

pellers turn horizontally, or tilt slightly forward, and thus give extra lift. When in flight, the pilot can move the propellers to turn in a vertical plane, then they give maximum speed ahead. In landing, they are moved upwards, and nearly vertical descent is possible.

Mr. Baynes assigned his patent to Alan Muntz and Company, Ltd., of Hounslow, England.

Science News Letter, February 22, 1941

PUBLIC HEALTH

Children's Bureau Layette For Washington's Birthday

WHEN the Father of His Country was ushered into the world on a February day 209 years ago he was probably given for wearing apparel many layers of undergarments, very long dresses, socks, mitts and caps, the latter to be worn both day and night. Babies born on February 22 this year, the day now celebrated as Washington's birthday, will be well dressed, according to modern scientific ideas, with very much scantier wardrobes.

The staff of the U. S. Children's Bureau sent a layette to a baby born in Lima, Peru, on Washington's Birthday, as a token of friendship and in return for a similar courtesy extended to a poor baby of Washington, D. C., by Senora Rosalia Lavalle de Morales Macedo, wife of one of the Peruvian delegates to the Eighth Pan American Scientific Congress. The layette was taken to Lima by Mrs. Elizabeth Shirley Enochs, when she went as representative of the Children's Bureau chief, Miss Katharine F. Lenroot, to a meeting in Montevideo of the International American Institute for the Protection of Childhood.

The layette consisted of a pink silk coat and bonnet, a blue knitted jacket and bootees, three short, hand embroidered dresses, two slips, three cotton shirts, one dozen diapers, two knitted cotton nightgowns, one can of baby powder, two cakes baby soap, one box of cotton swabs for cleaning a tiny nose, one bath towel, two washcloths, one crib blanket and one receiving blanket for use after baby's bath. A few supplementary items were to be purchased by Mrs. Enochs in Lima.

The layette might serve as a guide to mothers in other American countries. Such fancy items as the silk bonnet and coat, embroidered dresses and slips, are not essential if the budget for the expected baby's wardrobe is small. The diaper,

nightgown, blanket and towel allowance might well be increased.

Baby should have his own individual towels, washcloths and toilet articles, to

cut down the risk of germ infections. His clothes should be easy to put on and off, and they should give him comfort and freedom for kicking and stretching.

Science News Letter, February 22, 1941

ARCHAEOLOGY

Find Homes of Plain Citizens Of Mayan Civilization

THROWING light on the home life of ancient America's plain citizens over 1,000 years ago, when the brilliant Mayan Old Empire in the tropics was America's leading civilization, two prehistoric Mayan homes have been unearthed in British Honduras, J. Eric S. Thompson has just reported to the Carnegie Institution of Washington.

Excavations at the ruined "city of the stone lady," Xunan Tunich, near the Honduras-Guatemala border, show that a wide gap existed between lower and upper classes in the Mayan Indian world, Mr. Thompson reports. Indian farmers, who made up the masses of the Mayan population, were concerned with their pottery making, basketry, weaving, and worship of simple earth gods. The erudition of the Mayan priests, mathematicians and astronomers, which amazes archaeologists today, not only went over the heads of the common people but the lofty scholars moved in a different world.

They even worshipped different gods, some concerned with more esoteric matters than the rain and winds and soil.

Mr. Thompson, who is now in the United States, made the discoveries just reported during his past season's work there.

The two buildings which he identifies as presumably Mayan homes were occupied during several generations and were extensively rebuilt and repaired by the tenants. One home is a one-room affair, small and with vaulted roof. The other is more pretentious, and Mr. Thompson excavated six of its rooms.

Handiwork of the people provides significant clues to the two sharply divided classes of Mayan society. From studying decorated pottery in the ruins, Mr. Thompson has been able to divide the history of the ruined settlement into six culture phases, marked by a succession of art styles.

Science News Letter, February 22, 1941

ANTHROPOLOGY

Bones of Incas to Be Studied By American, Off to Peru

NEW LIGHT on physical types of the conquering Incas and other prehistoric Indians whom the Incas fought and welded into ancient America's biggest empire will be sought in Peru by Dr. T. Dale Stewart of the Smithsonian Institution.

Setting out Feb. 28, on a one-man anthropological expedition, Dr. Stewart hopes to study skulls and other skeletal remains from such ruins as the holy Incan city of Pachacamac, and the famous cemetery of Paracas on the coast, where quantities of mummies of pre-Incan days have been unearthed from the sand and unwrapped.

Getting better acquainted with remains of the ancients in Peru itself will aid the Smithsonian Institution in study of the

remarkable Indians who evolved high aboriginal civilization in South America. From an expedition made by Dr. Ales Hrdlicka about 30 years ago, the Smithsonian possesses four or five thousand skulls of Peru's ancient people.

Quantities of such skulls in the past have been cast aside in Peru's pre-historic cemeteries by amateur digging parties in frantic search for Incan gold or for the lovely woven fabrics and decorated pottery of the ancient people, which might be sold. Dr. Stewart's expedition is expected to add to the Smithsonian's collections new skeletal material.

With progress in excavating Peru's ancient cities, the physical types that inhabited highland and sandy coast in several thousand years of Indian develop-

ment can be differentiated. Bones become clues to the migrations and changing fortunes of ancient American groups.

