

## SIGNS OF DEGENERACY AND TYPES OF THE CRIMINAL INSANE.<sup>1</sup>

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“Insanity is often the logic of an accurate mind overtaken. Good mental machinery ought to break its own wheels and levers if anything is thrust among them suddenly which tends to stop them or reverse their motion. A weak mind does not accumulate force enough to hurt itself; stupidity often saves a man from going mad” (Dr. O. W. Holmes). It is the thought of the “autocrat of the breakfast table” rather than the scientifically accurate teaching of the medical professor that I quote you. I do not suppose the poet-physician intended these lines for the instruction of his professional brothers; surely he may be granted the poet’s license, and I suspect he voiced a thought that is widely prevalent even to-day. I suppose you gentlemen of this society hold, speaking broadly, that the best mental machinery regulates itself so quickly to the changing currents of stimuli that it never breaks its own wheels and levers, in spite of all the noxious agents which tend “to stop or reverse their motion.” Yet I think you would admit that there is a kind of protection in mediocrity. You would own that the safest, if not the best kind of genius, is the capacity for hard work long endured; for the doctrines of evolution and atavism must now be reckoned with.

There was a time when a man’s physiognomy testified, as a whole, for or against him and his forebears, with more or less accuracy, even as the outlined clinical picture of typhoid was sufficient for the old-time physician. Now the doctrine of degeneracy calls for details before deciding whether we will be

<sup>1</sup> Read before the New England Psychological Society, March 25, 1901.

reprobates, if we get a fair chance. The size of your head does not count much, though your reputation may suffer if it be of either extreme. It may be dolichocephalic or brachycephalic, within certain limits, and not injure you greatly, but we are told that the very long head suggests degeneracy and that the thick head is a disappearing type, and should lead to a critical examination (Talbot, *Degeneracy*, pp. 170-171). It is therefore manifest that to be mesocephalic is by far the best form. The authorities on the stigmata of degeneracy hold that it reflects on the possessor of a skull with a cephalic index above  $87^{\circ}$  or below  $74^{\circ}$ ; the cephalic index being obtained by dividing the greatest biparietal diameter, multiplied by 100, by the long diameter from the glabella to the occipital protuberance. The average of the former for men, according to Berkley, being 14.75 cm. and the latter 18 cm. would give an average cephalic index of  $82^{\circ}$ . The average long diameter for women is given as  $\frac{1}{2}$  cm. less and the short diameter  $\frac{3}{4}$  cm. less, giving practically the same cephalic index.

While there are many patients in the Asylum for Insane Criminals with marked abnormalities of cranial outlines, I do not recall one with so unusual a skull as was the boat-shaped calvaria, we have seen illustrated, of Sir Walter Scott. But perhaps the relative development of the cerebral and facial regions of the skull are more significant, as characterizing the higher and lower human types, than deviations from the average cranium. Talbot has pointed out that the human face at birth is so near like that of the monkey that if only the heads of both were exposed to view it would difficult for a casual observer to distinguish one from the other (*Degeneracy*, p. 179). In the process of growth and development the cerebrum of man and the face of the ape more and more predominate. An angle made by two straight lines, the base being drawn through the meatus auditorius to the base of the nose and the other line falling from the center of the forehead to the most advanced part of the superior maxillary will give the facial angle of Camper. With the head held so that the base line would be horizontal, Talbot would drop a line perpendicularly downward from the supraorbital ridge intersecting the upper and lower jaw and chin. He would label "atavistic" those jaws which

protruded much beyond this line and those which much receded as even more degenerate.

