

Vaccinate with Pills

Pills of dead bacilli are taken before breakfast for three days in the simple method of immunization against typhoid, dysentery, and cholera now being used by people in large sections of Europe and Asia. The pills are preceded by doses of ox bile in the typhoid and cholera vaccination.

This means of immunization which grew out of animal experiments made at the Pasteur Institute by Prof. A. Besredka is becoming increasingly popular, according to Dr. Harry Plotz, his American assistant. It is being used now extensively in France, Russia, Italy, Spain and India, Dr. Plotz stated in an interview with a Science Service correspondent.

"Vaccination by the mouth is much simpler and easier for the patient," he said. "There are no disagreeable after-effects such as often follow vaccination under the skin and which, in the case of dysentery, proved so disastrous that the subcutaneous method was abandoned.

"It is also more rapid in its immunizing power. We have proved experimentally that immunization takes place a day or two after the last dose of vaccine is given."

Moreover, the new method is quite as effective as the old, he stated. Statistics show that in various typhoid and cholera epidemics where both methods were used, vaccination by the mouth was equally effective, and, in some cases, more so. Just recently Lt. Col. A. J. H. Russell in a report to the medical section of the League of Nations showed that he had found vaccination by the mouth and vaccination under the skin to be of equal effectiveness for cholera. He drew these conclusions after extensive vaccinations in towns in India, using both methods. Col. Russell is Director of Public Health, Madras, India. Vaccine by the mouth was given 4,982 persons. Of these 18 contracted the disease with 4 deaths resulting. In other words the percentage attacked was 0.36 with the deaths 22.2 per cent. of those. Among 11,004 unvaccinated controls, 222 contracted cholera and 93 died making the percentage 2.02 attacked of which 41.9 per cent. died. Vaccine under the skin was given 8,485 persons of whom 31 contracted the disease, 2 dying. The percentage attacked was then 0.37 and the mortality 6.5. Of 29,254 unvaccinated controls in this experiment 489 con-

(Just turn the page)

Disfranchise Morons to Save Race

(Report on Race Betterment Conference, continued from page 20)

Votes for the intelligent only! This slogan may figure in the campaign of science for race betterment if the recommendations of Dr. William J. Hickson of Chicago, the director of the world's largest crime clinic, are followed.

To rescue society from the unfit and criminal who threaten to engulf it, he urged radical action. Speaking of the necessity of coping with the crime problem, he said:

"If we continue with a political and social system which takes no account of varying mental endowments, nothing will be done and nothing can be done. If we face the issue bravely and revise and adapt our institutions in such a way that superior intelligence and exact knowledge can function, we will be on the way to riddance from great evils and to immeasurable enrichment of life.

"Proportional voting will go a long way toward accomplishing this result. It is working satisfactorily in Europe. While this challenges all our cherished slogans of equality and democracy, I favor the granting of the franchise on the basis of the intelligence quotient."

As a result of examining 40,000 criminals over a period of twelve years, Dr. Hickson has arrived at the following conclusions, which dictate his plea for a new system of franchise:

Criminals can not be reformed. They are constitutionally defective. They bred from the inferior classes that have more children than the law-abiding superior classes. Modern economic conditions and the era of plenty in which we live allow the criminal producing classes to flourish and people the earth more effectively than ever.

The two per cent. of the population that is mentally defective is the two per cent. that becomes criminal. Yet, Dr. Hickson said, this small fraction of the population absorbs more than 35 per cent of the taxes of the nation. It keeps the good 98 per cent. of the population uneasy and fearful.

Science recommends that mentally defective, detected in youth, shall be prevented from committing crimes by being segregated and that the defectives also be prevented by sterilization or other methods from reproducing their own kind. This is the cure for crime, in Dr. Hickson's

opinion, instead of the present antiquated legal method of exacting an eye for an eye. Punitive methods have failed, and while Dr. Hickson holds no brief for uninformed sentimentality toward crime and criminals, he believes that "unenlightened good-will may be and often is worse than useless."

Indians Absorbed

The redskin is vanishing! Although the total number of Indians still left in this country has not diminished markedly in recent years, the aborigine American race is working out its own salvation by blending its blood with that of the white men who conquered the continent they once owned. And this, Dr. Frederick L. Hoffman, insurance statistician of Newark, N. J., declared to the scientists, is the real solution of the Indian problem. At present well over a third of the Indians are mixed bloods. To protect the remaining Indians from the destructive diseases of the white man, to make him mentally feel that he has a place in the world, Dr. Hoffman urged continued support of the efforts of the government toward an adequate health service for the redmen.

Dangers in Race Mixture

The greatest danger before the American people today is the blending of the negro tenth of the population into the superior blood of the white race, Dr. Ales Hrdlicka, anthropologist of the Smithsonian Institution, Washington, warned the conference in a communication.

Compared with this danger, which some think will be inevitable, the influx of the so-called inferior white races is considered by Dr. Hrdlicka to be a minor matter.

The white and black races are so different that anthropologists, judging from observations of race mixtures, predict that the white race would be weakened and fundamentally changed by taking into its blood stream the inferior strain of the negroes now living among us.

Blendings of races are not always harmful, and where the two peoples are somewhat similar and have good qualities, the new race may even be better than the old. Dr. Hrdlicka attacked the idea that the white stock of America would necessarily be deteriorated by the lowering of immigration bars to the fit members of any

(Just turn the page)

Race Betterment Conference

(Continued from page 21)

group of the white race. In fact, it might be wise, he said, to have an influx of new blood occasionally in order to prevent the race in America from degenerating for the same biologic reason that an animal breeder sometimes introduces a new strain in his stock.