Hope of learning more about antiquity of the Peruvian surgical practice of trephining, or cutting a hole in the skull,

is held by Dr. Stewart. This major operation served to release pressure although the Indians apparently thought of it mystically as a way of letting out evil.

Science News Letter, February 22, 1941

MEDICINE

Sulfanilamide May Prove Rheumatic Fever Preventive

Establish Record of No Attacks Among 55 Patients Taking Treatment From November Through June Annually

INCREASED hope that sulfanilamide may prove the means of preventing rheumatic fever attacks appears in a report to the *Journal of the American Medical Association* (Feb. 15) and in editorial comment on that report.

A record of no rheumatic fever attacks among 55 patients while taking continuous sulfanilamide treatment from November through June of each year between 1936 and 1940 is announced by Dr. Caroline Bedell Thomas, Dr. Richard France and Dr. Franjo Reichsman, of the Johns Hopkins Hospital and University. During the same four years, 15 major attacks of acute rheumatic fever occurred among 150 patients not taking sulfanilamide during the control period.

Rheumatic fever is a very widespread disease which seriously damages the heart and leads frequently to early death. More than 900,000 persons in the United States are said to suffer from rheumatic heart disease. It is the chief cause of death among school children and is responsible for at least 30,000 deaths annually in the United States.

The exact cause of rheumatic fever has not been discovered. Infection with the beta hemolytic streptococcus usually precedes attacks and this germ is thought to play a significant role in starting the disease. This germ is the one over which sulfanilamide accomplished its earliest triumphs, saving mothers whose lives were threatened by this streptococcus during childbirth.

Because of these facts, sulfanilamide was tried as a treatment for patients suffering rheumatic fever attacks. It was not successful in these cases and there was some evidence that it might be dangerous. The Baltimore doctors, however, and Dr. A. F. Coburn and Dr. Lucile V. Moore, of New York City, decided to try it, not as treatment, but as

a preventive of recurring attacks of the disease. Authorities generally agree that the patient who survives his first attack of rheumatic fever would have a good chance of living out a normal life span if he could be protected from these repeat attacks with their added injury to the heart.

As early as 1939, the Baltimore and New York doctors reported that major attacks of rheumatic fever did not occur, or occurred in only 1% of patients given sulfanilamide prophylaxis during the winter and spring months when streptococcus infections are most numerous. The present report of experience over four years adds to the hope that sulfanilamide prophylaxis of rheumatic fever will prove successful.

The drug is given twice daily in doses smaller than those used for treatment of disease. No serious toxic effects were observed. The editor of the *Journal of the A. M. A.* comments on the "hopeful picture" the report gives and adds:

"The final evaluation of this method of prevention awaits results obtained in large, carefully controlled series of young rheumatic subjects. In view of the widespread occurrence and the crippling effects of rheumatic fever, it is to be hoped that interest in and support for such projects will be sufficient to permit a final evaluation of this promising lead in the prevention of rheumatic fever."

Science News Letter, February 22, 1941

NUTRITION

Frozen Dough for Cookies; Frozen Grass for Chickens

FROZEN cookie dough that can be kept a year before baking, frozen grass for chicken feed, and frozen flowers for wintertime parties are news from the chilly realm where research workers are

adding more and more things to the list that can be frozen for a convenient future.

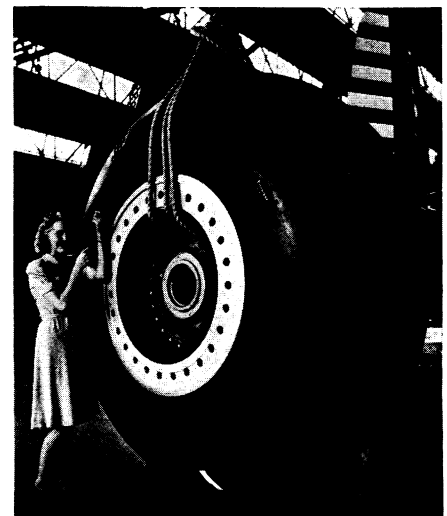
Putting various kinds of batter and dough through the quick-freezing process—that gives us fresh-tasting strawberries and peaches now at all seasons—three home economists at Purdue University have been baking with material kept frozen up to a year.

Cakes which they baked from batter frozen and stored four months taste just like fresh-batter cakes, they found by handing out samples to critical helpers. Stored longer than four months, the cake dough was not so successful, they stated, reporting these experiments to the *Journal of Home Economics*.

Cookie doughs kept frozen a year turned out cookies just like freshly mixed batches of cookies, they learned. Pies baked from pastry dough nine months in storage were like freshly made pies. Rolls were "acceptable" when made from frozen-stored dough kept up to six weeks. Beyond that time, "off" flavors were detected.

Prospect that quick-frozen batters and doughs of many kinds may become commercial products for bakeries and may be added to the line of frozen foods in groceries is foreseen as a result of these tests.

Frozen grass for human eating and for the chickens has passed the experimental stage and become a new commercial product. Made from cereal grasses, cut when the growing grass is at the peak



WORLD'S BIGGEST WHEEL

This giant is for the big Douglas Air Corps bomber and is about 23 times the weight of the young lady who stands beside it.