



# THE UNIVERSITY *of* EDINBURGH

<b>Title</b>	A CLINICAL SURVEY OR THE APPLICABILITY OP INTELLIGENCE TESTS TO THE STUDY OP MENTAL DEFICIENCY IN CHILDREN.
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A CLINICAL SURVEY OF THE APPLICABILITY  
OF INTELLIGENCE TESTS TO THE STUDY OF  
MENTAL DEFICIENCY IN CHILDREN.

*M. D. 1924.*



"I must confess that I consider the value of these tests in the diagnosis of Amentia to have been very much exaggerated by some zealous persons."

1.  
Tredgold, Amentia.

"Experience with these tests has constantly re-assured us, not only as to their value, but as to their amazing accuracy."

Goddard. "Four hundred  
feeble minded children classified  
2.  
by the Binet Method.

Professor Emil Kraepelin, in his address on the occasion of the inauguration of the German Institute of Psychiatric Research,<sup>3</sup> urged the systematic study of mental problems :- "what is anyhow attainable can so be attained, whether scientific knowledge or saving deed:" - and there would certainly appear to be ample scope for a systematic study of the utility of intelligence tests - in their relationship to mentally defective children.

Intelligence tests make a popular appeal, and

1. Third Edition p.401, footnote -

2. Journal of Psycho Asthenics vol.15, pp.17-30

3. For translation see Journal of Mental Science, April, 1922.

they have been discussed, lauded, and criticised from many viewpoints, medical and lay alike. Their relationship to Amentia is itself the subject of an exhaustive literature, much of it controversial, and some of it obviously biased. To the general question of the value of these tests mental deficiency adds difficulties peculiarly its own - difficulties involving theory, technique and practical interpretation.

As Tredgold points out, the essence of mental defect is inability to maintain a separate existence. The ultimate criterion is economic, but the orthodox definition of feeble mindedness in children is based on capacity for education: the Elementary Education (Defective and Epileptic Children) Act of 1899 is frankly based upon this educational point of view. This tends to confuse the issue, for some children, though fairly receptive and of tolerably good general intelligence, yet are such that they can never be expected to traverse life without supervision. They lack that something - "Common sense" - the "Wisdom" of Mercier, which alone enables "to maintain an independent existence". How will intelligence tests meet these cases?

1

Fernald objects to the Binet tests on the ground that they are empiric: he declares that the psychology of mental defect is still to be written. This may be true, - but standards are often empiric. If, during the process of evolution, we can utilise in the diagnosis and study of Amentia a method which yields practical results, we can afford to wait with more patience the advent of something less arbitrary. "Everything that exists," says Thorndike, "exists in some amount, and if it exists in some amount it can be measured." This might ~~be~~ be cited as the charter of intelligence testing: its attitude is essentially pragmatic - with William James it asks, "Does it work?"

It is not easy to find a satisfactory method of determining the value to be attached to the results of these tests. To postpone the reckoning till the child attains an age normally consistent with maturity might appear to be the logical procedure, but this course is attended with formidable practical difficulties, and the results so obtained could only check in a rough way, the conclusions previously reached, by demonstrating the subject's ability or

otherwise to earn his living. It would appear to be more practicable - and probably no less accurate - to compare the test results with what we might term "a studied clinical evaluation." Such an evaluation would be based on a prolonged observation of each case, preferably by a neutral arbiter, and would be such as to include, so far as possible, patients' entire mental equipment. Practical ability would be ranked with the more "scholastic" attainment, and the whole rendered subservient to the general question of conduct. It would, in fact, be an epitome of years of observation. Of children dealt with in this investigation, 94% were patients under Dr. Clarkson's care at the Scottish National Institution, Larbert: and Dr. Clarkson was good enough to grade the children examined according to his opinion of their mental level. Six grades were taken, and each child placed appropriately, from Grade I, that of hopeless idiocy, to Grade VI, in which were placed the best of the defectives. Part of our subsequent study shall be directed to the investigation of the relationship existing between this clinical grading and the results of intelligence testing.

The Scope of the investigation.

In order to obtain a fair indication of the value of intelligence tests in their relationship to mentally defective children, it will be necessary to consider the tests from several view-points: it is proposed to deal with the system

- (a) as a means of diagnosing mental defect;
- (b) as a means of grading mental defect;
- (c) as a guide to prognosis; and
- (d) in its relation to treatment.

We shall then proceed to take up the test reactions of some definite clinical groups of defectives, and finally consider the significance of a few individual tests.

The Tests employed, with some observations on testing technique in cases of (pronounced) mental defect.

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The tests employed were these of the Stanford Revision of the Binet-Simon Tests, as described in Terman's "The Measurement of Intelligence",<sup>1</sup> revised for application to British children.

Binet-Simon tests were used in preference to any other scale, because

- (I) they are still the tests very commonly used;
- (II) they have been carefully standardised,
- (III) they were specially designed to deal with the subnormal child, whereas some of the other tests are meant to detect rather children of superior mentality.

In the present investigation it was not found necessary to use tests above year 16.

A list of tests used is appended.

1. Terman, "The Measurement of Intelligence," published by Harrap & Co., who also publish a "Record Booklet" for filing results.



THE TESTS.

h. 7-21.

Year III (6 tests, 2 months each, or 4 tests,  
3 months each.)

I Points to parts of body (3 of 4)

Nose      Eyes      Mouth      Hair

2 Names familiar objects (3 of 5)

Key,      Penny,      Closed knife, Watch, pencil,

3 Pictures, enumeration or better (At least 3 objects  
in one picture.) ("Tell me everything you can  
see in this picture")

a.      Dutch Home

b.      Canoe

c.      Post Office

4 Gives sex (Note form of question)

5 Gives last name

6 Repeats 6 - 7 syllables (1 of 3)

a.      "I have a little dog"

b.      "The dog runs after the cat"

c.      "In summer the sun is hot"

A1 Repeats 3 digits (1 of 3 Order correct. Read 1 per second.

6-4-1

3-5-2

8-3-7

Year IV (6 tests, 2 months each, or 4 tests  
3 months each)

1 Compare lines (3 of 3, or 5 of 6) 1.....2.....3.....

2 Discrimination of forms (Kuhlmann 7 of 10)

Circle.....Square..... Triangle.....Other errors.

3 Counts 4 pennies (no error)

4 Copies square (pencil 1 of 3) 1.....2.....3.....

5 Comprehension, 1st degree (2 of 3) "What must you do;

a. "When your are sleepy?

b. "When you are cold?

c. "When you are hungry?

6 Repeats 4 digits (1 of 3 Order correct. Read 1 per second.)

4-7-3-9

2-8-5-4

7-2-6-1

A1 Repeats 12-13 syllables (1 of 3 absolutely correct,  
or 2 with 1 error each)

a. "The boy's name is John. He is a very good boy"

b. "When the train passes you will hear the whistle blo

c. " We are going to have a good time in  
the country."

Year V (6 tests, 2 months each, or 4 tests,  
3 months each.)

1 Comparison of weights (2 of 3)

2        3-15                      15-3                      3-15

2 Colours (No error)

Red        Yellow        Blue        Green

3 Aesthetic comparison (No error)

Upper pair        Middle        Lower

4 Definitions, use or better (4 of 6)

Chair                                      Doll

Horse                                      Pencil

Fork                                      Table

5 Patience, or divided rectangle (2 of 3 trials.  
1 minute each)

1    Time

2    Time

3    Time

6 Three commissions (No error. Order correct)

Puts key on chair, Brings box, Shuts door

Al Age.

Year VI - 6 tests 2 months each, or 4 tests  
3 months each)

1 Right and left (3 of 3, or 5 of 6)

R.hand      L.ear      R.eye

2 Mutilated pictures (3 of 4)

Eye      Mouth      Nose      Arms

3 Counts 13 pennies (1 of 2 trials, without error)

4 Comprehension 2nd degree (2 of 3) What's the thing to do,

a. If it is raining when you start to school?

b. If you find your house on fire?

c. If you are going somewhere and miss your bus?

5 Coins (3 of 4, Present in order given below)

Threepenny-bit      Penny      Shilling      Sixpence

6 Repeats 16-18 syllables (1 of 3 absolutely correct,  
or 2 with 1 error each.)

a. We are having a fine time. We found a little  
mouse in the trap"

b. "Walter had a fine time on his holiday. He went  
fishing every day."

c. We will go out for a long walk. Please give me  
my pretty straw hat.

A1 Morning or afternoon (Note form of question.)

Year VII (6 tests 2 months each o4 4 tests

3 months each)

1 Fingers (No error) R. L. Both

2 Picture, description or better. (Over half of performance description. "Tell me what this picture is about?" "What is this a picture of?")

a. Dutch Home. B. Canoe c. Post office.

3 Repeat 5 digits (1 of 3 Order correct. Read 1 per second)

4 Ties bow knot (Model shown 1 minute. "Single" bow half credit)

Time

Method

5 Gives differences (2 of 3) a. Fly and butterfly  
b. Stone and egg. c. Wood and glass

6 Copies diamond (Pen 2 of 3) a. b. c.

<sup>1</sup>

A1 Names days of week (Order correct 2 of 3 checks correct)

Mon, Tues, Wed., Thurs., Fri., Sat., Sun.,

<sup>2</sup>

A1 Repeats 2 digits backwards (1 of 3 Read 1 per second)

2-8-3

4-2-7

9-5-8

Year VIII - 6 tests, 2 months each or 4 tests, 3 months each.

1 Ball and field (Inferior plan or better.)

Let us suppose that your cricket ball has been lost in this round field. You have no idea which part of the field it is in. You don't know what direction it came from, how it got there or with what force it came. All you know is that the ball is lost somewhere in the field. Now take this pencil and mark out a path to show me how you would hunt for the ball so as to be sure not to miss it. Begin at the gate and show me what path you would take.

2 Counts 20-0 (40 seconds. 1 error allowed) Time errors.

3 Comprehension, 3rd degree (2 of 3) "what's the thing for you to do:

a. "When you have broken something which belongs to someone else?" .....

b. "When you are on your way to school and notice that you are in danger of being late?"

c. "If a playmate hits you without meaning to do it?"

4 Gives similarities, two things. (2 of 4 "In what way are wood and coal alike?" etc., Any real likeness is plus)

a. Wood and coal ..... B Apple and peach

c. Iron and silver ..... d. Ship and motor-car

5 Definitions superior to use. (2 of 4 "Thing" as  
genus counts plus.)

a. Balloon                      B. Tiger

c. Football                      d. Soldier

6 Vocabulary, 20 words; Score ..... Total Vocab.

A1 1 Six Coins (No error. Give in order indicated)

$\frac{1}{2}$ d..... $\frac{1}{4}$ d..... 1/-..... 6d.....5/-.....2/6d.

A1 2 Dictation ("See the little boy." Easily legible.

Pen, 1 minute")

Time ..... Score by Ayres scale.....

Year IX (6 tests, 2 months each or 4 tests, 3  
months each)

1 Date (Allow error of 3 days in c, no error in

a, b, or d.)

a Day of week ..... b month..... c day of m.... d year.....

2 Weights (3, 6, 9, 12, 15. procedure not illustrated,

2 of 3 correct.)

3 Makes change (2 of 3 No coins, paper or pencil)

10-4

15-12

25-4



- 4 Repeats 4 digits backwards (1 of 3 Read 1 per second)  
 6-5-2-8                                      4-9-3-7                                      8-6-2-9
- 5 Three words (2 of 3 Oral 1 sentence or not over 2  
 co-ordinate clauses.)  
 a Boy, river, ball... b Work, money, men... c Desert,  
 rivers, lakes.....
- 6 Rhymes 3 rhymes for each word, 1 minute for each  
 part, Illustrate with hat, rat, cat, 2 of 3 correct.  
 a. Day....time. b. Mill.... Time, c Spring....Time
- A1 1 Months (15 seconds and 1 error in naming. 2 checks  
 of 3 correct.)  
 Jan., Feb., Mch., April, May, June, July, Aug, Sept.,  
 Oct., Nov., Dec.
- A1 2 Stamps gives total value (2nd trial if individual  
 values are known)  
 Year X (6 tests, 2 months each, or 4 tests, 3  
 months each.)
- 1 Vocabulary 30 words. Score .....Total Vocabulary.....
- 2 Absurdities (4 of 5 Warn. Spontaneous correction  
 allowed)  
 a. A man said I know a road from my house to the  
 town which is downhill all the way to the town, and  
 downhill all the way back home!

- b An engine driver said that the more carriages he had on his train the faster he could go.
- c Yesterday the police found the body of a girl cut into 18 pieces. They believe that she killed herself.
- d There was a railway accident yesterday, but it was not very serious. Only 48 people were killed.
- e A bicycle rider, being thrown from his bicycle in an accident, struck his head against a stone and was instantly killed. They picked him up and carried him to hospital, and they do not think he will get well again.
- 3 Designs. (1 correct, 1 half correct, expose 10 seconds.) a..... b.....
- 4 Reading and report (8 memories. 35 seconds and 2 mistakes in reading.)
- Memories..... Time for reading.....Mistakes.....
- Manchester, Sept., 5th - A fire last night burned three houses near the centre of the city. It took some time to put it out. The loss was £5,000 & 17 families lost their homes. In saving a girl who was asleep in bed a fireman was burned on the hands.
- 5 Comprehension, 4th degree, (2 of 3. Questions may be repeated).

- a. What ought you to say when someone asks your opinion about a person you don't know very well?
- b. What ought you to do before beginning something very important?
- c. Why should we judge a person more by actions than by his words?

6. 60 words (Score half minutes separately. Illustrate with clouds, dog, chair, happy)

1.....2.....3.....4.....5.....6.....

Method .....

A1 1 Repeats 6 digits (1 of 2 Order correct, Read 1 per second) 3-7-4-8-5-9.....5-2-1-7-4-6-.....

A1 2 Repeats 20-22 syllables (1 of 3 correct, or 2 with 1 error each).

a "The apple-tree makes a cool pleasant shade on the ground where the children are playing. "

b "It is nearly half-past one o'clock: the house is very quiet and the cat has gone to sleep."

c "In summ the days are very warm and fine; in winter it snows and I am cold."

A1 3 Form board (Healy Fernald puzzle A. 3 times in 5 minutes). Time a.....b.....c.....Method.....

Year XII (8 tests, 3 months each, or 6 tests, 4 months each)

1 Vocabulary, 40 words, Score..... Total Vocab.....

2 Abstract words (3 of 5)

a Pity...b Revenge.. c Charity..d Envy.. e Justice..

3 Ball and field (Superior plan)

4 Dissected sentences (2 of 3 1 minute each)

a FOR THE STARTED AN WE COUNTRY EARLY AT HOUR.... Time

b TO ASK PAPER MY TEACHER CORRECT I MY .....Time

c A DEFENDS DOG GOOD HIS BRAVELY MASTER .... Time

5 Fables (Score 4 i.e. two correct or the equivalent in half credits)

a Hercules and wagoner

b Maid and eggs

c Fox and crow

d Farmer and stork

e Miller, son and donkey

6 Repeat 5 digits backwards (1 of 3 Read 1 per second)

3-1-8-7-9.....6-9-4-8-2.....5-2-9-6-1.....

7 Pictures interpretation (3 of 4 "Explain this picture")

a Dutch home

b Cance

c Post office

d Colonial Home.

8 Gives similarities three things (3 of 5 In what way are ----, -----, -----, alike.

- a Snake, cow and sparrow
- b Book, teacher, and newspaper
- c Wool, cotton and leather
- d Knife-blade, penny and piece of wire
- e Rose, potato and tree

Year XIV. (6 tests 4 months each, or 4 tests

6 months each)

- 1 Vocabulary 50 words, Score.....Total Vocb.....
- 2 Introduction test (Gets rule by 6th folding.Unfold after each cutting.
- 3 President and king (Power,.....accession.....tenure 2 of 3. a.....b.....c.....
- 4 Problems of fact (2 of 3. Query on a and b.

a "A man who was walking in the woods near a town stopped suddenly, very much frightened, and then ran to the nearest policeman, saying that he had just seen hanging from the limb of a tree a -----  
a what?

b "My neighbour has been having strange visitors First a doctor came to his house, then a lawyer,

then a clergyman (or priest) what do you think happened there?"

c "An Indian who had come to town for the first time in his life saw a white man riding along the street. As the white man rode by the Indian said "The white man is lazy; he walks sitting down'What was the white man riding on that caused the Indian to say 'he walks sitting down'?"

5 Arithmetical reasoning (1 minute each 2 of 3)

a Save 300s.....Time1...6 pencils.....Time.....

c Cloth.....Time

6 Clock(2 of 3) (Error must not exceed 3 or 4 minutes)

6.22 Time required

8.10 ..... Time required

2.46..... Time required

A1 Repeats 7 digits (1 of 2 Order correct, Read 1 per second.)

2-1-8-3-4-3-9.....9-7-2-8-4-7-5.

Year XVI, AVERAGE ADULT.

(6 tests, 5 months each, or 4 tests  $7\frac{1}{2}$  months each)

1 Vocabulary 65 words Score .....Total Vocab...

2 Interpretation of Fables (Score 8) First explain what a fable is, and after reading each say,

"What lesson does that teach us?")

- a. Hercules and wagoner.....
- b. Maid and eggs.
- c. Fox and crow
- d. Farmer and stork
- e. Miller, son and donkey.

3 Difference between abstract words (3 real contracts out of 4)

- a. Laziness and idleness
- b. Evolution and revolution
- c. Poverty and misery
- d. Character and reputation.

4 Problem of enclosed boxes (3 of 4) One large box containing, -

- a. 2 smaller, 1 inside of each
- b. 2 smaller, 2 inside of each
- c. 3 smaller, 3 inside of each
- d. 4 smaller, 4 inside of each

5 Repeats 6 digits backwards (1 of 3)

4-7-1-9-5-2 .....5-8-3-2-9-4.....7-5-2-6-3-8.

6 Code, writes "Come quickly." 2 errors, 6 minutes.

omission of dot counts half error. Illustrate with "war" and "spy")

Errors .....C-O-M-E O-U-I-C-K-L-Y Time.....

Method

Al. 1. Repeats 28 syllables (1 of 2 absolutely correct)

- a. Walter likes very much to go on visits to his grandmother, because she always tells him many funny stories.
- b. Yesterday I saw a pretty little dog in the street. It had curly brown hair, short legs and a long tail.

Al. 2. Comprehension of physical relations (2 of 3)

- a. Path of cannon ball
- b. Weight of fish in water
- c. Hitting a distant mark



The technique of applying Intelligence Tests to mentally defective children.

---

It has already been pointed out that pronounced Amentia complicates somewhat the actual procedure of the examination.

In the first place, there is the difficulty<sup>y</sup> of speech. Many defectives - notably Mongolians - cannot speak at all: to these, of course, Binet-Simon tests are quite inapplicable, and in such cases the exhibition of tests of the nature of the Porteous mazes<sup>1</sup> might prove helpful. But beyond these mutes, there are many more defectives whose articulation is so bad as to render interpretation of their replies a matter of great difficulty.

Secondly, the examiner encounters more answers of doubtful value than when dealing with normal children. It is often difficult to decide whether the child's answer really reaches the "pass" level. Some of these answers are so terse as to leave one wondering whether they should rank as epigram or as haphazard exclamation, while others combine with great prolixity a total

1. For original Porteous mazes, see Jour. of Exper. Pedagogy, Jour. 1915.

inability to realize the vital element. In the writer's experience, defectives frequently reply in mono-syllables which they are loath to attempt to amplify.

Again, in order to get the best out of these children, it is sometimes necessary to introduce minor subtle variations; and while it is realised that the scale is more or less elastic, some experience is necessary to prevent the test from losing its value as a grading factor. It is not always easy to fix the the line of demarcation between persuasion and suggestion.

In the majority of cases the application - and interpretation - of the tests is a matter of great simplicity: the whole procedure may be likened to the administration of a general anaesthetic, usually uneventful, but sometimes presenting considerable difficulty, and that not always when most expected. Failure with the tests would seem to be most frequently due to, -

(a) failure of the Examiner to get the best out of the child: and, -

(b) Failure to carry the tests sufficiently high up scale, for in mental defect especially, the child's

successes are liable to be scattered over a wide age distribution.