Poisonous Proteins

Some of the proteins that are being consumed daily by all who eat should be labelled with a skull and crossbones when they are indulged in to excess. Not all proteins are bad; in fact, small amounts of those proved poisonous in excess are necessary for robust health. Protein is, of course, only one of the energy food trilogy—fats, carbohydrates and proteins.

Dangerous diseases of the arteries, kidneys and liver are caused by only two or three times the minimal protein requirement, Dr. Louis H. Newburgh, of the University of Michigan, told the conference in reporting the results of twelve years' investigation of the effect of these food factors on human health. Danger to the race lies in the fact that great groups of human beings habitually consume the amounts that are known to produce disease.

Warnings can not be given against particular foods but in general milk and vegetables contain less of the harmful protein elements than animal foods. Most injurious are the proteins in the glandular organs, such as liver, kidney, etc.

The proteins themselves are not simple food elements but are built of about twenty compounds, called amino acids, that are the same no matter what food they occur in. Professor Newburgh fed rats on diets containing excessive amounts of the amino acid tryptophane and the animals acquired a serious liver disease in two weeks. Cystine, another protein building block, killed rats in a week by destroying the liver and kidneys. Other simple amino acids were quite innocuous.

Casein, the principal milk protein, was given a good recommendation by Professor Newburgh and called one of the least injurious to human beings.

Little Hope for Rejuvenation

The human hope for rejuvenation was badly shaken by evidence presented by Dr. W. N. Boldyreff, director of the Pavlov Physiologic Institute, who was a colleague of the famous Russian scientist, Pavlov, before the Soviet regime.

Classifying all vital phenomena in two contrary groups, useful or pleasant processes and harmful or unpleasant processes, Dr. Boldyreff has concluded that the pleasant or useful acts lose their power or charm by frequent repetition while the harmful acts become worse with the practice of them. Rest intervals enhance the pleasure and counteract the harm.

Applying his new basis for a physiological morality to the problem of rejuvenation, Dr. Boldyreff showed that the brain of man would be exhausted and become blase in old age even if medical science could replace his worn out glands and body with fresh, youthful ones.

Sleep is explained by Dr. Boldyreff as nature's way of making the mind and body rest in order that it may be fit to carry on the next day. Narcotics can not perform this function. While they destroy consciousness they do not actually put the brain to sleep in the same way as natural rest.

New Religion Needed

A new religion based upon the simple facts of life, teaching that life is immortal through the germ plasm, and urging youth to take the best sex partner in order to perpetuate and create a better race was demanded by Dr. Aldred Scott Warthin, director of the pathological laboratory of the University of Michigan. Youth today in the colleges and elsewhere is abandoning the old religious faiths based on superstition and a new religion based on science, teaching there is no forgiveness of sin, is needed to promote the evolution of the race in Dr. Warthin's opinion.

Desex Criminals

Desexing of murderers, burglars, and low-grade morons who exhibit their bad qualities in school life, was advocated by Dr. Henry F. Vaughan, Detroit Commissioner of Health. Those of low intelligence so treated in childhood would be allowed to marry under his plan in order to stabilize them and make them as useful as their qualities permit.

Declaring that 200,000 of our national feeble-minded population of 300,000 have appeared in families where normal parents are carrying the taint in half of their germ cells, Prof. E. M. East of Harvard suggested that individuals in such families should be dissuaded from marrying close relatives or taking mates that have a heredity similar to their own.

Science News-Letter, January 14, 1928

Vaccinate by Pills

(Continued from page 21)

tracted the disease, 184 dying. The percentage attacked was 1.67 and the percentage of mortality 37.6.

Professor Besredka's theory which led him to experiment with oral vaccination is a very simple one, Dr. Plotz explained. It is simply that it is logical to vaccinate the organ that is infected during the course of the disease. In the case of dysentery, typhoid and cholera, the germ enters by way of the mouth and produces the disease in the small intestine. Then why not vaccinate by the mouth, he queried, and emulate mother nature as much as possible? This is a far more direct way for the vaccine to reach the intestine than through the skin.

But to immunize against typhoid and cholera Prof. Besredka found that it is necessary to administer ox bile first. Bile prepares the mucous membrane of the intestinal wall to receive the dead bacteria which are given by the mouth. It removes the mucous and prepares for the absorption of the vaccine which might otherwise slip through the intestinal tract. In the case of dysentery, however, the bacteria in the vaccine are capable of performing this function themselves.

American workers in this field regard Dr. Besredka's figures as interesting and encouraging but are of the opinion that they cannot be accepted at their face value alone. Interpretation of such fundamental experiments, they maintain, is not entirely acceptable without further confirmation.

Science News-Letter, January 14, 1928

Some of the Egyptian Pharaohs were left-handed.

A British investigation indicates that stammering is twice as frequent among boys as among girls.

The largest storage battery locomotive in use has a battery weighing 39 tons, and can haul a 1,500-ton train.

New evidence that Greenland once had a tropical climate has been brought to Denmark by Dr. Lauge Koch, Arctic explorer.

The European corn borer is reported in 55 Ohio and 14 Indiana counties now, as compared with 42 Ohio and eight Indiana counties last year.