

*State Hosp. Bull., vol. 1, 1897. II.*  
Ardlicka (A. J.)

*al*

LIBRARY  
SURGEON GENERAL'S OFFICE  
OCT. 14-1897  
592

PATHOLOGICAL INSTITUTE OF THE NEW  
YORK STATE HOSPITALS.

DEPARTMENT OF ANTHROPOLOGY.

OUTLINE OF ITS SCOPE AND EXPOSITION OF THE PRELIMINARY WORK.

BY DR. ALOIS F. HRDLICKA,  
Associate in Anthropology.

PART I.

I.—Having been appointed to the position of Anthropologist at the Pathological Institute, I think it is my duty to show, at least in a preliminary way, in the first place what and how much the science I am to propagate can do in the study of the insane; and to point out, next, whereat and how anthropological work should be started without delay. A complete minute programme of the work to be done by this department of the Institute is to follow later, if found necessary.

II.—The scope of Anthropology is very large; in order that it may be well understood, it is necessary to dwell, first of all, at some length on the definition of the term.

The name Anthropology is quite ancient. It was used the first time, as far as we know, by Aristotle, who denominated with its derivative those Grecian philosophers who were engaged in controversies on the moral nature of man. From the time of Aristotle up to the end of the 18th century no progress was realized in this science,

although the name Anthropology appears as the title of several treatises of a more or less vague philosophical nature. Finally in 1795, Blumenbach restricted the term to purely natural studies; he applied the name Anthropology to the studies of man and human races, and it is fundamentally in this sense that the term has been used since Blumenbach, and is used at present.

The evolution of the science up to this date has not materially changed, but has enlarged considerably and crystallized Blumenbach's conception. His definition of the science as a "study of man and his races" was found to be rather too broad and indefinite, almost equally so as the verbal translation of the name Anthropology alone, namely "the science of man." It was found needless to include with the conception such studies, for instance, as may simply treat of some indirect methods (as, for example, the studies of various analyses, or of various examination methods, as of microscopy, of ophthalmoscopy, etc.) or those investigations whose object is purely the physician's or the surgeon's, concerning entirely the healing art and treatment; while on the other hand zoology, geology and other branches were found to be important concomitants. Due to these modifications, a definition of Anthropology at the present reads usually as follows:

Anthropology is that part of natural science in general which embodies all those branches of knowledge of which man or any of his variations is the direct or the final object, except those parts of these branches which simply treat of some indirect method of investigation, or of some practical application and use of the sciences.

This "abstract" of definitions comprises fairly well the scope of Anthropology, yet it is hardly clear enough for all circumstances. The science, it is true, involves all the branches of natural study or at least all those which have any relation to man; but it should not be understood that to be an anthropologist implies continuous research in all those branches of studies. In order to be able to become an anthropologist one must have at least a com-

prehensive general knowledge of these various branches of natural science. He ought to be a fair anatomist and physiologist, and something of a sociologist, archæologist, geologist, etc. But he can not be expected to actively follow all these branches into their minute evolutions. A knowledge of them serves the would-be anthropologist simply as a basis, without which he could not safely undertake a study which requires such a broad understanding and consists so much of comparisons. He is to know the individual man from all standpoints *a priori*, including his bearing on natural history. And it is only then that commences his task as an anthropologist, a task which consists in the learning of other men from the same standpoints, and in comparing them with the first known individual, so as to define any possible variation, and to differentiate man on the basis of such variations and to explain, or at least to establish, the causes of such differences. Anthropology becomes thus a study of varieties of mankind, of comparisons of the same, and of scientific deductions from the obtained data.