<sup>1</sup>  
Kuhlmann states that to master the details of testing requires the examination of about fifty children, but adds that, in the case of normal children, the error in the computation of the mental age by untrained examiners does not generally exceed one year. Re-examination of the cases just tested by the writer seems to indicate that this also applies to mental defectives - which means that the application of the tests ought to be within the scope of the general practitioner.

1. F. Kuhlmann : Results of examining a Thousand Public School children with Binet-Simon tests by untrained examiners. Journal of Psycho Asthenics Vol. XVIII Nos. 3 and 4.

THE APPLICATION of the TESTS to,  
MENTALLY DEFECTIVE CHILDREN.

being a record of case summaries. -

[h]. 25-119.

Unless otherwise stated it may be assumed that the physical condition of the child is normal.

Contractions used.

F.M. - Feeble minded.  
H.G.I. Higher grade Imbecile.  
I - Medium grade Imbecile.  
L.G.I.- Lower grade Imbecile.  
Id. - Idiot.

For Key to figures, see "Tests Used."

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CASE No. 1

GEORGE NELLIS

AET. 9<sup>6</sup>/<sub>12</sub>.

Classified as "feeble minded." Sequel of encephalitis lethargica.

Admitted R.H.S.C. Glasgow 11 mo prior to examination, suffering from nocturnal restlessness. Illness commenced Oct-1919; restlessness at night; choreiform movements during day. Apparently quite intelligent. No paralysis or ocular abnormalities. Romberg +. Lumbar Puncture: - C.S.F. clear: reduced Felling: pres. not +<sup>d</sup>: a few lymphocytes, and slight excess globulin. Lange test 113.333.000.00.

MENTAL AGE. VII. 1, ✓: 2, ✓: 3, ✓: 5, ✓. Prussian 1-6. 6-0.

VIII. 1, ✓ 2, 0 3, 0 4, 0. Credit @ VII 1-0.

IX. 1, 0 3, 0 4, 0 5, ✓ .. VIII - 3

X. 1, 0 2, 0 3, 0 4, 0. .. IX - 3.

INTELLIGENCE QUOTIENT: Total M.A. 7-6.

$$\frac{\text{Mental Age.}}{\text{Chronolog. Age}} = \frac{90}{116} = .78.$$

No. 2.

JOHN MCKENZIE.

AET. 14<sup>4</sup>/<sub>12</sub>.

J. M.

Simple Primary Ament.

M.A.: VII 1, ✓ 2, ✓ 3, ✓ 5, ✓

VIII 2, ✓ 3, ✓: 4, 0: 6, 0. XVI 2, 0: 4, 0: 5, 0: 6, 0.

IX 1, 0 2, ✓ 3, ✓ 4, ✓. Total M.A.: -

X 1, 0: 2, ✓: 4, 0: 5, ✓. 7-0+0-6+0-9+0-6+

XII 1, 0: 2, 0: 4, ✓: 5, 0: 6, ✓. 0-10+0 = 9<sup>4</sup>/<sub>12</sub> 7mo.

XIV. 1, 0: 3, ✓: 4, 0: 6, 0. I.Q.  $\frac{115}{172} = .67.$

No. 3.

JOHN KELLY.

AET. 15<sup>3</sup>/<sub>12</sub>.

J. M.

Simple Primary Arment.

M.A.: VIII 2, v: 3, v: 4, v: 6, v

IX. 1, v: 3, v: 4, 0: 5, v.

Total Mental Age :-

X. 1, v: 2, 0: 4, 0: 5, v.

8-0 + 0-9 + 0-6 +

XII. 2, v: 3, 0: 4, 0: 6, 0: 7, v: 8, 0

0-8 = 9 Yrs 11 mos

XIV. 1, 0: 3, 0: 4, 0: 6, 0.

I.Q.  $\frac{119}{180} = .66.$ 

No. 4.

Margaret WALKER.

AET 11<sup>3</sup>/<sub>12</sub>.

J. M.

Simple Primary Arment.

M.A VII. 1, v: 2, v: 6, v: 10, v.

Total M.A. :-

VIII. 1, 0: 2, v: 3, 0: 4, 0.

7-0 + 0-3 + 0-3

IX. 1, 0: 3, 0: 4, v: 5, 0.

= 7 Yrs 6 mos

X. 1, 0: 2, 0: 4, 0: 6, 0.

I.Q.  $\frac{90}{135} = .67.$ 

No 5.

Jack JOHNSTON.

AET. 15.

M.A. V. 1, 0: 2, v: 3, v: 4, v.

VI. 1, v: 2, 0: 4, 0: 6, 0.

Total M.A.

VII. 1, 0: 2, 0: 3, 0: 10, v.

5-0 + 0-3 + 0-3 +

VIII. 1, v: 2, 0: 3, 0: 4, 0.

0-3 = 5 Yrs 9 mos.

IX. 1, 0: 3, 0: 4, 0: 5, 0.

I.Q.  $\frac{69}{180} = .38.$ 

Higher Grade Imbuile

Simple Primary Arment.

No. 6.

MARGARET DENHOLM.

AET 10<sup>11</sup>/<sub>12</sub>

J. M.

Simple Primary Armt.

M.A. IV. 4v 5v 6v ALV.

V. 3v 4v 6v ALV. Total Mental Age:-

VI. 1v 2v 4.0 5.0. 4-0 + 0-6 + 0-6 + 0-6

VII. 1v 2.0. 3v 4.0. = 5 Yrs 6 mos.

VIII. 2.0: 3.0: 4.0: 6.0. I.Q.  $\frac{66}{131} = .51$ .

No 7.

Stephen WALKER.

AET. 26+.

Showed marked negativism and stereotypy: latterly developed typical dementia praecox syndrome. Originally displayed considerable capacity for mental arithmetic, but gradually lost this power.

Died of intestinal obstruction.

Imbecile.

M.A. VI. 1v 2v 4v 5v

VII. 1v 3v 6v ALV. Total M.A.:-

VIII. 1.0 2.0 ALV 4.0. 6-0 + 0-9 + 0-3 +

IX. 1.0 3.0 4v ALV. 0-6 + 0 + 0-4 + 0-4.

X. 2.0: 3.0: 5.0: ALV. = 8 Yrs 2 mos.

XI. 2.0: 3.0: 4.0: 6.0: 7.0: 8.0. I.Q.

XIV. 1.0: 3.0: 4.0: 5.0: 6.0: ALV. =  $\frac{98}{180} = .54$ .

XVI. 2.0: 4.0: 5.0: 6.0:

\* In calculating Intelligence Quotient, age over 15 yrs ignored.



No 8. Joseph CAMPBELL. AET. 22.

Low Grade Imbecile. Simple Primary Amnt.

M.A.: - IV 1.V: 3.V: 4.V: 5.V. Total M.A.:

V 1.0 2.0: 3.0: 4.V.  $4 - 0 + 0 - 3 = 4 \text{ Yr } 3 \text{ mo}$

VT 1.0: 2.0: 4.0: AL.O. IQ  $\frac{51}{180} = .28$ .

No 9. CHRISTINA LECKIE. AET. 7 $\frac{1}{2}$ .

M.A.: - III 1.V: 2.V: 3.0: 5.V. Total M.A.:-

IV 4.0: 5.0: 6.0: AL.O.  $2 - 0 + 0 - 9 = 2 \text{ Yr } 9 \text{ mo}$ .

IQ  $\frac{33}{88} = .38$

Persists in calling herself "Keali Campbell".

Imbecile. Simple Primary Amnt.

No 10. IAN STEWART. AET. 17 $\frac{3}{4}$ .

M.A.: - III 1.V: 2.V: 3.V: 6.V. Total M.A.:-

IV 4.0: 5.V: 6.V: AL.O.  $3 - 0 + 0 - 6$

V 1.0 2.0. 3.0: 4.0.  $= 3 \text{ Yr } 6 \text{ mo}$ .

Stenotypy.

IQ  $\frac{42}{180} = .23$ .

Low Grade Imbecile. Mongolian.

No 11.

Mary MACDOUGAL.

AET  $11\frac{5}{12}$ 

I.M.

Simple Primary Arith.

M.A.: V. 1V 2V 3V 4V.

VI. 1V 2V 4V 6V. Total M.A.

VII. 1V:2V:3V:5V 5-0 + 0-6 + 0-9 + 0-3.

VIII. 1V:2V:3V:4V. = 6 Yrs 6 mos.

IX 1V 3V:4V:AV. IQ  $\frac{78}{137} = .57$ .

No. 12.

Watson. SMALLER.

AET  $12\frac{6}{12}$ 

Imbecile.

Mongol.

M.A.: - III. 1V 2V 3V 5V

IV. 4V 5V 6V AV. Total M.A.

V. 1V 2V 3V 4V. 3-0 + 0-9 + 0 + 0-3 +

VI. 1V:2V:4V:6V. 0-3 = 4 Yrs 3 mos.

VII. 1V:3V:6V:AV. IQ  $\frac{51}{150} = .34$ .

VIII 1V:2V:3V:4V.

No 13.

Andrew Mc CULLOCH.

AET 20.

Low Grade Imbecile.

Mongol.

M.A.: - III. 1V 2V:3V:5V. Total M.A.:

IV. 4V 5V:6V:AV. 3-0 + 0-3 = 3 Yrs 3 mos.

V. 1V:2V:3V:6V. IQ  $\frac{39}{180} = .22$ .

No. 14.

Harold LEA.

AET. 12 $\frac{1}{2}$ .

L. G. I.

Mongol.

Died Pulmonary Tuberculosis, Dec. 1921.

M.A. III. 1.V: 2.V: 5.V: 6.0.

IV. 1.V: 4.0: 5.0: 6.0. Total MA:-

V. 2.0: 3.0: 4.0: Al.0. 2-0 + 0-0 + 0+0-3 +

VI. 1.V: 2.0: 4.0: Al.0. 0-3 = 3 Yrs 3 mos.

VII. 1.0: 2.0: 4.0: 6.0. IQ =  $\frac{39}{145} = .27$ .

No. 15

George ANDERSON.

AET 10 $\frac{1}{2}$ .

L. G. I.

Mongol.

M.A.: III 1V 2V 4V 6V Total MA -

IV. 1.0: 4V: 5.0: 6.0 3-0 + 0-3 = 3 Yrs 3 mos.

V. 1.0: 2.0: 3.0: 6.0. IQ =  $\frac{39}{120} = .32$ .

No 16

Jessie INGLIS.

AET 18 $\frac{6}{12}$ .

Id

Mongol.

III 1V: 2V: 4V: 6.0. Total MA:-

IV 4.0: 5.0: 6.0: Al.0. 2-0 + 0-9

= 2 Yrs 9 mos.

I. Q =  $\frac{33}{180^*} = .18$ .

In calculating IQ, age over 15 years has been ignored.

No 17.

Mary M<sup>rs</sup> INNES.

AET. 16½.

L. G. I.

Mongol.

M.A.: III. IV: 2V: 4.0: 6.V.

IV. 4.0: 5.0: 6.0: AL.0 Total M.A.: -

V. IV: 2.0: 3.0: 6.0. 2-0 + 0-9 + 0 + 0-3 +

VI. 1.V: 2.0: 4.0: AL.0. 0-3 = 3 Yrs 3 mo.

VII. 1.0: 2.0: 3.0: 5.0. IQ =  $\frac{39}{180} = .22$ .

No 18.

Robina FORSYTH.

AET. 16.

L. G. I.

Subthyroid.

Was not treated till about 7 yrs old. Physical condition better

M.A.: - III. IV: 2V: 3V: 4V.V. than mental.

IV. IV: 4.0: 5V: 6V

V. IV: 2.0: 3.0: 6.0. Total M.A.: -

VI. 1.0: 2.0: 4.V: AL.V. 3-0 + 0-9 + 0-3 + 0-6 +

VII. IV: 2.0: 5.0: 6.0. 0-3 = 4 Yrs 9 mo.

VIII. 1.0: 2.0: 3.0: 4.0. IQ =  $\frac{57}{180} = .31$ .

No. 19.

Ella ANDERSON.

AET 5 $\frac{7}{12}$ 

"Probably normal"

Subthyroid.

A cretin treated early - since 6 mos old -  $\bar{c}$  dried gland.

Pads of fat and other physical stigmata have disappeared.

M.A. V. IV: 2V: 3V: 6V. Total MA:-

VI. IV: 2.0: 4V: 16V 5-0 + 0-9 + 0-3

VII. 1.0: 2V: 3.0: 6.0. = 6 Yrs.

VIII 1.0: 2.0: 3.0: 6.0. IQ =  $\frac{72}{67} = 1.08$ .

No. 20.

Effie SELLS.

AET. 4 $\frac{9}{12}$ .

Y.M.

? Subthyroid.

M.A. III IV: 2V: 3.0: 5V. Total M.A. -

IV IV: 4.0: 5.0: 6.0. 2-0 + 0-9 + 0-3. = 3 $\frac{1}{2}$ Yrs.V. 1.0: 2.0: 3.0: 11.0. IQ =  $\frac{36}{57} = .65$ 

No 21.

Francis HENDRY.

AET. 11.

Y.M.

Simple Primary Ansbts.

M.A.:- VI IV: 2.V: 3.V: 4.V. Total MA.

VII. IV: 2.V: 4.0: 6.V. 5-0 + 0-9 + 0-9 +

VIII. IV: 2.0: 3.V: 6.V. 0-3 = 6 Yrs 9 mos.

IX. 1.0: 2.0: 3.0: 5.V. IQ =  $\frac{81}{132} = .61$ .

IX 1.0: 3.0: 5.0: 6.0.

No 22

Lizzie WOOLARD.

AET. 11 $\frac{1}{2}$ 

Imbecile

Simple Primary Anest.

Very good at practical work.

M.A.  $\nabla$ . 2V 3V HV ALV

Total M.A.:-

 $\nabla$ . IV: 2.0: 4.0: 6.0.

5-0 + 0-6 + 0-6

 $\nabla$ II. IV: 2.0: 3.0: ALV.

= 6 Yr.

 $\nabla$ III. 1.0: 2.0: 3.0: 6.0.IQ =  $\frac{72}{137} = .53$ .

No 23.

Polly MILLER.

AET. 14 $\frac{5}{12}$ .

H.G.I.

Subthyroid.

Has been getting thyroid extract 4 years.

Very good at practical work.

M.A.  $\nabla$ . 2V: 3V: HV: ALV.

Total M.A.

 $\nabla$ . IV: 2.0: 3.0: 6.0.

5-0 + 0-6 + 0-3 + 0+

 $\nabla$ II. IV: 3.0: 6.0: 6.0.

0-3 = 6 Yr.

 $\nabla$ III. 1.0: 2.0: 3.0: 4.0.IQ =  $\frac{72}{173} = .42$ .

IX. 1.0: 2.0: 3.0: ALV.

X. 2.0: 4.0: 6.0: ALV.

No 24.

Josephine SINCLAIR.

AET 19.

Id.

Microcephal. (c.c. 17 $\frac{1}{2}$ )

M.A. III. IV: 2.0: 3.0: 4.0.

Total M.A.:- 2-0 + 0-6 = 2 Yr 6 mos.

IV. 1.0: 4.0: 6.0: 6.0.

IQ =  $\frac{30}{180} = .17$ .

No. 25.

Tommy DICKSON.

AET. 11  $\frac{1}{2}$ .

Id.

Microcephal.

Cranial circumference 17  $\frac{1}{2}$ ".

MA: III 1.V: 2.0: 3.0: AL, 0. Total MA.

IV 1.0: 4.0: 5.0: 6.0.  $2-0^{(-)} + 0-3 = 2 \frac{1}{2}$  3 mo (-)

$$IQ = \frac{27}{139} = .19^{(-)}$$

No. 26.

Colin Mc LOED.

AET. 14  $\frac{3}{12}$ .

MA. III 1.V: 2.V: 3.0: 4.V: 6.V: AL, V Total MA: -

IV. 4.0: 5.V: 6.V: AL, V.  $2-0 + 0-10 + 0-9 + 0-6 +$ V. 2.0: 3.0: 4.V: AL, V.  $0-3 = 4 \frac{1}{2}$  4 mo.VI. 1.V: 2.0: 3.0: AL, 0.  $IQ = \frac{52}{171} = .30.$ 

VII. 1.0: 2.0: 5.0: 6.0.

L.G. I.

Hydrocephal.

Cranial circumference. 24". Cannot concentrate.

No. 27.

Janet BIRD.

AET 13  $\frac{5}{12}$ 

L.G. I.

Hydrocephal (Cran. circumf 25").

M.A. III. 1.V: 2.V: 3.0: 4.V: 6.V: AL, V VIII. 1.0: 2.0: 4.0: 6.0.

IV. 1.0: 3.0: 4.0: 6.V. Total M.A.: -

V. 2.0: 3.0: 4.V: AL, V.  $2-0 + 0-10 + 0-6 + 0-3 +$ VI. 1.0: 2.0: 4.0: AL, V.  $0-3 + 0-3 = 4 \frac{1}{2}$  1 mo.VII. 1.0: 2.0: 3.V: 5.0.  $IQ = \frac{49}{161} = .30.$

No. 28.

Peter FERGUSON

AET. 17.

Imbecile

Simple Primary Amount:

M.A. V. 1V:2V:3V:4V

Total M.A.:-

VI. 1V 2V 40 ALV

 $5-0 + 0-9 + 0-6 + 0-3$ 

VII. 1V:30:50:6V.

= 6 Yrs 6 mos.

VIII. 10:20:5V:60

I.Q.  $\frac{78}{180} = .43.$ 

IX 10:30:40:AL0.

No. 29.

Francis OVERTON.

AET. 14 <sup>9</sup>/<sub>12</sub>.

L. G. I.

Simple Primary Amount:

M.A. III 1V 2V 5V 6V.

Total M.A.

IV. 1V:40:5V:6V

 $3-0 + 0-9 + 0-6 + 0+0-3.$ 

V. 10 4V:60:ALV.

= 4 Yrs 6 mos

VI. 10:20:40:AL0

I.Q. =  $\frac{54}{177}$ 

VII 10:3V:50:60.

= .3%

VIII. 10:20 40:60.

No 30.

Adam CAMPBELL.

AET. 17.

L. G. I.

Simple Primary Amount:

M.A.:- III 1V:2V:3V:5V.

Total M.A.:-

IV 10:4V:50:60

 $3-0 + 0-3 + 0-6$ 

V 1V:20:30:4V

= 3 Yrs 9 Mos.

VI. 10:20:40:AL0.

I.Q.  $\frac{45}{180} = .25.$



No. 31.

Tommy INGLIS.

AET  $11\frac{5}{12}$ 

L. G. J.

Simple Primary Arsent.

M.A. IV IV:4V:5V:6V. Total M.A.

V 1,0:2,0:3,0:4,1 ✓  $4-0+0-3+0-3$ 

VI 1,0:2,0:4V:4,0. = 4 Yrs 6 mos.

VII. 1,0:3,0:6,0:4,0. IQ  $\frac{54}{137} = .32.$ 

No. 32.

Willie STARK.

AET.  $11\frac{2}{12}$ 

H. G. J.

Simple Primary Arsent.

M.A. V IV 2V 3V 4V. Total M.A. :-

VI IV 2V 4,0 4,0.  $5-0+0-6+1-0+0-3.$ 

VII IV 3V 5V 6V. = 6 Yrs 9 mos

VIII 1,0 2,0 3,0 5V. IQ  $\frac{81}{134} = .60.$ 

IX. 1,0:3,0:5,0:6,0.

No 33.

Mary HIGGINS.

AET.  $13\frac{6}{12}$ 

L. G. J.

Simple Primary Arsent.

M.A. : III IV:2V:3V:5V. Total M.A.

IV IV:3V:5V:6,0  $3-0+0-9+0-6.$ V 1,0:2,1:3,0:4,1  $4\text{ Yrs } 3\text{ mos.}$ VI. 1,0:2,0:4,0:4,0 IQ  $\frac{51}{162} = .31.$

No. 34. Annie O'HARA.

AET. 11.

Imbecile

Simple Primary Arment.

M.A. III IV 2V 3V 5V.

Total M.A.:

IV 10:4V:60.

