

turned. The leading scientist—pardon, magician—became the king of the new country. Emperor Ti paced the shores of China for three years seeking his expedition to what has since turned out to be Japan.

Thus ancient Chinese scientists helped found Japan. If present efficiency of operation is any indication, the descendants of those scientists are equally proficient in getting what they want.

Science News Letter, October 2, 1937

PUBLIC HEALTH

Military Activity in China Has Increased Neurosyphilis

NEUROSYPHILIS has increased in China as a result of the official and unofficial warfare that has disturbed that country for the past quarter century, Dr. J. L. Maxwell of the Henry Lester Institute of Medical Research in Shanghai reports. The institute has now completed its third year of work.

"During the last 25 years a licentious soldiery has overrun the countryside and has raised the incidence of neurosyphilis both by spreading infection and, according to Dr. Maxwell, by inducing a state of nervous strain in the rural population," states a resume of the report in the *Lancet* (Sept. 11).

Typhoid fever, a rarity among the Chinese population 30 years ago, has now become one of the commonest causes of admission to hospitals and at

the top of the list of deaths from infections. Medical and health authorities cannot explain why this disease should have increased so during the period in which cleanliness and water supplies have "vastly improved" along the coast and inland towns.

Appendicitis has also increased greatly, particularly among the wealthy city population. This, it is thought, may be due to changes in diet.

The medical institute has carried out studies of dietetic defects and nutritional diseases in the rural districts and among the factory workers in towns. More than half of the younger factory workers show signs of malnutrition, mainly "from lack of animal fats and first class protein in their diet."

Commenting on the work of the in-

stitute, the editor of the *Lancet* states:

"It seems tragic that such valuable work should receive a check. We are glad of an assurance that the institute has so far escaped damage and we may hope that Dr. H. G. Earle and his 30 assistants will soon be free to continue their work unmolested."

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SAFETY ENGINEERING

Grade-Crossing Accidents Hit Six-Year High

A NEW version of the "man-bites-dog" story is told in the account of last year's grade-crossing battle between road and rail.

The once popular sport of racing the locomotive has given away to crashing into the sides of sleepers or freight cars going by at night, accident figures reveal. More than four-fifths of accidents at grade crossings at night last year occurred in that fashion.

More than half of the accidents reported in Illinois occurred at crossings protected by gates, signals or watchmen. One railroad reports that heedless motorists crashed into more than 500 of its gates.

Deaths from grade crossing accidents reached the highest total in six years last year, when 3,792 grade crossing accidents, more than half of which occurred at night despite lighter traffic, took place.

Blame for the increase was placed on the fact that an automobile traveling at night at high speed cannot stop within the distance its headlamps light up. In many cases, even if motorists see the warning gate, the car cannot be stopped in time.

Directional floodlighting of grade crossings and the sides of slow-moving freight trains has been successfully tried by a midwestern railroad. The crack Chicago and Northwestern "400" train between Chicago and Minneapolis has been equipped with a powerful beam that flashes its warning 2,000 feet ahead.

Train-actuated barriers that rise out of the road have also been tried, it is reported. One device works as follows:

Five seconds after the warning lights flash, the barriers rise to a warning height of four inches. Should a motorist be too near to stop in time he can still safely pass over the barrier, which can be depressed once. Two seconds later, however, the barrier rises to a height of nine and a half inches and locks in place. A vehicle hitting the barrier,



PROTECTION

Motorists who persist in racing against the locomotive engineer and the Grim Reaper may find this life-saving device protecting them in spite of themselves. A barrier that can stand an impact of 3,000,000 pounds rises out of the road. It is operated automatically.