, coolers, crystallizers, or a prilling tower. Operation, therefore, is independent of weather conditions. Molten ammonium nitrate leaves the reaction system with a moisture level as low as 0.1% after being separated from steam formed in the reaction in a cyclone separator. The molten material is solidified as a continuous sheet on a water-cooled stainless steel belt, then passed through a series of breakers, dried, cooled, classified, and coated.

The Chemico modification of the commercial urea process, by which carbon dioxide and liquid ammonia are reacted in an autoclave, was detailed by L. H. Cook, Chemical Construction Corp. Chemico's process utilizes a carbon dioxide absorption system for separating ammonia and carbon dioxide formed in decomposing unconverted ammonium carbamate. Carbon dioxide is absorbed in monoethyleneamine, which later can be regenerated and the carbon dioxide recycled to the autoclave. Ammonia can be recovered and liquefied for recycling or, if the plant is located adjacent to an existing fertilizer plant which uses ammonia as a raw material, sent on for use there. An ammonia excess of 200% is used, resulting in a reported 76% conversion of carbamate to urea per pass.

Plant Researchers Discuss Antibiotics

THE POTOMAC SECTION of the American Phytopathological Society is composed principally of research workers from the University of Maryland and the USDA's Agricultural Research Station at Beltsville, Md. Beltsville is considered by many to be the center for the present research work on the control of plant disease with antibiotics. It was particularly appropriate that the recent meeting of the section was concerned with the applications of antibiotics in the control of plant disease.

Frederick C. Visor of Chas. Pfizer & Co. presented the research workers with an industrial evaluation of the present research status of the antibiotic development. He told them, "The use of antibiotics against plant disease looks extremely promising at this time." Several materials such as streptomycin, penicillin, and Terramycin are now produced in commercial grades and are being considered as commercial products.

The research review indicated that streptomycin and formulations of streptomycin have shown commercial possibilities for the control of fire blight of fruit trees, bacterial spot of tomatoes and peppers, walnut blight, halo blight of beans, and other disease of economic importance.

The increasing research on the agricultural use of antibiotics has raised two principal problems which remain to be resolved. Although these compounds have proved to be effective control for bacteria diseases of plants in the laboratory, the development of bacterial strains resistant to antibiotics has been observed in laboratory tests. Recent research seems to indicate that the problem of resistance can be surmounted by combinations of streptomycin with chlortetracycline.

The residue problem, or carryover, is another question which has been con-

sidered. Visor told the group that assays thus far reported have all failed to find any detectable antibiotic in fruit of trees treated with antibiotic sprays.

Henry Welch of the FDA also addressed the phytopathologists on the attitude of the Food and Drug Administration toward antibiotic treatment of plant disease. He told them that the FDA will not regulate the use of antibiotics for plant disease, (see page 333).

Industry

American Can Begins Construction of New Laboratory

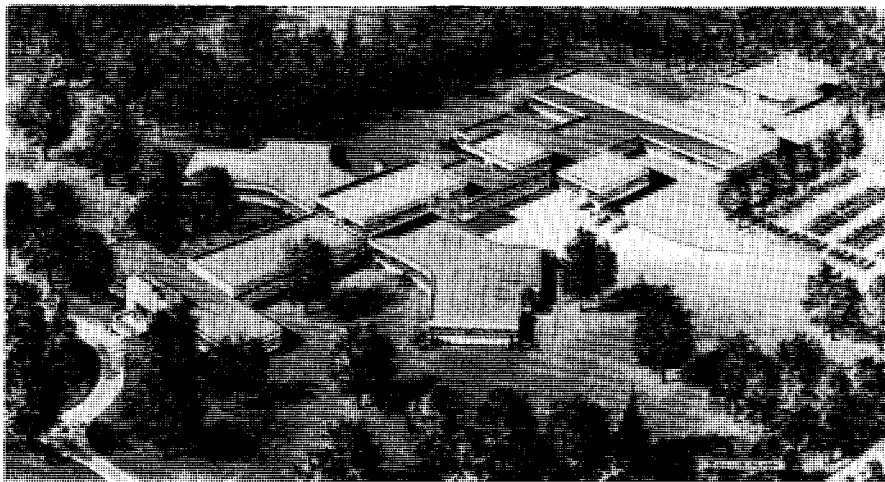
American Can Co. has broken ground on a 40-acre tract in Barrington, Ill., for its new research and development center. About 12 months will be required to build and equip the center. Robert W. Pilcher, the company's director of research, will head the laboratory.

Present laboratories at Maywood, Ill. will continue to be occupied as headquarters of the technical service division.