 $3-0 + 0-4 + 0-9 + 0-6 +$ 

V 1V:2V:30:4V.

 $0-6 = 5 \text{ Yrs } 1 \text{ mo.}$ 

VI 1V:20:40:Al.V.

I.Q. =  $\frac{61}{132}$ 

VII 1V:30:50:6V

= .46

VIII. 1,0:2,0:3,0:5,0

No. 35.

Barbara ANDERSON.

AET 11.

M.A. VIII. IV:3V:5V:6V

Total M.A.

Y.M. S.P.A.

VIII 10:20:3V:40.

 $7-0 + 0-3 = 7 \text{ Yrs } 3 \text{ mo.}$ 

IX. 10:30:50:6,0.

I.Q.  $\frac{87}{132} = .67$ 

No. 36

Chris MACKAY.

AET. 16½

Imbecile

Simple Primary Arment.

Good at practical work.

M.A: V 2V:3V:4V:6V

Total M.A.

VI 1V:2V:40:60

 $5-0 + 0-6 + 0-9$ 

VII 1V:2V:50:6V

= 6 Yrs 3 mo.

VIII. 10:20:30:40.

I.Q. =  $\frac{75}{180}$ .

= .42.

No. 37. Margaret WATSON.

AET. 12 $\frac{1}{2}$ .

F. M. Certified chiefly on disciplinary grounds — beyond  
the control of Education Authority.

M.A.:- VII.	1V: 5V: 6V: A1V.	XIV.	10: 3, 0: 4, 0: 5, 0.
VIII	1V: 2V: 3V: 4, 0	Total M.A.	
IX	1V: 3V: 4V: 5, 0		7-0 + 0-9 + 0-9 + 0-9 + 1-0
X	2V: 4V: 5, 0: 6V		= 10 Yrs 3 mos.
XII	1V: 2, 1V: 3, 0 4, 0: 6, 1V: 8, 0	IQ =	$\frac{123}{150} = .82.$

No. 38. Hugh LAW.

AET. 14 $\frac{1}{2}$ .

Imbecile

Simple Primary Ament.

M.A. VII	1V: 2V: 5V: 6V.	Total M.A.	
VIII	1V: 2, 0: 3, 0: 4V		7-0 + 0-6 = 4 Yrs 6 mos
IX.	10: 3, 0: 4, 0: A1, 0.	IQ =	$\frac{90}{179} = .51.$

No. 39. Alan PINKERTON.

AET 12 $\frac{4}{12}$ .

F. M.

Simple Primary Ament.

M.A. V	2V: 3V: 4V: 6V	XII	1, 0: 2, 0: 3, 0: 4, 0: 6, 0: 8, 0
VI	1V: 2V: 4V: A1, 0	Total M.A.	
VII	1V: 5, 0: 6V: A1V		5-0 + 0-9 + 0-9 + 0-9 +
VIII	1V: 2V: 3V: 4, 0		0-6 + 0-3 = 8 Yrs.
IX	1, 0: 3V: 4V: 5, 0.	IQ =	$\frac{96}{148} = .65.$
X	2, 0: 4, 0: 5, 0: 6V.		

No. 40.

Agnes PRESTON.

AET. 15<sup>2</sup>/<sub>12</sub>.

L. G. I.

Simple Primary Armet.

M.A.: IV 1V 4V 5V 6V.

Total MA:-

V 2,0:3V:4V:AL,0.

 $4-0 + 0-6 + 0-3 + 0-3.$ 

VI 1C:2,0:4,0:ALV.

 $= 5 \text{ Yrs.}$ 

VII 1,0:3,0:5,0:6,0.

 $IQ = \frac{60}{180} = .33.$ 

VIII 2,0:3,0:4,0:5,0.

No. 41.

Lizzie ANDERSON.

AET. 24

Imbelle.

Simple Primary Armet.

M.A. IV. 1V 4V 5V 6V.

IX 1,0:3,0:5,0:6,0.

V. 2,0:3V:4V:AL,0.

Total MA.

VI. 1V 2,0 4V ALV.

 $4-0 + 0-6 + 0-9 + 0-6 + 0-3$ 

VII. 1V:3,0:5V:6,0.

 $= 6 \text{ Yrs.}$ 

VIII. 1,0:2,0:3,0:4V

 $IQ = \frac{6}{15} = .40$ 

No. 42.

Alex WILSON.

AET. 11.

L. G. I.

Simple Primary Armet.

M.A. III 1V:2V:3V:4V:5V:6,0

Total MA.

IV 1,0:5,0:4,0:6,0.

 $2-0 + 0-10 + 0-3 + 0-3.$ 

V 2,0:3,0:4,0:AL,0.

 $= 3 \text{ Yrs } 4 \text{ mos.}$ 

VI 1,0:2,0:4,0:AL,0

 $IQ = \frac{40}{132} = .30.$

No. 43.

Bert CONNACHIE

AET. 9.

Imbecile

Simple Primary Arment

M.A. III. IV 2V 4V 6V.

Total MA.

IV IV: 4,0: 5,0: 6,0. 3-0 + 0-3 + 0-3

V. 2,0: 3,1: 4,0: AL,0. = 3 Yrs 6 mo.

VI 1,0: 2,0: 4,0: AL,0 IQ =  $\frac{42}{108} = .39$ .

No. 44.

Tommy CUNNINGHAM

AET. 13 $\frac{7}{12}$ 

L. G. J.

Simple Primary Arment.

M.A. III IV: 2V: 3V: 5V

Total MA.

IV 1,0: 4,0: 5,1: 6,1. 3-0 + 0-6 + 0-9 + 0-3.

V. 2V 30 4V AL,1. = 4 Yrs 6 mo.

VI IV: 2,0: 4,0: AL,0 IQ =  $\frac{54}{163} = .33$ .

VII 1,0: 2,0: 5,0: 6,0.

No. 45.

John MATTHEWS.

AET 9 $\frac{10}{12}$ .

J. M.

Simple Primary Arment.

M.A. V 2V: 3V: 4V: AL,1

Total MA.

VI IV: 2V: 4V: AL,0 5-0 + 0-6 + 0-9

VII IV: 3V: 5V: 6,0. = 6 Yrs 3 mo.

VIII 1,0: 2,0: 3,0: 4,0. IQ =  $\frac{75}{118} = .64$ .

No. 46

Jim MOFFAT.

AET. 7<sup>3</sup>/<sub>12</sub>

F.M.

Sequel of Encephalitis lethargica

Admitted to R.H.S.C. Glasgow, 12 months prior to examination, suffering from nocturnal restlessness, then of 6 mos duration.

Years 75 bites at bedclothes during night: fidgets during day.

Apparently intelligent. Slight choreiform movements. Paralysis rt arm & leg. Weakness both orbicularis oculi. Knee jerks +.

C.S.F. clear: press. normal. No cells or organisms: reduced Fehling

No excess of globulin. Lange Test 000.000.000.00.

M.A. ▽ IV: 2V: 3V: 4V.

-Dr Leonard Findlay.

VI IV: 2V: 40: ALV Total MA.

VII IV: 3V: 5.0: 6.0. 5-0+0-9+0-6 = 6 4/12 3 hrs.

VIII. 10: 2.0: 3.0: 4.0. IQ =  $\frac{75}{87} = .86$ .

No. 47. Alexander CAMPBELL.

AET. 8<sup>4</sup>/<sub>12</sub>.

F.M.

Sequel of Encephalitis lethargica.

Admitted to R.H.S.C. Glasgow, 12 months prior to examination suffering from insomnia & restlessness then of 9 weeks duration.

Choreiform movements: drowsy during day, restless at night. Paralysis rt side face, & of accommodation. Lateral nystagmus. Knee jerks +.

C.S.F. clear: under +<sup>d</sup> pressure. Reduced Fehling. No cells or organisms. Lange Test 123.321.000.00.

Continued next page.

No. 47 (contd). M.A. 1-

IV 1V 4V 5V 6V

IX 1,0:3,0:5,0:6,0.

V 2,0:3,V:4V:ALV.

Total M.A.

VI 10 2V 40 ALV

4-0 + 0-9 + 0-6 + 0-9 +

VII 1V:3,0:5,V:6,V.

0-3 = 6  $\frac{1}{2}$  3 hrs.

VIII 1,0:2,0:3,V:4,0.

IQ =  $\frac{75}{100} = .75$ .

No. 48

Alex. ROBERTSON.

AET. 6 $\frac{3}{12}$ 

Y. M.

Sequel of Encephalitis lethargica.

Onset of condition about 20 months prior to examination.

M.A. IV 1V:3V:4,V:5,V.

Total MA:-

V 2,0:3,0:4,V:6,V.

4-0 + 0-6 + 0-6

VI 1,V:2,V:4,0:AL,0.

= 5  $\frac{1}{2}$  hrs.

VII. 1,0:5,0:6,0:AL,0.

IQ =  $\frac{60}{75} = .80$ .

No 49.

Willie HENDERSON.

AET 10 $\frac{7}{12}$ .

H. G. I.

Simple Primary Anuric.

M.A. IV. 1V:3V:4,V:6,V.

Total M.A.

V 2,0:3,V:4,V:AL,V.

4-0 + 0-9 + 0-6 + 0-6

VI 1,0:2,V:4,V:AL,0

= 5  $\frac{1}{2}$  9 hrs.

VII 1V:5,0:6,0:ALV

IQ =  $\frac{69}{127} = .55$ .

VIII. 1,0:2,0:3,0:4,0.

No. 50.

Edward SAROLI.

AET. 10.

Imbeciles.

Simple Primary Amount.

M.A. III. 1V 2V 4V 5V

Total M.A.

IV 10: 3V: 4V: 5V

3-0+0-9+0-3

V. 2,0: 3,0: 4V: 5,0.

= 4 Yrs

VI 1,0: 2,0: 4,0: 5,0.

IQ =  $\frac{4}{10} = .40$ .

No. 51.

Joseph HAWAY.

AET. 11<sup>9</sup>/<sub>12</sub>.

7.12.

Simple Primary Amount.

M.A. VII 1V: 3V: 5V: 6V.

Total M.A.:-

VIII 2,0: 3,0: 4,0: 6V.

7-0+0-3+0-6

IX 1,1: 3,1: 4,0: 5,0.

= 7 Yrs 9 Mos.

X. 2,0: 4,0: 6,0: 5,0.

IQ =  $\frac{93}{141} = .66$ .

No. 52.

Edward BOLTON.

AET. 14<sup>3</sup>/<sub>12</sub>.

Imbeciles.

Simple Primary Amount.

M.A.:- V 2V: 3V: 4V: 5V.

Total M.A.:-

VI 1V: 2,0: 4,1: 5V.

5-0+0-9+0-6

VII 1V: 3,0: 5V: 6,0.

= 6 Yrs 3 Mos.

VIII 1,0: 2,0: 3,0: 4,0.

IQ = 75



No. 53.

Willi DEAMS.

AET. 11<sup>5</sup>/<sub>12</sub>.

H. G. I.

Simple Primary Arment.

M.A.:-	∇	2.V: 3.V: 4.V: AL.V.	Total MA
	∇ <sup>i</sup>	1.V: 2.V: 4.0: AL.V.	5-0+0-9+0-9+
	∇ <sup>ii</sup>	1.V: 3.V: 5.V: 6.0.	0-3. = 6 Yrs 9 Mo.
	∇ <sup>iii</sup>	1.0: 2.0: 3.V: 4.0	IQ = $\frac{81}{137} = .59$ .
	∇ <sup>ix</sup>	1.0: 3.0: 4.0: 5.0.	

No. 54.

Alex<sup>r</sup>. GRAHAM.AET. 11<sup>3</sup>/<sub>12</sub>.

Imbecile

Simple Primary Arment.

M.A.:	∇	1.V: 2.V: 4.V: 6.V.	∇ <sup>iii</sup>	1.0: 2.0: 3.0: 4.0.
	∇ <sup>iv</sup>	1.V: 4.V: 6.0: AL.V.	Total MA.	
	∇	2.0: 3.0: 4.V: AL.V.	3-0+0-9+0-6+	
	∇ <sup>i</sup>	1.0: 2.V: 4.0: AL.V.	0-6+0-4 = 5 Yrs 1 Mo.	
	∇ <sup>ii</sup>	1.V: 2.V: 3.0: 5.0: 6.0: AL.0.	IQ = $\frac{61}{135} = .45$	

No. 55

William CASEY.

AET. 17.

Imbecile

Simple Primary Arment.

Good practical worker.

M.A.:-	∇	2.V: 3.V: 4.V: AL.V.	∇ <sup>ix</sup>	1.0: 3.0: 4.0: AL.0.
	∇ <sup>i</sup>	1.0: 2.V: 4.V: AL.V.	Total MA:-	
	∇ <sup>ii</sup>	1.V: 5.V: 6.V: AL.V.	5-0+0-9+1-0+0-3 = 4 Yrs.	
	∇ <sup>iii</sup>	1.V: 2.0: 3.0: 4.0.	IQ = $\frac{7}{15} = .47$ .	

No. 56.

James CASEY.

AET. 17.

L. G. I.

Simple Primary Ansb.

Good practical worker.

Nos. 55 &amp; 56 twins.

Mother M.D.

M.A. III 1V: 2V: 3V: 5V.

VIII 1,0: 2,0: 3,0: 4,0.

IV 1V: 4V: 5V: AL,0.

Total M.A.:-

V 2,0: 3V: 4V: AL,0.

III -0 + 0 -9 + 0 -9 + 0 -6 +

VI 1,0: 2V: 4,0: AL,0.

0 -6 = 5 Yrs 4 mo.

VII 1,0: 3,0: 5,0: AL,0: 2,0: 6V.

IQ =  $\frac{64}{180} = .36$ .

No. 57.

David DARLING.

AET. 16 1/2.

Imbecile.

Simple Primary Ansb.

M.A. V 2V: 3V: 4V: 6V.

Total M.A.:-

VI 1V: 2V: 4V: AL,0.

5 -0 + 0 -9 + 0 -9

VII 1,0: 5V: 6,0: AL,0.

= 6 Yrs 6 mo.

VIII 2,0: 3,0: 4,0: 6,0.

IQ =  $\frac{78}{180} = .43$ .

No. 58.

Hector WHITE.

AET. 12.

Imbecile.

Simple Primary Ansb.

M.A. IV 1V: 4V: 5V: AL,0.

Total M.A.:-

V 1,0: 2V: 3V: 4V.

4 -0 + 0 -9 + 0 -3 + 0 -3

VI 1,0: 2,0: 4V: AL,0.

= 5 Yrs 3 mo.

VII 1,0: 5,0: 6V: AL,0.

IQ =  $\frac{63}{144} = .44$ .

VIII 2,0: 3,0: 4,0: 6,0.

No. 59.

Richard MARSHALL

AET. 15 $\frac{1}{2}$ 

H. G. I.

Simple Primary Amount.

M.A.:- VII	1.V: 5.V: 6.V: ALV	Total M.A.:-
VIII	1.0: 2.V: 3.V: 6.V.	7-0 + 0-9 + 0-9 + 0-3
IX	1.V: 3.V: 4.V: 5.0.	= 8 Yrs 9 Mos.
X	1.0: 2.0: 5.0: 6.V.	IQ = $\frac{105}{180}$
XII	1.0: 2.0: 3.0: 4.0.	= .58.

No. 60.

Tommy MCKIMMING.

AET. 19.

L. G. I.

Simple Primary Amount.

M.A. III	1.V: 2.V: 5.V: 6.V.	Total M.A.:-
IV	1.0: 3.0: 4.V: 5.0: 6.0: AL.0.	3-0 + 0-2 = 3 Yrs 2 Mos.
V.	1.0: 2.0: 3.0: 4.0.	IQ = $\frac{38}{180} = .21.$

No. 61

Robert DRUMMOND.

AET 14 $\frac{10}{12}$ 

Imbecile

Simple Primary Amount.

M.A.:- III	1.V: 2.V: 4.V: 5.V.	Total M.A.:-
IV	1.V: 3.0: 4.V: 5.V.	3-0 + 0-9 + 0-9 +
V	1.V: 2.0: 3.V: 4.V.	0-6 + 0-3.
VI	1.V: 2.0: 4.0: ALV	= 5 Yrs 3 Mos
VII	1.0: 5.0: 6.0: ALV.	IQ = $\frac{63}{178} = .36$
VIII	1.0: 2.0: 3.0: 4.0	

No. 62.

Milla O'NEILL.

AET.  $13\frac{3}{12}$ 

Y. M.

Simple Primary Amount.

M.A. VIII 1V: 2V: 3V: 6V.

XVI. 10: 30: 50: 110.

IX 10: 2V: 4V: 5V.

Total M.A.

X 10: 2V: 5V: 60.

 $8-0 + 0-9 + 0-6 + 1-0 +$ 

XII. 10: 2V: 3V: 40: 6V: 80.

 $0-6 = 10 \text{ Yrs } 9 \text{ mos}$ 

XIV. 10: 30: 60: ALV.

 $IQ = \frac{129}{164} = .78.$ 

No. 63.

Alex. LAVERTY.

AET.  $13\frac{6}{12}$ 

Y. M.

Simple Primary Amount.

M.A. VII 1V: 3V: 5V: 6V.

Total MA.

VIII 1V: 2V: 3V: 60.

 $7-0 + 0-9 + 0-9$ 

IX. 1V: 3V: 4V: 50.

 $= 8 \text{ Yrs } 6 \text{ mos.}$ 

X. 10: 20: 50: 60.

 $IQ = \frac{102}{162} = .62.$ 

No. 64.

Tommy PATON.

AET.  $11\frac{1}{12}$ 

Y. M.

Simple Primary Amount.

M.A. VII 1V: 5V: 6V: ALV.

Total MA.

VIII 10: 2V: 30: 40.

 $7-0 + 0-9 + 0-9.$ 

IX 1V: 30: 4V: ALV.

 $= 8 \text{ Yrs.}$ 

X 10: 20: 50: 60.

 $IQ = \frac{96}{143} = .67.$

No. 65.

James ORROCK.

AET. 10<sup>9</sup>/<sub>12</sub>.

Y.M.

Sequel of Encephalitis lethargica.

Onset 11 months prior to examination Seen R.H.S.C., Edinburgh.

Goes to sleep in any position. Knee jerks present; not +<sup>a</sup>.

Very mischievous: inclined to be disobedient and sulky.

MA:- VI	IV: 2V: 4V: ALV.	XIV. 2.0: 3.0: 6.0: AL.0.
VII	IV: 5.0: 6V: ALV.	Total MA.
VIII	IV: 2V: 3.0: 6V.	6-0 + 0-9 + 0-9 + 0-9 +
IX	1.0: 3V: 4V: 5V.	0-3 = 8 Yrs 6 mos.
X	1.0: 2.0: 5.0: 6V.	IQ = $\frac{102}{129}$
XII	1.0: 2.0: 3.0: 6.0: 8.0	= 79.

No. 66.

Peter LAWSON.

AET. 9<sup>3</sup>/<sub>12</sub>.

Y.M.

Sequel of Encephalitis lethargica.

Onset 17 months prior to examination (at R.H.S.C., Edin<sup>g</sup>).

Nocturnal restlessness: drowsy during day. Destructive.

Has developed a shocking vocabulary.

MA:- VI	IV: 2V: 4V: ALV.	Total MA -
VII	IV: 5.0: 6V: ALV.	6-0 + 0-9 + 0-3 +
VIII	1.0: 2V: 3.0: 6.0.	0-6 = 7 Yrs 6 mos.
IX	1.0: 3V: 4V: 5.0.	IQ = $\frac{90}{111}$
X	1.0: 2.0: 5.0: 6.0.	= 81.

No. 67.

BETTY QUINN.

AET 8<sup>2</sup>/<sub>12</sub>.

H. G. J.

Simple Primary Armt.

M.A. III	IV: 2V: 4V: 5V.	Total MA:-
IV	IV: 3V: 4, 0: 5V.	3-0+0-9+0-9
V	IV: 2V: 3, 0: 4, V.	= 4 Yr 6 Mo.
VI.	10: 2, 0: 4, 0: A10	IQ = $\frac{54}{98} = .55$ .

No. 68.

Mary AULD.

AET. 9<sup>1</sup>/<sub>12</sub>.

