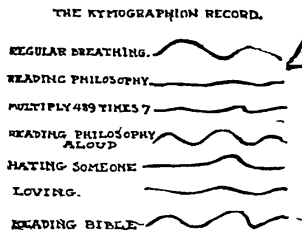


A GOVERNMENT LABORATORY FOR THE CURE OF CRIMINALS



The Above Illustration Shows One of a Series of Experiments Made by Dr. MacDonald Upon H. H. Holmes, the Famous Murderer, to Determine His Emotional Capacity Under Various Influences.

THE United States Government may within a short time establish a laboratory for the study of criminals which will be the most remarkable of its kind in the world.

If the bill just favorably reported on by the Senate Judiciary Committee is acted upon by Congress and goes into effect as a law, this country will be in possession of an institution where criminals of all classes will come under the keen eye of scientific experts.

They will be diagnosed, measured and classified by celebrated criminologists and the data secured will be used in giving the malefactor himself an accurate criminal rating, precisely

as the hospital patient who submits to an examination by specialists is pronounced either curable or incurable.

The new criminal laboratory is to be established at Washington in connection with the Department of Justice and its existence is the expression of the most advanced twentieth century ideas on the subject of criminology. Amazing as the statement may sound, the aim of the laboratory will be the suppression of anarchistic criminals, social evils and the defective and pauper classes, with the ultimate view of eliminating the criminal altogether. The project, as pronounced of its technical details, is in substance as follows:

A lawbreaker convicted of some grave offense will be hastened to the Laboratory of Criminology. Here he will be photographed, measured and thumb-printed by the most modern devices. Apparatus even in advance of those employed in the famous French Bertillon system will be applied, but more than this—the data secured will be utilized not only for purposes of future identification, but for reference and comparison.

The criminal's antecedents will be thoroughly investigated. It will be ascertained whether or not his criminal traits are hereditary. Was his father a criminal? What is his family history? Were any of his ancestors drunkards, insane or epileptic? These are only a few of the questions which will be asked.

Diagnosing a Criminal

Then the man's cranium and physiognomy will be analyzed. They may be normal or decidedly the contrary. If the latter, it must be determined whether he belongs to a degenerate type. The outlines of his cranium will be care-

fully compared with those of great criminals, men of genius and with those of the ape. Every dip and curvature of the features will be noted, taking into account the low forehead, receding chin and abnormal ear, but these measurements instead of being jotted down at haphazard will be scientifically recorded and afterward averaged up to denote the intellectual capacity of the subject. An X-ray photograph will determine the relative size and configuration of his brain. Its length of limb, breadth of hand, total height and muscular ability are all to be set down and when every measurement has been made and every important fact concerning his past life secured, the laboratory will file away a valuable report which can be used to advantage in comparison with other criminals.

As there are degrees of crime, so the law has decreed certain gradations of punishment. The mission of the Laboratory of Criminology is to determine to a fine point precisely in what degree a malefactor is responsible for his offense, and to compile statistics for use in the future readjustment of the penal codes of prisons and reform institutions.

Responsibility in crime is a subject which has lately engrossed public attention. The law courts may decide that a man is guilty of a certain crime, but it remains for men of science to say just how far a man is guilty from a medical standpoint and to prescribe methods of reform in addition to the legal penalty inflicted.

Dr. Arthur MacDonald, specialist in criminology for the Bureau of Education, and probably the most noted criminologist in the country, is the inventor of a number of instruments used for purposes of experiment upon criminals.

These instruments are divided into four classes as follows:

For measuring the bony structures of the body and the muscular development.

For measuring the nerves in connection with the mental state.

For measuring the degree of emotions indicated through movements of the chest in breathing and the flow of blood through the arm.

For measuring the degree of suggestibility during the hypnotic state.

Some Wonderful Experiments

Shortly before the execution of the murderer, H. H. Holmes, a few years ago in this city, Dr. MacDonald interviewed and experimented upon this celebrated criminal in his cell, using eight separate apparatus, four of which are shown on this page. Dr. MacDonald had previously experimented upon school children and in this connection he says, in a recent report:

"An education concerns the moral, mental and physical development of individuals and society. It may be said to ameliorate the elements that tend to social degeneration. Therefore the instruments used in the study of the socially diseased man will apply as well to the normal man."

The experiments upon school children were made with a view to ascertaining the exact condition of the "normal" child and from this to set a standard for determining degenerate and criminal types.

The two most interesting instruments applied to Holmes were the plecthysmograph and the kymographion. In describing the latter, which

Strangest Scientific Experiments Ever Conducted, for the Purpose of Treating Crime as a Disease and Eventually Eliminating the Entire Criminal Class

is shown in operation in the lower left-hand illustration, Dr. MacDonald continues:

"This instrument is for the purpose of measuring the mental and emotional states upon the movements of the chest. Actors locate the seat of the emotions they simulate in the chest. A silk band is drawn closely around the chest; a little air-tight cylinder with a delicate film over both ends—a hook being inserted in each film—is attached by loops to the end of the silk band; from the cylinder extend a couple of yards of thin tubing, which is inserted into an air-tight tambour. Upon the head of this tambour, or drum, is hinged a delicate bamboo splinter, which rises and falls with every breath, and which, when pressed against a revolving cylinder bearing a sheet of smoked paper, scratches a series of wavy lines."