Camper would allow  $10^\circ$  for variation in race, and Talbot holds that the angle between  $80^\circ$  and  $90^\circ$ , giving an Apollo type, may be accepted as an ideal by which to study degeneracy, though he states that the Caucasian race as a whole has an angle of  $75^\circ$  to  $80^\circ$ . He quotes Camper approvingly to the effect that: "if the angle is above  $80^\circ$  we have the antique head; if it inclines backward we have the head of the negro; if back still further the head of the monkey; inclined still more the head of the dog; and still further back the head of the goose." Fortunately for many of us who would be counted among the evolutionary Brahmins, our palates are not exposed to the gaze of men like our ears and our noses. There is no doubt that the nose and upper jaw frequently suffer from arrested development; and that an unstable nervous organization is a strong causative factor is evidenced by the greater frequency of such maldevelopment among the criminal and neuropathic. Talbot says that nearly 50 per cent of the criminals in the Elmira and Pontiac reformatories present marked instances of such stigmata. Making due allowance for the tendency of enthusiasts to exaggerate the importance of accidental and unimportant deviations, which seem to support their theories, it still seems true that a good nose has a value, apart from being a convenience on which to hang eyeglasses. If an extra large nose is to a man's credit the rule does not hold for his ears; for of all man's physical adornments his ears most often betray his genealogical skeletons to the meddlesome anthropologist. Not only must your ears be set at equal heights on your neck; but, to be in high caste, they must have pleasingly curved borders, nowhere pointed or irregular. They should not be much over  $2\frac{1}{2}$  inches in length and about one-half as broad. There must be a well-marked helix, but it is not well for the same to sport a Darwin's tubercle, nor for its root to pass across the concha. Certainly the helix should never be bifurcated, which is always proper form for the antihelix. The ear should have a lobule not adherent to one's neck, for a "jug-handled" ear excites suspicion; but this rule is so often violated by the leaders of society, that not to conform will not disgrace you. It is said that the ears

of degenerates frequently grow to an enormous size and stand at right angles from the head while others are very long, narrow and pointed. Concerning the proper angle to wear our ears, 15 to 30 degrees is considered good taste. Both Frigerio and Talbot agree that thieves<sup>2</sup> wear their ears closer to the head than do homicides, the former seldom having an angle greater than 45, while the ears of the latter frequently stand at right angles to the head.

As anthropology at present is far from being an exact science, it goes without saying that a deviation from the average which one observer would count a stigma another would call merely an accidental and innocent variation; and so it is that any other member of this society might find a widely different percentage of degenerate skulls, ears and palates than we have noted at the State Asylum for Insane Criminals. It has been my plan and my instructions to my assistants to record as abnormal only those departures from the healthy average sufficiently marked to attract the attention of the casual medical observer.

Of our 382 patients, we do not know of a case of cleft palate or harelip. Some observers have reported as high as 5 per cent of each of these abnormalities among criminals and among the insane. Of the last one hundred cases admitted to the Asylum for Insane Criminals, 44 had abnormalities of cranium sufficiently gross to be noted as marks of degeneracy; 40 had degenerate ears, and 39 had palates sufficiently abnormal to be recorded, by our rule. It is my opinion that if those lesser deviations pointed out by Talbot and others as signs of degeneracy had been noted as stigmata, less than 25 per cent of the skulls and jaws could have been passed as normal; and as many as 90 of the one hundred would have been counted as having degenerate ears.

Whether we credit great or little importance to the physical signs of degeneracy, we will admit that the ear has relatively a

<sup>2</sup>It is not clear that these writers include international thieves, or those who would steal the birthright of a weaker people. It is presumed that they mean only those who would steal your purse, umbrella and such "trash." However this may be, it is my observation that the average angle which the ears of the Anglo-Saxon make with the mastoids is nearer 45 than 25 degrees.

poor blood supply, and is, moreover, particularly susceptible to vasomotor influence, as evidenced by its varying capillary changes under influence of the emotions. It would seem reasonable, *a priori*, that the ear should be a more delicate index of the integrity of brain neurons, especially those participating in physical development, than other external organs. And this is what the enthusiastic advocate of anthropometry claims, and what the evidence, so far as I am able to judge, tends to prove. But we must never forget that compensatory effort which seems to be a law of nature; and though the ear and the nose and the mouth may seem to exalt or condemn one, we still must wait till we "have summered and wintered a man" before we know all his tricks. One would be bold to claim that mental and moral anomalies should always correspond with physical anomalies of the individual. This would be to deny the potency of environment and of education in moulding character. Mental and moral degradation resulting from a man's own excesses would not be expected to affect his physical development; while if his father was drunk at the time of his conception and his mother frequently intoxicated during gestation, we would expect a fine crop of degenerate stigmata as a consequence.

