

Queer Brain Waves

People who have "queer ideas" show it in their brain wave patterns as well as other more obvious ways. The queer or abnormal brain wave patterns found in persons who have "queer ideas" and others who have phobias, or who show signs of paranoia or other mental disturbances, were described by Drs. Fred-eric A. Gibbs and William G. Lennox and Mrs. Erna L. Gibbs of Boston.

The brain wave patterns consist of rhythmic wavy or spiked lines traced on paper. They constitute a record of the electrical impulses that accompany brain cell activity. These patterns are so characteristic of a person that the Boston scientists consider them as individualistic as a person's handwriting. On this point they stated:

"That we are dealing with a fundamental constitutional mechanism which reflects the essential working of the individual brain is suggested by the following facts. Each individual has his own pattern of electrical activity which, like his handwriting, can be distinguished from that of other individuals and which under standard conditions maintains its individuality from day to day. Furthermore, normal persons who are related have records which bear a resemblance to one another, and the records of normal identical twins are closely similar."

Brain wave patterns will, it is hoped, help solve some problems of mental disease, just as similar patterns of electrical impulses from the heart, called electrocardiograms, are helping doctors learn more about heart diseases. Dr. and Mrs. Gibbs and Dr. Lennox reported that brain wave patterns in the wide-spread mental ailment, schizophrenia, are similar to those in patients with epilepsy. This is considered significant in view of the current theory that epilepsy and schizophrenia are antagonistic conditions.

Three Types Distinguished

The three main types of epilepsy, the Boston investigators reported, grand mal, petit mal, and psychomotor epilepsy, are each accompanied by a distinct pattern of brain waves having abnormal rhythm. The brain wave record of patients having psychomotor epilepsy is similar to that of patients suffering from schizophrenia and closely similar to those seen in the majority of children with psychopathic personalities, schizophrenia and certain abnormal behavior like epilepsy.

Temporary Death

When a small child kills someone he does not expect his victim to remain dead. He only intends to keep the victim from doing something the child would like to do and has not been permitted to do.

This new idea of the psychology of child killers and a differentiation between child and adolescent killers was presented by Drs. Laretta Bender and Frank J. Curran of New York City.

Small children, these psychiatrists found from a careful study of a group of children under 16 who had been held for homicide, have no real understanding of death and are surprised to find that it is not "reversible." Because of this the psychiatrists concluded that for all practical purposes the conception of accidental death in such cases is justified.

The hardest task for the child killer is to believe in and accept the immutability of the death of his victim. Such children need a long period of intensive treatment, not for the mechanisms that led to the homicide but for the violent emotional reaction which results from it when they discover that death is not reversible.

The mechanisms in child killers are entirely different, the psychiatrists found, from those in adolescents who kill. These older children tend to follow the mechanisms seen in adult aggressive criminals.

Persons who commit sex crimes suf-

fer from disorders of the endocrine glands, Dr. Clifford A. Wright of Los Angeles declared.

Such crimes were the offenses for which more than one-tenth of all individuals sent to state prison in California in 1935 were committed.

In almost every one of 251 cases of sexual irregularity which Dr. Wright studied an excess or deficiency of sex hormones showed that the normal balance between the various endocrine glands had been upset. Besides the sex glands, these glands include the thyroid, the pituitary, the adrenals and the parathyroid glands. Each of these influences all the others and if any one of them is diseased or disordered, the others may be thrown out of balance.

Abnormal condition of the sex glands and of some of these other glands which also influence sex activity could, Dr. Wright said, cause deviations such as homosexuality and exhibitionism.

A new approach to the problems of sex crimes is necessary, Dr. Wright believes, if there is to be a reduction in their number. He suggested the biologic approach as offering the best hope of results. This does not mean, however, that treatment of sex offenders with sex gland preparations will completely solve the problem. Such preparations, he pointed out, are at best only substitutive remedies and are not to be continued over long periods. Associated conditions must also be treated for lasting results.

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NEW PLATINUM SOURCE?

The rugged, ice-carved, wind-swept La Plata Mountains of Colorado, rising to two and a half miles above sea level, may be a source of platinum, government geologists believe, as a result of the discovery of the heavy white metal in copper ores in this region. This landscape, photographed by Edwin B. Eckel, of the U. S. Geological Survey, during the survey that found the platinum ore, is typical of the region.



