coordinated with all other research in the Department through the Administrator of the Agricultural Research Service and an Assistant Secretary of Agriculture."

Senate Attitude

Senator Capehart referred to the role of this "unit," the four regional laboratories, when he testified last year before the Senate Committee on Agriculture and Forestry on the six Senate bills on utilization research then pending. His remarks reflect the Senate opinion that a very large and spectacular separate program is the solution to the utilization research problem. Capehart said:

"Now you will have people who will testify here that the Department of Agriculture now has four laboratories . . . doing this work, and I agree that they are doing a good job. But it is not good enough in my opinion . . . We must move faster, appropriate more money, and have more people do this work . . . This year it is costing the taxpayer approximately $4 billion to support farm prices. It is costing another $365 million a year, a million dollars a day, to store the surplus."

This view was reconfirmed on 19 August by Secretary of Agriculture Ezra Taft Benson when he reported to the President that the mounting wheat surplus would increase the federal government's investment in that commodity to $3.5 billion next year. In July there was a wheat surplus of 1.3 billion bushels, and this amount is expected to increase. The cost to the government was reported to be $1.5 million a day for interest, storage, handling charges, and transportation. Although Benson presented these figures in support of a new economic program for agriculture, they constitute equally effective support for a utilization research program.

In the past 4 years of utilization research discussion, a frequently used device for emphasizing the urgency of the matter has been a comparison of the amounts industry and agriculture spend for research. Industry invests approximately $3 billion a year in research, 3 percent of gross sales. Agriculture invests some $375 million in research, about 1 percent of gross sales—and most of this is used to increase production. Federal and state governments spend $190 million of the total, of which no more than $18 million goes for utilization research.

Nearly half the market for natural fibers—cotton, wool, flax, silk—has been taken over by synthetic fibers. Two out of three pairs of shoes are now made partly or wholly of leather substitutes. As the Commission on Increased Industrial Use of Agricultural Products put it, "in recent years, agriculture has been researched out of a good part of its natural markets." The question is whether Congress will move this year—and, if so, in what direction—to increase the amount the government spends on utilization research for farm products.

Modern Methods Used to Test an Ancient Device

The Indian Government's Central Road Research Institute has developed a wheel tester, shown here, for studying the efficiency and durability of bullock-cart wheel-axis systems. The irregular lower wheel recreates road conditions by reproducing bumps and abrasions for the upper wheel, which is being tested.

The institute has a modern headquarters building in New Delhi that contains up-to-date research laboratories and facilities for developing and testing equipment. The organization has a wide range of activities, including the following: fundamental research on road-construction materials; soil mechanics studies; the development of standards and specifications for roads and road-building machinery; the design of road-testing instruments; the investigation of road characteristics under various traffic conditions; and surveys of accident rates, traffic volume, and so forth.

Old meets new: a modern efficiency test for an Indian bullock-cart wheel.