

the University of Vermont and a package of federal economic development loans and water improvement grants, Emery is currently negotiating with one or more major food processing companies to build a plant to convert the liquid whey to an edible dried protein. Little's study estimated that the whey plant would have annual sales of \$1.4 million, create 200 new jobs, increase sales for the cheese manufacturers, prevent the closing of some small cheese plants employing 51 persons, and generate \$454,800 in additional federal, state, and local tax revenues. One alternative, a sewage disposal plant to get rid of the whey, would cost about \$30 million and another \$400,000 a year to operate, the report said. The Little report urged that STS concentrate primarily on face-to-face field services. It found the education, information services, and demonstrations funded by the program to be of secondary importance. But it said the program could "serve as a bridge between industry and universities," if field personnel were to keep businessmen informed of existing academic courses and services applicable to their needs and inform universities of the educational needs of local industry. The same link might also serve to stimulate academic research on industrial problems paid for by business firms.

Most states drew heavily on universities and colleges to carry out the STS program. For instance, in 23 states an academic institution was the designated state technical service agency. (In 18 states, the department of commerce or economic development commission was the designated agency, and six states designated other agencies. Even in these states, field services were generally carried out by universities.) New York State, for example, involved some 20 campuses in the program; ten of these set up field service personnel.

The STS program was in existence long enough to attract some interest in most states. Indeed, lobbying by governors and universities played a role in the decision of the Commerce Department to ask Congress for money to continue grants. A few state governments may now pick up the share of program costs which Commerce had contributed, at least for a while. It remains to be seen, however, whether support for STS will persuade the Nixon Administration to attempt a resurrection in the next reel.

—ANDREW HAMILTON

## RECENT DEATHS

**Leroy G. Augenstein**, 41; chairman, biophysics department, Michigan State University; 8 November.

**Edgar Brown**, 98; former botanist for the U.S. Department of Agriculture; 10 November.

**Clark M. Cleveland**, 68; professor emeritus of mathematics, University of Texas; 1 November.

**J. A. Cohen**, 54; director, medical biological laboratory, National Defense Research Organization, The Netherlands; 31 October.

**Delmer C. Cooper**, 73; professor emeritus of genetics, University of Wisconsin; 26 November.

**Elbert F. Cox**, 73; former chairman of mathematics department, Howard University; 28 November.

**Lloyd T. Delany**, 46; associate professor of educational psychology, Queens College; 7 November.

**Armin J. Deutsch**, 51; staff member, Mount Wilson and Palomar Observatories, California; 11 November.

**Lyle O. Enstenson**, 53; professor of psychology and education, Carleton College, Minnesota; 29 November.

**Carroll L. Fenton**, 69; former assistant professor of physical sciences, University of Buffalo; 16 November.

**James R. Gladden**, 58; former chief of orthopedic surgery, Howard University Medical School; 7 December.

**Elva Goodhue**, 81; former head, science department, Lindsey Wilson College, Kentucky; 18 November.

**Frank L. Griffin**, 88; former president, Oregon Academy of Science and twice president, Reed College; 9 November.

**Harold M. Groves**, 72; professor emeritus of economics, University of Wisconsin; 2 December.

**Edward C. Hendley**, 64; professor of chemistry, Mississippi State University; 29 November.

**Edward C. Horn**, 53; professor of zoology, Duke University; 18 November.

**George W. Keitt**, 80; retired chairman, department of plant pathology, University of Wisconsin; 18 November.

**Edward E. Keso**, 69; professor emeritus of geography, Oklahoma State University; 12 November.

**Harry F. Lewis**, 78; former dean and vice president, the Institute of Paper Chemistry, Wisconsin; 17 November.

**Emil Liebman**, 69; chief research analyst, Arctic Institute of North America; 2 September.

**Harvey B. Lovell**, 66; professor of biology, University of Louisville; 25 November.

**James L. McCartney**, 71; psychiatrist and fellow of the New York Academy of Medicine; 29 November.

**A. M. J. F. Michels**, 79; former director, van der Waals Laboratory, Holland; 2 August.

**Max F. Millikan**, 56; director, Center for International Studies, Massachusetts Institute of Technology, 14 December.

**Rufus Oldenburger**, 61; professor of mechanical engineering, Purdue University; 22 November.

**Ernest M. Patterson**, 90; economist and professor emeritus, Wharton School of Finance and Commerce, University of Pennsylvania; 9 November.

**Walter H. Pielemeier**, 80; former professor of physics, Pennsylvania State College; 12 November.

**Harrison M. Randall**, 98; physicist and bacteriologist, University of Michigan; 10 November.

**Michalina Roth**, 69; psychoanalyst and professor, Albany Medical Center; 11 November.

**Leo A. Sapirstein**, 50; professor of physiology in the radiology department, Stanford University Medical School; 16 November.

**Michael Shapovalov**, 89; former plant pathologist, U.S. Department of Agriculture; 26 August.

**Vesto M. Slipper**, 93; astronomer and former director, Lowell Observatory, Arizona; 8 November.

**Edward A. Steinhaus**, 54; director, Center of Pathobiology, University of California, Irvine; 27 October.

**Maurice Sullivan**, 66; former head of dermatology, Johns Hopkins University; 28 October.

**Thomas J. Sullivan**, 62; associate professor of urology, College of Physicians and Surgeons, Columbia University; 15 December.

**Etienne J. Vassy**, 63; professor, Faculty of Sciences, Laboratory of Atmospheric Sciences, University of Paris; 30 October.

**Fred W. Warburton**, 71; research physicist, U.S. Naval Ordnance Laboratory; 11 November.

**Walter L. Whitehead**, 78; emeritus professor of geology, Massachusetts Institute of Technology; 2 December.

**Jack S. Wilkes**, 52; vice president for university affairs, Southern Methodist University; 8 November.

**Saul Winstein**, 57; professor of physical-organic chemistry, University of California, Los Angeles; 23 November.