

MEDICINE

Serum For Athlete's Foot May Come From Embryo Study

VACCINE or serum for combating athlete's foot and other troublesome skin disorders due to fungus infections may be developed as a result of research by Dr. Morris Moore of the Barnard Free Skin and Cancer Hospital, St. Louis.

While he has not yet made such a vaccine, Dr. Moore has taken what may be the first step toward this or some other weapon against fungus infections of the skin. He has found a substitute for either human "guinea pigs" or the laboratory animals themselves on which proposed remedies and preventives of the skin diseases can be tried. The substitute is

the developing chick embryo. The chick embryos not only save money and trouble for disease fighters but also reduce the time element from weeks or months to days.

Vaccines against other ailments including yellow fever and horse "sleeping sickness" have been made with the use of chick embryos, a technique first developed by Drs. E. W. Goodpasture and G. J. Buddingh of Vanderbilt University School of Medicine at Nashville. Scientists also have some hope that an influenza vaccine may be produced by the same technique.

Science News Letter, July 8, 1939

berries not given this conditioning treatment, he stated. The cost is about five cents a crate.

Science News Letter, July 8, 1939

AERONAUTICS

Plan Short Three-Day Route To Buenos Aires and Rio

PAN AMERICAN Airways, whose pioneering clippers have just opened routes to England and France, is already charting a new history-making route which will cut the time between New York and leading South American cities in half.

By flying overwater night and day from New York via Bermuda and Puerto Rico, the line's giant clippers could bring Buenos Aires within three days of the chief eastern American cities and Rio de Janeiro closer than that. No definite decision to undertake this new run has yet been made.

At present, New York is very nearly six days away by air from Buenos Aires because of the necessity for overnight stops along a landmarked airway which is not fitted with lights or other night flying facilities. Planes leaving Miami every Sunday and Wednesday stop at San Juan the first night, Port of Spain (Trinidad) the second night, Para, Brazil, the third, Recife, the fourth, Rio de Janeiro, the fifth, and Buenos Aires the last day. The first part of the trip is made in Sikorsky amphibians and the last part in Douglas landplanes. The distance, nearly 10,000 miles, is almost exactly the same for both routes.

The use of flying boats of the Boeing 41-ton class, or, if necessary, of smaller clippers such as the Sikorsky S-42B, is under consideration for the route being investigated. Thus the airline which has just started passenger service across the Atlantic to Marseilles, and will begin service in a few weeks to Southampton, in the fall or winter to New Zealand and within a year from Seattle to Alaska, is contemplating a further adventure in trail-blazing.

Without question, the Civil Aeronautics Authority and the State Department would look with favor on its establishment, provided all safety requirements are met, because bringing the United States closer to Latin America is a fundamental tenet of present American foreign policy.

The New York-Bermuda and Rio de Janeiro-Buenos Aires legs have been in regular operation for two and nine years respectively and no survey flights would be needed.

Science News Letter, July 8, 1939

CHEMISTRY

Synthetic Musk Patented By Du Pont Chemists

LONG-SOUGHT goal of perfume chemists—to create a synthetic musk which will have the extraordinary fixative powers of natural musk—is believed achieved by the disclosure of such compounds in patent No. 2,163,268 to the late Dr. Wallace H. Carothers and Julian W. Hill of the E. I. du Pont de Nemours and Company.

Dr. Carothers, before his death, also directed research by du Pont chemists which created nylon, the synthetic material from which fibers rivaling those of natural silk can be made.

The new patent relates to the production, with high yields, of cyclic esters having more than seven atoms in their ring structure.

"The many-membered cyclic esters are in many cases odorous compounds of great value," states the patent. "Many of them . . . have odors closely resembling those of natural musk. At the same time they possess the extraordinary fixative power which is characteristic of natural musk but is absent from most synthetic musks. The present invention provides a simple and direct method for their preparation."

Real musk is obtained from a strongly odorous substance secreted in a gland of the musk-deer and several other animals.

It is imported largely from China or from Central Asia by way of Russia. A grain of musk will distinctly scent millions of cubic feet of air without any appreciable loss of weight; its odor is extremely penetrating and persistent. In its crude form it costs about as much as gold. It is an essential in perfume making, giving power and endurance to compounded perfumes. An artificial musk was first made chemically as long ago as 1888 from toluene, a coal product.

Science News Letter, July 8, 1939

CHEMISTRY

Strawberries Gas-Attacked Keep Two Days Longer

PRACTICAL advantage can be taken of the respiration of plants in getting berries to market and keeping them there longer in fresh condition, Dr. R. H. Landon of the University of Minnesota reported to the American Association for the Advancement of Science meeting in Milwaukee.

Freshly picked strawberries and raspberries placed in a cool, gas-tight room and treated with a 35 to 40 per cent concentration of carbon dioxide for from four to seven hours will remain in good condition 48 hours or more longer than