

PUBLIC HEALTH

# Eradication of Syphilis Possible if Openness is Used

## Battle Cry Against One of Three Major Causes of Death Sounded by a Leader of Public Health Officers

**A** BATTLE cry against one of the great killers of man, one of his most dangerous disease enemies, was sounded by Dr. Thomas Parran, Jr., New York State Health Commissioner, at the meeting of the American College of Physicians. It was a stirring "fight talk" from a leader to his captains in the war on disease.

This disease ranks with tuberculosis and cancer as a major cause of death. It causes untold misery; denies many married couples the privilege of parenthood; causes helpless, innocent children to be born blind or deaf; cripples and finally drives insane many of its luckless victims.

The name of this dastardly disease is syphilis, a word that many persons do not like to speak or print or read. Not so long ago there was the same feeling about cancer, tuberculosis, even appendixes and gall bladders. Yet these have become part of everyday speech. Syphilis must also be read about and heard about so that this deadly foe can be vanquished. Refusing to name the enemy ends in defeat, not conquest.

This disease enemy of the unmentionable name, syphilis, can be conquered, Dr. Parran told the physicians. The outlook for the control of syphilis is far more hopeful than for the control of cancer. It is far more hopeful than was the outlook for the control of tuberculosis thirty years ago.

"The practical control and even eradication of tuberculosis in this country is a goal clearly in sight," said Dr. Parran.

### "Germ" is Known

By comparison, the job of controlling syphilis should be far quicker, it seems from what he told the doctors. For medical scientists know the "germ" that causes the disease. They can diagnose it as soon as the patient becomes infectious and dangerous to others. They have remedies which will quickly make the infectious patient non-infectious and prevent his giving the malady to others.

The big thing is to think of syphilis as a disease, to think of the person who has it as a sick person whose ailment is catching, but who can be treated so that in a short time he will not be in danger of giving the disease to anyone else. Another hopeful thing about this disease is that if discovered and treated thoroughly at the start, the damage it may do to body and brain and to future generations can be prevented.

Talking to the doctors, Dr. Parran described the splendid record of the Scandinavian countries where syphilis is now rare, and told how the United States could equal this record.

The first step is to have health departments with the cooperation of practicing physicians go after syphilis as they

would an epidemic of measles or smallpox. Report every case, although not necessarily by name. Investigate the source, that is, find out where the patient caught the disease, and what persons he has been in contact with since getting it. The contacts and the original source as well as the patient should be examined and treated, just as the cases of smallpox would be treated and the persons who had come in contact with the disease would be vaccinated, to protect themselves and the rest of the community.

To make this possible, there should be syphilis clinics in all centers of populations. At these clinics, with every provision for privacy, tests can be made to determine whether the patient has syphilis and treatment can be given if he cannot afford a private doctor.

Where these measures have been tried, as in the Scandinavian countries and more recently in Massachusetts and New York State, the syphilis situation has improved. The same can now be done in every state of the country.

"Available federal funds for social security make it possible," Dr. Parran said.

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PHYSICS

# Einstein Refutes Attack On General Theory of Relativity

By **MORRIS OSTROFSKY**, Institute for Advanced Study, Princeton, N. J.

**P**ROBABLY no field in modern science is attacked more often than the General Theory of Relativity.

In a recent paper to the *Physical Review* (Feb. 1) Dr. Ludwik Silberstein of Toronto, Canada, using a method developed by the Italian mathematician Tullio Levi-Civita, solved the so-called gravitational equation of the General Theory of Relativity for empty space for the special case of symmetry. Dr. Silberstein claimed that the solution which he obtained is "regular," that is, all right, throughout all space except for two special fixed points called singular points. An idea of a singular point may be obtained by analogy with a line. In this case a singular point will be a break or a sharp corner in the line.

In the interpretation of his solution Dr. Silberstein took the two singular points to represent material particles and

reached the conclusion that the General Theory of Relativity predicts no mutual acceleration of the two particles. This, of course, is known to be wrong, as two material particles in free space will attract one another and move accordingly. It seemed therefore that the Theory of Relativity is incorrect.

In publishing their answer to this charge, Prof. Einstein and his young assistant, Dr. Nathan Rosen, say that, in the first place, it is not correct to represent a material particle by a singular point in the Field Theory of General Relativity as did Dr. Silberstein. This makes the latter's premise wrong. In the second place, even granting this premise, Prof. Einstein and Dr. Rosen show that in the solution of the gravitation equation there appear, in addition to the two singular points, other singularities. Therefore, the conclusions drawn by Dr. Silberstein can not, in any case, be made. These facts were pointed out by Prof. Einstein to Dr. Silberstein even

before the latter published his results. So to date there has not been brought any valid argument, either theoretical or

experimental, against the General Theory of Relativity.

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## GEOLOGY

# Great Lakes Harbors Growing Deeper Due to Tilt

## American Side Gaining at Expense of Canada Through Natural Laws Beyond Control of Either People

CANADA and the United States may have reciprocal trade agreements but the United States is benefiting at the expense of Canada in another matter over which man-made laws have no control. Harbors on the American side of the Great Lakes are getting deeper and those in Canada are becoming shallower.