According to the plans (see sketch at the bottom of this page), the laboratory will be of buff brick and limestone, with half-glass walls and tile interiors. With the exception of the biochemical laboratories, cafeteria, and conference rooms, offices and laboratories will be on one floor. The basement, under half of the structure, will house heating, ventilating, and air-conditioning equipment, as well as constant temperature rooms. The plans provide for about 102,000 square feet of floor space, eventually to be enlarged to 140,000 square feet.

Research activities of the company are directed toward problems in canning technology, biochemistry, bacteriology, and heat transfer, as related to the improvement of canned foods and beverages. The project directed toward elimination of dependence on tin as a can-making raw material will also be carried out at the new location.

Sketch of American Can Co. research center now being built at Barrington, Ill.



Coronet Phosphate Moves to Norfolk; Rydell Named President

Smith-Douglas Co., Inc., has announced that offices of its recently purchased Coronet Phosphate division will be transferred from New York City to Norfolk, Va., about April 1. The Coronet offices have been in New York since Smith-Douglas purchased the phosphate mining company in September 1952.

Simultaneously with the transfer announcement, it was revealed that Ru-

dolph S. Rydell will become president of the division, replacing John R. Sheffield who is leaving the company. Mr. Rydell has been with Swift & Co. for 17 years, with Swift's plant food division and its raw materials division.

R. S. Rydell



Farm Fertilizers to Install TVA Continuous Ammoniator

Plans to install the continuous ammoniation process developed by TVA (AG AND FOOD, Sept. 16, 1953, page 818) have been announced by Farm Fertilizers, Inc., of Omaha, Neb. The continuous ammoniator is included in a general improvement and expansion program announced by the company.

Farm Fertilizers has been manufactur-

ing granulated mixed fertilizers since 1949. R. E. Bennett, president of the firm, says that the current expansion which follows closely on a recent sizable addition to the plant, will be completed next summer.

D. M. Weatherley Co. of Avondale Estates, Ga., will do the engineering work.

Foreign

Stauffer Opens Insecticide Plant in Mexico Cotton Area

Stauffer Chemical's Mexican subsidiary has opened an insecticide dust manufacturing plant at Rio Bravo, Tamaulipas. The new plant, Stauffer's second in Mexico, is located in the center of the Matamoros-Reynosa cotton producing area.

The other Stauffer de Mexico plant is in western Mexico at Nogales, Sonora.

Sales from the eastern plant will be under the supervision of Roy S. David and technical service will be under the direction of Carlos M. Gonzalez, a recent graduate in entomology of Texas A&M.

Britain Winning Food Battle

Rationing of butter, cheese, margarine and cooking fat will end May 8 this year the British government announced recently. Supplies of other products increased markedly in 1953. By year end, and excepting butter, many housewives were unaware of any food shortages, it was said.

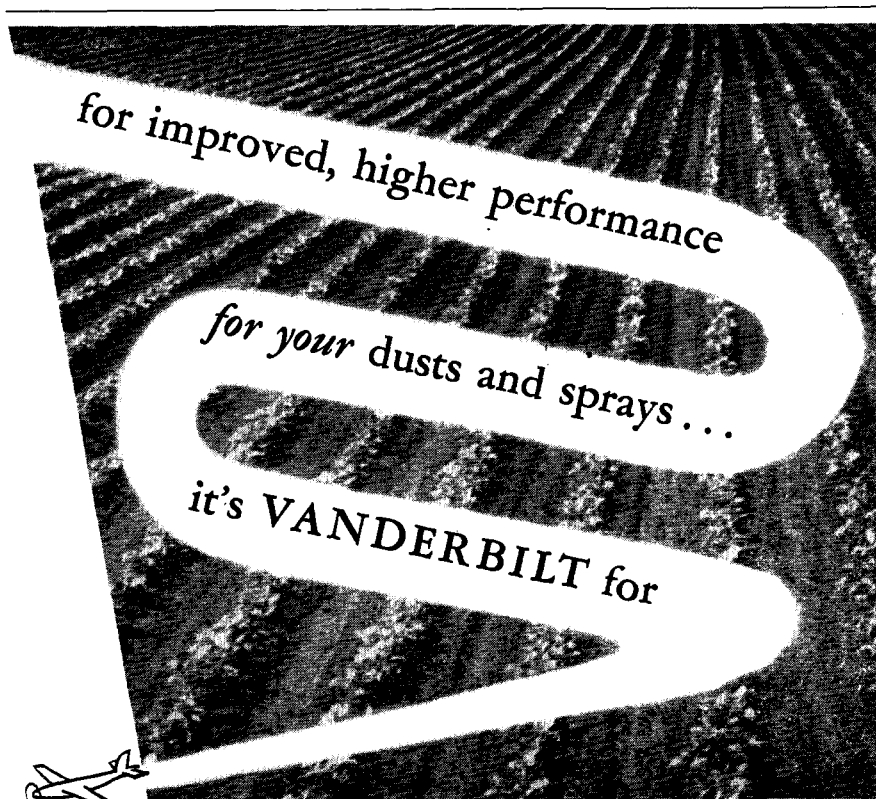
Butter and vegetable oil stocks continue to grow. Record imports of dried and tinned fruit are expected from South Africa and Australia. Meat prospects in Queensland and the Argentine have been bolstered by excellent rainfalls. World sugar should not be a problem. Liquid eggs are coming from China at four times the volume in 1952. The wheat surplus is still growing.