The diagram shows the result of the experiments upon Holmes. Dr. MacDonald continues:

"It will be noticed that the waves in all the lines are smaller than those in regular breathing, the first line. In other words, the emotional states lessened the breathing. Reading philosophy, multiplication and hating affected the prisoner's breathing most. This is what generally happens with the exception of the feeling of hatred, which in most people is wavy line, but with Holmes' was the most intense line, that is, it absorbed his interest most. The feeling of love indicated by the little waves in reading the Bible, which had the least effect of any upon his physical states when we compare the line with the regular breathing line."

Another most interesting apparatus is the plecthysmograph. It is similar to the kymographion, but instead of showing the fluctuations of breathing during various emotions it records the flow of blood. With the plecthysmograph the arm of the person being experimented upon is encased in a large glass tube filled with water, the open end being sealed with gutta serena. Any variations in the normal flow of blood is shown by the fluctuation of water in a slender glass tube, this movement being in turn transmitted to a small weight, which rises and falls with every pulsation.

Experiments with this instrument have demonstrated, among other things, that the sight of a pistol had little or no effect upon a brutal murderer, whereas in a normal man the weight rose and fell violently, giving involuntary testimony of strong emotional disturbance. Applied to pupils in schools the plecthysmograph can be made to indicate what studies cause the most mental exertion, those which are the most pleasing and those for which the pupil has the greatest aversion.

The plecthysmograph is the invention of a criminologist named Mosso, but it has been much improved by the Bureau of Education, as, indeed, have all the delicate apparatus used in the study of criminals in this country.

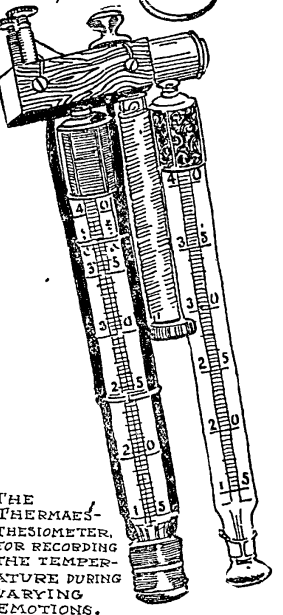
The little instrument at the top of the page, called the aesthesometer, is used to determine the delicacy of touch or physical sensitiveness. Anyone can try this experiment with two pins upon the palm of the hand. If, with your eyes closed, you can detect the touch of two pins points when placed together, then you are physically sensitive. Ordinarily the two points when close give you the impression of being stuck with but one; if they have to be spaced far apart before you feel two separate impressions of pain, then you may be said to be physically obtuse. Refined criminals are sensitive to the touch; in coarse, brutal natures the reverse is true.

With the palate meter the height of the palate is determined. A high palate is a sign of criminal instincts. In Holmes the palate was unusually high.

The thermates-thesometer, the large instrument to the right-hand of this page, records sensitiveness to heat and cold—whether a person is affected by heat or cold, draught, a high or hot air and in how far the emotions affect the body temperature. There are numerous other instruments beside these, all of which, when applied to the criminal, will afford a whole volume of valuable facts concerning his moral, mental and physical being.

The new Laboratory of Criminology will be conducted as a bureau of the Department of Justice; it has no connection with the laboratory now being run under the Department of the Interior, but Dr. MacDonald's head of the department will be chosen as the exponent of the new institution.

Responsibility of Criminals
It is not the Intention of the Laboratory of



THE THERMATES-THESIOMETER, FOR RECORDING THE TEMPERATURE DURING VARYING EMOTIONS.

Criminology to palliate the offenses of hardened criminals. First of all, like the Bertillon system, it will measure criminals from head to foot and these records, put against them for future identification, will have a deterring influence against the commission of further crime when they have been released from the penitentiary. Murderers of the degenerate type—like Paul Woodward, recently hanged in Camden, and Hooper Young, sentenced two weeks ago to life imprisonment—who are adjudged mentally insane, but legally rational and responsible for their deeds of violence, will not be excused under the new system on the plea of mental irresponsibility for the atrocities they commit. Criminals of depraved types, in whom reform is acknowledged to be impossible, will be sized up by all the delicate instruments of the laboratory. Their heads will be X-rayed; their intellectual powers accurately measured and their emotional capabilities for good and evil gauged with scientific precision. The facts gathered in this manner will serve to determine the relative proportion of criminal instinct in others.

Young boys in reformatories and men committed to prison on minor offenses will be subjected to the experiments. These statistics, compiled by stoutheaded hands, will be of incalculable benefit to future generations. By their use the refractory youth who commits his first trivial misdemeanor, but in whom there are discernible good signs, will not be condemned to the contaminating influence of a reformatory career. Men undergoing penal servitude for small theft will not have to work side by side at the prison bench with murderers. Punishment will be graded, not only according to the nature of the crime, but according to the inherent capacity for good shown by experiments.

If the scientific instruments denote that a man is mentally and morally capable of amendment, his surroundings in confinement will, as far as possible, be kept in conformity with this idea. Of course such a state of affairs may be a long way off yet, but in these times the prison reform idea is in its infancy and another century may have to roll over us before the penitentiary comes to be looked upon as a sanitarium of criminology as well as a place of incarceration.

The new Laboratory of Criminology, when realized as an actual fact, will represent the first practical step taken in this direction.