

cal devices. They can, however, learn to "hear" what a speaker says by casually placing a hand almost anywhere against the speaker's cheek or on his head.

Strenuous efforts of educators to salvage what precious hearing the hard-of-hearing child may have was another topic of the conference. It is now realized that many a child who seems totally deaf, actually has a good deal of hearing which, if not neglected, can be trained and improved.

Educators tell of one child who was in a school three months before any one realized she could hear anything. She was considered a deaf mute. She knew written language and read lip motions of speakers. But speech was as foreign to her as Turkish might sound to the average American. Then, in less than four months this supposedly deaf child was taught to hear and understand 300 words.

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BIOLOGY—PHYSIOLOGY

Eugenics Program Declared Impracticable at Present

Dr. Lillie Urges Institutes for Further Study Of Human Genetics; Vitamin E Cures Sterility

EUGENICS is not a practicable program at present, both because we do not yet know enough about human heredity and because human social organizations are not adapted for the carrying out of such a program.

So declared Dr. Frank R. Lillie, president of the National Academy of Sciences, before the Ottawa meeting of the American Association for the Advancement of Science.

"Biological opinion is divided," Dr. Lillie said, "because our knowledge of human heredity is quite rudimentary as compared, for instance, with our knowledge of heredity in fruit flies or guinea pigs. Even if we felt sure that our knowledge of the principles of heredity in lower animals is theoretically fully applicable to mankind, we would not know how to apply it eugenically except in most general terms, for there are no pure lines in human inheritance for one thing, and for another, we have no animal analogies to the human qualities of character that we most need in the social process.

"Biological opinion is divided even on the subject of negative eugenics, the elimination of the unfit, not so much on the general desirability of the principle as on the definition of unfitness, the determination of standards and the methods to be employed," Dr. Lillie continued. "Sociological and political opinion is also divided sharply, on the question of the trends of existing social, economic and political selective processes

as they affect population, and the desirability of applying such a sharp instrument as radical eugenics to society before the possibilities of social amelioration in other ways are more fully explored. Under these conditions we should have institutes specially devoted to human genetics for the sake of the medical as well as of the social problems involved.

"One sometimes feels tempted to despair of the social coordination of scientific knowledge for the increase of the well being and happiness of mankind. But faith in the progressive evolution of mankind is stronger, in the scientific world at least.

"I have the conviction that the ethical principles of Christianity are widespread among the masses of mankind, and that they will prevail. But the processes of evolution are slow, and we may have to wait a long time."

New Hormone Substance.

A new hormone substance of the pituitary gland, often called "the gland in the driver's seat," was presented to the scientific world by Drs. A. H. Neufeld and J. B. Collip of McGill University's Department of Biochemistry, Montreal.

It has "ketogenic and anti-insulin properties" which means that it forms ketone in the body and that it opposes the action of insulin so useful in treating diabetes. Dr. Collip was one of the Canadian team of research workers who developed insulin.

The new substance or substances have their origin in the "pars intermedia" or the portion of the gland between the anterior and posterior parts, Drs. Neufeld and Collip suggest. Thus there are added to the previously known products of this tiny gland of the head a new material from its middle portions with new and perhaps important functions in the body's health and illness.

The Montreal scientists would not speculate on the physiological significance of their findings although they said they were tempted to do so. They feel that it is judicious to await further developments before doing this.

The known effects of anterior lobe extracts upon growth, the thyroid glands, the male sex glands and the adrenals were differentiated from the newly discovered fraction.

Cures Sterility

Vitamin E seems to be a factor in allowing some women to bear children who otherwise can not become mothers, data presented by Dr. E. M. Watson of the University of Western Ontario Medical School indicated.

Reviewing research on the anti-sterility vitamin, he told how clinical use of wheat germ oil prevented in many cases habitual abortion in women. Experiments suggest also that it activates the anterior lobe of the important pituitary gland. He warned that one portion of ether-extracted wheat germ oil may produce cancer.

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MEDICINE

Seek to Prevent Deaths From Epidemic Diarrhea

MEASURES to prevent death of new-born infants in hospitals, from epidemic diarrhea and other infections, were described by Dr. Samuel Frant of New York City's Department of Health, speaking at the annual conference of health officers and public health nurses of the state. Dr. Frant said that epidemic diarrhea of the new-born is a highly communicable infectious disease, the cause of which is still unknown.

