

tein diet (7% protein) increased their susceptibility to sulfanilamide "by increasing the mortality rate and the incidence of anemia as compared with similarly treated rats on a diet containing 30% protein," Dr. Smith and associates report.

The concentration of the drug in the blood was somewhat higher in the rats on the low protein diet which, the investigators say, "may possibly account for the greater toxicity.

"This also raises the interesting question," they continue, "as to whether this might not be more than offset by the obvious advantages of higher concentrations of blood sulfanilamide in the therapeutic (remedial) application of the drug."

Science News Letter, February 1, 1941

GENERAL SCIENCE

American Campuses Urged For New Sort of Refugee

A NEW sort of intellectual refugee to join the ranks of those driven to our shores by political injustice, is suggested by Dr. Joseph Needham, of the University of Cambridge, after conversations with university professors in the United States.

The peaceful campuses of American universities would be a welcome haven, he believes, to elderly English scholars who have been robbed of their students by war and whose knowledge of antiquities or ancient languages are of little help to the war effort.

As prominent among American professors proposing some such scheme, Dr. Needham mentions Prof. H. S. Taylor and Prof. O. Veblen, of Princeton.

"American sympathy for the British cause is so great," Dr. Needham told his colleagues through the British scientific journal, *Nature* (Dec. 7), "that if at some later date owing to destruction of laboratories by bombing it should be necessary to evacuate a good many British men of science to the New World, nothing could exceed the welcome they would receive from their American colleagues."

Science News Letter, February 1, 1941

Tigers have been known to jump higher than 15 feet.

Normally, 99% of the *calcium* in the human body is in the bones and teeth.

The *American Red Cross* is training 300,000 men in the CCC in first aid.

PUBLIC HEALTH

New Air Raid Shelter Danger Worse Than Epidemics

A HITHERTO unmentioned danger of air raid shelters, said to be greater than the danger of epidemics, is reported by Dr. Keith Simpson, of London. (*The Lancet*, Dec. 14, 1940)

The danger is that of death from pulmonary embolism which threatens elderly people forced to spend the night in a sitting or reclining position in air raid shelters.

Pulmonary embolism is a condition in which blood clots plug the arteries of the lungs. Dr. Simpson reports a six-fold increase in deaths from this condition.

The patients died suddenly, usually after leaving the shelters after a night or a succession of nights in them. Most of them were elderly, a little obese, and often had varicose veins in the legs.

"The precipitating condition," Dr. Simpson states, "was without doubt a long period of rest in a deck chair or some similar seat, the front edge of which pressed into the legs as they lay

over it, compressing the veins and causing obstruction, stasis (stagnation of the blood), edema (swelling) and thrombosis (clot formation)—probably in that order.

"The danger to life of pulmonary embolism clearly exceeds the danger (as distinct from inconvenience) of common colds, sore throat, bronchitis, minor epidemic infections and contagious skin diseases to which the Horder Committee have directed their main attentions. There has been no similar rise in the incidence of grave epidemic maladies as far as the death-rate can show.

"The moral is clear: people—especially elderly people—who are forced to spend long periods in air-raid shelters must be given provision for lying down.

"It is noteworthy that cases of fatal pulmonary embolism are already decreasing again, concurrently with the provision of bunks for sleeping."

Science News Letter, February 1, 1941

AERONAUTICS

Russian Passenger Airliner Has Six Engines, 8,000 H. P.

TECHNICAL data concerning the new Soviet passenger airliner, the L-760, accommodating 64 passengers and a crew of ten, are given in the British aviation weekly, *Flight*. (Dec. 12, 1940)

The ship is a monoplane with a wing span of 210 feet, and weighs 46 tons with full load, it is revealed. Six engines, mounted on front of the wings, have a total horsepower of 8,000. There are five cabins in the fuselage and four sleeping compartments in the wings.

"The L-760," says the writer, "was put on to the run from Moscow to the Caucasus last June and covered the 965-mile route at an average speed of 125 m.p.h. This is not fast according to modern ideas, and one does not have to look far for the reasons. The fixed undercarriage is one of them and the large wing (and therefore low wing loading)

is another. In comparing it with the Douglas B-19, it is evident that the wing is about the same size (both have spans of 210 feet), whereas the weight of the Douglas is about 50 per cent greater. The powers of the two craft are about the same.

"Another reason for low speed is the rather ungainly fuselage shape, which is very reminiscent of the huge Maxim Gorky. The engines are liquid-cooled with the air outlet controlled to regulate flow through the radiator."

It is stated that the total air route mileage in the Soviet Union increased during 1939 by 4,350 miles to a total of 88,325 miles. Though present-day figures about air traffic are hard to obtain, it is said, even in 1937 it amounted to 203,000 passengers, 9,000 tons of mail and 36,000 tons of freight.

Science News Letter, February 1, 1941