



**THIN STEEL**—Heart of an escort ship's electric drive is this rotor core for a motor under construction for the U. S. Navy at the Westinghouse East Pittsburgh Works. It is composed of hundreds of hoop-like sheets such as this, each about one-fourth as thick as a dime. The "teeth" form slots into which copper coils are inserted.

## GENERAL SCIENCE

## Mexican Resort Adding Science to Attractions

► A FAVORITE Mexican resort city for American tourists is adding science and culture to its attractions.

Just a block north of Ambassador Morrow Street, named for the U. S. Ambassador who had a home in Cuernavaca, there is now a street that bears the name of the honorary president of the Mexican Academy of Sciences, Engineer Agustin Aragon y Leon.

This honor to one of Mexico's leading scientists, born 73 years ago in the state of Morelos of which Cuernavaca is the capital, is considered but part of a movement toward greater appreciation of science in this important region.

Governor Jesus Castillo Lopez has already announced his support of a Mexican Council of Learned Societies and he has invited the Mexican mathematicians to hold their second convention in Cuernavaca next May.

Engineer Aragon, for whom the street was named, was a member of the geodetic commission that set the border between the United States and Mexico. His career has been devoted to science, mathematics and philosophy as well as engineering.

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## NUTRITION

# Bread Prevents Disease

Two vitamin hunger diseases, beriberi and pellagra, have decreased "markedly and unmistakably" in New York as result of bread enrichment.

► BREAD is now preventing disease. Cases of two vitamin hunger diseases, beriberi and pellagra, have decreased "markedly and unmistakably" in the wards of Bellevue Hospital, New York, during 1942 and 1943, the period when enriched white bread and flour became universally available in that city, Dr. Norman Jolliffe, of New York University College of Medicine, declared at the meeting called by the Food Distribution Administrator to consider compulsory enrichment of all white flour as a war measure.

Only one-fourth as many patients with full-blown beriberi and only one-third as many pellagra patients are seen now in the wards of this hospital as were there in 1939, Dr. Jolliffe stated. He attributes this decrease to the bread enrichment program through which people are getting much more of the pellagra-preventing and beriberi-preventing vitamins, niacin and thiamin, than formerly.

Opposition, strongly vocal and somewhat unexpected, to the proposal for enriching all white flour developed from representatives of the baking industry, who urged enriching bread and other flour products at the bakery, rather than at the mill. Increased costs to bakers; loss of prestige and hurt pride because the bakers have heretofore played a big part in pushing the enrichment program; and fear of possible loss or waste of vitamins either in stored flour or in manufacture of certain bakery goods were the chief reasons given.

Evidence that destruction of vitamins in flour under storage would not be serious, nor the loss in baking crackers and such items very large, was presented by those favoring enrichment at the mill.

Government authorities lean to enrichment at the mill because of greater ease of enforcement of the order. The large number of bakeries, many of them small, would make supervision of enrichment of bread and bakery goods extremely difficult.

Millers seem willing to take on the entire enrichment job. They are already enriching a large proportion of all flour

and it is believed very few mills will need any extra equipment to enrich all white flour.

Flour should be enriched at the mill, Dr. Russell Wilder, chief of civilian food requirements branch of the Food Distribution Administration, declared, because the fault has been with the flour, not the bread. Finely milled white flour loses important vitamins and iron in the milling process. Enriching flour at the mill or source, he pointed out, follows the logic of purifying the water supply of an entire city rather than doing the job in each home and public building.

Whether all or only part of white flour is to be enriched, it may be possible to distinguish it after October 1 by a very faint creamy tinge due to the vitamin, riboflavin, which will be a must ingredient in all enriched flour and bread after that date. Riboflavin has a clear yellow color. In flour and bread, however, the color will be so diluted that most consumers probably will not notice it.

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## PHYSICS

## Metals Inspected by X-ray With Assembly-Line Speed

► ASSEMBLY LINE speed in X-ray inspection of metals has been achieved, making it possible to check airplane castings for defects at the unprecedented rate of 17,000 per 24-hour day. C. V. Aggers, manager of the X-ray Division of the Westinghouse Electric and Manufacturing Company, announced.

A moving conveyor is the key to the new unit's speed, providing the fastest method yet devised to spot flaws in large quantities of metal parts. Six castings up to five inches in thickness can be photographed every 30 seconds.

Now installed in a large war plant, the mechanism can be located anywhere in the factory since lead-lined hoods replace the lead-lined room formerly necessary.

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