The first case I offer to illustrate my paper is P. O., 30 years old, a native of Ireland, well known to those denizens of Boston whose "sphere of influence" is Atlantic Avenue and vicinity, as "Paddy the Bluff." The poor photograph I show you rather flatters Patrick. This young man is poorly developed all round, except for his generous ears, he being less than five feet tall. One ear is set slightly higher, as you will see by his picture. You cannot see that the posterior surface of those ears makes an angle of about 90 degrees with the mastoid. The antihelix and lobes are very prominent. He is well known at Deer Island, having been arrested nine or ten times for being idle and disorderly. Prison discipline only made him worse. He is a bad sexual pervert, and when put in solitary confinement would chew his toes and injure himself in other ways. About two years ago he began to have epileptic seizures. Please notice the outlines of the skull which I pass with the photograph. Note the bulging of the right side as shown by the outline of the circumference, as well as the peculiar form of the occiput

as shown by the anteroposterior outline from the glabella to occipital protuberance. The cephalic index is low (75) yet still within what would be considered normal limits.

Case No. 2, J. F., is a low grade imbecile, a criminal court case, arrested for misplacing a railroad switch to please some friends. He is a sexual pervert, inclined to violent outbreaks of passion, when he will break glass, but he never attacks others. Is said to have had epilepsy some years ago, but has had no seizures for three or more years. He helps some about the ward and is about the best checker player at the asylum. Note that the head is above the average size, but dolichocephalic to a marked degree; the cephalic index being only 71. Right eye with its superciliary ridge is higher than its mate. The ears are at about the correct angle of 20 degrees, but the whole pinna is very thick and the concha is very small. There is marked protrusion of the lower jaw.

Case No. 3, W. F. H., is one of "dementia præcox," such a case as Kellogg has graphically described as "pubescent insanity." Note that this is a marked type of the brachycephalic skull, the cephalic index being 87.5°. Observe especially the anteroposterior outline over vault of cranium, with the marked flattening at occiput. The palate was very high and narrow; right ear, which has only a rudimentary antihelix, is higher than the left, of which the antihelix is well developed.

Case No. 4, A. L. M., is a criminal court case, who committed a homicide in the early summer of '93. He was sent to Taunton Hospital to be held till further order of the court and transferred to the Bridgewater asylum Nov. 22, 1893. He was suspicious that his wife and her physician were criminally intimate and calling the latter to the door shot him. I present this case, not so much to illustrate stigmata of degeneracy as to represent the class of high grade imbeciles who, I suppose, are frequent visitors at the criminal courts. He is weak-minded, morbidly suspicious, egotistical, and prone to magnify petty things. This patient might be classed as a paranoiac of the simple type, the morbid suspiciousness and marked egotism, with a slowly progressive mental weakening, being his marked characteristics. Accidental happenings are sufficient to excite him to delusions

of poisoning, but these ideas fade in a short time. Once he made charges of so improbable a nature as to suggest hallucinations of sight, but usually he seems like one living in the borderland of insanity close to the pathological boundary. He has a marked dolichocephalic head, the cephalic index being only  $72^{\circ}$ , but as you may see from the photograph and cranial outlines, there are no marked asymmetrical departures of the head or face. The ears are well shaped; the palate is rather broad and flat.

His ears are not at all like the homicidal ears as described by Frigerio and Talbot. And I wish here to express the opinion that if homicides have ears characteristic of their class, the rule can only apply to those who kill from an innate passion for killing, not those who commit homicide while intoxicated, or while suffering from an ordinary form of insanity. To my mind the effort to differentiate to this degree would discredit one's reputation for a broad conception of the whole subject. I do not know that our patient was ever previously arrested, and while I have reason to believe that other members of his family are strongly neuropathic, I do not believe he is dominated by impulses to kill, except when excited by strong emotions such as jealousy. A sister reports that he had a sunstroke at the age of seventeen or eighteen and that for a long time afterwards he complained of a pain in his head.

Case No. 5, A. T., criminal court case. Crime, murder Sept. 11, 1895. Killed his wife whom, he thought, to be criminally intimate with his hired man. Apparently suffered from periodical insanity of the depressed type. Large head, bulging forehead. Occiput very irregular. Ears close to head, very large lobes. Tragus and antitragus also very large. Root of helix runs across concha.

Case No. 6, N. M., criminal court case, shot his uncle without provocation Oct. 16, 1897. Admitted to Asylum for Insane Criminals Jan. 20, 1899. Has been an inmate of Northampton Hospital for Insane. Had a brother die there. Has always been an imbecile and never has been able to care for himself.