Varieties in mankind are of two principal kinds, and they determine in turn an important division, into two corresponding kinds, of comparisons and deductions. . . When we examine any one class of men, we find invariably that each individual differs more or less from all the others of the class taken. The average in all respects of a class examined may be said to be typical of this class; all the averages oscillate within definite limits; outside the limits of an average there is an array of variations. A scrutiny of these variations shows them to be of two orders, namely: Those that do not in any way affect the type or any part of the type of a group under consideration, and which are termed therefore indifferent characters and may be said to be within the range of the normal; and those variations which do affect the average or normal types, and which are therefore called, anthropologically, abnormal. And right here let me impress upon the reader that this anthropological abnormality is by no means synonymous with the patho-

logical abnormality, or that due to a disease, but involves everything atypical which is above or below the indifferent characters as explained above. It matters not what may be the causes of this atypical something and whatever be its appellation, or whether it be a defect or improvement on the normal. To elucidate these few points more closely, a few examples may be instanced. Slight modifications of growth, as, for instance, a slightly irregular ear; or a little change of function, as a somewhat more slow or rapid action of the heart or of the bowels, or a little longer average duration of sleep; or a slight difference of the psychological faculties, as a little greater or lesser power of recollection of facts of certain kinds, or little differences in the character of the individual—all these are indifferent variations and a subject possessing them is still within the normal. But, augment any of these modifications to such an extent that the possessor of any one of them has to be looked at in that particular respect as an exception to the average, and those variations are, from an anthropological point of view, abnormal. The abnormality is proportionate to the characters of the variation.

A clear, short definition of the "science of man," after these considerations, would be: Anthropology is a science of everything normal and abnormal of man and mankind, and of comparisons and explanations of these characters.

III.—The prolonged explanation of what Anthropology really is, was necessary for making plain what can be expected of the science in the study of the various abnormal classes of society. This section will be more specific and deal directly with the aims of the anthropological division of the Institute.

The object of the Department of Anthropology of the Pathological Institute will be, above all, to establish a solid normal standard of the American people, or, at least, such a standard, if this be possible, of the native population of the State of New York; and at the same time to examine all those classes of the population which by

their manifestations amply demonstrate that they are abnormal—such as the insane, the criminals, the epileptics, the idiots, etc. The examinations finished, the subsequent tasks will be to study the found variations and their causes; to find which of the anatomical, physiological and psychological abnormal characters are peculiar to each of these classes, or, if that be impossible, to show which abnormalities predominate in each class; to establish how each of these offspring-classes differs from the normal and the one from the other; to find explanations for the variations; and, lastly, to compare the results with similar ones obtained in similar classes among different peoples.

The object comprises two distinct procedures. On one side, thorough, systematized investigations must be conducted with the view of obtaining all important data regarding the living; and on the other side, a gathering of various anatomical specimens, such as skulls, brains, etc., must be organized. These gatherings will amount in time to large and valuable collections of such material which can not be studied in the living, and which will serve as a basis for further anthropological studies and comparisons, studies which will serve to complete the knowledge which has been in the meantime obtained of the various classes of living people.

This, in brief, is the goal of the Anthropological Department of the Pathological Institute. The attainment of such extensive projects is, of course, distant but, nevertheless, fully feasible. There will be difficulties encountered, no doubt, yet I am confident there will be no obstacles which could not be overcome. The time necessary for complete success will depend largely on the interest and support the work will be given.

IV.—The plans of procedure of the department on the above basis are as follows:

The first part of the entire aim, the investigations on the living population of the State of New York, is of necessity an extensive matter. Reduced to mathematical terms, the task amounts to about this: There are to be

examined, from every point of view, about forty thousand individuals—about thirty-five thousand insane and other abnormal people, and several thousand of the healthy and sane. And there is to be made a complete scientific analysis of the results of all these examinations. Nothing definite and authentic could ever be established on any considerably smaller number of facts, for reasons on which I can not dilate for the present.

