

MEDICINE

Whooping Cough Vaccine Prevents But Doesn't Cure

WHOOPIING-cough vaccine is of questionable value as a cure for the disease, but when given to non-immune children sufficiently long before they are exposed it should protect nine out of ten of them.

This summary of the vaccine's status was presented by Dr. Louis Sauer of Evanston, Ill., to the American Public Health Association.

The best age at which to vaccinate children against whooping cough is between six months and one year of age, Dr. Sauer said. Children over three years of age probably should be given a slightly larger dose of vaccine to protect them.

Although the protective action of the vaccine seems established, much still remains to be learned about it, Dr. Sauer indicated. Some of the factors about which little is known are what causes the failures in 10 per cent. of the cases; the importance of recently isolated strains; the best method of standardization; the importance of refrigeration; the youngest age at which active immunization against whooping cough is possible; and the best sequence in which to give whooping cough vaccine, smallpox vaccine and diphtheria immunization.

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PUBLIC HEALTH

Propose An Institute of Industrial Medicine

ANATIONAL institute of industrial medicine to protect the health of American workers was proposed to the American Public Health Association by Dr. Henry H. Kessler, medical director of the New Jersey Rehabilitation Commission. The working group must not be looked on as a special class, Dr. Kessler said, for today it forms the larger part of our entire population, and since the mechanization of agriculture includes the farmers of the country. The average worker lives six or eight years less than the average member of the population, Dr. Kessler pointed out in calling attention to the need for special means of protecting this important class.

The institute, as Dr. Kessler outlined it, would have a four-fold function. It would promote research in industrial diseases. It would sponsor a campaign to teach the worker how to protect his own health. It would sponsor legislation for

the protection of the worker and develop standards of industrial health.

An important function of such an institute would be the creation of a panel of qualified medical and non-medical experts who could be called on in litigation over industrial diseases, compensation cases, and the like, thus correcting the present abuses in law cases involving occupational disease.

The proposed national institute of industrial medicine is in line with the present trend of governments assuming more and more responsibility for the protection of life and health of individual citizens, Dr. Kessler pointed out.

The two chief occupational diseases, he said, are silicosis in the dusty trades, and skin diseases from exposure to irritating chemicals in various industries.

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PUBLIC HEALTH

Public Health Workers Lauded For Service

HOWEVER disappointed John Taxpayer may be with the quality of service given him by public officials and employees, he has no cause for complaint against public health workers. Praise for these public servants was given by Dr. W. W. Bauer of the American Medical Association at the meeting of the American Public Health Association.

"There is a great disillusionment abroad in the land with respect to public service," Dr. Bauer stated. "That this is without foundation for the great majority of public health workers, I am convinced," Dr. Bauer declared.

Ways in which community organizations can be interested in the official health program were discussed by Dr. Bauer, who is director of the medical association's bureau of health and public instruction.

The program itself must be worthy of interest, aside from publicity techniques for popularizing it, Dr. Bauer said. The health official and his whole department must work at their jobs of protecting the public health, if they wish to win the interest and support of community organizations, he continued.

Popular appeal, practicability, economy and timeliness were stressed as important qualifications of the health program. As examples of health projects easy to establish because they had these qualifications, he cited infant hygiene, diphtheria and smallpox immunization, and certain types of sanitary work which abolished or mitigated disagreeable nuisances.

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IN SCIENCE

PUBLIC HEALTH

Time More Than Money In Tropical Malaria Control

CONTROLLING malaria in the rural tropics is more a matter of time than of money, Dr. Paul F. Russell of the Rockefeller Foundation's International Health Division told the American Public Health Association.

Continuity of effort rather than perfection is required, Dr. Russell pointed out, basing his remarks on malaria control work in the Philippines.

In these islands malaria is a disease of the foothills, but not, he emphasized, of the coastal swamps, the lowland plains, the rice fields or the mountains above 2,000 feet.

The chief mosquito carrier of malaria in the Philippines, unlike the malaria mosquitoes elsewhere, breeds mostly in small streams where the water is fresh, flowing and slightly shaded. The Philippine malaria mosquito never breeds in salt water, rice fields or in swamps.

Sluicing, salting, intermittent irrigation and shading are among inexpensive, natural methods by which Dr. Russell believes malaria may be controlled in the Philippines. Because malaria regions there are poor in money but rich in time, Dr. Russell explained that speed and perfection are not to be expected but continuous effort along the inexpensive lines he drew will bring malaria under control, he believes.

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ENGINEERING

Boulder Dam Lake Looks Like Giant Crystal Mass

See Front Cover

THROUGH the ten eyes of the Fairchild compound aerial camera, the territory about Boulder Dam and lake looks like a mass of interlocked and growing crystals.

The picture shown on the front cover of this week's SCIENCE NEWS LETTER includes more than 200 square miles of territory, taken from a considerable altitude. The dam itself shows as a minute semicircle across the dark finger of water in the center foreground.

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E FIELDS

ANTHROPOLOGY

Fellow Scientists to Honor F. W. Hodge

FELLOW scientists are planning a signal honor for Dr. Frederick Webb Hodge, anthropologist and director of the Southwest Museum, who celebrates completion of fifty years of research on America's prehistory, in 1936.

