in patients in catatonic excitement, when the temperature mounts rapidly and in a few minutes may go as high as 110 degrees. These cases usually die.

This patient was saved by rapid action on the part of the physicians. In addition to treatment with antibiotics, barbiturates and large doses of vitamins, he was given adrenal cortical extract. Practically continuous alcohol sponge baths were given him. Electric shock treatment was tried.

Gradually the temperature went down, the excitement subsided and blood pressure and chemistry returned to normal. The patient recovered with no memory of what he had been through.

The other patient, after repeated suicide threats, suddenly went wild on his birthday and threw himself about his room. He had to be restrained from mutilating himself. Then he stuck out his tongue and clamped his teeth down on it and held his breath. During one such spell of breath holding, his heart stopped beating.

Artificial respiration and injection of stimulants failed to restore him. He was dead.

The physicians' full report on these two patients is contained in the current AMER-ICAN JOURNAL OF PSYCHIATRY (Sept.).

Science News Letter, September 30, 1950

AERONAUTICS

Plane Wings without Rivets From New Forging Process

➤ RIVET-LESS wings for airplanes, constructed by a new forging process that saves cost, time and metal in the manufacture of wing panels, were revealed in Dayton, Ohio, at the Wright-Patterson Air Force Base.

The process was developed by the Air Materiel Command's Industrial Planning Division, the Lockheed Aircraft Corporation, Burbank, Calif., and the WymanGordon Company, Worcester, Mass. It utilizes specially designed dies and a vertical hydraulic press to forge one-eighth inch thick integrally-stiffened wing skins, thus eliminating the need for riveted reinforce-

With present wings, there may be up to 15,000 rivets in a wing surface. Cost of both rivets and installation is wiped out by the new forging method. There is also a great saving in the amount of aluminum required for fabrication when it is machined out of solid stock. In the old process a large percentage of the aluminum ends up as trimmings and chips which must be returned to manufacturers for reuse.

The new rivetless panels are being manufactured in the plant of the Wyman-Gordon Company. A German scientist, Karl Braeuninger, assigned to the Air Force, is in charge of the project.

Science News Letter, September 30, 1950

AGRICULTURE

Giant Fruits Aid Plant Genetic Study

➤ SCIENTISTS at Geneva, N. Y., like nothing better than to open their mail and find apples the size of grapefruit or grapes which look like small plums.

As fall's harvest season approached, Dr. John Einset of the New York State Agricultural Experiment Station sent out a call for such giant fruit, or "sports" as they are called. If you find an elephantine apple or a king-sized grape, you can aid in a longrange study of uncommon plant genetics.

Send the fruit to the Geneva station for examination, and carefully mark the tree or vine where you found it. Describe the fruit briefly and give the name and address of the grower on the postcard to the experiment station.

True apple "sports" are often twice normal size, flatter and irregular in outline. The tree on which they grow usually has thick twigs and a flat, bushy shape. Grape vines with unusual ambition sometimes turn out grapes twice the size of those on a neighboring vine. The reason is an unusual combination of the tiny bodies in the germ cells called chromosomes. These determine hereditary characteristics in plants and animals alike.

Science News Letter, September 30, 1950

SCIENCE NEWS LETTER

VOL. 58 SEPTEMBER 30, 1950 No. 14

44,600 copies of this issue printed

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N. W. Washington 6, D. C., NOrth 2255. Edited by WATSON DAVIS.

Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; yrs., \$14.50; single copy, 15 cents, more than x months old, 25 cents. No charge for foreign

Change of address: Three weeks notice is required. When ordering a change please state exactly how magazine is now addressed. Your new address should include postal zone number if you have one.

Copyright, 1950, by Science Service, Inc. Republication of any portion of SCIENCE NEWS LETTER is strictly prohibited. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicate services issued by Science Service. Science Service also publishes CHEMISTRY (monthly) and THINGS of Science (monthly).

Printed in U. S. A. Entered as second class matter at the post office at Washington, D. C. under the act of March 3, 1879. Acceptance for mailing at the special rate of postage provided for by Sec. 34.40, P. L. and R., 1948 Edition, paragraph (d) (act of February 28, 1925, 39 U. S. Code 283), authorized February 28, 1950. Established in mimeographed form March 18, 1922. Title registered as trademark, U. S. and Canadian Paten Offices. Indexed in Readers' Guide to periodical Literature, Abridged Guide, and the Engineering Index.

Member Audit Bureau of Circulation. Advertising Representatives: Howland and Howland, Inc., 393 7th Ave., N.Y.C., PEnnsylvania 6-5566 and 360 N. Michigan Ave., Chicago. STAte 4439.

SCIENCE SERVICE

The Institution for the Popularization of Science organized 1921 as a non-profit corporation.

organized 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: Edwin G. Conklin, Princeton University; Karl Lark-Horovitz, Purdue University; Kirtley F. Mather, Harvard University. Nominated by the National Academy of Sciences; Harlow Shapley, Harvard College Observatory; R. A. Millikan, California Institute of Technology; L. A. Maynard, Cornell University Nominated by the National Research Council: Ross G. Harrison, Yale University; Alexander Wetmore, Sccretary, Smithsonian Institution; Rene J. Dubos, Rockefeller Institute for Medical Research. Nominated by the Journalistic Profession: A. H. Kirchhofer, Buffalo Evening News; Neil H. Swanson, Baltimore Sun Papers; O. W. Riegel, Washington and Lee School of Journalism. Nominated by the E. W. Scripps Estate: H. L. Smithton, E. W. Scripps Trust; Frank R. Ford, Evansville Press; Charles E. Scripps, Scripps Howard Newspapers.

Officers—President: Harlow Shapley; Vice President and chairman of Executive Committee: Alexander Wetmore; Treasurer: O. W. Riegel; Secretary: Watson Davis.

Staff—Director: Watson Davis. Writers: Jane Stafford, A. C. Monahan, Marjorie Van de Water, Ann Ewing, Wadsworth Likely, Margaret Rallings, Sam Matthews. Science Clubs of America: Joseph H. Kraus, Margaret E. Patterson. Photography: Fremont Davis. Sales and Advertising: Hallie Jenkins. Production: Priscilla Howe. In London: J. G. Feinherr.

Question Box

AERONAUTICS

What are the safest kind of plane seats? p. 220.

ASTRONOMY

color is the daylight sky in Mars?

CHEMISTRY

What was the last unknown ingredient in the Stradivarius violin varnish? p. 214.

Why are candy factories dangerous? p. 217.

ENGINEERING

What kind of sawdust house will stand against a big bad wolf? p. 217. What metal can both cool and heat houses? p. 222.

GENERAL SCIENCE

How many people understand corporation reports? p. 210.

NAVIGATION

How can store sale crowds be kept moving? p. 217.

Photographs: Cover, Temple University, Research Institute; p. 211, Goodyear; p. 213, U. S. Steel Corporation; p. 215, National Advisory Committee for Aeronautics; p. 218, American Red Cross; p. 224, Union Carbide and Carbon Corporation.