One single thorough examination requires at least half a day. Under no circumstances could more than seven hundred such examinations be made in a year by a single observer, no matter how experienced he may be. Following at that rate, it would take one man about sixty years, just to collect his data—a circumstance which clearly points to the first of the important conditions of success of the whole undertaking, namely, that the one who starts the work must secure assistants. Should any one have to go ahead with the work alone, his whole life would not suffice for its accomplishment and it would never bring the full results. The work conducted by myself, unaided, could never be finished. But let me, in each of the great institutions I shall visit, inspire one or two of the staff with the importance and the interest of the undertaking, and help these fellow-students, in every possible way I may be able, to become the followers of our aim, to become my associates in the work, and what could not have been accomplished in half a century with all possible exertion, will become a comparatively easy work of ten, or at most a dozen years. To have a body of able and energetic fellow-anthropologists is the vital condition of success for this department, and hence it will be in this direction that I shall exert my first efforts.

The next most important practical step will be the arrangement of the work.

It will be necessary in many instances of the normal and in some cases of the abnormal individuals to proceed with the entire examination at once. There are cases of insanity which are of too brief duration to allow of much

delay and of too infrequent occurrence or recurrence to allow the hope that the various phases of a particular kind of disorder could be ascertained on a sufficient number of different individuals. All the criminals must be subjected to the whole examination at once, for reasons which will be discussed in a special paper. And there will certainly occur cases outside of the institutions which may be obtainable but once, which will also prove to be the case with certain normal individuals. In all these instances we shall be obliged to secure the entire information perhaps in one session. In the majority of abnormal cases, however, and particularly so in the insane, such a very comprehensive procedure would not be the most advantageous. The long examination would tire the patient and correspondingly diminish the value of his statements. It would also tire the examiner, and thus blunt somewhat the intellectual freshness and acumen which are so necessary to a fully successful investigation of a case. Besides this, a long time would still necessarily elapse, under those circumstances, between the beginning of the work and its final literary reduction; moreover, at the completion of the examinations, there would be a sudden, great accumulation of the data obtained, a condition which would render any analysis very difficult, if not impossible.

Taking all the above into consideration, it will be seen that the better plan will be to divide the whole procedure into sections; to proceed with each section until it be fully completed and elaborated; and in the end to bring the elaborated sections together, analyze them and convert the partial data into the final results.

By proceeding thus, we need not fear that we shall endure any great loss in the unity of the investigations. The value of the results would suffer only then, should we deal with small numbers of cases; in examining such large numbers as shall be at our disposal, we neutralize and overcome individual variations, and deal with almost pure, almost abstract conditions. We shall not obtain all the

data of our scheme on one person always, but, operating on large masses, we can be certain of obtaining the whole set of data in the same phases of our subjects. Our results shall be the averages of whole classes of human beings; and as all well-defined classes are well nigh constant in their characters and change but very little with time, and as irregularities of individuals are reduced to a minimum when large numbers are considered, our investigations will bring out the class-characters, even though it may be from different persons of the same classes of people.

V.—The basis of the investigations is a scheme of examination on which the writer has worked both theoretically and practically for several years and which will cover every important group of points within the scopes of the normal and of the abnormal individual of our races and color in this country. This scheme is divided into the informative, or anamnestic part, and the more purely objective examinations. It embraces mainly facts of anatomical, physiological, psychological and sociological orders.

The field of work comprises: (1) Most of the State and some of the County Institutions, which establishments will yield us most of the abnormal and at the same time some of the best, in many respects, normal material (employees); (2) the laboratory, which may reach certain abnormal classes outside of the institutions (perverts, for example) and will also secure some normal people, and which moreover will be also the school, the place of elaboration of all the data, and the receptacle of all store material (specimens); and, (3) various ordinary asylums (for orphans, aged, etc.), military and other organizations and societies, and perhaps some ordinary hospitals, which will supply us with most of the normal subjects for our investigation.

