PHYSIOLOGY

Gland's Past Influence Told From Condition of Skull

X-ray Photographs of Skull Changes Studied to Learn About Health and Physical and Mental Development

SKULL change is a new key to the past function of the gland which influences growth, sexual development and possible mentality. Studies showing this were reported by Dr. Hector Mortimer of Boston to the Association for the Study of Internal Secretions.

It appeared from Dr. Mortimer's report that the history of the functioning of an individual's pituitary gland throughout his life with all that tells of the individual's health and physical and mental development, can be read in changes in his skull that may be seen in X-ray photographs.

Four basic types of skull change were found by Dr. Mortimer and Drs. George Levene and Allen Winter Rowe of Boston after reviewing a collection of documented acromegalic crania in museums in America, England, and Scotland.

The first type is characterized by expansion of the face and sinuses, especially the frontal sinuses. This expansion changed, affecting all bones and mechanically producing the well-known deformities of acromegaly including the large jaws.

The second type is characterized by a small head, small face and very dense skull. This chiefly affects women, who are usually fat, and is a sign of failure of the gland, not of over-activity as in the first type.

The third type begins as a type one, with over-active gland; the gland subsequently fails and the bones become dense like old bones, even in young people of eighteen.

Failure of the gland is in other words premature aging of the individual. The skull becoming dense, which means not that it is thick but that it is so compact as to be almost like ivory, is an indication of failure of the gland. This is a feature of both groups two and three. In these groups there are ten times as many women as men. The mechanism behind all this accounts for women's ageing more quickly than men and being more liable to get stout.

The fourth type of skull change is found in dwarfs and other persons whose pituitary gland has never been fully active. This type can be recognized by failure of the frontal and other sinuses to develop completely. In many of these persons the frontal sinuses never develop at all. This gland failure also means that the sexual development is below par or even absent.

Dr. Mortimer showed a well-known family of four dwarfs who have played in the movies. The second eldest, tallest of the family with her four feet two inches of height, had grown an inch in this last year. She has a trace of frontal sinus on one side. None of the others has any.

Science News Letter, June 24, 1933

METEOROLOGY

International Weather Data Would Help Forecasting

INTERNATIONAL cooperation in the exchange of weather data would help the weather man a great deal in his task of forecasting rain or shine a day or two ahead, it was indicated by a paper presented before the meeting of the American Meteorological Society in Chicago, by Thomas A. Blair of the U. S. Weather Bureau, Lincoln, Nebr.

"If the data were assembled promptly from the entire northern hemisphere, so as never to be over a month old, they would be of considerable value to the forecaster in connection with the daily weather maps," Mr. Blair said. "They would help him to decide on the type of weather likely to prevail in the immediate future, that is, whether the cyclones and anticyclones would follow the same paths as in the recent past, or be temporarily deflected to other paths, or show a definite and persistent change of track and character."

Science News Letter, June 24, 1933

MEDICINE

Blue Dye May Relieve Stubborn Skin Disorder

THE BLUE DYE, methylene blue, which has been successfully used to treat victims of carbon monoxide and cyanide poisoning, may also prove useful in treating cases of a stubborn skin disorder, pemphigus.

Investigations suggesting this use of the dye and confirming its usefulness in carbon monoxide and cyanide poisoning were reported by Dr. David I. Macht of Baltimore to the National Academy of Sciences. Dr. Macht's investigations were made on the growth of seedlings of *Lupinus albus*. In previous researches, Dr. Macht found that the growth of these seedlings is checked by various poisonous substances and also by human blood.

(*Turn Page*)

THE PRIBILOFS COME TO NEW YORK

In the new Hall of Ocean Life of the American Museum of Natural History in New York, one of the most striking groups is a family of fur seals, shown against a naturalistic background as they might be seen on the great rookery islands of the Pribilofs, far away in Alaskan waters. The group is dominated by the bulky-bodied old bull seal, surrounded by his seraglio of wives, whom he has won in open fight with the other males of the herd.