L. G. J.

Simple Primary Armt.

M.A. III	IV: 2V: 4, 0: 5V.	Total M.A = 2-0+0-9 = 2 Yr 9 Mo.
IV.	1, 0: 3, 0: 4, 0: 5, 0	IQ = $\frac{33}{119} = .29$ .

No. 69.

Helen SHEARER.

AET. 12.

L. G. J.

Simple Primary Armt.

M.A:- III	IV: 2V: 4, V: 5, V.	Total MA:-
IV	10: 2, 0: 4, 0: 5, V.	3-0+0-3+0-3+0-3.
V	10: 2, 0: 3, 0: 4, V.	= 3 Yr 9 Mo.
VI	IV: 2, 0: 4, 0: A10.	IQ = $\frac{45}{144}$ .
VII	10: 5, 0: 6, 0: A1, 0.	= .31.

No. 70.

Charlie CRAWFORD.

AET. 15<sup>6</sup>/<sub>12</sub>.

F. M.

Simple Primary Anis.

Very good at practical work, esp<sup>y</sup> rug-making. Died 1922.

M.A.	VIII	IV: 2V: 3V: 6V	XVI.	10: 3, 0: 5, 0: AL, 0.
	IX	IV: 3V: 4, 0: 5, V.	Total MA: -	
	X	IV: 2, V: 5, 0: 6, 0.	8-0 + 0-9 + 0-6 + 0-5 +	
	XII	1, 0: 2, 0: 3, V: 4, 0: 8, 0	0-6 = 10 <sup>1</sup> / <sub>2</sub> 2 hrs.	
	XIV	1, 0: 3, 0: 4, V: 6, 0.	IQ = $\frac{122}{180} = .68$ .	

No. 71.

William PORTEOUS.

AET. 11<sup>5</sup>/<sub>12</sub>.

F. M.

Thought, at R.H.S.C. Edin., when seen, to be due to thyroid deficiency  
 Has been off colour for 3 years. listless and apathetic. Getting  
 fatter. Droop of left eyelid. Protruded tongue deviated to left.  
 x-ray shows enlarged *Glandula Thyroidea*.

Has been treated c<sup>o</sup> thyroid "off-on."

M.A.	VI	IV: 2V: HV: ALV.	Total MA: -	
	VII	IV: 5, 0: 6, V: ALV.	6-0 + 0-9 + 0-6 + 0-3.	
	VIII	1, 0: 2, V: 3, V: 6, 0.	= 4 <sup>1</sup> / <sub>2</sub> 6 hrs.	
	IX	1, 0: 3, 0: 4, 0: 5, 0:	IQ = $\frac{90}{140}$ .	
	X.	1, 0: 2, 0: 5, 0: 6, 0.	= .64.	



No. 72.

Adam FULLARTON

AET. 17.

Imbecile.

Simple Primary Anst.

M.A. VII

IV: 5V: 6V: ALV

Total MA.

VIII

1,0: 2,0: 3V: 6V.

7-0 + 0-6 + 0-6.

IX

IV: 3,0: 4V: 5,0.

= 8 Yrs.

X.

1,0: 2,0: 5,0: 6,0.

IQ =  $\frac{8}{15} = .53.$ 

No. 73.

George GIFFEN.

AET 12<sup>6</sup>/<sub>12</sub>.

Imbecile.

Sequel of Enceph. leth. ? (+ Simp. Prim. An.)

Date of onset of Encephalitis not accurately known.

In 1921, patient's skull was trephined over right eye. The right frontal lobe of the brain was extremely small, the meninges falling away from the skull.

M.A. VI

IV: 2V: 4V: ALV.

XIV: 1,0: 3,0: 4,0: 6,0.

VII

IV: 5V: 6,0: ALV

Total MA: -

VIII

1,0: 2V: 3,0: 6V.

6-0 + 0-9 + 0-6 + 0-6 +

IX

1,0: 3V: 4V: 5,0.

0-3 + 0-5

X

1,0: 2,0: 5,0: 6V.

= 8 Yrs 5 mos.

XII

1,0: 2,0: 3,0: 6V: 7,0 8,0.

IQ =  $\frac{101}{150}$ 

= .67.



No. 74.

Annie TODD

AET. 10<sup>2</sup>/<sub>12</sub>.

Y. M.

? Sequel of Concepts. l. etc. (no definite particulars.)

M.A. VI	1V: 2V: 4V: ALV.	Total MA:-
VII	1V: 5V: 6V: AL0.	6-0+0-9 = 6 $\frac{1}{2}$ hrs.
VIII	10: 2; 0: 3, 0: 6, 0.	IQ = $\frac{81}{122} = .66$ .
IX	10: 3, 0: 5, 0: 6, 0.	

No. 75.

Kullie HENDRY

AET 10<sup>6</sup>/<sub>12</sub>.

Y. M.

Simple Primary Arith.

MA. VI	1V: 2V: 4V: AL.	Total M.A.
VII	1V: 5V: 6V: ALV	6-0+0-9+0-6+
VIII	10: 20: 3V: 6, 0.	0-6+0-3 = 8 $\frac{1}{2}$ .
IX	10: 30: 4V: 50, ALV 20.	IQ = $\frac{96}{126} = .75$
X.	10: 20: 5V: 60	

No. 76.

Jerry PARROTT.

AET. 14<sup>3</sup>/<sub>12</sub>

L. G. I.

Mongol.

MA: III	1V: 2V: 4V: 5V: 6, 0: ALV	Total MA -
IV	1V: 4V: 50: 6, 0.	2-0+0-10+0-6+
V	2V: 3V: 40: ALV	0-9+0-3
VI	10: 20: 40: ALV.	= 4 $\frac{1}{2}$ hrs
VII	10: 30: 50: 60.	IQ = $\frac{52}{171} = .30$ .

No. 77.

Joseph ALLAN.

AET. 11<sup>1</sup>/<sub>2</sub>.

Y. M.

Microcephalic.

M.A. VI	1.V: 2.V: 4.V: AL.V.	Total MA:-
VII	1.V: 5.V: 6.V: AL.O.	6-0+0-9+0+0-3.
VIII	1.O: 2.O: 3.O: 6.O.	= 4 Yrs.
IX	1.O: 3.O: 4.V: AL.O.	IQ = $\frac{84}{142}$
X.	1.O: 2.O: 5.O: 6.O.	= . 59.

No. 78.

John DICKSON.

AET 8<sup>4</sup>/<sub>12</sub>.

Imbecile.

Epileptic (S.P.).

Pronounced physical stigmata. Knee jerk, - : Babinski, +.

Never been at school. Aggressive. Exhibits stereotypy.

M.A: III	1.V: 2.V: 4.V: 5.V.	Total MA:-
IV	1.O: 4.O: 5.V: 6.V.	3-0+0-6+0-3
V	2.O: 3.O: 4.V: 6.O.	3 Yrs 9 mos.
VI.	1.O: 2.O: 4.O: AL.O	IQ $\frac{45}{100} = .45$ .

No. 79.

James LITTLE.

AET. 18.

Imbecile

Simple Primary.

M.A:- IV	1.V: 3.V: 4.V: 5.V.	Total MA:-
V	1.O: 2.O: 3.O: 4.V	4-0+0-3+0-9+0-3
VI	1.V: 2.O: 4.V: AL.V.	= 5 Yrs 3 mos.
VII	1.O: 5.O: 6.O: AL.V	IQ = $\frac{63}{180} = .35$

No. 80.

Beatrice FRASER.

AET 13½

Imbecile

Spastic paralytic.

MA III IV: 2V: 4V: 5V

VIII 10: 20: 30: 60.

IV 10: 3V: 40: 5V

Total MA:

V 10: 2V: 30: 4V.

3-0 + 0-6 + 0-6 + 0-6 +

VI IV: 20: 40: ALV

0-3. = 4 ½ Mo.

VII 10: 50: 60: ALV

IQ =  $\frac{57}{157} = .36$ .

No. 81.

Willie Mc NEILL.

AET. 15½

H.G.I.

Spastic paralytic.

MA VII IV: 5V: 6V: ALV.

XIV. 10: 30: 40: 60.

VIII IV: 2V: 30: 6V.

Total MA.

IX 10: 20: 3V: ALV.

6-0 + 1-0 + 0-6 + 0-6 +

X 10: 2V: 50: 6V.

0-6 + 0-4 = 8 ½ Mo.

XII 2V: 10: 30: 40: 60: 80.

IQ =  $\frac{106}{180} = .59$ .

No. 82.

Willie HARDIE.

AET. 13½

H.G.I.

Simple Primary Anuric.

M.A. VI IV: 2V: 4V: ALV.

Total MA.

VII IV: 50: 6V: ALV

6-0 + 0-9 + 0-6 + 0-9 +

VIII 10: 2V: 30: 6V.

8 ½ Mo.

IX IV: 2V: 40: ALV

IQ =  $\frac{96}{159}$ .

X 10: 20: 50: 60.

= .60.

No. 83.

George MUIR.

AET. 14 $\frac{1}{2}$ 

H.G. I

Simple Primary Amount.

Good at drawing.

M.A: VI	1V: 2V: 4V: ALV.	Total MA: -
VII	1V: 5V: 6V: AL0.	6-0 + 0-9 + 0-9 + 0-3.
VIII	1V: 2,0: 3V: 6V.	= 7 Yrs 9 mo.
IX	1,0: 2V: 3,0: AL,0.	IQ = $\frac{93}{174} = .53$ .
X	1,0: 2,0: 5,0: 6,0.	

No. 84

John PATERSON.

AET. 16 $\frac{1}{2}$ 

Imbecile.

Simple Primary Amount.

M.A IV	1V: 3V: 4V: 5V.	IX. 1,0: 3,0: 5,0: 6,0.
V	1V: 2,0: 3,0: 4V.	Total MA:
VI	1V: 2V: 4V: ALV	4-0 + 0-6 + 1-0 + 0-3
VII.	1,0: 5V: 6,0: AL,0.	= 5 Yrs 9 mo.
VIII	1,0: 2,0: 3,0: 6,0.	IQ = $\frac{69}{180} = .38$ .

No. 85.

Alex. MCGREGGOR.

AET. 16.

H.G. I.

Simple Primary Amount.

M.A: III	1V: 2V: 4V: 5V.	VII 1V: 5,0: 6,0: AL,0.
IV	1,0: 3V: 4V: 5V.	Total MA: - 3-0 + 0-9 +
V	1,0: 2V: 3,0: 4V.	0-6 + 0-3 + 0-3 = 4 Yrs 9 mo.
VI	1,0: 2,0: 4,0: ALV	IQ = $\frac{57}{180} = .32$ .

No. 86.

George TURPIE.

AET. 14.

L. G. I.

Simple Primary Annuity.

M.A. III IV: 2V: 40: 5V

Total MA: -

IV IV: 30 40 5V

 $2-0 + 0-9 + 0-6 + 0-3$ 

V 10: 20: 30: 4V

 $= 3 \text{ Yr } 6 \text{ Mo.}$ 

VI. 10: 20: 40: AL0

 $IQ = \frac{7}{28} = .25.$ 

No. 87.

Alex: JOHNSTON.

AET. 17.

Imbecile.

Simple Primary Annuity.

M.A. IV IV: 3V: 4V: 5V.

Total MA: -

V 10: 20: 30: 4V.

 $4-0 + 0-3 + 0-6.$ 

VI 10: 20: 4V: ALV.

4 Yr 9 mo.

VII. 10: 50: 60: AL0.

 $IQ = \frac{57}{180} = .32.$ 

No. 88.

Wm. GRANDISON.

AET.  $9\frac{1}{2}$ .

L. G. I.

Simple Primary Annuity.

M.A. III IV: 2V: 30: 40.

Total MA: -

IV IV: 30: 40: 5V

 $2-0 + 0-6 + 0-6 = 3 \text{ Yr.}$ 

V. 10: 20: 30: 40.

 $IQ = \frac{36}{111} = .33$

No. 89.

Roberts HOULISTON

AET. 17 $\frac{1}{2}$ 

Imbecile.

Simple Primary Arment.

M.A. IV IV: 3V: 4V: 5V.

IX. 1,0:3,0:5,0:AL0.

V IV: 2V: 3,0: 4V.

Total MA:-

VI IV: 2,0: 4V: ALV.

4-0+0-9+0-9+0-9+

VII 1,0: 5,0: 6,0: ALV.

0-3. = 6 Yrs 6 mos.

VIII 1,0: 2,0: 3,0: 6V.

IQ =  $\frac{90}{180} = .43$ .

No. 90.

Alfred M<sup>c</sup>GHEE.AET. 14 $\frac{3}{12}$ 

Imbecile.

Simple Primary Arment.

MA IV IV: 3V: 5V: 6V

Total MA:-

V 1,0: 2V: 3V: 4V.

4-0+0-9+0-6+

VI IV: 2,0: 4,0: AL0.

0-9. = 6 Yrs.

VII IV: 5,0: 6V: ALV.

IQ =  $\frac{72}{171} = .42$ .

VIII. 1,0: 2,0: 3,0: 6,0.

No 91.

W<sup>m</sup> BIRRELLAET. 15 $\frac{7}{12}$ .

Imbecile.

Simple Primary Arment.

M.A III IV: 2V: 4V: 5V.

Total MA -

IV 1,0: 3,0: 4V: 5V.

3-0+0-6+0-3+0

V 1,0: 2,0: 3,0: 4V

= 3 Yrs 9 mos.

VI 1,0: 2,0: 4,0: AL0

IQ =  $\frac{45}{180} = .25$ 

VII 1,0: 5,0: 3,0: AL0.

No 92.

And. FORLAW.

AET. 16.

L. G. I.

Simple Primary Anunt.

MA III IV: 2V: 4V: ALV.

Total MA - 3 1/2

IV 10: 30: 40: 50.

IQ =  $\frac{3}{16} = .20$ .

No. 93.

Daniel ROBERTSON.

AET. 16.

Imbecile.

Epileptic + Spastic Paralytic.

MA IV IV: 5V: 4V: 6V.

Total MA -

V 20: 30: 4V: ALV.

4 - 0 + 0 - 6 + 0 - 3 + 0 - 6

VI 10: 20: 40: ALV.

= 5 1/2 3 hrs

VII IV: 50: 6V: AL0.

IQ =  $\frac{63}{180} = .35$ 

VIII. 10: 20: 30: 40.

No 94.

W<sup>m</sup> MORRISON

AET 19.

L. G. I.

Simple Primary Anunt:

MA III IV: 2V: 5V: 60.

Total MA: -

IV IV: 30: 40: 50.

2 - 9 + 0 - 3 + 0 - 3

V IV: 20: 30: 40.

= 3 1/2 3 hrs.

VI. 10: 20: 40: AL0

IQ =  $\frac{39}{180} = .22$ .

No. 95.

Donald Mc DONALD.

AET. 9<sup>10</sup>/<sub>12</sub>.

Imbecile.

Simple Primary Anuric

M.A. III IV: 2V: 4V: 5V.

Total MA -

IV IV: 30: 40: 5V.

3-0+0-6+0-6

V IV: 20: 30: 5V.

= 4 Yrs.

VI. 10: 20: 40: AL0.

IQ =  $\frac{48}{118} = .40$ .

No. 96.

John GRAY.

AET. 8<sup>6</sup>/<sub>12</sub>.

Imbecile.

Simple Primary Anuric

M.A. III IV: 2V: 4V: 5V.

Total MA:-

IV IV: 3V: 5V: 60.

3-0+0-9+0-6+0-3

V 10: 20: 3V: 4V.

40-3. = 4 Yrs. 9 mos

VI 10: 20: 40: ALV.

IQ =  $\frac{57}{102}$ 

VII IV: 50: 60: AL0.

= .56

VIII. 10: 20: 30: 40.

No. 97.

Francis MURRAY.

AET 7<sup>4</sup>/<sub>12</sub>.

Yeare Minded.

Sequel of Encephalitis lethargica

Typical "Encephalitis" history

For last 10 mos. very destructive: onset 20 mos ago.

M.A. IV IV: 3V: 4V: 5V.

Total MA:-

V 21: 30: 4V: ALV

4-0+0-9+0-6

VI IV: 4V: 20: AL0

= 5 Yrs 3 mos.

VII. 10: 30: 50: AL0.

IQ =  $\frac{63}{86} = .73$ .



No. 98. Matthew SAUNDERS. AET. 11<sup>10</sup>/<sub>12</sub>.

Imbecile.

Simple Primary Amount.

MA: IV	1V: 3V: 4V: 5V	Total MA: -
V	2V: 3V: 4V: Al <sub>0</sub> .	4-0 + 0-9 + 0-8 + 0-6
VI	1V: 2V: 4V: Al <sub>0</sub> .	= 5 Yrs 6 Mos.
VII	1V: 5V: 6V: Al <sub>0</sub> .	IQ. = $\frac{66}{142} = .45$ .
VIII	1V: 3V: 2V: 4V.	

No 99. David DENHOLM. AET. 13<sup>2</sup>/<sub>12</sub>.

L. S. I.

Simple Primary Amount.

M.A.: III.	1V: 2V: 4V: 5V.	Total M.A.: -
IV	1V: 3V: 4V: 5V	3-0 + 0-6 + 0-8.
V.	2V: 3V: 4V: Al <sub>0</sub> .	= 3 Yrs 9 Mos.
VI	1V: 2V: 4V: Al <sub>0</sub> .	IQ = $\frac{45}{163} = .28$ .

No. 100. Christina MEFARHANE. AET. 12<sup>3</sup>/<sub>12</sub>.

H. S. I.

Simple Primary Amount.

M.A.: V	2V: 3V: 4V: Al <sub>0</sub> .	Total M.A.: -
VI	1V: 2V: 4V: Al <sub>0</sub> .	5-0 + 0-9 + 0-6.
VII	1V: 5V: 6V: Al <sub>0</sub> .	= 6 Yrs 3 Mos.
VIII.	1V: 2V: 3V: Al <sub>0</sub> .	IQ = $\frac{75}{147} = .51$ .

No. 101.

James STEELE.

AET. 9 <sup>5</sup>/<sub>12</sub>.

H. G. J.

Simple Primary Amount.

M.A. V 2v: 3v: 4v: Al.v.

X. 20: 40: 50: Al.o.

VI 1v: 20: 4v: Al.v.

Total MA: -

VII 1v: 5v: 6v: Al.v.

5-0+0-9+1-0+0-6+0-6

VIII 2v: 3v: 40: Al.o.

= 7 <sup>1</sup>/<sub>2</sub> 9 hrs.

IX 10: 30: 4v: Al.v.

IQ =  $\frac{93}{116} = .79$ .

No 102.

Mary MEENHAM.

AET. 16.

L. G. J.

Simple Primary Amount.

M.A. III 1v: 2v: 4v: 5v.

Total MA: -

IV 1v: 30: 4v: 5v.

3-0+0-9+0-3 = 4 <sup>1</sup>/<sub>2</sub>.

V 20: 30: 4v: Al.o.

IQ =  $\frac{4}{15} = .27$ .

VI 10: 20: 40: Al.o.

No. 103.

Walter HUTCHISON.

AET. 14 <sup>9</sup>/<sub>12</sub>.

H. G. J.

Simple Primary Amount.

M.A.: - VII 1v: 5v: 6v: Al.v.

Total MA: -

VIII 10: 2v: 3v: 4v.

7-0+0-9+0-9 =

IX 1v: 3v: 4v: Al.o.

8 <sup>1</sup>/<sub>2</sub> 6 hrs.

X. 20: 40: 50: 60.

IQ.  $\frac{102}{177} = .57$ .

No 104

Alex. SHAW.

AET. 14.

G. M.

Simple Primary Amount.

M.A. VII IV: 5V: 6V: ALV.

Total MA:-

VIII IV: 2V: 3V: 4.0.

7-0+0-9+0-3+0-6

IX IV: 30: 4.0: ALV

= 8  $\frac{1}{2}$  6 hrs.

X I: 40: 50: 6.0.

IQ =  $\frac{102}{168} = .61.$ 

XII. 2.0: 30: 4.0: 6.0: 7.0: 8.0.

No. 105.

Willis M<sup>c</sup> COURTNEY.AET. 13 $\frac{1}{2}$ .

H. G. J.

Simple Primary Amount.