The field and lines of work having been outlined, there remains only the definite method of procedure to be considered. Reasons were given in the foregoing section of



this article why a general complete examination would not be advisable. For those reasons, the whole scheme of examination will be divided into groups of points, each group being calculated to be sufficiently harmonious to bring out some salient facts, and not to require for collection more than half an hour with each individual. This done, the practical work will immediately be started. I trust it shall be my privilege to visit institution after institution and conduct the investigations in person. Wherever one or more members of the medical staff can be interested in the work, and I firmly hope this will be generally the case, I shall initiate the procedure and entrust the physicians with the continuation. I shall give sufficient time to the initiation in each case, until an assurance of a homogeneity of work has been founded and the personal equations of the investigators have been brought down to the minimum. Full printed blanks will be supplied for all the records. When filled, these blanks will be returned to the Pathological Institute, and work will be started on another group of data. When all the data of one order are together, they will be elaborated into a conjoint article—an article bearing in title the name of every investigator concerned in the collection of the facts. And all such articles will be published in the STATE HOSPITALS BULLETIN.

Two of the most important of the groups above referred to require a few words in special: they comprise the anthropometric and particularly the cephalometric investigations. These two classes of examinations are bound to play a certain rôle in diagnosis and prognosis in future, and our perusal of them will in no small measure determine how great their rôle is to be. But these anthropometric manipulations are rather extensive and require knowledge of special instruments and great precision and homogeneity of execution. No single man could undertake them on all these thousands of cases which are to be examined. Here it will be an absolute necessity for me to have several associates. Being once sure of these, I

shall have to arrange for them a course of practical instruction in measuring and in what is most closely related to the same at the laboratory, a course of at least four weeks' duration. Without such course of instruction, and, I may add, without the use of the same kind of instruments and the same methods, no uniformity and consequently no association and combination of anthropometric or cephalometric work is possible. Such an object, however, as arranging a course of instruction at the Institute, can not be contemplated before I have found my associates, and before some results of the work of the department are shown and the department itself has gained a full and general confidence—all conditions possible only later. For these reasons, both these groups, measurements of the body and those of the head, whatever be their importance and whatever may be the interest manifested in their behalf, can not be applied for the present. When their time comes, and that I think will be before long, every institution in which an able coöperator will be found will be furnished with a set of the necessary instruments, compared and tested at the laboratory. At the same time the proper and sufficient course of instruction and demonstrations will be given to those who would undertake this work. And only then will every one of those concerned in this work feel with me that he is starting fully prepared with these important groups, and that his individual work as well as the combined efforts of all shall be of lasting value. It seemed to me that these last few phrases were necessary to guard against impatience and unsystematic work in this direction.

VI.— A few words are advisable in concluding this general and brief outline of the work of the Department of Anthropology.

The work organized as proposed above will be steady and fruitful from the first. Its nature once well recognized, it will attract worthy and faithful followers wherever started. The advantages of the investigations will be both immediate and remote, particularly in regard to the insane

and the criminals. As one of the immediate advantages, I need only mention the scientific stimulus which the work will exert generally, and especially the promotion of direct scrutiny and precise knowledge of the patients in the hospitals. Among the more remote results, there will be the collections and the array of important data gathered with such thoroughness and in such extent and numbers that they not only will exceed anything done along these lines before but may stay unique for long years to come. Such data and the deductions from the same are sure to be soon followed by important practical results, which will benefit, and certainly help much to define, the various abnormal classes. The Institute, which has been the source of such investigations, besides others of no less importance, shall have proven itself thus worthy of the expectations of its originators and supporters, justify the expenditure for its maintenance, and may become an example to many other similar institutions. And there is no doubt but that our whole present systems of alienation, criminality, *et sim.*, shall gain by these studies both in scientific prestige and elevation.

## PART II.

I.—Having presented the general outline of the proposed work of the Department of Anthropology of the State Pathological Institute, it remains for me to point out with more detail a few of the first requisitions of the department.

