

all. The subject of the supra-renal capsule is one that I have not paid a great deal of attention to till within the last two years. We have yet to find any abnormality in that respect. Those of us who have post-mortem examinations must have paid special attention to this and of course we must all have observed in regard to the circulation, that without exception almost, they have poor circulation, coldness of extremities and livid and blue lips. Post-mortem examinations without exception show the heart undersized, flabby, with thin walls and with the arteries smaller in calibre.

Dr. Hill: My observations of the appearance of the feeble-minded from a scientific standpoint are rather limited. My connection with them is more executive than scientific, but I have been interested in the scientific part of it, and from my connection with the insane I believe the conditions are not very dissimilar. It would seem there is a physical cause for almost everything. That brings us in the direction of materialism.

Dr. MacDonald in his measurement of thirty or forty thousand children shows that almost every class is represented by some special physical development. He goes so far as to point out that the truant boy is generally a truant owing to some defect in his character which he owes to his physical defects.

Dr. Richardson's remarks with reference to glandular treatment were interesting to me. So little has been done along that line. The first discoveries were almost by accident, coming from the observation of the effects of the gland. Then came the observation of other glands. Thus they multiply. I have already read the suggestion from some thinker that there may be a gland in the body to correct almost any trouble that may occur. We may come to rely on nature's remedies without going into the mineral and vegetable worlds.

The use of thyroids is not absolutely limited to the indications for thyroid feeding, not only to those who show evidence of myxoedema, but type Lorraine. We make use of thyroid in other cases. Post-mortems are exceedingly interesting for they reveal what has taken place in the body, but they do not give us an actual guide for treatment during life, but there are means by which we can avail ourselves of ante-mortem examinations. We may get some insight into the individual before he is dead. There are secretions, the blood, the stomach, etc., that we can reach. Aside from the study of the blood there can be the study of the behavior of these secretions, quantity as well as quality, the amount of pressure of the blood, etc. Thyroid has the tendency to dilate the capillaries. The child with congested extremities, with hands that are blue, needs to have the circulation improved and if that can be accomplished there is temporary and sometimes permanent relief.

Mr. Johnson: We have had two autopsies where the supra-renals were much enlarged. The others did not present any abnormalities. It is interesting to observe that the effect of physical exercise is a very

great quickening of mental power in the imbecile child. Take thoroughly organized physical culture and it is noticeable how the mind reacts from the stimulus of the physical condition.

As to pathological investigations, suppose we make all the autopsies possible, directing special attention to the glands, sending them to Dr. Wilmarth, with a careful description of the child and ask him to collate that information. We might find something useful to science. We have worked each one too much alone. We have five or six autopsies a year only, and the consequence is that the result is not very much. If we united in our work we might get something good out of it.

Mr. Johnstone: In using thyroid in case of poor circulation is the use of it to be continued to keep the circulation up? We have used it only a short time in cretinism, but we have seen very good results in using it in other cases,

Dr. Hill: It has to be used constantly if there is defect in the thyroid. I do not know of any instance where subsequent growth has taken place and it has assumed its function.

Dr. Richardson: You can tell whether the supra-renal was secreting by taking a slice of the fresh gland and with ten per cent of ferro chloride it will turn blue and you can see whether it was secreting normally at the time of death. It is usual to say that all these causes are due to heredity. I do not think so. Like produces like, but another principle which is now generally admitted is that acquired characteristics are not transmitted. What really causes the defect in the child, whether epileptic or feeble-minded, is probably more from prenatal influences than from heredity. There may be biological changes which can be transmitted, but nature usually provides for that by the want of power of propagation. Idiot women have had children, however, that were perfectly normal.

Dr. Polglase said that at Dr. Rogers' institution in Minnesota an eminent pathologist was at work from whose research much was expected. Another branch of work carried on there was the study of psychology. He introduced Mr. A. R. T. Wylie, who read a paper, (a report of a committee appointed in 1900.) on "A Scheme for Psychological Investigation of the Feeble-minded."