M.A. VI IV: 2V: 4V: ALV.

Total MA:-

VII IV: 5V: 6.0: ALV.

6-0+0-9+0-3

VIII 10: 20: 3V: 4.0.

= 4  $\frac{1}{2}$ 

IX. 10: 30: 40: AL0.

IQ =  $\frac{84}{157} = .54.$ 

No. 106.

Michael EVANS.

AET. 10.

H. G. J.

Simple Primary Amount.

M.A. IV IV: 3V: 4V: 5V.

Total MA:-

V IV: 2V: 30: 4.0.

4-0+0-9+0-6.

VI IV: 2V: 4.0: AL0.

= 5  $\frac{1}{2}$  3 hrs

VII. 10: 50: 6.0: AL0

IQ =  $\frac{63}{120} = .53.$

No. 107.

Agnes PHILIP

AET. 12<sup>7</sup>/<sub>12</sub>.

L. G. I.

Spastic Diplegic.

M.A.: - III	1V: 2V: 4V: 5V.	Total MA -
IV	1V 40: 5V: 60	3-0+0-6+0-3+0-3
V	20: 3V: 40: Alv	= 4 Yrs.
VI	10: 20: 40: Alv.	IQ = $\frac{48}{151} = .32$
VII	10: 30: 50: 60.	

No. 108.

Betty RICHMOND.

AET. 7<sup>3</sup>/<sub>12</sub>

J. M.

Mongolian.

M.A.: III	1V: 2V: 4V: 5V.	Total MA: -
IV	1V: 3V: 40: 5V.	3-0+0-9+0-6+0-6
V	20: 30: 4V: Alv	= 4 Yrs 9 mos.
VI	1V: 20: 40: Alv	IQ = $\frac{57}{87} = .66$ .
VII.	10: 50: 60: Alv	

No. 109.

Joseph CAMPBELL.

AET. 23.

L. G. I

Simple Primary.

M.A.: - IV.	1V: 3V: 4V: 5V.	Total MA: -
V.	10: 20: 30: 4V.	4-0+0-3
VI.	10: 20: 40: Alv.	= 4 Yrs 3 mos.
		IQ = $\frac{51}{180} = .28$ .

No. 110.

Andrew BEATTIE

AET. 13 $\frac{5}{12}$ .

H.G.S.

S.P.A.

M.A.:-	VI	IV: 2V: 4: ALV.	Total M.A.:-
	VII	IV: 5V: 6V: ALV.	6-0 + 0-9 + 0-6
	VIII	10: 20: 3V: 4V.	= 7 Yrs 3 mos.
	IX.	10: 20: 40: ALV.	IQ = $\frac{87}{161} = .54.$

No. 111.

James WEIR.

AET. 14 $\frac{3}{12}$ .

H.G.S.

S.P.A.

M.A.:-	VII	IV: 5V: 6V: ALV.	Total M.A.:-
	VIII	10: 2V: 3V: 4.0.	7-0 + 0-6 + 0-6 + 0-3.
	IX	IV: 20: 40: ALV	= 8 Yrs 3 mos
	X	2V: 40: 50: 6.0.	IQ = $\frac{99}{171} = .58.$
	XII.	20: 30: 40: 60: 70: 80.	

No. 112

Agnes WALKER.

AET 9 $\frac{9}{12}$ .

Said by School Authorities to be mentally defective: placed in infant department. No experimental deficiency. Child has had diphtheria, scarlet fever, measles, mumps, chickenpox, pneumonia etc.

M.A.:-	V	2V: 3V: 4V: ALV.	IX	IV: 4V: 50: ALV.	X.	30: 40: 50: 6.0.
	VI	IV: 2V: 40: ALV.	Total M.A.:-	5-0 + 0-9 + 1-0 +		
	VII	IV: 5V: 6V: ALV.		0-6 + 0-6 =	4 Yrs 9 mos.	
	VIII	IV: 2V: 30: 4.0.	IQ =	$\frac{93}{117} = .80.$		

No. 113.

Maggie JONES

AET  $13\frac{1}{2}$ .

Medium Imbeciles.

S. P. A.

M.A.:- III IV: 2V: 4, 0: 5V.

Total M.A.:

IV 10: 3V: 4V: 5, 0.

 $2-0+0-9+0-6+0-3$ 

V 10: 2V: 3, 0: 4, 0

 $= 3 \text{ Yrs } 6 \text{ Mo.}$ 

VI. 10: 2, 0: 4, 0: A, 0.

IQ =  $\frac{42}{160} = .29$ 

No. 114.

Margt. CAMPBELL.

AET  $11\frac{5}{12}$ .

High Grade Imbeciles.

S. P. A.

M.A. IV IV: 3V: 4V: 5V.

X. 2, 0: 4, 0: 5, 0: 6, 0.

V 10: 2V: 3, 0: 4, 0.

Total M.A.:-

VI 10: 2, 0: 4, 0: A, 0.

 $4-0+0-9+0-6+1-0+$ 

VII IV: 5V: 6V: A, 0.

 $0-6+0-3. = 7 \text{ Yrs.}$ 

VIII IV: 2, 0: 3, 0: 4, 0.

IQ =  $\frac{84}{140}$ 

IX. 10: 4, 0: 5, 0: 6, 0.

 $= .60.$ 

No. 115

James MARSHALL.

AET  $9\frac{3}{12}$ 

Y. M.

Sequel of Encephalitis lethargica

Onset of acute condition, 2 yrs prior to examination. Typical case.

M.A. IV IV: 3V: 4V: 5V.

VIII 10: 2V: 3, 0: 4, 0

IX 10: 3, 0: 4, 0 A, 0.

V IV: 2V: 4, 0: A, 0.

Total M.A.:-  $4-0+0-9+0-9+$ 

VI 2, 0: 3, 0: 4, 0: A, 0.

 $0-6+0-3. = 6 \text{ Yrs } 3 \text{ mo.}$ 

VII IV: 5, 0: 6, 0: A, 0.

IQ =  $\frac{75}{111} = .68.$

No. 116.

Robert DICKSON.

AET. 12

Y. M.

S. P. A.

M.A.:- VII	10:50:60:Alv.	XVI.	2,0:30:40:60.
VIII	10:20:30:40.	Total M.A.:-	
IX	10:30:40:Alv	7-0 + 0-6 + 1-0 + 0-6 +	
X	20:40:50:60.	0-4 + 0-4 = 9 Yrs 8 mos	
XII.	20:30:40:50:60:80.	IQ = $\frac{116}{144} = .82.$	
XIV.	10:30:40:50:60:Alv.		

No 117.

William MURPHY.

AET. 14 $\frac{2}{12}$ 

Medium Imbecile.

S. P. A.

M.A.:- VI	10:20:40:Alv.	Total M.A.:-
VII	10:20:30:50	6-0 + 0-3 + 0-3
VIII	10:30:40:Alv.	= 6 Yrs 6 mos
IX.	10:30:40:Alv.	IQ = $\frac{78}{170} = .46.$

No. 118

Charles HUNTINGDON.

AET. 17.

Medium Imbecile.

S. P. A.

M.A. VI	10:20:40:Alv.	Total M.A.:-
VII	10:50:60:Alv.	6-0 + 0-9 + 0-6 + 0-3.
VIII	10:20:30:40	= 7 Yrs 6 mos
IX	10:30:40:Alv.	I.Q. = $\frac{15}{30} = .50.$
X.	20:40:50:60.	

No 119.

Alva BROWN

AET. 12<sup>3</sup>/<sub>12</sub>

Y.M.

Simple Primary Anant.

M.A.: VIII IV: 2V: 3V: 4V.

XVI. 20: 40: 50: 60.

IX 3V: 4V: 10: 40.

Total MA: .

X 2V: 40: 5V: 6V.

8-0+0-6+0-9+0-8+

XII 20: 3V: 40: 6V: 70: 80

0-6 = 10 Yrs 5 mos

XIV 30: 40: 60: 4V.

IQ =  $\frac{125}{152} = .82$ 

No. 120.

Roda WILSON.

AET 11<sup>4</sup>/<sub>12</sub>.

Y.M.

Always backward at school: presently

recovering from chorea.

M.A.: VII IV: 3V: 5V: 4V.

Total MA: .

VIII 10: 2V: 30: 40.

7-0+0-3+0-6

IX 10: 3V: 4V: 40

= 7 Yrs 9 mos.

X 20: 40: 50: 60.

IQ =  $\frac{93}{136} = .68$ .

No. 121.

Henny HORSBURGH.

AET 9<sup>3</sup>/<sub>12</sub>.

Y.M.

Sequel of Encephalitis lethargica.

Onset of acute process, 3<sup>9</sup>/<sub>12</sub> yrs. ago. Localized paresis left arm + leg.

Restless at night: typical breathing.

M.A. V 2V 3V 4V 4V

VIII 10: 20: 3V: 40

IX 10: 30: 40: 40.

VI: IV 20 40 4V

Total MA. 5-0+0-6+0-9+0-3 = 6<sup>6</sup>/<sub>12</sub> Yrs

VII IV 50 6V 4V

IQ.  $\frac{78}{111} = .70$ .



No. 132.

May SMITH.

RET 9 1/2

Y.M.

Simple Primary Ament.

Has cleft palate: deformities of bony skeleton; dry hair: defective speech.  
Mental condition said to be "childish". Has had prolonged thyroid treatment -

M.A: VI IV: 2V: 4V: A.V. Total M.A: - [inappreciable.

VII 10: 50: 6V: A.V.  $6 - 0 + 0 - 6 = 6$  Yrs 6 mos.

VIII. 10: 20: 30: 40. IQ  $\frac{72}{116} = .67$ .

No. 133.

John PEARSON.

RET. 16.

L. G. J.

Simple Primary Ament.

M.A. III IV: 2, V: 4, V: 5, V. Total M.A. :-

IV IV: 30: 5V: 40.  $3 - 0 + 0 - 6 + 0 - 9 + 0 - 3 =$

V IV: 20: 30: 40. 4 Yrs 6 mos

VI 10: 20: 40: A.V. IQ =  $\frac{54}{180} = .30$ .

VII. 10: 50: 60: A.V.

No. 124

Bertie HAY.

RET. 12 1/2.

Y.M.

Simple Primary Ament.

M.A. VI IV: 2V: 4V: A.V. XII 20: 30: 40: 60: 80.

VII 10: 50: 6V: A.V. Total M.A.:

VIII 10: 2V: 30: 40.  $6 - 0 + 0 - 9 + 0 - 3 + 0 - 6$

IX IV: 30: 40: A.V.  $+ 0 - 3 = 7$  Yrs 9 mos.

X 20: 4V: 50: 60. IQ =  $\frac{93}{146} = .64$ .

No. 125.

Guy MORTON.

AET. 17.

Medium Grade Imbecils.

Simple Primary Arment.

M.A.: III IV: 2V: 4V: 5V.

Total MA: -

IV IV: 30: 40: 5V.

 $3-0 + 0-6 + 0-6 + 0-6$ 

V IV: 20: 30: 4V.

 $= 4 \text{ Yr } 6 \text{ mos.}$ 

VI IV: 20: 40: 4V

 $IQ = \frac{54}{180} = .30.$ 

VII. 10: 50: 60: 40.

No. 126.

Norman Mc LOED.

AET. 14  $\frac{1}{2}$ .

Medium Grade Imbecils.

Simple Primary Arment.

M.A.: - IV IV: 3V: 4V: 5V.

IX. 10: 30: 40: 40.

V 20: 30: 4V: 40.

Total MA: -

VI IV: 20: 4V: 4V.

 $4-0 + 0-3 + 0-9 + 0-3 + 0-3$ 

VII 10: 50: 60: 4V.

 $= 5 \text{ Yr } 6 \text{ mos.}$ 

VIII 10: 20: 30: 40.

 $IQ = \frac{66}{175} = .37.$ 

No. 127.

Dugala CAMERON.

AET 14  $\frac{3}{4}$ .

Low Grade Imbecils.

Simple Primary Arment.

M.A.: V IV: 2V: 3V: 4V.

Total MA: -

VI IV: 20: 40: 4V.

 $5-0 + 0-6 + 0-3 =$ 

VII IV: 50: 60: 40.

 $5 \text{ Yr } 9 \text{ mos.}$ 

VIII. 10: 20: 30: 40.

 $IQ = \frac{69}{171} = .40.$

No. 128.

Jm PATERSON.

AET. 15.

Low Grade Imbecile.

Simple Primary Anment.

MA: III IV: 2V: 40: 5V: 6V

Total MA: .

IV 10: 3V: 5V: 40.

2-0 + 0-10 + 0-6 + 0-3 + 0-6

V 20: 3V: 40: A<sub>0</sub>

= 4 Yr 1 mo.

VI 10: 20: 40: A<sub>1</sub>VIQ =  $\frac{49}{180} = .27.$ VII 10: 50: 60: A<sub>0</sub>0.

No. 129.

Tommy WIGHTMAN.

AET. 16.

Low Grade Imbecile.

Simple Primary Anment.

MA: III IV: 2V: 4V: 5V.

Total MA - 3 Yr.

IV 10: 30: 40: 50.

IQ  $\frac{3}{15} = .20.$ 

No 130.

James GOULD.

AET. 7 $\frac{1}{2}$ 

Normal.

Presently recovering from chorrea.

M.A.: - IV 10: 4V: 5V: 6V.

Total MA: .

V 20: 3V: 4V: A<sub>1</sub>V

4-0 + 0-9 + 0-3 + 0-3

VI 10: 20: 40: A<sub>0</sub>0.

= 5 Yr 3 mo

VII 10: 50: 60: A<sub>0</sub>0.IQ =  $\frac{63}{90} = .70.$ 

VIII 10: 20: 30: 40.

No. 131.

Willie ROSS.

AET. 6<sup>7</sup>/<sub>12</sub>.

Medium Grade Imbecili: Sequel of Encephalitis lethargica.

Date of onset: not known.

M.A.: IV 10:30:40:50. Total MA -  
 V 10:30:40:50. 3-0+0-3+0-3  
 VI 10:30:40:50. = 3 Yrs 6 Mo.  
 III. IV: 20:40:50. IQ =  $\frac{42}{79} = .53$ .

No. 132.

Fred. BARBOUR.

AET 10<sup>3</sup>/<sub>12</sub>.

Subtly minded

? Simple Primary Amn.

Child of mentally defective Jewish father. Always dull.

Six weeks ago became morose and disobedient. Cran. circum. 18"

M.A.: V IV: 30:40:50. IX 10:30:50:60.  
 VI IV: 20:40:50. Total MA: - 5-0+0-3+  
 VII IV: 50:60:50. 0-6+0-3 = 6 Yrs.  
 VIII 10:20:30:40. IQ =  $\frac{72}{123} = .58$ .

No. 133.

Janna RUTHERFORD.

Aet 20.

Subthyroid.

High Grade Imbecili.

Has been under obs. since 18 months old: presently getting Thyroid for 1 1/2

M.A. V 20:30:40:50. VIII 10:20:30:40 IX IV: 30:40:50.  
 VI IV: 20:40:50. X 20:30:50:60. Total MA, 7 Yrs 3 Mo.  
 VII IV: 50:60:50. IQ =  $\frac{87}{180} = .49$ .

No 134 George ROBERTSON. AET. 17.

Medium Grade Imbeciles Simple Primary Amount.

M.A: VI IV 2V 4V 6V Total MA:  
 VII 1V: 50: 60: 40. 6-0+0-3+0-3  
 VIII 10: 20: 3V: 40. = 6 Yr 6 mo.  
 IX. 10: 30: 40: 40. IQ =  $\frac{78}{180} = .43$ .

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No. 135. John PODMORE. AET. 8 $\frac{1}{2}$ .

Medium Grade Imbeciles Simple Primary Amount.

MA: IV 1V: 3V: 5V: 6V. Total MA:- 4 Years.  
 V. 20: 30: 60: 40. IQ =  $\frac{48}{101} = .48$ .

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No 136. John MILTON. AET. 16

High Grade Imbeciles. Simple Primary Amount.

MA VII 1V: 5V: 6V: 6V. Total MA 7-0+0-3  
 VIII 10: 20: 3V: 40. = 7 Yr 3 mo  
 IX. 10: 30: 40: 40. IQ =  $\frac{87}{180} = .48$

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No 137 Edward MATHIESON. AET. 7.

Low Grade Imbeciles. Simple Primary Amount.

MA. III 10: 2V: 40: 50. Total MA:  
 IV. 10: 30: 40: 50. 2-0+0-3 = 2 Yr 3 mo  
 IQ =  $\frac{27}{84} = .32$ .

No. 138

Jacky McGHINTY.

AET. 13<sup>1/2</sup>

Low Grade Imbecile.

Simple Primary Amount.

Inveterate climber.

M.A.: - IV 1V: 3V: 4V: 5V.

Total M.A.:-

V 2V: 3V: 4V: 4V: 4V: 4V.

4-0+0-3 = 4 Yrs 3 Mos

VI. 1V: 2V: 4V: 4V: 4V

IQ =  $\frac{51}{160} = .32$ .

No. 139.

Joseph TURNER.

AET. 15.

Low Grade Imbecile.

Simple Primary Amount.

M.A.: III IV: 2V: 4V: 5V

Total M.A.:

IV 1V: 3V: 4V: 5V.

2-0+0-9+0-6 = 3 Yrs 3 Mos.

V. 2V: 3V: 4V: 4V: 4V.

IQ =  $\frac{39}{180} = .22$ .

No. 140.

John RUTHERFORD.

AET. 15.

Feeble Minded.

Simple Primary Amount.

M.A.: VII IV: 5V: 6V: 6V.

VIII 1V: 2V: 3V: 4V.

Total M.A.

IX 1V: 3V: 4V: 4V: 4V.

7-0+0-9+0-9+0-9+

X 2V: 3V: 5V: 6V.

0-5 = 9 Yrs 10 Mos

XII 2V: 3V: 4V: 6V: 8V.

IQ =  $\frac{118}{180} = .66$ .

XIV. 1V: 3V: 4V: 6V.

No. 141.

William BULLOCH.

RET. 13<sup>6</sup>/<sub>12</sub>.

High Grade Imbecile.

Simple Primary Arsent.

M.A.: VI 1V: 2V: 4V: 4V. XII 10:30: 40: 6V: 80: XIV. 10: 30: 50: 60.

VII 10: 5V: 6V: 4V. Total MA: 6-0 + 0-9 + 1-0 +

VIII 1V: 2V: 3V: 4V. 1-0 + 0-9 + 0-5

IX 1V: 3V: 4V: 4V. = 9 Yrs 11 mos.

X 2V: 3V: 5V: 60. IQ =  $\frac{119}{162} = .70$ .

No. 142.

Andrew BEATTIE.

RET. 14<sup>1</sup>/<sub>2</sub>.

High Grade Imbecile

Simple Primary Arsent.

M.A.: VI 1V: 2V: 4V: 4V. Total MA: -

VII 10: 5V: 6V: 4V. 6-0 + 0-9 + 0-6

VIII 1V: 20: 3V: 40. = 7 Yrs 3 mos

IX. 10: 30: 40: 40. IQ =  $\frac{87}{169} = .51$ .

No. 143.

James SAWYERS.

RET. 14.

Low Grade Imbecile

Simple Primary Arsent-

M.A.: III 1V: 2V: 4V: 5V Total MA: -

IV 10: 3V: 4V: 50 3-0 + 0-6 + 0-3 + 0-3

V 20: 30: 40: 6V. = 4 Yrs

VI 10: 20: 40: 4V. IQ =  $\frac{4}{14}$ 

VII. 10: 50: 60: 40. = .30

No. 144.

Yeddy SHERRIDAN.

AET. 11.

Low Grade Imbecils.

Simple Primary Arsent

M.A: III IV: 20: 40: 50.

Total M.A.: - 2 - 0 + 0 - 3 = 2  $\frac{1}{2}$  3 hrs

IV. 10: 20: 30: 40.

$$IQ = \frac{27}{132} = .21.$$

No. 145.

Aly THOMSON.

AET. 15.

Medium Grade Imbecils.

Simple Primary Arsent

M.A: IV IV: 30: 40: 50.

VIII. 10: 20: 30: 40 IX 10: 30: 50: 60.

V 20: 30: 40: 50.