I have stated briefly the two main classes of procedure, namely, the investigations on the living, and the collection of important specimen-material. It will be best for both these functions to go ahead simultaneously, which can be accomplished without the interference of the one with the other. While the examinations are proceeding in the various institutions, there can progress at the same time an influx of interesting specimens, which, by the time the studies on the living are finished, can amount to a large nucleus of a valuable anthropological museum, full

of sources of further investigations. This matter of collecting specimens for future research is of such consequence that it needs a little detailed consideration.

There is hardly a week wherein an opportunity for an autopsy would not present itself at some one of the State hospitals; and there is not a single post-mortem examination that might not yield something of anthropological interest. If such a part be found, all that is required is that it be secured with care, and sent, with full information regarding it and its owner, to the Institute, which will take all the necessary care of it subsequently.

There are several things of particular value, but above all it is the brains of the abnormal classes that we want, for one of the future duties of the anthropologist is to determine whether or not, and how, the brains of the insane, the criminal, etc., differ structurally from the normal. We want all the brains, at least all those left after the requirements of pathological research have been satisfied, without discrimination or limit in numbers. Next after the brain, come the anomalies of the various other organs.

A certain method is necessary in securing a part for the purposes of anthropology, and I may briefly give it:

Having the body, register any marked abnormality you may find on it. Measure always the length of the body. Should something very remarkable be found, it ought to be secured by photograph or drawing.

To obtain the brain, open the skull carefully so as not to injure the contents. Take the brain out with the membranes, let it stand five minutes in order that the liquids may exude to a certain extent, and then weigh the organ with the soft membranes attached. You may examine the brain then in a general way for your own purposes; and if you find you do not require it for any special microscopical study, and you wish to transmit it to the anthropological collection at the Institute, proceed as follows: Secure a large, clean, ordinary bowl, and put the brain in it, convexity downward, and in such a way that the various parts lie as much

as possible in a natural position. The bowl is best covered with a sheet of rubber tissue. If it be winter and the weather cold, the specimen can be transmitted in the fresh condition, which is always the most desirable. In such a case put the bowl with the brain in it into an ordinary cheap tin kettle, large enough to accommodate the bowl, with some cotton, to diminish concussions, placed underneath and above. When the weather is too warm and does not permit of this course, put the brain into a zinc, tin, or glass jar, with some cotton on all sides, and saturate and cover everything with a mixture of 97 parts of alcohol and three parts of strong formaline. Every specimen should be directed for *immediate* transmission, and must be accompanied with a few most important data as to the nature of the case; these data direct largely the methods of disposal of the brains at the laboratory and should never be omitted or delayed. A complete history of the case and of the autopsy can be transmitted a day or two later. As to the vessels in which brains are sent, they should not compress the brain, nor be again too spacious; the best vessels are of zinc with a screw top; they will be furnished on application by the Institute.

An effort to measure the liquids may be made, but guard against their having become admixed with blood.

All forms of anomalies of external and internal organs are of importance to the anthropologist; only care is necessary not to include that which is accidental or due to a disease. Disproportions between the various segments of the limbs ought to be measured and a record of them sent to the Institute. There may be found supernumerary, misplaced or wanting digits or breasts; deformities of the genital organs; or peculiarities of some of the viscera, and they are all desirable for the collections at the Institute. When abnormal hairiness exists, the part of the skin bearing such, unless too large, should be excised; and the same should be done with various cuticular appendages; *nævi*, birthspots and the like. If an anomaly can not be secured as such, a cast of it is the next most desirable.

A full description, and where possible an illustration of the part as viewed *in situ*, should in every case be secured and follow every sending, with the hospital number of the subject and the main particulars of the case.

All organs, with the exception in the case of the brain mentioned above, should be laid in alcohol before transmission. When skin only is concerned, stretch the part evenly on a little wooden frame or on a board, pin it there, allow it to dry completely in the sun and transmit thus.