Right frontal bone very prominent. Ears stand out at  $90^{\circ}$  degrees but the helix is large and bends back at a sharp angle

giving the ears a more normal appearance. Upper jaw poorly developed. Lower jaw very projecting.

Case No. 7, M. B., a young convict, not insane, only nineteen years old, who terrorized the people of Barnstable County less than two years ago. Broke jail, shot an officer, was at large some time, with a large posse hunting for him. Claims that he was severely treated when caught. Developed multiple neuritis of the motor type and was sent to the State Farm Hospital. Could not stand. Had foot-drop and wrist-drop. Is now practically well. Has an innocent boyish face, but a "shifty" eye. Is a moral degenerate without question; but only the ears would suggest degeneracy. There is almost no helix and no lobe, but a marked Darwin's tubercle pointing backward. The root of the helix extends quite across the concha.

Case No. 8, A. S., paranoia persecutoria; crime, assault with a loaded pistol on one who he thought had been criminally intimate with his wife.

In conclusion, I hope it is understood that this paper only aims to be suggestive. I have not laid so much stress on the moderate deviations from the average of cranium, jaws, nose or palate as do Talbot, Lombroso and other writers, and before drawing definite conclusions we would wish to take cranial measurements and note variations in features of a large number of persons of whose morals and nervous stability there was no ground for question. We would regard deviations from the average of moderate degree, as an evidence of an unstable nervous organization only, not necessarily as a symptom of insanity or criminality. There can be no doubt that many who may be fairly classed as neuropathic are among the most estimable citizens. Probably many of our most gifted musicians and artists and some of our dearest friends belong to this class. If Dr. Holmes was half in jest, I suspect he was half in earnest when he wrote, "Stupidity has saved many a man from going mad." Under favorable conditions of education and environment the hypersensitive organisms may make the most lovable, because the most responsive, representatives of our race; but they must live in an atmosphere of love. They do not well resist temptations and they are not good protectors or steady friends.

The same unstable neurons which furnished a fickle, varying innervation to growing and developing organs that needed a steady, fairly proportioned blood supply, will again manifest their weakness in the fickle conduct of the individual, a low resisting power to temptation, and widely varying emotional states.

In brief, it is the theory that the signs of degeneracy and the "neurotic temperament" are not necessarily related as cause and effect, but are different manifestations of an unstable brain, though it is held, we think with reason, that the premature synostosis of the anteroposterior suture of the skull said to produce ultradolichocephaly, and the too early union of other bones of the head and face, producing irregular anomalies of cranial and facial outlines, are factors in crowding parts of the brain, thus preventing its harmonious development.

While I have purposely called attention to the salient points emphasized by those writers who have given the subject most attention, I accept their teachings as food for reflection and guides for observation, rather than firmly established laws. One who is interested in the subject may be surprised, when riding first class in a railroad coach, to see so many ears standing at nearly right angles from the mastoids. Even in church he may be guilty of allowing his gray matter to register more impressions from the anatomical outlines of the heads in the audience than from an excellent sermon. The conviction may be forced upon such an observer that Lombroso is right in his pessimistic views concerning degeneracy of the human family, or he may conclude that there is no truth in the theories which have been built upon the so-called science of anthropometry.

Certainly he will learn not to put much stress upon ears which stand out nearly at right angles from the head nor to those with adherent lobes. But if he has an opportunity to attend a Chapel service where several hundred men with a criminal history are assembled, he will be convinced that in the so-called "stigmata of degeneracy" there is a real significance, though its claims may have been exaggerated. The contrast is so sharp, the departures from the ideal head and face are so much greater and more frequent, that he will no longer doubt the more than accidental relationship of an unstable nervous organ-

ization, with its potential criminality, to the undeveloped or mal-developed ears, noses, jaws and crania which he sees about him.