#### REPORT OF COMMITTEE ON PSYCHOLOGICAL RESEARCH.

Pursuant to the instructions found in the Minutes of the last meeting the committee would submit the following blank. While more extended than was there intimated, we however thought it desirable to have it as complete as possible, feeling that in any case each one using it would adapt it to his own needs or limit it to what he considered of most importance. Consequently we submit the blank as a tentative outline for the collection of facts, knowing that it could be well improved in many particulars. It is not intended to supplant any blanks already in use in our institutions. In grouping the items we tried to

arrange them in as scientific a manner as possible, but it was found necessary in some instances to yield to convenience.

#### PSYCHOLOGICAL EXAMINATION.

Application No. .... Name ..... Psychological No. ....

Date ..... Type .....

#### ANTHROPOLOGICAL:

Age ..... Height ..... Sit. Height ..... Weight .....  
Lung Capacity ..... Circulation .....

#### HEAD MEASUREMENTS:

Cir. .... Naso-Occip. Arc ..... Binauric Arc .....  
Trans. Diam. .... Long. Diam. .... Height ..... Cephalic Index.  
Smith's Module ..... Dist. External Edges Orbits .....

#### HEREDITARY CONDITIONS:

#### STIGMATA OF DEGENERACY I

#### SENSATION:

Touch...  
Pain.  
Hearing  
Vision..  
Taste...  
Smell ...  
Muscle .  
General.

#### PERVERSIONS:

Photisms. .... Nystagmus. .... Abnormal Sensations .....  
Color Blindness .....

#### PERCEPTION:

Form ..... Color ..... Are Names Present? ..... Illusions.  
Hallucinations ..... Test .....

#### MEMORY:

Parents ..... Home ..... School ..... Daily Life \_\_\_\_

#### TESTS:

Visual:—Form ..... Color ..... Letters ..... Auditory, Syllables.  
Words ..... Sentences .....  
Muscular .....

#### PERVERSIONS:

Amnesia :-Temporary. .... Periodic. .... Progressive.  
Partial ..... Hyperamnesia ..... Paramnesia .....

#### EMOTION:

General Tone of Feeling :—Apathetic ..... Euphoria ..... Malaise.  
Mobile ..... Obstinate ..... Excitable ..... Irritable...  
Like Stimulation .....

#### INSTINCTS:

##### I. NUTRITION :

Suck ..... Bite ..... Clasp ..... Carry to Mouth .....  
Gormandize ..... Disgust ..... Cleanliness .....

##### II. RELATION:

[a] Bodily Movements, Sit up ..... Hold up Head ..... Walk \_\_\_\_  
Age ..... Character of ..... Climb ..... Vocalize..  
Habit ..... Right or Left Handed .....  
[b] Pain ..... Cry ..... Grief ..... Auto mutilation....  
[c] Pleasure ..... Joy .....

##### III. CONSERVATION:

[a] Fear ..... Object ..... Expression ..... Danger...  
Phobias. .... Cowardice .....  
[b] Anger ..... Object ..... Expression .....  
[c] Affection ..... Sympathy ..... Sociability ..... Smile...  
Civil ..... Justice ..... Unselfish ..... Secretiveness...  
Religious ..... Moral .....  
[d] Play ..... Games ..... Laugh ..... Beauty .....  
Imitation .....  
(e) Curiosity ..... Doubt ..... Surprise .....  
{f} Self-feeling--Pride. .... Humility ..... Self-esteem .....  
Ambition ..... Desire for Power. .... Suicide ..... Shame.  
Blush ..... Remorse ..... Acquisitiveness .....  
Constructiveness. .... Destructiveness ..... Stealing .....  
Meanness ..... Cruelty .....  
(g) Love ..... Sexual ..... Masturbation .....

#### VOLITION:

Dress ..... Wash ..... Use Knife and Fork ..... Work...  
Can Do ..... Talk ..... Age ..... Articulation .....  
Rythmic Motions .....

#### GRIP:

Right ..... Left .....