II.—After an autopsy has been completed and every interesting soft part has been studied or removed, there still remains a great deal of anthropological importance, and that is the skeleton. No tissue of the body bears so many abnormal marks as the osseous. But there is also no other part of the body which is so difficult to obtain.

There is every reason to believe that, if sufficient numbers of skeletons of the abnormal classes could ever be secured, their scientific value would well repay the trouble incurred in the process of collection. This fact is felt deeply by every anthropologist and criminologist, but the difficulty has been always how to obtain sufficient numbers of *known*, well identified skeletons.

Several European collections contain numbers of skulls of the insane and the criminals (Broca's, Welcker's, Zuckerkandel's, Virchow's, and several Italian), but the majority of these skulls are only badly or not at all identified, and there are but few entire skeletons. Recently the French have been making some efforts in this line and are endeavoring to obtain some identified remains of certain classes of people. Within the last two years excavations of old graves have been conducted at Bicêtre, and they furnished this great hospital with a few recognized epileptic skeletons, which, in the appreciation of the scientists of that hospital, doubled the previous value of its museum.

Under these circumstances, it is, I think, easily and absolutely demonstrable, that an institution, which could produce a collection of a large number of skeletons of

insane, epileptics, idiots, and allied persons, duly classified according to the cause and nature of the affliction and supplemented in each individual case by an *authentic history of the patient*, would thereby produce the most valuable and unique collection in existence, such a collection as would be justly the pride of every one instrumental in its formation. It would redound to the credit of the Institute and would be a point of honor and of home and even foreign admiration. And it is just such a collection that becomes now, when there is a proper place and the proper hands ready for it, comparatively easy and feasible.

Many of the patients who die in State hospitals are friendless or paupers, and have to be buried at a comparatively large expense to the State. Such a burial, the Secretary of the Commission in Lunacy kindly informs me, averages in each case about \$12. The body is usually given to an undertaker and he disposes of it according to his best convenience. In some instances a medical college secures the cadaver, instead of an undertaker. The fact is, that after such a body is removed from the hospital it is never any more heard of. This procedure is covered by a law, which reads as follows:

CHAPTER 661, LAWS 1893.

Sec. 207. CADAVERS. "The persons having lawful control and management of any hospital, prison, asylum, morgue or other receptacle for corpses not interred, and every undertaker or other person having in his lawful possession any such corpse for keeping or burial may deliver and he is required to deliver, under the conditions specified in this section, every such corpse in their or his possession, charge, custody or control, not placed therein by relatives or friends, in the usual manner for keeping or burial, to the Medical Colleges of the State authorized by law to confer the degree of Doctor of medicine and to any university of the State having a medical preparatory course of instruction and the professors and teachers in every such college or university may receive any such corpse and use it for the purpose of medical study. No corpse shall be so delivered or received if desired for interment by relatives or friends within forty-eight hours after death, or if known to have relatives or friends; or of a person who shall have expressed a desire in his last illness that his body be interred, but the same shall be buried in the usual manner. If the

remains of any person so delivered or received shall be subsequently claimed by any relative or friend, they shall be given up to such a relative or friend for interment. Any person claiming any corpse or remains for interment as provided in this section may be required by the persons, college, university or officer or agent thereof, in whose possession, charge or custody the same may be to present an affidavit stating that he is such relative or friend, and the facts and circumstances upon which the claim that he is such relative or friend is based, the expense of which affidavit shall be paid by the persons requiring it. If such person shall refuse to make such affidavit, such corpse or remains shall not be delivered to him but he shall forfeit his claim and right to the same. Any such medical college or university desiring to avail itself of the provisions of this section shall notify such persons having the control and management of the institutions and places heretofore specified, and such undertakers and other persons having any such corpse in their possession, custody or control in the county where such college or university is situated, and in any adjoining county in which no medical college is situated, of such desire, and thereafter all such persons shall notify the proper officers of such college or university whenever there is any corpse in their possession, custody or control, which may be delivered to a medical college or university under this section, and shall deliver the same to such college or university. If two or more medical colleges located in one county are entitled to receive corpses from the same county or adjoining counties, they shall receive the same in proportion to the number of matriculated students in each college. The professors and teachers in every college or university receiving any corpse under this section shall dispose of the remains thereof, after they have served the purposes of medical science and study, in accordance with the regulations of the local board of health where the college or university is situated. Every person neglecting to comply with or violating any provision of this section, shall forfeit to the local board of health where such non-compliance or violation occurred, the sum of twenty-five dollars for every such non-compliance or violation, to be sued for by the health officer of such place, and when recovered to be paid over, less the costs and expenses of the action, to such board for its use and benefit."