A publication fund is to be created, bearing his name, for the purpose of publishing selected works on American anthropology. A committee of sixteen anthropologists is sponsoring the project, which will do personal honor to Dr. Hodge and at the same time increase meager existing facilities for publishing research on American prehistory.

Dr. Hodge's career goes back to 1886, when he joined an archaeological expedition to Arizona. He headed the Bureau of American Ethnology for eight years, and edited the Bureau's well-known "Handbook of American Indians North of Mexico."

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PUBLIC HEALTH

Lung Disease Increases With Asbestos Industry

A SERIOUS public health problem, pulmonary asbestosis, has arisen in recent years as a result of the four-fold increase in the manufacture of asbestos products. The health hazards of the asbestos industry were pointed out by Dr. J. Connolly, Huntersville, N. C., to the American Public Health Association.

Lack of protection from the inhalation of asbestos dust has been the cause of the disability of many workers, Dr. Connolly said. Among X-ray films of 151 workers in asbestos mills, 52 films showed definite evidence of lung disease.

Of the 151 workers, 86 had worked in the industry for periods varying from four to twenty years. In this group were found 51 of the positive cases of asbestosis, a percentage of 59.3. Only one case with positive X-ray evidence of asbestosis had worked in the industry less than four years. The positive cases were 34.4 per cent. of the total 151.

Five films of this series showed a healed tuberculosis with no asbestosis, and

three showed a healed tuberculosis complicated by asbestosis, Dr. Connolly reported. These workers had spent from four to ten years in the industry. There was no evidence that their work tended to re-activate their tuberculosis lesions.

Asbestosis is a slowly progressive condition after it is once acquired, even though there has been cessation of exposure to the dust for extended periods.

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PHYSICS

"Cold" Neutrons Produced By Liquid Air Chilling

"COLD" neutrons, cooled to the temperature of liquid oxygen at 130 degrees below zero Fahrenheit, are the latest means of scientists to increase the efficiency of artificial radioactivity bombardments in the laboratory.

Temperature profoundly changes the ability of the newly-discovered neutron particles to cause radioactivity when they are used as atomic bullets, Dr. P. B. Moon told the British Association for the Advancement of Science.

Artificial radioactivity produced by atom bombardment causes the atoms of the struck element to give off beta and gamma rays like those which come spontaneously from the naturally radioactive elements like radium and thorium.

Discoveries of ways to increase the efficiency of the artificial radioactive effect by neutron bombardments have been several and rapid.

It is now known that if the neutrons can be slowed up by passing them through paraffin-wax and water before they impact on the element being activated, the radioactive effect is increased. Much energy is lost by bringing about this multiple bumping about in hydrogen-containing materials, but the final result seems to be that after being slowed down the neutrons are much more efficient in transferring their remaining energy to the atoms of the target.

The suggestion has been advanced, Dr. Moon pointed out, that the neutrons might be so slow that they had only energy equivalent to the ever-present thermal agitation of the material through which they were going. If this were so, the efficiency of the neutrons as radioactivity producers should depend on their temperature.

Dr. Moon reports that this effect has been definitely shown by experiments wherein the artificial beta ray activity of silver was increased some 30 per cent. if the neutrons producing it are cooled to the temperature of liquid air.

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ARCHAEOLOGY

Grand Palace of Mari Being Explored in Syria

RUINS of a huge and elaborate palace, twice burned by invading armies from Babylon, have been partially unearthed at Mari, Syria, by a French expedition sent out by the Louvre Museum.

Sixty-nine palace rooms have been found. Marks of fires set by torches of King Hammurabi's Babylonian soldiers, some 2200 years before Christ, are plentiful throughout the ruins. Despite flames and plundering, the palace abounds in evidence assisting archaeologists to reconstruct the story of a once wealthy but today little-known kingdom. Names of several kings of Mari have been discovered.

The expedition found kitchens, baths, two schoolrooms, a throne room, and other rooms still containing articles used by the king and his court.

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ANTHROPOLOGY

First Scots May Have Come Out of Spain

THE EARLIEST Scotsmen were of Iberian stock, coming from Spain, and it is from them that the remarkable qualities of the Scottish people have been chiefly inherited.

This suggestion has been proposed to British scientists by J. F. Forbes, archaeologist.

Mr. Forbes bases his view on extensive examination of the numerous "megalithic circles"—prehistoric temples made of large blocks of stone set in a circle—found in Scotland. Similar circles have been found in Spain, western France and Brittany. From this and other clues, Mr. Forbes argues that ancient Caledonians who started to settle in Scotland—coming via Ireland—about 4,000 years ago, had earlier migrated from Spain and were definitely of the Iberian (dark-complexioned Mediterranean) race.

Near some of the megalithic circles he has found single stone pillars bearing inscriptions resembling insignia of the ancient sun-god worship in Babylonia and Assyria. Comparing these symbols and their literature, he finds reason to believe that originally the Iberians inhabited Western Asia, gradually migrating to Spain by way of North Africa, and taking with them much of a high prehistoric culture.

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