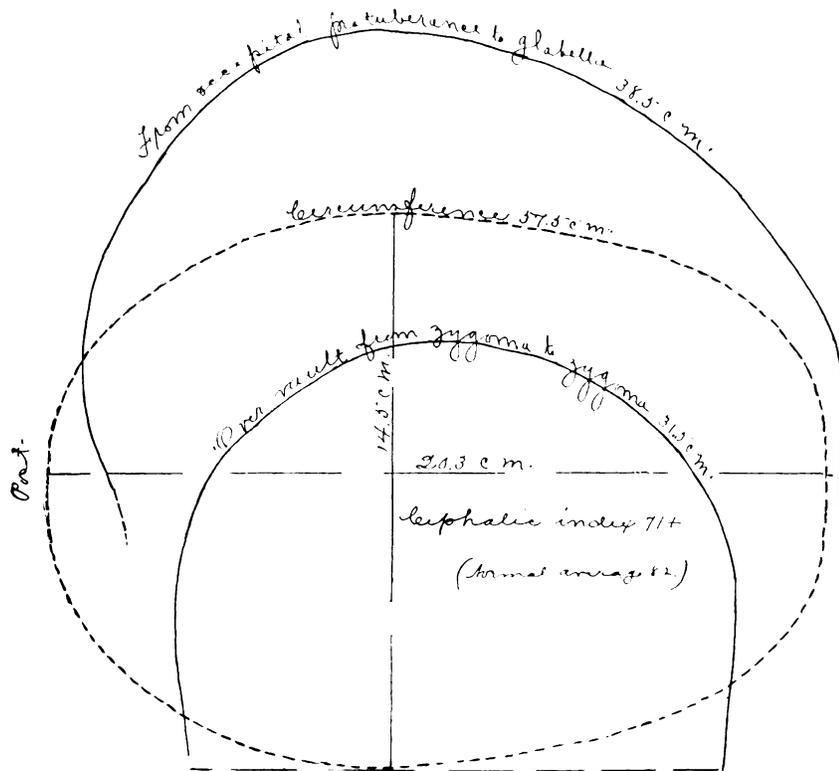
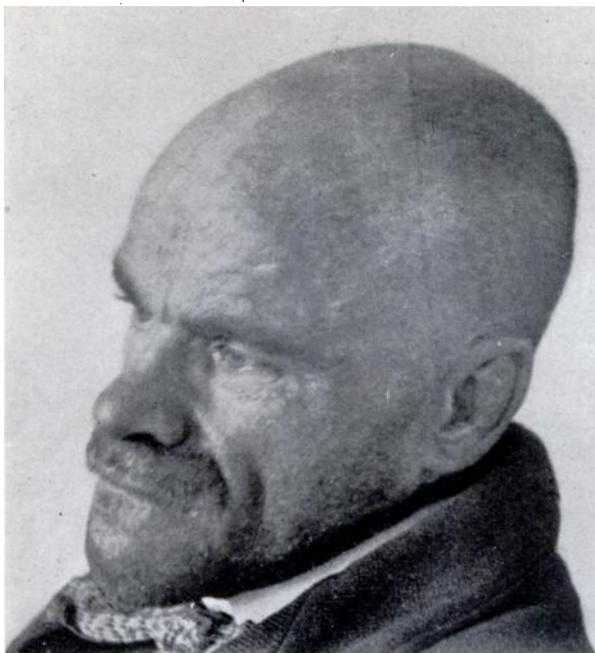
I am under obligation to my medical assistant, Dr. Metzger, for painstaking records of anomalies of physical development on which my statistics are based; also for the photographs which he took, with one exception, and to other non-medical assistants for substantial help in taking cranial measurements.