#### VOLUNTARY MOTOR ABILITY:

Taps ..... Fatigue .....

#### STEADINESS:

Right Hand ..... Left Hand .....

#### WORK:

**Right.** ..... Left .....  
Reaction times .....

#### PATHOLOGICAL :

Strong Will ..... Obstructed ..... Explosive ..... Automatic on  
Command or Imitation ..... Lazy ..... Kleptomania .....  
Insane Impulses .....

#### ASSOCIATION OF IDEAS:

Slow ..... Rapid ..... Confused ..... Monotonous .....

Imperative.....	Test From Associated Words.....
ATTENTION:	
Involuntary—Aroused by what stimuli?.....	Does he live in world of own?
Desire for change.....	Voluntary—Read and remember what is read.....
Distraction.....	
JUDGMENT:	
Estimate of Probabilities.....	Abstract Ideas, Time.....
Lie.....	
REASONING:	
Deductive.....	
Inductive.....	
IMAGINATION:	
Type.....	Distinguished—Imaginary and Real.....
Delusions.....	
SPECIAL TALENTS:	
Music.....	
Mechanical.....	
Memory of places and dates.....	
SCHOOL RECORD:	
Reading.....	
Writing.....	
Numbers.Mechanical.....	

Smith's Module is recommended by Herdlicka when the cranial capacity is wanting and is found by taking the sum of the transverse and longitudinal diameters and the height and dividing by three.

The hereditary conditions are taken from the application blanks or other sources showing whether first or second born, ages of father and mother, neurotic conditions, etc.

Touch can best be tested by using weights similar to Scripture's Touch Weights. These applied on the backs of the hands would give the threshold of touch.

The pain sense can be tested by using Cattell's Algometer on the hands and forehead, or McDonald's Algometer over the temporal muscle.

Hearing.—The common test with the watch or tuning fork is probably all that can be done here.

Sight.—Test by Snellen's Test Chart, also measure visual fields.

Taste.—Find the strength of solution that they can taste by mixing standard solutions with water. Strength of standard solutions suggested, sugar five per cent; salt ten per cent; tartaric acid five per cent; quinine one tenth per cent.

Smell.—Find the presence of smell by means of proper solutions and possibly in case of the brighter children measure with the olfactometer.

Muscle.—Find the smallest perceptible difference by lifting test weights.

General.—Determine the presence of hunger and thirst.

Memory.—Test by displaying five colors, forms and letters for the space of two seconds and then requiring the child to select the same from a similar set before him. Give the auditory tests by reading the syllables, associated words, and sentences at the rate of one word per second, requiring an immediate reproduction on the part of the child. Record in all instances the number of successful trials. Test muscular memory by requiring the child to reproduce certain length arm movements as 100mm., 300mm., and 500mm., both immediately and after an interval of ten or twenty seconds. Record the length reproduced.

The group of instincts includes certain other items which are placed here for convenience. In making the record here it would be well not only to record the presence or absence but also their increased or decreased prominence. This could be easily done by a system of signs as +, —, x, o, indicating that they were of increased, decreased, or of normal importance, or were absent.

Voluntary motor ability is tested by requiring the child to tap as rapidly as possible for forty<sup>T</sup>-five seconds and noting the number of taps during the first and last five seconds. The number of taps made in the first five seconds would show the motor ability, and the per cent of loss in the last five would show the fatigue.

Steadiness is best tested by Scripture's Steadiness Apparatus using both right and left hands.

Work is tested by the ergograph, noting the form and height of the curve and the amount of work done in kilogram meters.

The reaction times might be omitted using instead the voluntary motor ability.

All the other items are self-explanatory.