Some of the State institutions—and there is quite a fair percentage of such, as I had an opportunity recently personally to ascertain—have their own, or at least partly their own, burial grounds. In other cases the bodies of the unclaimed are given to undertakers and buried usually with other paupers in some part of a general cemetery. In most instances, wherever the burying takes place, the



remains, even if not mixed with those of other classes, are in a few years beyond any possibility of identification. And it is in this way that we are continually losing invaluable material.

When traveling over Europe and visiting many of the insane hospitals, I found almost regularly that a graveyard was attached to each one, where at a minimum expense and without any disadvantage whatever, are buried not only the friendless and paupers, but many other deceased inmates, those for instance, whose friends are far distant and wish to obviate the trouble of transportation, or those whose friends have not enough money to spare for a regular funeral. The cost of this kind of burying is very little. The graveyard is a somewhat out of the way and mostly otherwise useless corner; it is surmounted by trees usually, and presents nothing dismal in appearance. A number of carpenters, selected usually from among the patients, works at the simple cases for the bodies; and two or three other men have the office of grave diggers. The entire expense of the funeral is the box wood, and the whole procedure involves no more trouble than with us an ordinary removal of a dead body from the hospital.

If such a mode of burial of the friendless and unclaimed were followed with us, the science of anthropology would soon be a great gainer thereby. It is from these kinds of cemeteries, conducted with the scientific purpose in view, that we could obtain after a period of from four to six years a continuous supply of identified sets of bones for our collections.

We ought to follow the European example in this particular matter of special graveyards. The economy of such a disposal of the friendless is beyond question, and so is, also, I think, the fitness of the method. But we could greatly improve on the European plan, having our special object in view, for very little scientific utilization of the cemeteries has been attempted in Europe outside of the above mentioned Bicêtre.

So much said for explanation, I venture with a propo-

sition, which is that an effort should be made for all such rules or laws as would make possible (1) the establishing of private burying grounds for each State institution for the abnormal classes; and (2) the exhumation, after a certain time, of the osseous remains of the unclaimed bodies, for the purposes of anthropology.

I can think of no material obstacle to this proposition of mine. If land be wanting, it can be provided with little expenditure—an acre or two of sandy or fairly dry place will do forever. The few institutions in or very near large cities may be excluded.

Should a special law be necessary, the legislature could no doubt be made to understand the value and importance of such an amendment and find its use.\* The State will save by the new plan of burial. The individual hospitals will be subjected to no more trouble than the care of an additional little lawn or garden. Should any objections be raised against the manufacture of coffins by the patients, they can be made in prisons. And all that will be required for the purpose of science will be to mark the grave sufficiently for an unmistakable recognition in the future. The time of exhumation will come in from four to six years, according to the soil, and will be undertaken by the Anthropological Department of the Institute. Those institutions which already have their own burying grounds would be subjected to but very little additional trouble regarding the identification. . .

The preceding propositions will be sufficient for a good beginning of the work of the department, and I conclude with them the brief exposition of the task of Anthropology in connection with the Pathological Institute.

\* Since the above was written, a draft of such amendment has been submitted to the State Commission in Lunacy for presentation to the legislature.