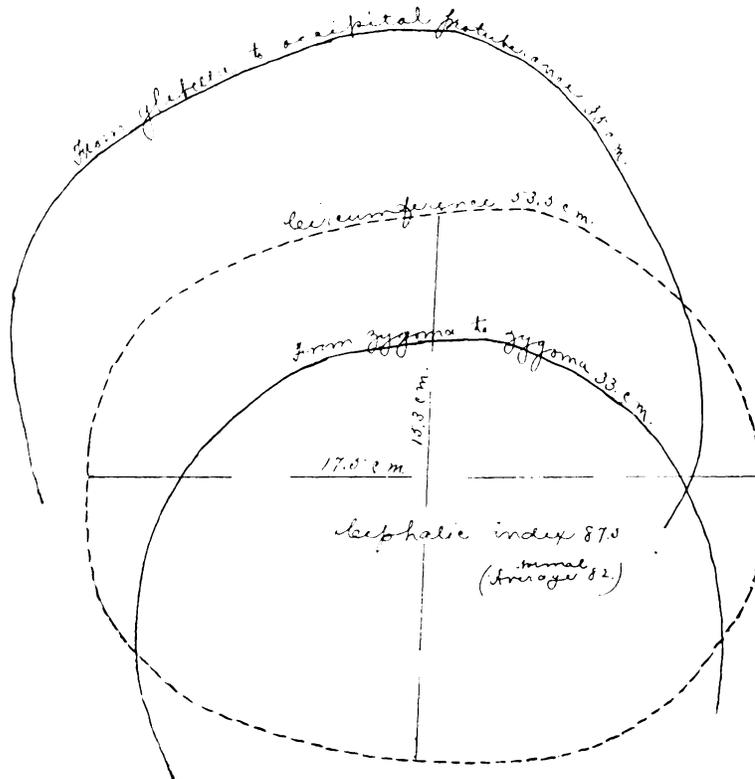
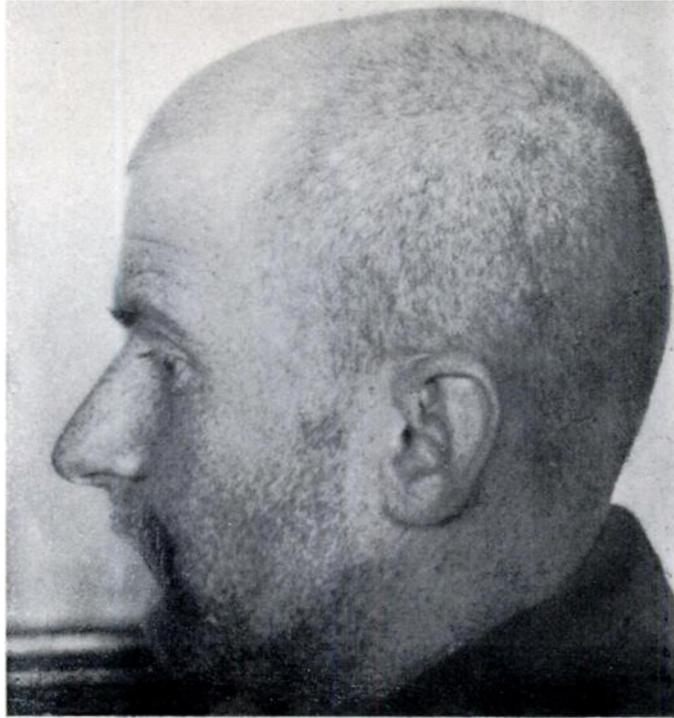
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Imbecile and Epileptic.