It might be well to call attention to and emphasize the importance of the group called instincts. It is by defect and delay in their appearance that one is earliest led to suspect idiocy. And it is here also that moral imbecility would be shown on the blank. But their chief importance perhaps lies in the fact that they compose the mental capital upon which the teacher has to work, and from a pedagogical standpoint a detailed study of the instinctive life of individual cases is of the highest importance. And as the higher mental powers are chiefly wanting in the feeble-minded, instincts sum up the greater part of their mental life. So a full and complete study of the instincts of the feeble-minded is therefore particularly desirable. And it seems evident that it is here that the greatest advances are to be made and the greatest successes attained in psycho-pathology.

On motion the report prepared by Mr. Wylie was adopted and it was voted that it be printed in the JOURNAL OF PSYCHO-ASTHENICS and that it be distributed among the different institutions.

A brief paper on "Craniectomy for Arrested Development, With After-History of Three Cases" was read by Dr. J. Moorhead Murdoch.

Adjourned at 7.30 P. M.

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#### LAST SESSION.

FRIDAY NIGHT, MAY 17, 1901.

The last session of the Association was held Friday night. The Association was called to order in the Carrollton Hotel, at 9.45 p. m. after the return from Owings Mills. Attention was called to the work of Arthur MacDonald and his study of defective cases. On motion the following resolution was adopted:—

That a special committee be appointed to look into the work which Dr. MacDonald is doing, and report upon it at the next annual meeting.

Mr. Alex. Johnson, Dr. Keating and Dr. Polglase were appointed such a committee.

On motion, a hearty vote of thanks was passed in recognition of the courtesy and hospitality of the Maryland Training School, and of appreciation of what that school is doing; to Dr. F. W. Keating and to his board of trustees.

A report of "A Case of Special Mental Precocity with Early Degeneration," by Dr. A. C. Rogers, was presented.

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Dr. Polglase: I saw the boy last winter to whom Dr. Rogers refers. I placed it as a form of mania.

Dr. Keating: I have a case precisely similar. He has to try five or six times before he can go through a door. With this boy it is a form of melancholia. Up to fourteen he was very bright and led his class in school. He became very dirty in his habits and played tricks on smaller boys and they had to send him to the insane asylum. Since then he has had different bad attacks of mania.

Adjourned *sine die* at 10:30 P.M.

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\*To be published in December, 1901, number.

## SELECTED ARTICLES

### SYSTEMATIC EXERCISE FOR THE TREATMENT OF THE FEEBLE-MINDED.

In taking up the subject of the development of children who are below par mentally, there is no question but that the physical condition of the child has been deemed of too little importance, and his physical development has been more or less neglected until recent years by his caretakers. In the use of the term "feeble-minded" the writer means to include not merely persons who are regarded as imbeciles, but also children who are lacking in some great sense, such as "eye-sight" or "ear-sight." He was struck some years ago, on visiting a large institution for the blind, how deplorable the physical condition of the children seemed to be and on inquiry he found that as yet but little was being done for them in these institutions along this line. In this case it was not due to the lack of thought or ability of the physicians visiting the institution or of the instructors in charge, but to the prejudice of the managers, who regarded the introduction of a gymnasium and systematized exercise for the blind as a "fad." Of course, in the blind many of the causes which produce this condition produce also ill health, in many cases; the mere fact of being blind, of being unable to work to the fullest extent, or play to the fullest extent, has a depressing influence upon the physical condition, and therefore probably in all institutions for the blind the physical condition of the students is very far below the average.

This has been recognized on all sides now by managers of these institutions and the results already obtained warrant the further extension of gymnastic methods among this class of people.

In the feeble-minded themselves there is no doubt that the use of specially directed gymnastic exercises will help this class of patients. Imbeciles can be made, without much effort, to imitate proper calisthenic movements without trouble, and the results will appear speedily. Drs. Taylor and Pearce have pointed out recently that organic vascular heart disease is a very large etiological factor in the production of imbecility, and they believe that many of the higher grade cases can be bettered by attention being paid to therapeutics of the cardio-vascular disorders of imbeciles. The use of carefully watched exercises could be included in these measures, and there is no doubt but that much can be done in the future for these unfortunate cases which the laity and the majority of physicians at present are willing should remain as they are.

—*Mind and Body.*