Total M.A.: 4 - 0 + 0 - 6 + 0 - 9 +

VI 10: 20: 40: 50.

0 - 6 + 0 - 3 = 6  $\frac{1}{2}$ 

VII 10: 50: 60: 70.

$$IQ = \frac{6}{15} = .40.$$

No. 146.

John BRACKENBRIDGE

AET 13 $\frac{1}{2}$ .

Low Grade Imbecils.

Simple Primary Arsent.

M.A: III IV: 20: 40: 50.

Total M.A. = 3 - 0 + 0 - 9 = 2  $\frac{1}{2}$  9 hrs

IV. 10: 20: 30: 40.

$$IQ = \frac{33}{162} = .21.$$

No. 147.

Aly MCGREGOR.

AET. 16.

Medium Grade Imbecils.

Simple Primary Arsent.

M.A. VI IV: 20: 40: 50.

X 20: 40: 50: 60.

VII 10: 50: 60: 70.

Total M.A.: 6 - 0 + 0 - 9 + 0 - 3 +

VIII 10: 20: 30: 40.

0 - 3 = 7  $\frac{1}{2}$  3 hrs

IX 10: 30: 40: 50.

$$IQ = \frac{87}{180} = .48.$$



No. 148.

Charles GRANT.

AET 12<sup>8</sup>/<sub>12</sub>

Medium Grade Imbecile

Simple Primary Arment.

M.A.:- III	IV: 2V: 4V: 5V	VIII. 10: 20: 30: 40
IV	10: 3V: 4V: 5V	Total MA:-
V	2V: 30: 40: A.O	3-0 + 0-9 + 0-9 + 0-6 +
VI	1V 20 4V A.O	0-3 = 5 Yrs 3 mos
VII	1V: 50: 60: A.O	IQ = $\frac{63}{152} = .42.$

No. 149.

George FRASER

AET. 14<sup>5</sup>/<sub>12</sub>

High Grade Imbecile

Simple Primary Arment.

M.A. VI	IV: 2V: 4V: A.V	XII. 10: 30: 40: 50: 60.
VII	1V: 50: 6V: A.V	Total MA:-
VIII	10: 3V: 2V: 40	6-0 + 0-9 + 0-6 + 0-9 +
IX	1V: 30: 4V: A.V	0-3 = 8 Yrs 3 mos.
X	10: 3V: 50: 60.	IQ = $\frac{99}{173} = .57.$

No. 150

John DRYSDALE.

AET. 15.

Medium Grade Imbecile.

Simple Primary Arment.

M.A. V	2V: 3V: 4V: 6V	Total MA -
VI	10: 2V: 4V: A.V	5-0 + 0-9 + 0-9
VII	1V: 5V: 60: A.V	= 6 Yrs 6 mos
VIII	10: 20: 30: 40.	IQ = $\frac{78}{180} = .43.$

No. 151.

Wm. Mc NEILL.

AET. 15

Y. M.

Simple Primary Arith.

M.A.:- V I	IV: 2V: 4V: 6V	XII	10: 20: 50: 60: 80.
VII	IV: 5V: 60: 6V	Total M.A.	
VIII	10: 2V: 3V: 4V.	6-0+0-9+0-9+0-6+	
IX	10: 3V: 40: 6V	0-3. = 8 Yrs 3 mos	
X	2V: 30: 50: 60	IQ = $\frac{99}{180} = .55.$	

No. 152.

Harold MONTGOMERY.

AET. 12.

H. G. I.

Simple Primary Arith.

M.A. V	2V: 3V: 4V: 6V.	Total M.A.:-	
VI	IV: 20: 40: 6V	5-0+0-6+1-0	
VII	IV: 5V: 6V: 6V	= 6 Yrs 6 mos.	
VIII.	10: 20: 30: 40	IQ = $\frac{78}{144} = .54.$	

No. 153.

Jack HALL.

AET. 17+.

L. G. I.

Mongolian.

M.A.:- III	IV: 2V: 4V: 5V.	Total M.A.:-	
IV	10: 3V: 4V: 50.	3-0+0-6+0-9	
V	2V: 30: 4V: 6V.	= 4 Yrs 3 mos	
VI	10: 30: 40: 60.	IQ = $\frac{51}{180}$ = .30.	

No. 154

Jan ANDERSON.

AET. 15+

L. G. I.

Simple Primary Arment:

MA: III	1V: 2V: 4V: 5V.	Total MA:
IV	10: 3V: 4V: 50.	3 - 0 + 0 - 6 + 0 - 3 + 0 - 3.
V	20: 30: 4V: A0.	= 4 Yrs.
VI	10: 20: 40: AV	IQ = $\frac{4}{15}$
VII.	10: 50: 60: A0.	= .26.

No. 155.

Jacky Mc PHERSON.

AET. 16.

Mediano Grad Imbuir.

Simple Primary Arment:

MA: IV	1V: 3V: 4V: 5V.	IX	10: 30: 50: 60.
V	20: 3V: 4V: A0.	Total MA:	
VI	1V: 20: 40: AV	4 - 0 + 0 - 6 + 0 - 6 + 0 - 2	
VII	1V: 50: 60: A0	+ 0 - 3 = 5 Yrs 6 mos	
VIII	10: 2V: 30: 40.	IQ = $\frac{66}{180} = .37$	

No 156.

Jan GRAHAM.

AET 8 $\frac{1}{2}$ .

L. G. I.

Wongol.

MA: III	1V: 2V: 40: 5V.	Total MA -
IV	1V: 3V: 40: 5V	2 - 0 + 0 - 9 + 0 - 9
V.	20: 30: 50: 60	= 3 Yrs 6 mos
		IQ = $\frac{42}{98} = .43.$

No. 157.

Jack MITCHELL

AET. 35.

H.G.S.

Mongol.

M.A.: V	2.V: 3.V: 4.V: A.V.	Total MA -
VI	1.V: 2.V: 4.V: A.V.	5 - 0 + 0 - 9 + 0 - 9
VII	1.V: 5.V: 6.V: A.V.	+ 0 - 3 + 0 - 6 =
VIII	1.V: 2.V: 3.V: 4.V.	4 Yrs 3 mos.
IX	1.V: 3.V: 4.V: A.V.	IQ = $\frac{87}{180}$
X.	2.V: 3.V: 5.V: 6.V.	= .48.

No. 158.

Kough WALKER.

AET. 15+.

L.G.S.

Simple Primary Arment.

MA: III	1.V: 2.V: 4.V: 5.V.	VIII. 1.V: 2.V: 3.V: 4.V.
IV	3.V: 4.V: 5.V: 6.V.	Total MA -
V	2.V: 4.V: 6.V: A.V.	3 - 0 + 0 - 3 + 0 - 3 + 0 - 4 +
VI	1.V: 4.V: A.V.	0 - 3 = 4 Yrs 1 mo.
VII	1.V: 5.V: 6.V: A.V.	IQ = $\frac{49}{180} = .29.$

No. 159.

Norman McLEOD.

AET. 15+.

H.G.S.

S.P.A. (Epileptic).

MA: VI	1.V: 4.V: 6.V: A.V.	X. 2.V: 4.V: 5.V: 6.V.
VII	1.V: 5.V: 6.V: A.V.	Total MA = 6 - 0 + 0 - 9 +
VIII	1.V: 3.V: 4.V: A.V.	0 - 6 + 0 - 9 = 8 Yrs.
IX	1.V: 3.V: 4.V: A.V.	IQ = $\frac{8}{15} = .53.$

No. 160.

George BRENNAN

AET. 13 $\frac{10}{12}$ 

L. G. I.

Simple Primary Anstnt.

MA: - III	IV: 2V: 4V: 5V.	Total MA -
IV	30: 4V: 5V: 60.	3-0 + 0-6 + 0-8 + 0-4
V	20: 4V: Ac.V.	= 4 Yrs 6 mos
VI	1V: 40: Ac.0	IQ = $\frac{54}{166}$
VII.	10: 50: 60: Ac.0.	= .33.

No. 161.

Alfred LEPPER.

AET 13 $\frac{10}{12}$ .

Id.

Simple Primary Anstnt.

MA: TTT	IV: 2V: 40: 5V	Total MA -
IV	3V: 40: 50: 60	2-0 + 0-9 + 0-3 + 0-3
V	20: 30: 4V: Ac.0	= 3 Yrs 3 mos
VI	10: 20: 40: 60.	IQ = $\frac{39}{166} = .23.$

No. 162.

James GORMAN.

AET 10 $\frac{6}{12}$ .

Mordium Grade Imbecile

Sequel of Encephalitis Lethargica

Date of onset not known

MA: - VII	IV: 5V: 6V: AcV	Total MA -
VIII	10: 2V: 3V: 4V.	7-0 + 0-9 + 0-6
IX	10: 3V: 40: AcV.	= 8 Yrs 3 mos
X.	20: 40: 50: 60.	IQ = $\frac{99}{126}$
		= .79.

No. 163.

Robert MEENHAM.

AET. 15+

L. G. I.

Simple Primary Anusret.

MA: III IV: 2.V: 4.V: 5.V. Total MA = 3 Yrs

IV. 10: 30: 40: 50. IQ =  $\frac{3}{15} = .20$ .

No. 164.

Charles HUGHES.

Spastic paralytic

L. G. I.

AET. 16+

MA: V IV: 2.V: 3.V: 4.V. Total MA = 5 Yrs.

VI. 10: 20: 40: A.O. IQ =  $\frac{5}{15} = .33$ .

No. 165

John CARSON.

AET. 16+

L. G. I.

Simple Primary Anusret.

MA III IV: 2.V: 40: 5.V. VII 10: 50: 60: A.O.

IV 10: 30: 40: 5.V. Total MA: - 2-0+0-9+0-6+

V 10: 20: 30: 4.V. 0-3+0-3. = 4 Yrs.

VI 10: 20: 30: A.O. IQ =  $\frac{4}{15} = .26$ .

No. 166

Raymond UPTON.

AET. 11½

Y. M.

Sequel of Encephalitis lethargica

M.A: VI IV: 2.V: 4.V: A.V. X 20: 30: 50: 60. XII. 20: 30: 40: 60: 80.

VII IV: 5.V: 6.V: A.O. Total MA: 6-0+0-9+0-6+0-6

VIII IV: 2.V: 30: 40. +0-3 = 8 Yrs.

IX 10: 2.V: 4.V: A.O. IQ =  $\frac{96}{133} = .74$ .

No. 167.

James McFARLANE.

AET. 6 $\frac{1}{2}$ 

H.G. I.

Sequel of Enceph. Lethargica.

MA: III IV: 2.V: 4.V: 5.V

Total MA: -

IV IV: 3.0: 4.V: 5.V

3 - 0 + 0 - 9 + 0 - 3 + 0 - 3

V 2.0: 3.0: 4.V: A.C.

= 4 Yrs 3 mos.

VI IV: 2.0: 4.0: A.C.

IQ =  $\frac{51}{78}$ 

VII. 1.0: 3.0: 6.0: A.C.

= .69.

No. 168.

Daniel STEWART.

AET 15 $\frac{1}{2}$ .

Medium Grade Imbecile.

S.P.A. (Epileptic).

MA: VI IV: 2.V: 4.V: A.V.

Total MA -

VII 3.0: 5.V: 6.V: A.C.

6 - 0 + 0 - 6 = 6 Yrs 6 mos

VIII. 1.0: 2.0: 3.0: 4.0.

IQ =  $\frac{78}{180} = .43$ .

No. 169.

May COLQUHOUN.

AET 13 $\frac{1}{2}$ .

F. m.

S. P. A.

MA: IX IV: 3.V: 4.V: A.C.

X. 2.0: 4.V: 5.0: 6.0.

Total MA -

XII 2.0: 3.0: 4.0: 6.V: 8.0

9 - 0 + 0 - 3 + 0 - 5 +

XIV 1.0: 3.0: 5.0: A.C.V.

0 - 4 + 0 - 4.

XVI. 2.0: 4.0: 5.0: 6.0.

= 10 Yrs 4 mos.

IQ =  $\frac{124}{160} = .775$ .

No. 170.

Alfred M<sup>r</sup> COLME.AET 9<sup>1</sup>/<sub>2</sub>.

L. G. J.

Sequel of Encephalitis Lethargica.

Date of onset not accurately known. At present passing 3200 urine daily

MA: VI IV: 2V: 4V: AcV.

Total MA: -

VII IV: 3V: 5V: AcO.

6-0+0-6+0-6

VIII 10: 20: 3V: 4V.

= 7 Yrs.

IX. 10: 30: 40: AcO.

IQ =  $\frac{84}{115} = .73$ .

No. 171.

Joe CAMPBELL

AET 16+.

L. G. J.

Simple Primary Amnesia

MA: III IV: 2V: 3V: 4V.

Total MA -

IV 10: 3V: 4V: 5V.

3-0+0-9+0-3+0-3

V 20: 30: 4V: AcO.

= 4 Yrs 3 mos.

VI IV: 20: 40: AcO.

IQ =  $\frac{51}{180} = .28$ .

VII. 10: 30: 50: AcO.

No. 172.

Mary OWENS.

AET 15+.

L. G. J.

S. P. A.

MA: IV IV: 3V: 5V: 6V.

Total MA -

V 20: 30: 4V: AcO.

4-0+0-3+0-6+0-3

VI IV: 20: 40: AcV.

= 5 Yrs.

VII 10: 3V: 50: AcO.

IQ =  $\frac{5}{15}$ 

VIII 10: 20: 30: 40.

= .33.



No. 173.

Helen MACKENZIE.

AET. 14<sup>3</sup>/<sub>12</sub>.

Medium Grade Imbecile

Simple Primary Animi.

MA - V 2V: 3V: 4V: A.V.

Total MA: -

VI 1V: 2V: 4V: A.V.

5-0 + 0-9 + 0-9

VII IV: 3V: 5V: A.V.

= 6 Yrs 6 mos.

VIII. 10: 20: 30: 40.

IQ =  $\frac{78}{170} = .42$ .

No. 174.

Marcella FISHER.

AET. 12<sup>1</sup>/<sub>2</sub>.

Medium Grade Imbecile.

S. P. A.

MA: III - IV: 2V: 4V: 5V.

Total MA -

IV 10: 40: 50: 6V

3-0 + 0-3 + 0-9 + 0-3.

V 20: 3V: 4V: A.V.

= 4 Yrs 3 mos.

VI IV: 20: 40: A.O.

IQ =  $\frac{51}{155}$ 

VII. 20: 30: 50: A.O.

= .33.

No. 175.

Tommy WIGHTMAN.

AET. 15+

L. G. I.

S. P. A.

MA: III IV: 2V: 3V: 40.

Total MA: -

IV. 10: 30: 50: 60.

2-0 + 0-9 = 2 Yrs 9 mos

IQ =  $\frac{33}{180} = .20$ .

No. 176.

James ROBERTSON.

AET  $14\frac{7}{12}$ .

Medium Grade Immature.

S. P. A.

MA V IV: 3V: 4V: 5V.

Total MA: -

VI IV: 20: 4V: AcV.

5 - 0 + 0 - 9 + 0 - 6 + 0 - 6

VII IV: 30: 50: AcV.

= 6 Yrs 9 mos.

VIII IV: 2V: 30: 40.

IQ =  $\frac{81}{175}$ 

IX. 10: 30: 40: Ac0.

= .46.

No. 177.

Marg. GUNDON

AET  $6\frac{10}{12}$ .

L. G. I.

S. P. A.

MA: III IV: 2V: 3V: 40.

Total MA: -

IV IV: 30: 40: 50.

2 - 0 + 0 - 9 + 0 - 6 + 0

V 20: 30: 40: Ac0.

= 3 Yrs 3 mos

VI. 10: 20: 40: 60.

IQ =  $\frac{39}{82} = .48$ .

No. 178.

Robert GILLAN.

AET  $13\frac{1}{2}$ .

L. G. I.

S. P. A.

MA VI IV: 2V: 4V: AcV.

Total MA: -

VII IV: 5V: 60: AcV.

6 - 0 + 0 - 9 = 6 Yrs 9 mos

VIII 10: 20: 30: 40.

IQ =  $\frac{81}{157}$ 

= .51.

No. 179.

Jessie GUNNION.

AET.  $8\frac{1}{2}$ .

L. G. J.

S. P. A.

MA: III 1V: 2V: 4V: 5V.

Total MA: .

IV 10: 3V: 4V: 5V

 $3-0+0-9+0-9$ 

V 2V: 3V: 4V: Ac. 0.

 $= 4\frac{1}{2}$  hrs

VI. 10: 20: 30: 5. 0.

IQ =  $\frac{54}{98} = .55$ .

No. 180.

Yvonne ANDERSON.

AET. 15.

L. G. J.

S. P. A.

MA IV. 1V: 3V: 5V: 6V.

IX. 10: 30: 40: Ac 0

V 2V: 30: 4V: Ac 0.

Total MA

VI 10: 20: 4V: 6V.

 $4-0+0-6+0-6+0-9+$ 

VII 1V: 3V: 5V: Ac 0

 $0-3 = 6\frac{1}{2}$ 

VIII. 10: 20: 5V: Ac 0

IQ =  $\frac{6}{15} = .40$ .

No 181.

Martin FLYNN.

AET.  $10\frac{3}{4}$ 

L. G. J.

Moongol.

MA III 1V: 2V: 4. 0: 5. 0.

Total MA

IV. 10: 30: 40: 5. 0.

 $2-0+0-6 = 2\frac{1}{2}$  hrsIQ =  $\frac{30}{123}$ . $= .24$ .

No. 182.

Betty APPLEBY.

AET. 11<sup>8</sup>/<sub>12</sub>.

High Grade Imbecile.

S. P. A.

Presently undergoing thyroid treatment

MA. IV 1V: 3V: 5V: 6V.

Total MA: -

V 2V: 3V: 4V: 5V.

4-0+0-9+0-9+0-6.

VI 1V: 4V: 6V: 8V.

= 6 Yrs

VII 1V: 3V: 5V: 8V.

IQ =  $\frac{72}{140}$ 

VIII 10: 20: 30: 40.

= .50.

No 183.

James HARKNESS.

AET. 6<sup>11</sup>/<sub>12</sub>.

Imbecile.

S. P. A.

MA: III 1V: 2V: 4V: 5V.

Total MA: -

IV 10: 30: 4V: 5V.

3-0+0-6+0-6+0-3

V 20: 3V: 4V: 6V.

= 4 Yrs 3 Mns

VI 1V: 20: 40: 60.

IQ =  $\frac{51}{83}$ 

VII 10: 30: 50: 60.

= .60.

No. 184.

Margaret ROBERTSON.

AET. 15<sup>1</sup>/<sub>2</sub>

Medium Grade Imbecile.

S. P. A.

MA. V 2V: 3V: 4V: 5V.

Total MA: -

VI 10: 20: 40: 5V.

5-0+0-3+0-3

VII 1V: 50: 60: 80.

= 5 Yrs 6 Mns.

VIII 10: 20: 30: 40.

IQ =  $\frac{66}{180}$  = .35.

No. 187

Y. Tommy NEWLANDS.

Au 161.

L. G. J.

S. P. A.

MA: III IV: 2V: 4V: 5V.

Total MA: 3 Yrs

IV. 10: 30: 40: 50.

IQ  $\frac{3}{15} = .20$ .

No 185

Mary HIGGINS.

Au. 16.

L. G. J.

S. P. A.

MA IV IV: 3V: 4V: 5V.

Total MA:

V 2V: 30: 4V: 40.

4 - 0 + 0 - 6 + 0 - 3

VI. IV: 20: 40: 40.

. 4 Yrs 9 hrs.

VII 10: 30: 50: 60.

IQ =  $\frac{57}{180} = .30$ .

No 186.

Albert FERGUSON

Dec. 16.

L. G. J.

S. P. A.

MA: III IV: 2V: 4V: 5V.

Total MA. 3 Yrs.

IV. 10: 30: 40: 50.

IQ =  $\frac{3}{15} = .20$ .

No. 188.

James SAWYERS.

Au. 14<sup>1/2</sup>

L. G. J.

S. P. A.

MA: III IV: 2V: 4V: 5V.

Total MA:

IV 10: 30: 4V: 50.