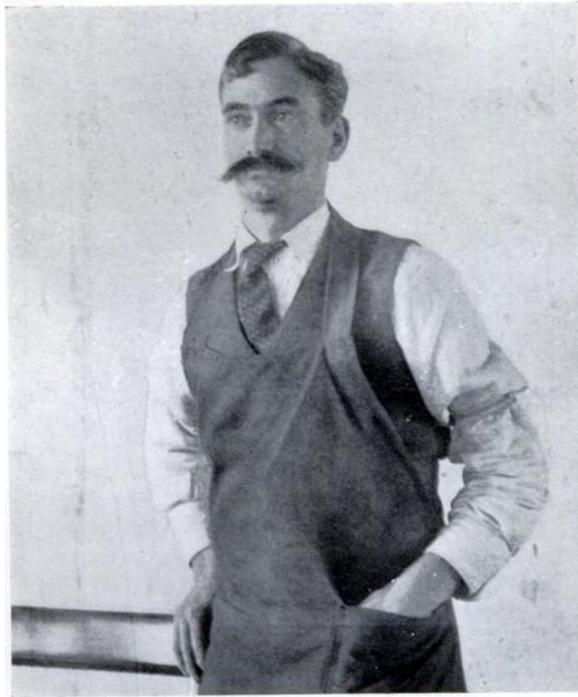




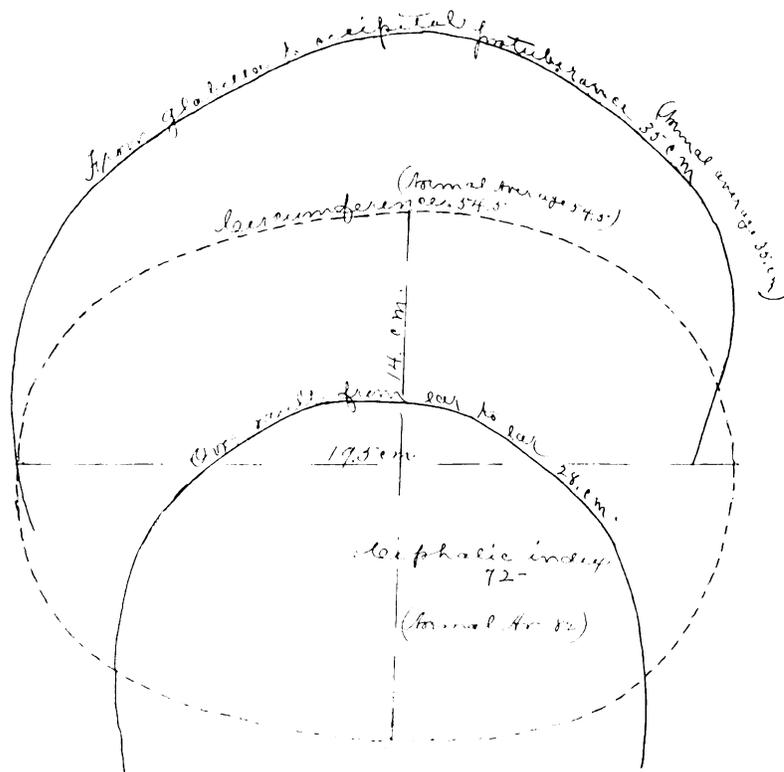
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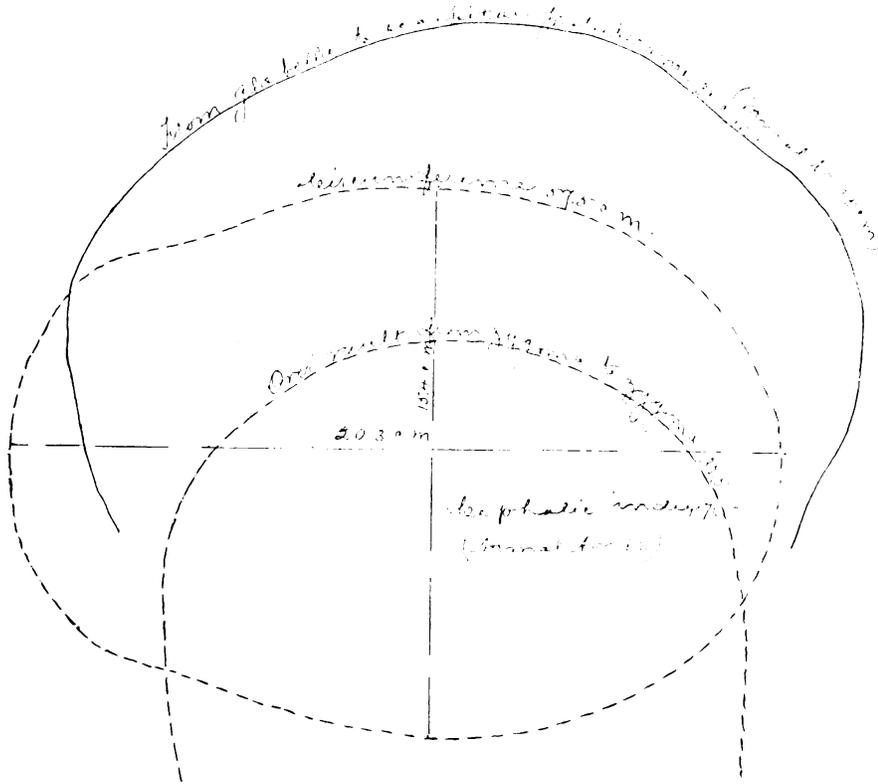
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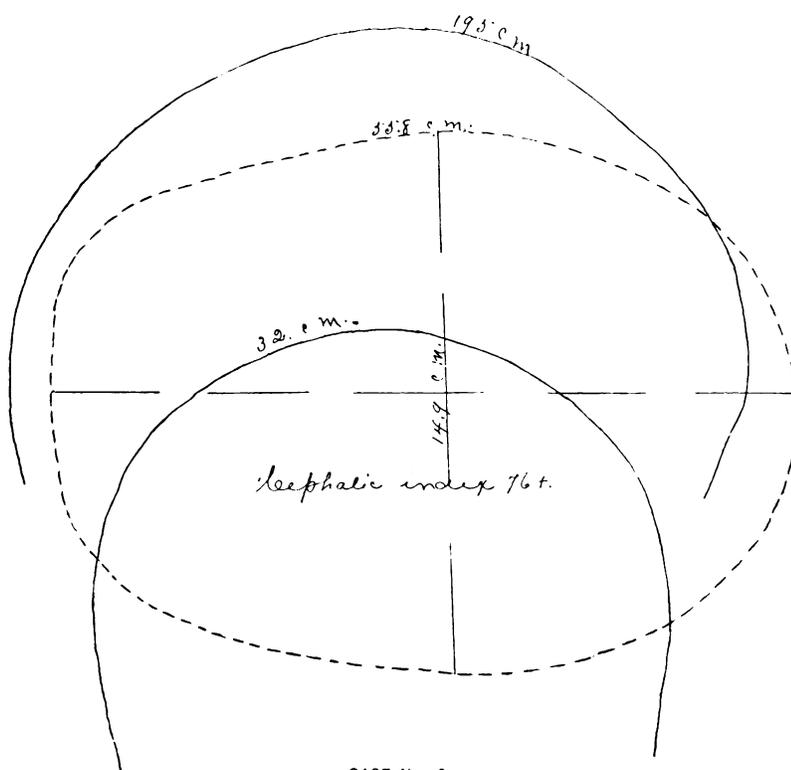
