

This is the heart of their machine. Although nothing showed up at the beginning, when these machines were in production and in use all over the world because they serve a world market, this cam began to fail by breaking. They had no inkling of what was the matter.

It was a State technical man from the Penntap operation at Penn State that showed them the problem. It was a tricky thing. The new steel had chromium in it. The chromium resisted the hardening process that they had used successfully up to that time.

Here was a technical trick that they weren't prepared to solve but with STS program help they did.

Mr. WATKINS. I would still like to have a breakdown to explain what is happening.

Mr. Moss. We will hold the record open at this point to receive the information requested by Mr. Watkins.

(The information requested follows:)

DEPARTMENT OF COMMERCE RESUME OF STATE TECHNICAL SERVICES PROGRAM
IN PENNSYLVANIA

1968 is the third year that Pennsylvania has operated under the State Technical Services Act of 1965.

Initially (in 1966), the technical area of emphasis was new material: those that have gone past the basic research stage where commercial potential is obvious but not as yet commercially-developed to the stage of being well-advertised and established in use.

The new materials—especially the ones based upon ceramics, glass, inorganic synthetics, carbon, and the uncommon nonferrous metals—are frequently based on Pennsylvania raw materials and are used by industries found in the Commonwealth. These industries are characterized by a large number of establishments, many employees, significant value of production and value added by manufacture. However, there are also many smaller materials firms having few technical employees.

During the second year (1967) the technical area was broadened to include more of the materials, not just new materials. However, in only two years, PENNTAP (Pennsylvania Technical Assistance Program) could not hope to provide "full-service" technical communication concerning all materials at all levels of use. Therefore, working toward this goal, the materials area is being expanded even more in 1968. Through the technical information centers, the seminar series, and the radio and television presentations, PENNTAP will be concerned with the utilization of materials from their extraction or recovery as raw materials to the point of final consumption.

In addition to the materials field, PENNTAP is going towards other long-range goals by phasing-in the technical areas of bioscience and computer technology. While in-depth penetration of these subjects will not be made in 1968, limited activity will be initiated.

PENNTAP is also moving towards a complete statewide communications network. With the Library Information System and the Mobile Library extending coverage each year, information encompassing the entire technical spectrum is available to business and industry throughout the Commonwealth. Specialized data is available at regional centers.

The Pennsylvania program is administered through the Pennsylvania State University with Dr. Eric A. Walker, the President of the University, the designated official for the program. Dr. H. LeRoy Marlow, Director of PENNTAP, is immediately in charge of the program.

The following are the projects in the fiscal year 1968 Pennsylvania program:

1. *PENNTAP Information Center*.—Disseminate useful knowledge obtained from the technical literature, concentrating on fabricated metal and metal plating and coating; Franklin Institute of Technology, Philadelphia.

Total cost, \$60,071; Federal grant, \$30,036.