3 - 0 + 0 - 6 = 3 hrs 6 hrs

V. 20: 30: 40: 40.

IQ =  $\frac{42}{175}$ 

= .24.

No. 189.

Wm WYLLIE.

Age 15<sup>3</sup>/<sub>12</sub>.

Medium Imbecile.

S. P. A.

M.A. III IV: 2V: 4V: 5V.

Total M.A. -

IV 1V: 3V: 4V: 5V.

3-0+0-9+0-6

V 2V: 3V: 4V: 5V.

= 4 Yrs 3 mos.

VI 1V: 2V: 4V: 5V.

IQ =  $\frac{51}{183} = \dots 40$ 

No. 190.

Jacob LEWIS.

Age 16.

Medium Imbecile.

S. P. A.

M.A. V 2V: 3V: 4V: 5V.

Total M.A. -

VI 1V: 2V: 4V: 5V.

5-0+0-3+0-6

VII 1V: 3V: 5V: 5V.

= 5 Yrs 9 mos.

VIII 1V: 2V: 3V: 4V.

IQ =  $\frac{69}{180} = \dots 37$ 

No. 191

John MARTIN

Age 15<sup>10</sup>/<sub>12</sub>

Medium Imbecile.

S. P. A.

M.A. V 2V: 3V: 4V: 5V.

Total M.A. -

VI 1V: 2V: 4V: 5V.

5-0+0-9+0-6

VII 1V: 3V: 5V: 5V.

= 6 Yrs 3 mos.

VIII 1V: 2V: 3V: 4V.

IQ =  $\frac{75}{180} = \dots 39$

No. 192

James McALLISTER

Aer 13 $\frac{1}{2}$ 

No. G. I.

S. P. A.

MD VIII	IV: 2V: 3V: 4V.	Total MD:
IX	10: 3V: 4V: 4V.	8-0+0-9+0-6+0-10
X	20: 4V: 5V: 60.	+1+0 = 11 $\frac{1}{2}$ hrs 1 min
XII	20: 30: 4V: 6V	IQ = $\frac{133}{166}$
XIV	30: 4V: 4V: 60	= .83.
XVI	10: 30: 40: 60.	

No. 193.

Jas (Betty) QUINN.

Aer 14 $\frac{1}{2}$  hrs.

Y. M.

S. P. A.

MA VIII	IV: 2V: 3V: 4V.	XVI 30: 5V: 60: 40.	XVIII. 10: 30: 50: 60.
IX	10: 3V: 4V: 4V.	Total MA: -	
X	2V: 4V: 5V: 60.	8-0+0-9+0-9+1-19+	
XII	2V: 3V: 40: 6V: 8V	1-0+0-6 = 12 $\frac{1}{2}$ hrs 7 min	
XIV	30: 4V: 60: 4V.	IQ = $\frac{151}{170}$ = .89.	

No. 193.

John EASTON.

Aer 15.

Medium Imbecile.

S. P. A.

MA: V	20: 3V: 4V: 4V.	IX: 10: 30: 40: 40.
VI	10: 20: 4V: 4V.	Total MA: 5-0+0-6+0-9+
VII	IV: 3V: 50: 60.	0-6 = 6 $\frac{1}{2}$ hrs 9 min
VIII	IV: 2V: 30: 40.	IQ = $\frac{81}{180}$ = .45.

No. 195.

Karl M<sup>c</sup>CALLUM.

Aet. 15+

L. G. I.

S. P. A.

MA: III	IV: 2V: 4V: 5V.	Total MA -
IV	1V: 3V: 5V: 6V.	3-0+0-9+0-9+0-6
V	2V: 3V: 4V: 6V.	= 5 Yrs
VI	1V: 2V: 4V: 6V.	IQ = $\frac{5}{15}$
VII	1V: 3V: 5V: 6V.	= .33.

No 196.

Robert M<sup>c</sup>CALLUM.

Aet. 15+

Medium Imbecile.

S. P. A.

MA: IV	IV: 3V: 5V: 6V.	Total MA -
V	2V: 3V: 4V: 6V.	4-0+0-9+0-6+0-6.
VI	1V: 2V: 4V: 6V.	= 5 Yrs 9 mos
VII	1V: 3V: 5V: 6V.	IQ = $\frac{69}{180}$
VIII	1V: 2V: 3V: 4V.	= .38

No. 197.

John M<sup>c</sup>LAREN.Aet. 7 $\frac{1}{2}$ .

Medium Imbecile.

S. P. A.

MA - III	IV: 2V: 4V: 5V.	Total MA -
IV	1V: 3V: 5V: 6V.	2-0+0-9+0-3 = 3 Yrs.
V	2V: 3V: 4V: 6V.	IQ = $\frac{36}{95}$
		= .38.



No. 198.

George MEBETH.

Age 6 $\frac{1}{2}$ 

L. G. J.

S. P. A.

MA - III

IV: 2V: 4V: 5V.

Total MA:-

IV

IV: 3V: 5V: 6V.

3-0+0-6 = 3 Yrs 6 mos

V.

2V: 3V: 4V: 6V.

IQ =  $\frac{21}{13} = .53$ .

No. 199.

Tommy DUNCE.

Age 13 $\frac{1}{2}$ 

Meridium Imbecill.

S. P. A.

MA:- IV

IV: 3V: 5V: 6V.

IX: 7V: 3V: 4V: 6V.

V

2V: 3V: 4V: 6V.

Total MA-

VI

IV: 2V: 4V: 6V.

4-0+0-6+0-6+0-9+

VII

IV: 3V: 5V: 6V.

0-3. = 6 Yrs

VIII

1V: 2V: 3V: 4V.

IQ.  $\frac{72}{166} = .45$ .

No. 200.

Willie FORREST.

Age 7 $\frac{1}{2}$ 

Y. M.

S. P. A.

MA:- IV.

IV: 3V: 4V: 5V.

Total MA-

V

2V: 3V: 4V: 6V.

4-0+0-3+0-3

VI

1V: 2V: 4V: 6V.

= 4 Yrs 6 mos

VII

1V: 3V: 5V: 6V.

IQ =  $\frac{54}{88}$ 

= .61.

No. 201.

Herbert McLEARN

Age. 15+

Meridium Imbecile.

S. P. A.

MA: - VI IV: 2V: 4V: A.V.

Total MA -

VII 10: 3V: 5V: A.V.

 $6 - 0 + 0 - 6 = 6 \frac{1}{2}$  hrs.

VIII. 10: 20: 30: 40.

IQ =  $\frac{13}{30} = .43$ .

No. 202.

John WALKER.

Age 10 $\frac{1}{2}$ .

L. G. I.

S. P. A.

M.A III IV: 2V: 40: 5V.

Total MA: - 2 - 0 + 0 - 9 = 2 $\frac{1}{2}$  hrs

IV. 10: 30: 40: 50.

IQ =  $\frac{33}{129} = .26$ .

No. 203.

Eric ROBERTSON.

Age. 6 $\frac{10}{12}$ .

S. P. A.

MA V 3V: 3V: 4V: A.V.

IX. 10: 30: 40: A.O.

VI 10: 2V: 4V: A.V.

Total MA: - 5 - 0 + 0 - 9 + 1 - 0 +

VII IV: 3V: 5V: A.V.

0 - 6 = 4 $\frac{1}{2}$  hrs

VIII IV: 20: 30: 40.

IQ =  $\frac{87}{82} = 1.06$ .

No. 204.

Stanley AINSLEY.

Age: 9 $\frac{3}{12}$ 

L. G. I.

Mongol.

MA: - III IV: 2V: 4V: 5V.

Total MA: -

IV 10: 30: 40: 5V

3 - 0 + 0 - 3 = 3 $\frac{1}{2}$  hrs

V. 20: 30: 40: A.O.

IQ =  $\frac{39}{111} = .33$ .

No. 205.

John CLELAND.

Age. 15<sup>+</sup>.

L. G. J.

S. P. A.

MA III IV: 20: 40: 50.

Total MA -

IV 10: 30: 50: 40.

3 - 0 + 0 - 6 + 0 - 3 +

V 20: 30: 40: Ac.

0 - 3 = 4 Yrs

VI 10: 20: 40: Ac.

I.Q. =  $\frac{4}{15}$

VII: 10: 30: 50: Ac.

= .27

No. 206.

Lizzie WILSON.

Age. 14<sup>2/12</sup>.

Medicum Imbecilis

S. P. A.

MA: V 20: 30: 40: Ac.

Total MA: -

VI 10: 20: 40: Ac.

5 - 0 + 0 - 9 + 0 - 3 +

VII 10: 30: 50: Ac.

0 - 6 = 6 Yrs 6 hrs

VIII 10: 20: 30: 40.

I.Q. =  $\frac{78}{170}$

IX. 10: 30: 40: Ac.

= .44.

No. 207.

Beatrice FYFE.

Age. 13<sup>3/12</sup>.

H. G. J.

S. P. A.

M.A: VII 10: 30: 50: Ac.

Total MA -

VIII 10: 20: 30: 40.

7 - 0

I.Q. =  $\frac{84}{159}$

= .52.

No. 208.

Wm. SCRIVEN.

AET. 10<sup>5</sup>/<sub>12</sub>.

L. G. I.

S. P. A.

MA: III W: 2V: 4V: 5V.

Total MA:

IV 10: 30: 5V: 60.

3-0 + 0-3 + 0-9 + 0-3

V 2d: 30: 4V: 40V

= 4 Yrs. 3 mos.

VI 10: 20: 40: 40V.

I.Q.  $\frac{51}{125}$ 

VII. 10: 30: 50: 40.

= .39.

No. 209.

Harry HUTCHISON.

AET. 10<sup>6</sup>/<sub>12</sub>.

Medium Imbecile.

S. P. A.

MA VI IV: 2V: 4V: 40V.

XIV. 10: 20: 30: 40.

VII IV: 3V: 50: 40V.

Total MA -

VIII IV: 20: 3V: 40.

6-0 + 0-9 + 0-6 + 0-3

IX 10: 30: 40: 40.

= 7 Yrs 6 mos.

XII 20: 3V: 40: 50: 80.

I.Q. =  $\frac{90}{120} = .75$ .

No. 210.

John CANNON.

Aet 16<sup>3</sup>/<sub>12</sub>.

Medium Imbecile

S. P. A.

MA: IV IV: 2V: 3V: 4V

Total MA: -

V 2V: 3V: 4V: 40.

4-0 + 0-9 + 0-6 + 0-9

VI 10: 20: 4V: 40.

= 6 Yrs.

VII IV: 3V: 50: 40V.

I.Q. =  $\frac{72}{171}$ 

VIII. 10: 20: 30: 40.

= .42.

No. 211.

James GEDDES.

AET. 16 $\frac{1}{2}$ .

F.M. (Psychopath)

S.P.A.

M.A. X 2V:4V:5V:6V

Total M.A.:-

XII 2V 30 4V:6V:80

10-0 + 1-3 + 0-6

XIV 30:40:60:Plv

+ 1-3 + 2-0

XVI 30:6V:5V:40

= 15 $\frac{1}{2}$ 

XVIII. 3V:4V:5V:6V

IQ =  $\frac{15}{15} = 1.00.$ 

No. 212

Frank ANDERSON.

AET. 15 $\frac{1}{2}$ 

Abdium Inlucis.

S.P.A.

M.A. IV 1V:3V:5V:6V.

Total M.A.:-

V 2V:4V:30:Alv.

10-0 + 0-9 + 0-3

VI. 10:20:40:6V

+ 0-3 = 5 $\frac{1}{2}$  3 hrs.

VII. 10:30:50:Al

IQ =  $\frac{63}{180} = .35.$ 

No. 213

Elsie BEATSON.

AET. 11 $\frac{1}{2}$ 

F.M.

S.P.A.

M.A. VII. 1V:3V:5V:Alv

Total M.A.:-

VIII. 10:2V:30:4V

7-0 + 0-6 + 0-3

IX 10:30:50:Alv

= 7 $\frac{1}{2}$  9 hrs.

X 10:20:40:60.

IQ =  $\frac{93}{133} = .70.$

No. 214.

Michael MCKENZIE.

Age 12<sup>3</sup>/<sub>12</sub>.

Medium Imbecile.

S. P. A.

M.A. IV. IV 2V 4V: 5V.

Total MA:-

V. 10 20 3V 5V.

$$4-0 + 0-6 + 0-3 = 4 \text{ Yrs } 9 \text{ Mo.}$$

VI 10: 30: 60: 90V.

$$\text{I.Q.} = \frac{57}{146} = .39.$$

VII 10: 30: 50: 70.

No. 215.

Norman KAY.

Age 12<sup>6</sup>/<sub>12</sub>.

High Grade Imbecile.

S. P. A.

M.A. V. 10: 20: 3V: 5V.

Total MA:-

VI 10: 3V: 6V: 9V.

$$5-0 + 0-9 + 0-3 + 0-3$$

VII 10: 20: 50: 90V.

$$= 6 \text{ Yrs } 3 \text{ Mo.}$$

VIII 10: 20: 30: 40.

$$\text{I.Q.} = \frac{75}{150} = .50.$$

IX 10: 30: 50: 60.

No. 216.

John DUNSMORE.

Age 10<sup>7</sup>/<sub>12</sub>.

Medium Imbecile.

S. P. A.

M.A. IV. IV: 2V: 4V: 5V.

Total MA:-

V 10: 20: 3V: 5V

$$4-0 + 0-6 + 0-3$$

VI 10: 30: 50: 60

$$= 4 \text{ Yrs } 9 \text{ Mo.}$$

VII 10: 30: 50: 90

$$\text{I.Q.} = \frac{57}{127} = .45$$

Res. Examinations

1922,

One Year After Original Test:

No. 217.

Jim Moffat.

Sec No. 46

MA: VI IV: 2V: 4V: 6V. Total MA: -

VII 1V: 5V: 6V: 8V.  $6-0+0-9 = 6 \frac{1}{2}$  hrsVIII. 10: 20: 30: 40.  $IQ = \frac{81}{98} = .83.$ 

No. 218.

George Anderson.

Sec No. 15.

MA: III IV: 2V: 5V: 6V. Total MA: -

IV 10: 30: 4V: 5V.  $2-0+0-6+0-3 = 2 \frac{1}{2}$  hrsV. 10: 30: 40: 60.  $IQ = \frac{33}{133} = .25.$ 

No. 219.

Alex ROBERTSON.

Sec No. 48.

MA: III IV: 2V: 4V: 5V. Total MA: -

IV 1V: 4V: 5V: 6V.  $3-0+0-9+0-9+0-9$ V 2V: 3V: 4V: 6V.  $= 5 \frac{1}{2}$  hrsVI 1V: 2V: 4V: 6V.  $IQ = \frac{639}{85}$ VII. 10: 50: 60: 80.  $= .74.$ 

No. 220.

Jan Stewart.

Sec No. 10.

MA: IV IV: 3V: 4V: 5V. Total MA: -

V 20: 40: 60: 3V.  $4-0+0-3 = 4 \frac{1}{2}$  hrsVI. 10: 30: 50: 60.  $IQ = \frac{51}{180} = .28.$



No. 221.

James MARSHALL

See No. 115.

MA: IV 1V: 3V: 4V: 5V.

Total MA: -

V 2V: 3V: 4V: 4V.

$$4 - 0 + 0 - 9 + 0 - 9 + 0 - 6$$

VI 1V: 2V: 4V: 4V.

$$= 6 \frac{1}{2}$$

VII 1V: 5V: 6V: 4V.

$$I.Q. = \frac{72}{107}$$

VIII 1V: 2V: 3V: 4V.

$$= .67$$

No. 222.

Ben CONNACHIE.

See No. 43.

MA III 1V: 2V: 4V: 5V.

Total MA -

IV 1V: 3V: 4V: 5V.

$$2 - 0 + 0 - 9 + 0 - 6 = 3 \frac{1}{2} \text{ } 3 \frac{1}{2}$$

V 2V: 3V: 4V: 4V.

$$I.Q. \frac{39}{122} = .31$$

No. 223.

Adam CAMPBELL.

See No. 30

MA: III 1V: 2V: 4V: 5V.

Total MA -

IV 1V: 3V: 4V: 5V.

$$3 - 0 + 0 - 3 + 0 - 3 + 0 - 3$$

V 1V: 2V: 3V: 4V.

$$= 3 \frac{1}{2} \text{ } 9 \text{ hrs}$$

VI 1V: 2V: 4V: 4V.

$$I.Q. \frac{45}{180}$$

VII 1V: 5V: 6V: 4V.

$$= .25$$

No. 224.

Donald MCDONALD.

See No. 25

MA: III 1V: 2V: 4V: 5V.

VI 1V: 3V: 4V: 4V VII 1V: 5V: 6V: 4V

IV 1V: 3V: 4V: 5V.

$$\text{Total MA } 3 - 0 + 0 - 3 + 0 - 6 + 0 - 6 = 4 \frac{3}{2}$$

V 2V: 3V: 4V: 4V.

$$I.Q. \frac{51}{128} = .41$$

No. 225.

Andrew McCULLOCH.

See no. 13.

MA: III IV: 2V: 4V: 5V.

Total MA -

IV IV: 3V: 4V: 5V.

$$2 - 0 + 0 - 9 + 0 - 6 = 3 \frac{1}{2} \text{ hrs}$$

V. 2V: 3V: 4V: 4V.

$$IQ = \frac{39}{180} = .22$$

No. 226.

Watson SMALL.

See no. 12.

MA: III IV: 2V: 4V: 5V.

VII. 1V: 5V: 6V: 4V.

IV IV: 4V: 5V: 6V.

Total MA: -

V 2V: 3V: 4V: 4V.

$$3 - 0 + 0 - 9 + 0 - 3 + 0 - 6 = 4 \frac{1}{2} \text{ hrs}$$

VI 1V: 2V: 4V: 4V.

$$IQ = \frac{34}{165} = .33$$

No. 227.

Willie MORRISON.

See no. 94.

M.A. III IV: 2V: 4V: 5V.

Total MA = 3 Yrs.

IV. 1V: 3V: 4V: 5V.

$$IQ = \frac{3}{15} = .20$$

No. 228.

James LITTLE.

See no. 79.

MA: III IV: 2V: 4V: 5V.

Total MA: -

IV 1V: 3V: 4V: 5V.

$$3 - 0 + 0 - 9 + 0 - 0 + 0 - 3$$

V 2V: 3V: 4V: 4V.

$$= 4 \frac{1}{2} \text{ hrs}$$

VI IV: 2V: 4V: 4V.

$$IQ = \frac{54}{180}$$

VII. 1V: 5V: 6V: 4V.

$$= .30$$

No. 229.

George NELLIS.

Sec No. 3.

MA: VI IV: 2V: 5V: 6V X 20: 40: 50: 60 XII 20: 30: 40: 60: 80

VII 10: 50: 6V: AcV Total MA: -

VIII IV: 2V: 3V: 40.  $6 - 0 + 0 - 9 + 0 - 9 + 0 - 6 + 0 - 3 = 8\frac{3}{2}$ IX IV: 30: 4V: Ac0 IQ =  $\frac{99}{129} = .77$ 

No. 230.

John GRAY.

Sec No. 96.

MA: IV IV: 3V: 4V: 5V VIII 10: 2V: 30: 40. IX. 10: 30: 40: Ac0

V 20: 30: 4V: 6V Total MA: -

VI 10: 20: 40: AcV  $4 - 0 + 0 - 6 + 0 - 3 + 0 - 3 + 0 - 3 = 5\frac{3}{2}$ VII IV: 50: 60: Ac0 IQ =  $\frac{63}{132} = .48$ 

No. 231.

Wm HARDIE.

Sec No 82.

MA: VI IV: 2V: 4V: AcV X. 20: 40: 60. 60

VII 10: 50: 6V: AcV Total MA: -

VIII IV: 20: 3V: 40  $6 - 0 + 0 - 6 + 0 - 6 + 0 - 6 = 7\frac{1}{2}$ IX IV: 30: 40: AcV IQ =  $\frac{90}{170} = .53$ 

No. 232.

Wm STARK

Sec No. 32.

