

therapy measures under the auspices of the WHO should eventually wipe them out.

"The fatality rate for pneumococcal pneumonia has been cut to an all-time low of less than 5%. Prior to the introduction of serums it ran from 20% to 30%. The serums cut it to 15%, the sulfonamides to around 10%, and penicillin to less than 5%.

"Subacute bacterial endocarditis was practically 100% fatal before antibiotics, but today over 50% are saved.

"Operations for acute mastoiditis are almost a thing of the past. A few dollars' worth of antibiotic usually prevents or cures these troublesome infections.

"These are only a few outstanding examples of the contributions to health made by the antibiotic drugs. Today we are seeing the development of an important economic contribution through the use of antibiotics for promoting healthy, rapid growth of swine and poultry. In the feeding of chickens the time from hatching to marketing may be cut as much as four weeks by use of antibiotic-treated feedstuffs. This saving is increased by reduction of losses from disease as well as more rapid growth, savings in feed, and more rapid marketing.

"It would be unrealistic to say that the antibiotics have not also brought their problems.

"The answers to these problems lie in continued research by competent investigators and in the proper use of these drugs under supervision of the medical profession."

Science News Letter, November 7, 1953

#### MEDICINE

## Sulfa Drugs for Children

► IN SPITE of all the antibiotics or so-called mold remedies available today and being developed for use tomorrow, the sulfa drugs still hold top priority for treatment of infections in children, Dr. Sidney Ross of Children's Hospital, Washington, declared at the same symposium on antibiotics.

The sulfas, Dr. Ross pointed out, check the infections, they are inexpensive and they are easy to give.

They are definitely the drug of choice for treating meningococcus infections. In the ear infection, otitis media, which bulks very large among children, a sulfa drug and penicillin may be given, he said.

Sudden deaths following use of antibiotic drugs may number several hundred, Dr. Ethan Allen Brown of Boston declared at the symposium. He and Dr. Perrin H. Long of the State University of New York pointed out that many of these deaths go unreported in medical literature.

Most such deaths, Dr. Long said, have followed the use of penicillin, with a few following use of streptomycin. He has not heard of any reports of these deaths after use of the other antibiotics. Dr. Brown, however, said that it may be too early after developments of the newer antibiotics for such reactions to have occurred.

#### MEDICINE

## Frozen Sperm Pregnancies

► THREE WOMEN are pregnant by artificial insemination with frozen human spermatozoa in what is believed to be the first successful clinical application to human beings of the method used widely in animal breeding.

Drs. R. G. Bunge and J. K. Sherman of the department of urology of the State University of Iowa Medical School report in *Nature* (Oct. 24) that three women have been successfully inseminated with frozen semen. At the time the report was made, they were approximately six, five and three months pregnant.

General clinical application of use of frozen semen "must wait until normal embryonic development has been observed and the progeny are declared normal."

As long ago as 1866 an Italian scientist, Dr. P. Montegazza, observed the survival of human spermatozoa after exposure to temperature of 15 degrees below zero Centigrade (5 degrees Fahrenheit).

The Italian scientist even then speculated that in the future frozen semen might be used in animal husbandry, which is now the case. He also proposed that a man dying on the battlefield might, by his wife, beget a legitimate child after his own death.

Later work in England showing that glycerol protected frozen human spermato-

zoa and increased survival encouraged the Iowa scientists to conduct experiments. When their work indicated that treatment with 10% glycerol prior to freezing with dry ice produced an average 67% survival in human spermatozoa obtained from five young healthy men, they began clinical tests with the cooperation of Drs. W. C. Keettel and J. T. Bradbury of Iowa's department of obstetrics and gynecology.

Science News Letter, November 7, 1953

#### SCIENCE NEWS LETTER

VOL. 64 NOVEMBER 7, 1953 NO. 19

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N. St., N. W., Washington 6, D. C., NO. 7-2255. Edited by WATSON DAVIS.

Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage.

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, 1953, by Science Service, Inc. Reproduction 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 Patent 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., 1 E. 54th St., New York 22, Eldorado 5-5666, and 360 N. Michigan Ave., Chicago 11, State 2-4822.

#### SCIENCE SERVICE

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

Board of Trustees—Nominated by the American Association for the Advancement of Science: Ferdinand Payne, National Science Foundation; Karl Lark-Horvitz, 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; Homer W. Smith, New York University. Nominated by the National Research Council: Leonard Carmichael, Smithsonian Institution; Ross G. Harrison, Yale University; Duane Roller, Hughes Aircraft Co. Nominated by the Journalistic Profession: A. H. Kirchhofer, Buffalo Evening News; Neil H. Swanson, Baltimore Sun Papers; O. W. Riegel, Lee Memorial Journalism Foundation. Nominated by the E. W. Scripps Estate: John T. O'Rourke, Washington Daily News; Charles E. Scripps, E. W. Scripps Trust; Edward J. Meeman, Memphis Press-Scimitar.

Officers—President: Harlow Shapley; Vice President and Chairman of Executive Committee: Leonard Carmichael; Treasurer: O. W. Riegel; Secretary: Watson Davis.

Staff—Director: Watson Davis. Writers: Jane Stafford, Marjorie Van de Water, Ann Ewing, Allen Long, Clare Cotton. Science Clubs of America: Joseph H. Kraus, Margaret E. Patterson. Photography: Fremont Davis. Sales and Advertising: Hallie Jenkins. Production: Priscilla Howe. Interlingua Division in New York: Alexander Gode, Hugh E. Blair, 80 E. 11th St., GRamercy 3-5410.

These sudden deaths are the kind due to anaphylactic shock from unusual sensitivity to foreign material. The sensitivity is different from the kind that causes skin rashes.

The deaths can be prevented, Dr. Long said, if the doctor, before giving an antibiotic, finds out whether the patient has had a reaction to a previous dose of antibiotic, whether he has asthma or some other allergy, and whether he has had procaine before. This last is because penicillin is often given in the form of procaine penicillin. If the answer is yes to any of these conditions, the antibiotic should not be given.

Besides making the usual safety tests of new antibiotics, manufacturers should, Dr. Brown advised, run tests on animals to see whether repeated small doses over long periods will induce allergic reactions.

Science News Letter, November 7, 1953

*Ascorbic acid* is used to prevent the darkening of peaches when they are frozen or canned.

A sugar-bearing ration for weaning pigs has been created; when fed to the animals it produces greater pork yields at lower cost.