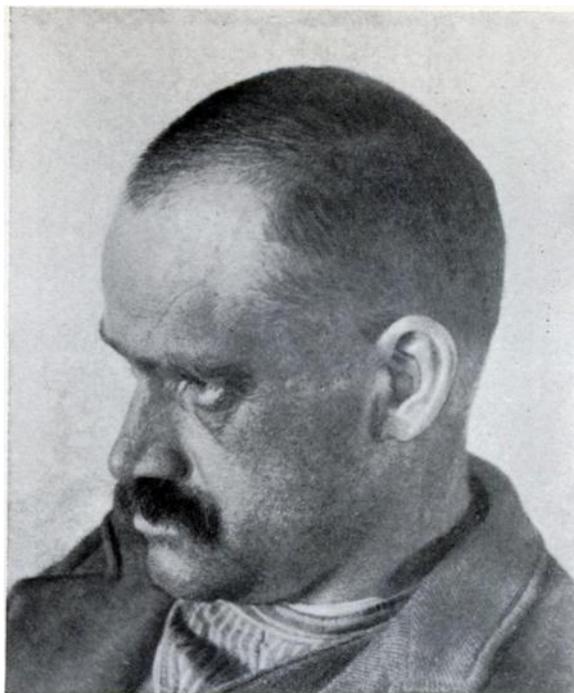
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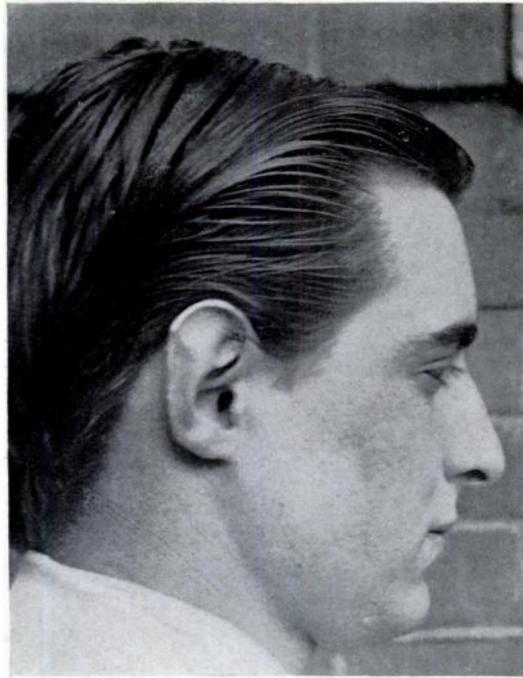
CASE No. 5.



CASE No. 6.



CASE No. 6.



CASE No. 7.



CASE No. 8.