

oergyi's researches announced only four months ago. This may allow treatment of the disease by mouth instead of by injection. He found that a long known drug, succinic acid, has the power to combat the acidosis condition which is the dangerous end result of diabetes. The new drug promises to aid diabetics

who do not respond completely to the now standard insulin treatment.

Fumaric acid mentioned in the official citation for the Nobel award is used in making the succinic acid.

The award to Prof. Szent-Gyorgyi is a cash prize of some \$40,000, which will be presented in December.

Science News Letter, November 20, 1937

MEDICINE

Anti-Pneumonia Vaccine Being Distributed to C.C.C. Camps

A VACCINE for preventing pneumonia, being prepared at the Army Medical School, Washington, D. C., is now being distributed to C.C.C. camps throughout the country. Young men at the camps will be given shots of the vaccine, which it is believed will protect them during the coming winter against the disease which ranks third as a cause of death among all diseases.

The vaccine, originally developed by Dr. Lloyd Felton of the Johns Hopkins University, will not be available to the public for probably two or three years. It will take at least that long to determine, by experience with it in the C.C.C. camps and elsewhere, whether or not it is an effective preventive.

Final decision will be based on comparison between the number of cases of pneumonia, if any, that develop among the vaccinated men with the number of cases developing among the unvaccinated. Since the number in the latter group may be small anyway, it will be necessary to wait until figures on thousands of cases in each group are available for comparison. Last year 25,000 men at C.C.C. camps were vaccinated, but that is considered too small a number for drawing conclusions.

Best method of protection against pneumonia now available to the general public is to avoid colds and influenza. Four-fifths of all cases of pneumonia start from a cold or influenza, experienced physicians estimate. Although it may not be possible to avoid colds and influenza, they can in many cases be kept from ending with pneumonia if proper care is taken.

Another important point in pneumonia prevention is the isolation of pneumonia patients as early as possible, so their germs cannot spread to well persons. For this reason and for the protection of the patient himself, a doctor

should be called at the first suspicion of pneumonia.

The usual autumn rise in influenza cases has already started, reports to the U. S. Public Health Service show. The increase, however, has not yet reached the stage of suggesting that there will be an epidemic. It does show that it is time to take precautions against colds, influenza and pneumonia.

Pneumonia is caused by a tiny germ called the pneumococcus. There are 32 types of these germs, each causing a separate type of disease. Fortunately there are curative serums available for at least five of these pneumonias—Types I, II, V, VII and VIII. If universally and reasonably adequate applications of serum treatment were made, nearly half the deaths from pneumonia could be prevented.

Dr. Felton's vaccine protects against Type I and Type II pneumonia and perhaps against other types as well. Preparation of it is a very tedious task. At the Army Medical School pneumonia germs for vaccine production are being grown in 50-gallon batches. From each such batch about one-sixth to one-third of an ounce of vaccine is produced. The amount required for a shot of vaccine—and only one shot need be given for protection—is not very large. From one gram of vaccine, which is less than a thirtieth of an ounce by weight, 1,000 men can be vaccinated.

If the vaccine becomes available generally, it will probably be possible to obtain it for about \$1 a shot.

Science News Letter, November 20, 1937

About 25 million elm trees shade the streets, yards and houses of America's villages and cities.

Houses built in Czechoslovakia are now required to have bomb-proof shelters provided in their cellars.



ARTISTIC SOUND

In artistic curls made visible by the addition of a small amount of smoke the eddies from an organ pipe swirl out. An illustration from the new book "Science and Music," by Sir James Jeans.

CHEMISTRY

Chemicals Added to Coal Fail To Aid Its Burning

CHEMICALS added to coal to make coal burn better have little effect on the combustion of fuel, the U. S. Bureau of Mines revealed at the conclusion of exhaustive tests.

Spurred by continual inquiries about alleged "fuel savers," the Bureau investigated, both alone and in mixtures, all the chemicals known to have been marketed for this purpose, and many others, including water and chlorine. None, it was stated, were found to produce the effects claimed for them.

Results of the experiments are contained in a bulletin by P. Nicholls, W. E. Rice, B. A. Landry and W. T. Reid.

Science News Letter, November 20, 1937