The problem in 1954 is not expected to be how to get enough food but rather how to pay for the expected abundance.

End of British Sugar Ration Fails to Increase Consumption

The end of sugar rationing in Britain (AG AND FOOD, Oct. 14, 1953, page 919) has failed to bring about the predicted increase in consumption. Large inventories of refined sugar, built up in anticipation of decontrol, were not required, and refiners have had to reduce output to allow these stocks to be absorbed. Stocks there exceed 1.7 million tons. Government purchase last April of 1 million tons of Cuban sugar now appears ill advised, with a quarter of a million tons of this purchase still to be shipped.

Lord Lyle, president of Tate & Lyle,



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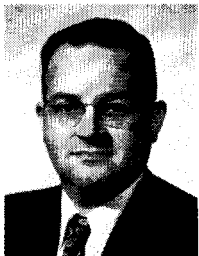
reporting before the annual general meeting of his company, said that when sugar was derationed the industry was not handed back to free enterprise.

Although all sugars in packages other than sugar packed in the 200 pound bag were freed from price control, Lord Lyle pointed out that the price of sugar in any form sold is still dictated by the Ministry; 80% of production costs is represented by raw sugar and duty, he declared.

Turning to the future, the company president predicted an increase in home consumption of 10% and advised shareholders that capacity of the refineries was more than adequate to deal with the increased production.

People

Lawrence Atkin has been promoted to assistant director of research at the Fleischmann Laboratories of Standard Brands, Inc.



Lawrence Atkin

He will assist W. R. Johnston, vice president and director of research, in supervising the research activities of the newly expanded laboratories at Stamford, Conn.

C. L. Peterson has been appointed divisional vice president of the Brown Instruments Division of Minneapolis-Honeywell Regulator Co. and O. B. Wilson will succeed him as general sales manager.

Kenneth W. Montfort of Portland, Ore., has been named district sales manager in the Pacific Northwest for the agricultural chemicals department, Eston Chemicals Division, American Potash & Chemical Corp.

John H. Bahlburg has been named manager of the new products, organic chemicals department, of Wyandotte Chemicals Corp., Michigan Alkali Division.

E. William Eipper has left the Oronite Chemical Division of Standard Oil of California to join the market research and development department of Stauffer Chemical and associated companies. He will make his headquarters in San Francisco.

Jack W. Garvin has been named special representative in Hawaii for Monsanto's overseas division. He has been working on agricultural chemical development in western Canada for Monsanto since 1950. He will maintain offices in the chemical department of American Factors, Ltd., a major supplier of agricultural chemicals in Hawaii. Garvin replaces Robert C. Miller who

has returned to St. Louis, where his new assignment will be on the applications of plant nutrients for the company's inorganic chemicals division.

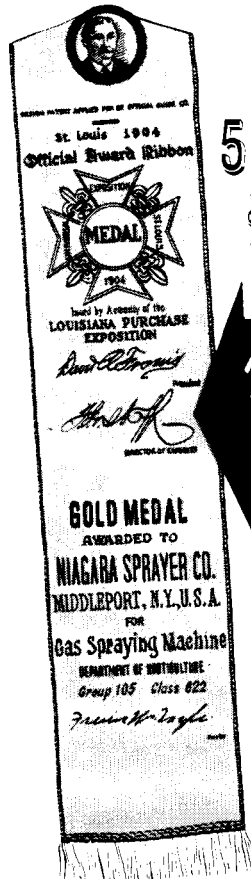
Charles O. Homan has retired as vice president in charge of sales for Dodge & Olcott. He has been with the firm for 48 years.

P. C. Goodspeed, Jr., has been promoted from sales engineer to sales manager of Sheffield Chemical Co., division of National Dairy Products Corp.

T. F. Yuschik has been promoted to sales manager of Armour & Co. chemical division's industrial oils department and H. R. Bishop to the post of fatty acid sales manager.

Joseph T. O'Gorman has left Whiteford Paper Co. to become sales manager of the plastic bags division of Arkell & Smiths.

Robert W. Heinle has been appointed assistant director of research for Upjohn and will concentrate his research work on nutrition.



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