In 27 outbreaks of this epidemic disease in three and one-half years, he found that out of 5,082 infants exposed to the disease, 750 took it and 356 died.

Dr. Frant said that New York City has adopted a series of measures to save its babies from this hazard:

1. Hospitals are required to report any case of diarrhea in an infant less

than three weeks old. This helps in detecting the epidemic form of the disease early.

2. All infant deaths are investigated, to check accuracy of the diagnosis on the death certificate.

3. The city's sanitary code has been amended to require maternity hospitals

to take added precautions, safeguarding babies from infection.

Other safeguards include requirements as to preparation of babies' formulas, laundering of their linen, regulation of visiting hours and limiting one nurse to the care of not more than eight babies in the hospital nursery.

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developed after the vitamin B₁ concentrate was given (by mouth), in one case for 6 months and another for 8 months."

Quick Relief

Comparison of the new injection treatment with other methods used in the past, shows a marked decrease in the time needed for relief, the physicians point out.

One patient in the test had previously had an attack of acute neuritis which persisted for 24 days when treated by former methods. In a new and severe attack, the injections stopped pain after three days and tenderness after four days.

The government physicians, while reporting on the spectacular results, stress the importance of future work. Only in a large group of cases, well controlled, they state, can the true value of this treatment be definitely determined.

Serious lack of vitamin B₁ in the human diet has been found to be the cause of dread beri-beri disease, so prevalent in the Far East. But even in America an insufficiency of vitamin B₁ in the diet is believed responsible for many cases of neuritis with its painful symptoms. Injections of vitamin B₁ sometimes bring relief for this lesser disorder, also.

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Iron ore production in the United States increased 48 per cent in 1937 over 1936; copper increased 38 per cent; tungsten 34; aluminum 30.

MEDICINE

Vitamin B₁ Injections Bring Relief From Acute Neuritis

Excruciating Pain Accompanying Leprosy Given Quick Relief; Administration By Mouth Unsuccessful

RELIEF from the excruciating pain of neuritis, which accompanies some cases of leprosy, has been achieved through studies made by scientists of the U. S. Public Health Service at its Honolulu station.

Injections into the muscles of solutions of vitamin B₁ produce amazing relief from the crippling pain, indicate Drs. L. F. Badger and D. W. Patrick of the Leprosy Investigations Division (*Public Health Reports*). Even in the cautious medical language of the announcement the results are called "spectacular."

Lepers with acute neuritis were sometimes in such pain that it was almost impossible for the physicians to make an adequate examination of the swollen nerves because the patients could not permit their bodies to be touched. Such victims were given relief within 24 hours in some cases. And in all but one patient, relief came within three or four days.

Test Groups

In the tests at the leper colony in Hawaii the physicians used 59 patients split into four groups. One group received vitamin B₁ by drinking pineapple juice containing brewer's yeast, which has a relatively high content of the vitamin.

Another group took their vitamin B₁ in concentrated form by mouth. A third received the concentrate by intra-muscular injection. The fourth group served as a control and did not receive special doses of the vitamin.

While the number of patients receiving the injections were small (only 10)

the results were amazing. The scientists plan to continue their study on a much larger group of cases. Discussing their results they say:

"The results obtained in the few cases of acute leprosy neuritis reported here strongly suggest that material benefit is derived from intramuscular injections of vitamin B₁. Our experience also suggests that similar results are not obtained by oral administration of that vitamin. No improvement was noted following administration, for over a 6-month period, either of large doses of brewer's yeast or of vitamin B₁ concentrate. On the contrary, acute neuritis



FORCE-FEEDING

Cannoneers serving an old-fashioned muzzle-loader used about the same technique that is necessary in feeding the Maharanee of Whangkoo, 22½-foot python in the St. Louis Zoological Park. A stiffish piece of two-inch rubber hose, five feet long, is "loaded" with ground rabbit meat, and one end is pushed into the Maharanee's throat. Then a keeper rams the charge home, while about ten other attendants sit on the big snake to hold her still. Twenty-one pounds constitutes a full meal—but she gets it only once a month.