FINDS U. S. PLATINUM

Edwin B. Eckel, government geologist, inspecting a polished sample of the platinum-palladium-silver-copper ore which he discovered in Colorado.

GEOLOGY

Promising Platinum Find On Colorado Public Land

DISCOVERY of "promising" amounts of platinum in the La Plata Mountains of southwestern Colorado on unclaimed public land open for location is announced by the U. S. Geological Survey. It is the first promising platinum find in the continental United States.

Found by a chemical analysis of ores collected by Edwin B. Eckel, who has been doing field work in the La Plata region for several years, the platinum metals content of some samples is as high as .54 ounces of platinum and palladium per ton. Platinum currently sells at \$33 an ounce.

Geological Survey experts declined to advise on possible production and methods of working this deposit. From other sources it was learned, however, that if the ore body found is large enough, the platinum can best be mined on a by-product basis—the ore body worked for copper and the platinum metals recovered during the electrolytic refining processes. This method of recovery has already proved successful in Canada.

A possible rush of prospectors to the district, not far from the silver mines of Durango, is foreseen. The new finds warrant at least "thorough examination," the Geological Survey declares.

Occurring two miles above sea level on Copper Hill, between Bedrock and Boren Creeks, near the old town of La

Plata and 21 miles northwest of Durango, the platinum-bearing veins have already produced 4,500 ounces of silver and 225,000 pounds of copper. Most of this production occurred between 1911 and 1917, when a great "glory hole" and a 600-foot tunnel were excavated.

Buried by soil and the debris from an ancient glacier, much of the ore body is hidden, and only a fraction of it, known to be 150 feet in diameter and 50 feet deep, is exposed. Further exploration by diamond drilling will show the extent of the platinum-bearing rock.

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MEDICINE—PUBLIC HEALTH

Marriage of Feebleminded Worse Than Child Marriages

A.M.A. Takes Stand on Spinach, Frowns on Rental of Radium; Overdose of Childbirth Drug Warned Against

IMAGINE a little girl of six years, who did not know the meaning of Easter or the Fourth of July, being married and having a baby, in fact having a third baby, the other two having died.

Such a case, in which the mother's mental age was six years although she was a grown woman, was described by Drs. Lloyd H. Ziegler of Wauwatosa, Wis., and Charles P. Sheldon of Boston, at the meeting of the American Medical Association in San Francisco.

The occasional marriages of 10- and 12-year-old girls are widely publicized and arouse enormous public comment, these doctors pointed out, but marriages such as they described of feebleminded adults are far more numerous and far more hazardous to society.

Nearly one-fourth of 50 unselected married patients seen in one large public hospital during four months were feebleminded, the doctors found on further study. Comparison of the indigent and self-supporting group showed that in the indigent group more than 94 babies died for every 1,000 alive, while in the self-supporting group less than half this number, about 40, died out of every 1,000 live births. The interval between births was about a year among the indigents and nearly two years among the self-supporting.

Three Measures

A combination of three measures were recommended by Drs. Ziegler and Sheldon to solve this problem of marriage and reproduction among the feeble-minded. These measures are sterilization, which although slow would help certain individuals "defend themselves from responsibilities they are ill-fitted to carry"; segregation with vo-

educational training; and compulsory registration of persons with intelligence quotients of 70 or less. This registration information should be available to clerks and clergymen responsible for marriage licenses and to courts dealing with criminal offenders.

"If the costs of relief, dependency, delinquency and disease attributable to the feebleminded could be transferred to the ledger on the side of wise segregation and training, not only would there likely be a definite and immediate pecuniary saving, but there would also be future dividends of humanitarianism and prevention," they said.

Metrazol for Depression

Mental sickness characterized by "depressions," a serious form of mental ailment far worse than the attack of "the blues" that it sounds like, may be helped by metrazol, the drug which, like insulin, is helping shock other mentally sick patients back to sanity.

All but one out of 21 such depressed patients were helped by metrazol injections, Drs. Richard H. Young and G. Alexander Young of Omaha reported. These patients only had to stay in the hospital 21 days, much less than usual for mental sickness, and showed improvement after the first or second treatment. The average number of convulsion-inducing metrazol treatments was seven. Not enough time has elapsed, the doctors said, to be sure that the improvement in the patients will be permanent. In spite of these favorable results the doctors believe metrazol treatment should only be used as an addition to other forms of treatment.

These doctors, like many others throughout the (*Turn to Page 398*)