of November, the Commission was dissolved. Shortly after, four new cases of plague in Tungliao were reported and certified by the Japanese authorities. This led to reestablishment of the Commission on a permanent basis.

"The Commission intends to send investigation parties to Nungan and Tungliao at the end of June with a view to preventing in the future such epidemics as have occurred," the report states.

"The investigation parties will search the areas to which they are assigned for signs of the plague and even if cases are not discovered all practicable measures will be instituted. The Commission also intends to send licensed doctors in the spring to other places where the plague prevailed in 1933. These doctors, in addition to their ordinary plague prevention duties, intend to make scientific studies of the plague."

The total number of known deaths from the plague up to the middle of December, the latest date for which figures are available, is 1,200. This figure is considered only an approximation because it is impossible for the authorities to obtain complete and accurate information because of the primitive social conditions prevailing in some of the plague-stricken areas.

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A new use has been found for sodium metaphosphate; research indicates that it makes a good cleaning solution for washing dogs and other animals.

A fungus that ruins automobile tops by eating away their wooden hoops, and sometimes the fabric as well, is found to be tough and long-lived by laboratory tests: it is able to grow and reproduce even after five years in a perfectly dry condition.

MEDICINI

## Yellow Fever Serum Assures At Least Two-Year Protection

Scientists Do Not Know How Long Immunity May Last; Not Yet Practical to Protect Whole Populations

ISSIONARIES, government officials and scientists whose work takes them into regions where mosquitoes carrying yellow fever may bite them are now being adequately protected against this toll-taking disease.

For two years medical research scientists of the Rockefeller Foundation, working at the Rockefeller Institute for Medical Research, New York, under the leadership of Dr. W. A. Sawyer, have applied practically their vaccination technique. The yellow fever virus used is made safer by at least a hundred passages through white mice. Human blood from those who have had the disease or have been vaccinated is injected along with the weakened virus without bad effects. There results an active immunity similar to that which is caused by an actual attack of the disease.

Yellow fever has martyred scientists who attempted to conquer it. In Africa Drs. Hideyo Noguchi, Adrian Stokes, William Alexander Young and Theodore B. Young died. In Brazil Dr. Paul Lewis died. Today every Rockefeller scientist engaged in the fight is protected by the serum developed by Dr. Sawyer and his associates, Drs. S. F. Kitchen and W. Lloyd.

When in 1931 vaccination against yellow fever was announced to the medical world at a meeting in Philadelphia,

it was not known how long the immunity caused by inoculations with immune blood serum would last. Experience has shown it to be very efficient. Protection lasts at least two years.

Now efforts are being centered upon making the injections less difficult and less costly in human blood. It is not yet practical to protect a whole population against yellow fever, but those most in danger can with safety do their work in fever-infested areas.

The Pasteur Institute in Paris has used in its yellow fever vaccinations the blood of immunized horses.

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ETHNOLOG

## Nursery Rimes Traced To Ancient Spells

WHEN mothers play "This little pig went to market" with babies' fingers and toes they are repeating a spell which may date from countless ages ago.

Dr. Margaret Murray of University College, London, has made a study of modern Egyptian nursery and children's rimes, in which she traces some of them back as far as the twelfth dynasty of ancient Egypt, about 2000 B.C.

When the modern Egyptian mother plays with the fingers and toes of her baby instead of singing of little pigs she sings "The Song of the Egg."

It goes like this: "This is the egg.

It goes like this: 'This is the egg. This is the one who brought it. And this is the one who boiled it. And this is the one who peeled it. And this is the one who ate it all up." And as she pulls the last toe she sings the last line on a high note just as in the English game—the ritual note which completes the spell.

Dr. Murray traces this counting game back to the twelfth dynasty, when the soul of a sorcerer or learned man was not allowed to enter the kingdom of Osiris until he had shown his ability to count his fingers.

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