

is one has relief which Mr. Smith has recorded which is a surprise. It shows a profile of classic sweetness. Whether the Indians thought their fierce gods and

heroes beautiful, Mr. Smith points out, we cannot know. They may have placed other goals far ahead of beauty, in their art.

Science News Letter, December 14, 1940

PUBLIC HEALTH

Public Health Officials Battling Flu Epidemic

No Satisfactory Control Measures Available But Pneumonia Can Be Effectively Fought with Serum

PUBLIC HEALTH officials, engaged from the beginning of the outbreak in battling the epidemic of influenza, which began on the Pacific coast, have little hope of stopping its spread.

They will, however, work intensively to learn more about the disease and the viruses that cause it.

"Influenza travels as fast as transportation," Dr. Frank L. Horsfall, Jr., Rockefeller Foundation flu fighter, said, "That means the speed of airplanes," he added.

A large supply of the new double-virus vaccine against influenza, developed by Dr. Horsfall and Dr. Edwin H. Lennette through a lucky accident in which influenza-infected ferrets got distemper at the same time they got flu, is available in California, and is being used, but results are not yet available. The vaccine has not yet had a trial-by-epidemic of its protective value.

Vaccinating in the face of an epidemic may not provide such a trial, nor be effective as control measure even if the vaccine turns out to be effective in protecting against influenza. The reason for this is that influenza travels so quickly that it is difficult to get people vaccinated before they are exposed to the disease.

Dr. John W. Oliphant, U. S. Public Health Service, is in California, but not for the purpose of controlling the epidemic. No satisfactory methods of controlling this disease have yet been developed.

Dr. Horsfall is not going to the present scene of the influenza epidemic in California, either, nor is Dr. Lennette. The Rockefeller Foundation, Dr. Horsfall explained, has a well-trained group of influenza investigators, under the leadership of Dr. M. D. Eaton, already established in Berkeley with the Cali-

fornia State Department of Health. No word has been heard from these men since first notice of the epidemic on Nov. 30, presumably because they are too busy, "working day and night," to find time for official reports.

The most important thing to do first in an influenza epidemic, Dr. Horsfall pointed out, is to find which virus is causing the cases.

Two viruses that cause epidemic influenza have been discovered. They are called Influenza A virus and Influenza B virus. The B virus was identified by Dr. Thomas Francis, Jr., of New York University College of Medicine. This virus was the cause of epidemics near New York City and in North Carolina early this year. It also was the cause of an epidemic early in 1936, Dr. Francis discovered.

More strains may exist. Difficulty in developing protective vaccines against the disease may be due to the fact that there are so many strains. There might have to be a separate vaccine for each strain of virus. Fundamental knowledge of this sort is what Dr. Oliphant and other flu fighters are seeking, so that efforts to control the disease can proceed more effectively.

Like Dr. Horsfall and the others, Dr. Francis is eager to know which virus is causing the present California epidemic. He does not plan, however, to go out to California.

Dr. Francis considers that just because there is war in Europe is no reason to expect a big influenza epidemic this winter. He pointed out that the worldwide influenza epidemic of 1918 was one of the few in history to come with a war. We had a war in this country between 1861 and 1865, but nothing like influenza accompanied it, he pointed out. The year 1890 saw another big influ-

enza epidemic but there was no war then.

In 1918, unlike the present situation, the influenza epidemic in general affected the eastern part of the United States first and traveled more or less rapidly from east to west and from north to south.

Crowded conditions in army camps and naval training stations were believed to play an important part in the spread of the disease in 1918. Such conditions are not likely to prevail this winter. Army officials now receiving the first contingents of men for training under the Selective Service Act are well aware of the importance of avoiding crowding in order to cut down the spread of influenza and other diseases.

Health measures advised in case of an influenza epidemic are the same this winter as they have been for the past 22 years or more: Avoid crowds. Keep up resistance by proper diet, rest and outdoor exercise. Go to bed at the first sign of an influenza attack and call a doctor. Stay in bed until the doctor says it is safe to get up.

The most cheerful feature of the present situation is the fact that pneumonia, the great killer in past influenza epidemics, can be effectively fought by prompt treatment with serum or one of the new sulfa drugs or a combination of these.

There is some possibility that the Pacific Coast outbreak will be localized there, several points in the East early this week reporting no increase in influenza.

Science News Letter, December 14, 1940

ASTRONOMY

Find New Super-Dense Star In Constellation of Cygnus

AN ADDITION to the rare class of white dwarf stars, which have densities as much as a million times that of water, is announced by Dr. G. P. Kuiper, of the McDonald Observatory of the University of Texas and the University of California.

It is in the constellation of Cygnus, the swan, just above the top of the familiar "northern cross," visible in the western evening sky. The star, known by its catalog number as Ross 198, is of the fifteenth magnitude, and not visible except with the largest telescopes.

The faint companion to Sirius, the "dog star," now seen in the evening to the southeast, was the first white dwarf to be discovered. Though it has as much stuff in it as the sun, this is concentrated into a globe about as big as the planet