The reason, as revealed by Capt. H. V. Canan, U. S. Corps of Engineers, is that the region about the Great Lakes is tilting about a "hinge line" which roughly is in the direction of 20 degrees west of north.

This tilt, says Capt. Canan (*The Military Engineer*, March-April), is generally improving conditions in harbors on

the American side of the Great Lakes. He said:

"This action is material rather than merely of scientific interest and amounts to as much as 0.3 feet in some harbors. Considering vast harbor areas which are maintained to prescribed depths, a large saving in maintenance dredging costs will result when the effect of tilt on American harbors is given proper consideration.

"This uplift also affects the flow and the flow equations in the connecting rivers of the Great Lakes, and in computing flows for these rivers over extended periods its effects are clearly recognizable. Tilt has also been a factor in decreasing

the available depths over the sills of the locks at Sault Ste. Marie, Michigan.

"Much of the evidence presented of decreasing lake levels is in reality the effect of tilt. Reports indicate that in about 1860, North Bay, Wisconsin, was an important harbor for schooner navigation, as many as 35 boats tying up there at one time. Adjoining a rock ledge, old ring bolts used for mooring these boats can still be found. Correcting the present charts for the stage of 1860, only about 3 feet of water would have been available. This loss of depth can only be attributed to earth tilt."

Describing what effect the observed land tilting will have on the future of the Great Lakes, Capt. Canan says:

"There has been much sensational speculation as to the geological future of the Great Lakes. Rather than the danger of the lakes draining down the St. Lawrence through failure of the outlet plugs, the more apparent danger, if tilt persists, is the draining of the Great Lakes above Niagara down the Mississippi system. While speculation of this sort may be mentally stimulating, any danger is so remote, and the engineering steps necessary for prevention are so relatively simple, that there is little danger of losing the vast investment made by the United States and Canada on the Great Lakes."

Generally accepted explanation for the land tilt on a line passing through the Great Lakes is that the land to the north, in Canada, is still rising from the enormous squeezing which it received during the last Ice Age.

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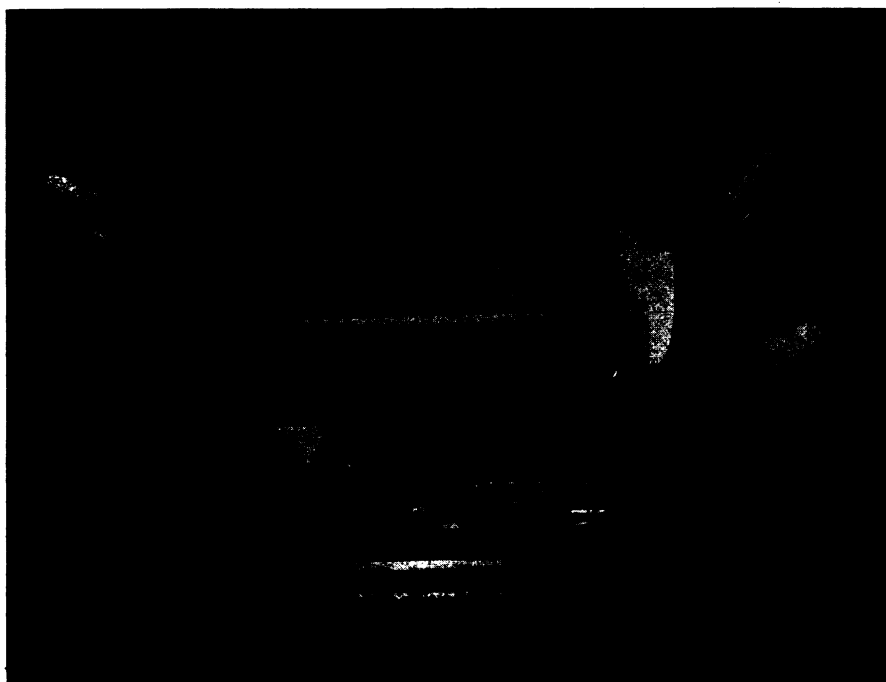
## CRIME DETECTION

## Demonstration Shows How Science Aids Against Crime

A GRIM exhibit awaits visitors to the scientific exhibit halls of historic Franklin Institute in Philadelphia this spring.

There, beside the Planetarium that can transport you thousands of years in time or millions of miles in space, will be a new series of demonstrations emphasizing the hard realities of the present-day social problem of crime.

The dull footfalls of half a million armed men may be heard walking abroad in this land today, Director Henry Butler Allen of the Franklin Institute said at the ceremony opening the new exhibits. No neutrality law can be invoked to protect America against becoming involved in the depredations of



### KIT OF MODERN "SHERLOCK"

L. C. Schilder (left), chief of the Identification Division, Federal Bureau of investigation, shows W. Chattin Wetherill, Vice-President, and Henry Butler Allen (right), secretary and director of the Franklin Institute, the field office equipment used by Department of Justice crime fighters. Mr. Schilder, as personal representative of J. Edgar Hoover, director of the Bureau of Investigation, took part in the ceremonies opening a new series of demonstrations on "Science in Crime Detection" at Franklin Institute.