MA: VI IV: 2V: 4V: AcV Total MA: -

VII 10: 50: 6V: Ac0  $6 - 0 + 0 - 3 + 0 - 3 = 6\frac{1}{2}$ VIII 10: 20: 3V: 40 IQ =  $\frac{78}{160}$ 

IX. 10: 30: 40: Ac0 = .49.

No. 233.

Hector WHITE

See No. 58.

M.A.: IV 1V: 3V: 4V: 5V.

VIII. 10: 20: 30: 40.

V 20: 3V: 4V: 6V.

Total MA:

VI 10: 20: 4V: 4V.

$$4 - 0 + 0 - 9 + 0 - 6 + 0 - 3 = 5\frac{6}{12}.$$

VII 10: 50: 6V: 40.

$$I.Q. = \frac{66}{155} = .43.$$

No. 234.

ALEX GRAHAM.

See No. 54

M.A.: V 2V: 3V: 4V: 6V.

IX. 10: 30: 40: 40.

VI 10: 2V: 4V: 40.

Total MA: -

VII 1V: 50: 60: 4V.

$$5 - 0 + 0 - 6 + 0 - 6 + 0 - 3 = 6\frac{3}{12}$$

VIII. 10: 20: 30: 40.

$$I.Q. = \frac{75}{147} = .51.$$

No. 235.

George GIFFEN.

See No 73.

M.A.: V 2V: 3V: 4V: 6V.

IX 10: 3V: 4V: 4V.

X. 20: 40: 50: 60.

VI 10: 5V: 6V: 4V.

Total MA -

VII 10: 5V: 6V: 4V.

$$5 \cdot 0 + 0 - 9 + 0 - 9 + 0 - 3 + 0 - 9 = 7\frac{1}{2}$$

VIII 10: 2V: 30: 40.

$$I.Q. = \frac{90}{161} = .56.$$

No. 236.

George MUIR.

See No. 83.

M.A.: VI 1V: 2V: 4V: 4V.

X 10: 3V: 5V: 60.

XII. 20: 30: 40: 60: 80.

VII 10: 5V: 6V: 40.

Total MA: - 6 - 0 + 0 - 6 + 0 - 9

VIII 1V: 30: 3V: 4V.

$$+ 0 - 3 + 0 - 6 = 8 \text{ Years.}$$

IX 10: 3V: 40: 40.

$$I.Q. = \frac{96}{180} = .53.$$

No. 237.

Ann LAVERY.

Pu No. 63.

MA: VII 1V:5V:6V:AEV XIV 2V:3V:4V:6V:AV XVI 1V:3V:5V:AEV.

VIII 1V:2V:3V:4V XVIII 1V:2V:4V:5V:6V

IX 1V:3V:4V:AEV Total MA:  $7-0+0-9+0-9+0-6$ X 2V:4V:5V:6V  $+0-4+0-4+0-7+0-10 = 11\frac{3}{4}$ XII 2V:3V:4V:6V:8V IQ =  $\frac{134}{174} = .76.$ 

No. 238.

Hugh LAW.

Pu No. 38.

MA: VI 1V:4V:6V:AV Total MA -

VII 1V:5V:6V:AEV  $6-0+0-9+0-3 = 7\frac{1}{2}$ VIII 1V:2V:3V:4V IQ =  $\frac{7}{15}$ IX 1V:3V:4V:AEV  $= .47.$ 

No. 239.

Willie O'NEILL.

Pu No. 62.

MA VIII 1V:2V:3V:4V XVI 3V:5V:AEV:6V XVIII 2V:3V:4V:5V.

IX 1V:3V:4V:AEV. Total MA: .

X 2V:4V:5V:6V  $8-0+0-9+0-9+1-6+1-6+1-3$ XII 2V:3V:4V:6V  $+0-9 = 14\frac{1}{2}$  or 6 hrs.XIV 3V:4V:6V:AV IQ =  $\frac{174}{176} = .99.$ 

No. 240.

Willie GRANDISON.

Pu No. 88.

MA III 1V:2V:4V:5V. Total MA:  $3\frac{1}{2}$ IV 1V:3V:4V:5V IQ =  $\frac{36}{140} = .26.$

No. 241.

Aud. BEATTIE.

See No 142.

MA: VI	IV: 2V: 4V: AAV.	Total MA: -
VII	10: 5V: 6V: AAV.	$6 - 0 + 0 - 9 + 0 - 6 = 7 \frac{3}{12}$
VIII	10: 20: 3V: 40.	$IQ = \frac{87}{169}$
IX.	10: 30: 40: AAO.	= .51.

No. 242.

Jeanie MURRAY.

See No. 97.

MA: V	2V: 3V: 4V: AAV.	Total MA -
VI	10: 2V: 4V: AAV	$5 - 0 + 0 - 9 + 0 - 3 = 6 \frac{4}{12}$
VII	10: 3V: 50: AAO	$IQ = \frac{72}{97}$
VIII.	10: 20: 30: 40.	= .74.

No. 243.

Kelly HENDRY.

See No. 175

MA: VI	W: 2V: 4V: AAV	X. 20: 30: 40: 60
VII	10: 50: 6V: AAV.	Total MA: $6 - 0 + 0 - 9 + 0 - 6$
VIII	10: 20: 3V: 4V.	$+ 0 - 3 = 7 \frac{9}{12} 6 \frac{1}{12}$
IX	10: 30: 40: 50: AAV	$IQ = \frac{90}{136} = .66.$

No. 244

Jasmi HENDRY.

See No. 21.

MA: 10	10: 3V: 4V: 5V.	VIII. 10: 20: 30: 40.
V	2V: 30: 40: AAO.	Total MA: -
VI	10: 20: 40: AAV.	$4 - 0 + 0 - 9 + 0 - 6 + 0 - 6 = 5 \frac{9}{12}$
VII	10: 50: 60: AAV.	$IQ = \frac{69}{147} = .49.$

No. 245.

Jacky JOHNSTON.

Rec No. 5.

MA: - VI IV: 20: 40: 60: 80: 100. Total MA.

vii IV: 30: 50: 70: 90.  $6-0+0-6 = 6 \frac{1}{2}$  hrs 6 minsviii. 10: 20: 30: 40. IQ =  $\frac{78}{180} = .44$ .

No. 246

Mary AULD.

Rec No 68.

MA III IV: 20: 40: 60: 80: 100. Total MA - 3  $\frac{1}{2}$  hrsIV. 10: 30: 40: 50. IQ  $\frac{36}{130} = .28$ 

No. 247.

Barbara ANDERSON

Rec No 35.

MA VII IV: 30: 60: 90: 100. Total MA: -

VIII 10: 20: 30: 40.  $7-0+0-6 = 7 \frac{1}{2}$  hrs 6 minsIX. 10: 30: 40: 50. IQ =  $\frac{90}{146} = .62$ 

No. 248

Margaret DENHOLM.

Rec No

MA: VII IV: 30: 60: 90: 100. Total M.A. = 7  $\frac{1}{2}$  hrsVIII. 10: 20: 30: 40. IQ  $\frac{84}{145} = .58$ .

No. 249.

James ORROCK

Rec No. 66.

MA: VII IV: 50: 60: 80: 100. XII 20: 40: 60: 80: 100. XIV. 10: 40: 50: 60.

VIII IV: 20: 30: 40. Total MA: -  $7-0+0-9+0-6+$ IX 10: 30: 40: 50: 60.  $0-3+0-4 = 8 \frac{1}{2}$  hrs 10 minsX 20: 40: 50: 60: 80: 100. IQ  $\frac{106}{141} = .75$

No. 250.

Helen DEANS.

Per No. 53.

MA: IV 10: 30: 40: 50.

IX 10: 30: 40: 40.

V 20: 30: 40: 40

Total MA:

VI 10: 20: 40: 40

 $4 - 0 + 0 - 9 + 0 - 9 + 1 - 0 +$ 

VII 10: 50: 60: 40

 $0 - 6 = 7 \text{ Yrs.}$ 

VIII 10: 20: 30: 40.

I.R. =  $\frac{14}{25} = .56$ .

No. 251.

Alice CAMPBELL.

Per No. 47.

MA: IV 10: 30: 50: 60.

IX 10: 30: 40: 40.

V 20: 30: 40: 40

Total MA: -

VI 10: 20: 40: 40

 $4 - 0 + 0 - 9 + 0 - 9 + 1 - 0 + 0 - 6$ 

VII 10: 30: 50: 40.

 $= 17 \text{ Yrs.}$ 

VIII 20: 30: 40: 50.

I.R. =  $\frac{84}{114} = .72$ .

No. 252.

Betty RICHMOND.

Per No. 108.

MA: IV 10: 30: 40: 50.

VIII 10: 20: 30: 40.

V 20: 30: 40: 40.

Total MA: -

VI 10: 20: 40: 40.

 $4 - 0 + 0 - 6 + 0 - 9 + 0 - 3 = 5 \frac{1}{2} \text{ to } 6 \text{ Yrs.}$ 

VII 10: 30: 60: 40.

I.R. =  $\frac{66}{98} = .67$ .



No. 253

Annie TODD

Rec No. 74.

MA IV 1V: 3V: 4V: 5V.

VIII 10: 20: 30: 40

V 2V: 3V: 4V: A.O.

Total MA:-

VI 1V: 2V: 4V: A.V.

 $4-0+0-9+1-0+0-6 = 6\frac{1}{2}$  3 hrs

VII 1V: 3V: 5V: A.O.

I.Q. =  $\frac{75}{133} = .56$ .

No. 254.

Agnes PRESTON

Rec No. 20

MA: III 1V: 2V: 4V: 5V.

VIII. 10: 20: 30: 40.

IV 1V: 3V: 5V: 6V

Total MA:-

V 2V: 3V: 4V: A.O.

 $3-0+0-6+0-3+0-9+0-3$ 

VI 1V: 2V: 4V: A.V.

 $= 4\frac{1}{2}$  9 hrs

VII 1V: 3V: 5V: A.O.

I.Q. =  $\frac{57}{180} = .32$ .

No. 255.

Betty QUINN.

Rec No. 67.

M.A. IV 1V: 3V: 5V: 6V.

Total MA:-

V 2V: 3V: 6V: A.O.

 $4-0+0-6+0-3+0-9$ 

VI 1V: 2V: 4V: A.O.

 $= 5\frac{1}{2}$  6 hrs

VII 1V: 3V: 5V: A.V.

I.Q.  $\frac{66}{111}$ 

VIII. 10: 20: 30: 40.

 $= .59$ .

No. 256

Margt WATSON

Qu No. 39

M.A.: 7. IV: 31: 51: AeV. XVI. 10: 30: 40: 60.

VIII IV: 21: 31: 40. Total MA: -

IX IV: 31: 41: AeV. 7-0 + 0-9 + 1-0 + 0-6

X 21: 41: 50: 60. 4-0 - 4 + 0 - 6

XII 20: 30: 40: 61: 80. = 10  $\frac{1}{2}$  hrs 1 mo.XIV. 30: 40: 60: AeV. I.Q. =  $\frac{121}{166} = .73$ .

No. 257.

Margt MEENHAM.

Sec: No. 102

MA: III IV: 21: 41: 51. Total MA: -

IV 10: 30: 40: 50. 3-0 + 0-3 + 0-3 + 0-3

V 20: 30: 40: Ae0 = 3  $\frac{1}{2}$  hrs 9 hrsVI IV: 20: 40: Ae0 I.Q. =  $\frac{45}{180}$ 

VII 10: 50: 60: Ae0 = .25

No. 258.

Helen SHEARER.

Sec No. 69.

MA. III IV: 21: 41: 51. Total MA: -

IV 10: 30: 40: 51. 3-0 + 0-3 + 0-3 + 0-3.

V 10: 30: 41: Ae0 = 3  $\frac{1}{2}$  hrs 9 hrs.VI IV: 20: 40: Ae0 I.Q. =  $\frac{45}{157} = .29$ .

VII 10: 50: 60: Ae0

*Re-examinations*

*1923*

*Two Years After Original Test.*

No. 259

Jan STEWART.

Rec No. 10.

M.A. III IV: 2V: 4V: 5V.

Total MA: - 3 1/2.

IV. 10: 30: 50: 60.

$$I.Q. = \frac{3}{15} = .20.$$

No. 260.

Geogr ANDERSON

Rec No. 15.

M.A. III IV: 2V: 4V: 5V.

Total MA: 2-0+0-6 = 2 1/2 6 hrs

IV. 10: 30: 50: 60.

$$I.Q. = \frac{30}{145} = .21.$$

No. 261.

And M<sup>c</sup>CULLOCH.

Rec No. 13.

M.A. III 10: 2V: 5V: 4V.

Total MA: - 2-0+0-9 = 2 1/2 9 hrs

IV. 10: 30: 4V: 5V

$$I.Q. = \frac{33}{180} = .19.$$

No. 262.

Willie GRANDISON.

Rec No. 88.

M.A. III IV: 2V: 4V: 5V.

Total MA: 3 1/2

IV. 10: 30: 4V: 5V.

$$I.Q. = \frac{36}{149} = .24.$$

No. 263.

Alex GRAHAM.

Rec No. 54.

M.A. IV IV: 3V: 4V: 5V.

Total MA: -

V 2V: 3V: 4V: 40.

4-0+0-9+0-6+0-6

VI 10: 2V: 4V: 60

+0-6

VII IV: 30: 5V: 40.

= 6 1/2 3 hrs.

VIII 10: 20: 3V: 4V.

$$I.Q. = \frac{75}{158}$$

IX. 10: 30: 4V: 40

= .48.

No. 264.

Muri O'NEILL

Pec No. 62.

M.A. X 2V:4V:6V:6V.

Total MA: -

XII 2V:3V:4V:6V:8V.

 $10 - 0 + 0 - 10 + 1 - 0 + 0 - 7 +$ 

XIV 3V:4V:6V:8V

 $0 - 9 = 13 \frac{1}{2}$  hrs 2 hrs.

XVI. 3V:5V:6V:8V

I.Q. =  $\frac{13.2}{15} =$ 

XVIII 2V:3V:4V:5V

.88.

No 265.

Hugh LAW.

Pec No. 38.

M.A. V 2V:3V:4V:6V.

IX. 1V:3V:4V:8V.

VI 1V:2V:4V:6V.

Total MA: -  $5 - 0 + 0 - 9 + 0 - 9 +$ 

VII 1V:3V:5V:8V

 $0 - 6 = 7 \frac{1}{2}$ 

VIII 1V:2V:3V:4V

I.Q. =  $\frac{7}{15} = .47.$ 

No. 266.

Watson SMALL.

Sec No. 12.

MA III 1V:2V:4V:5V.

VIII 1V:2V:3V:4V.

IV 1V:3V:4V:5V

Total MA: -

V 2V:3V:4V:8V.

 $3 - 0 + 0 - 9 + 0 - 3 + 0 + 0 - 3$ 

VI 1V:2V:4V:6V.

 $= 4 \frac{1}{2}$  hrs 3 hrs

VII 1V:3V:5V:8V.

I.Q.  $\frac{51}{177} = .29$ 

No. 267.

Alex ROBERTSON.

Sec No. 48.

MA III 1V:2V:4V:5V.

V. 2V:3V:4V:6V

VI 1V:2V:4V:6V:8V

IV. 1V:3V:4V:5V.

I.Q.

 $\frac{62}{90} =$ 

.70.

No. 268.

Margt. WATSON.

Dec No. 34.

MA: VII 1V: 3V: 5V: ALV. XIV 30: 4V: 60: ALV XVI 30: 5V: 60: ALV.

VIII 1V: 2V: 3V: 40. XVIII. 20: 30: 40: 60.

IX 1V: 3V: 4V: ALV. Total MA: 7-0+0-9+1-0+0-9

X 2V: 4V: 60: ALV +0-10+1-0+1-3 = 12 Yrs 7 mo.

XII 20: 3V: 40: 6V: 80 IQ =  $\frac{151}{176} = .86.$ 

No. 269.

Agnes PRESTON.

Dec No. 20.

MA: IV 1V: 3V: 4V: 5V. Total MA = 4 Yrs.

VI 20: 30: 40: AL0. IQ =  $\frac{4}{15} = .27.$ 

No. 270.

Raymond UPTON.

Dec No. 166.

MA: VII 1V: 3V: 5V: 6V. XIV 30: 40: 60: AL0.

VIII 1V: 2V: 30: 4V. Total MA:

IX 1V: 3V: 4V: AL0. 7-0+0-9+0-9+0-6+0-5

X 2V: 40: 6V: AL0. = 9 Yrs 5 mo.

XII 20: 3V: 40: 60: 80. IQ =  $\frac{113}{146} = .80.$ 

No. 271.

Harold MONTGOMERY.

Dec No. 152.

MA: VII 1V: 3V: 5V: 6V. Total MA: - 7 Yrs.

VIII. 10: 20: 30: 40. IQ =  $\frac{84}{154} = .55.$

No. 272.

Maugt MEENHAM.

Deu No. 102.

MA: III	IV: 2V: 4V: 6V.	VII.	10: 30: 50: 1A0.
IV	10: 4V: 6V: 60.	Total MA: -	
V	20: 30: 4V: 1A0	$3-0 + 0-6 + 0-3 + 0-3 = 4 \frac{1}{2}$ .	
VI	IV: 20: 40: 60.	I.Q. = $\frac{4}{15} = .27$ .	

No. 273.

Janie HENDRY.

Deu No. 21.

MA IV	IV: 3V: 5V: 6V.	VIII.	10: 20: 30: 40.
V	2V: 3V: 4V: 1A0.	Total MA: -	$4-0 + 0-9 + 1-0 +$
VI	IV: 2V: 4V: 1AV	$0-9 = 6 \frac{1}{2}$ 6 hrs.	
VII	IV: 3V: 50: 1AV	I.Q. = $\frac{78}{155} = .50$ .	

No. 274.

Win. MENEILL.

Deu No. 81.

MA: VI	IV: 2V: 4V: 1AV.	X.	2V: 30: 50: 60.
VII	IV: 5V: 60: 1AV	Total MA: -	$6-0 + 0-9 + 0-9 +$
VIII	10: 2V: 3V: 4V	$0-6 = 8 \frac{1}{2}$ hrs.	
IX	10: 3V: 40: 1AV	I.Q. = $\frac{8}{15} = .53$ .	

No. 275.

James GORMAN.

Deu No. 162

MA: IV	IV: 3V: 5V: 6V.	VIII	10: 2V: 3V: 4V.	IX	10: 30: 40: 1A0.
V	2V: 3V: 4V: 1A0.	Total MA: -	$4-0 + 0-9 + 0-9 +$		
VI	10: 2V: 4V: 1AV	$1-0 + 0-9 = 7 \frac{1}{2}$ 3 hrs.			
VII	IV: 3V: 5V: 1AV.	I.Q. = $\frac{87}{135} = .65$ .			

No. 276.

James QUINN.

Dec No. 193.

M.A. VIII 10: 20: 30: 40.

XVI 30: 50: 60: 40. XVIII. 10: 30: 50: 60.

IX 10: 30: 40: 40.

Total MA: - 8-0+0-9+0-9+

X 20: 40: 50: 60.

1-7+1-0+0-6. = 13 Yrs.

XII 20: 30: 40: 60: 80.

I.Q. =  $\frac{156}{176}$ 

XIV 30: 40: 60: 40.

= .92.

No. 277.

Francis MURRAY.

Dec No. 97.

MA V 20: 30: 40: 50.

Total MA: -

VI 10: 20: 40: 60.

5-0+0-9+0-3 = 6 Yrs.

VII 10: 30: 50: 40.

I.Q. =  $\frac{72}{106}$ 

VIII. 10: 20: 30: 40.

= .68.

No. 278.

Norman McLOED.

Dec No. 126.

MA. VI 10: 20: 40: 40.

X. 20: 40: 50: 60.

VII 10: 50: 60: 40.

Total MA: - 6-0+0-9+0-6

VIII 10: 20: 30: 40.

+0-9 = 8 Yrs.

IX 10: 30: 40: 40.

I.Q. =  $\frac{8}{15}$  = .53.

No. 279.

Joseph CAMPBELL.

Dec No. 109

MA III 10: 20: 30: 40.

VI 10: 20: 40: 40. VII. 10: 30: 50: 40.

IV 10: 30: 40: 50.

Total MA: 3-0+0-6+0-3+0-3 = 4 Yrs.

V 20: 30: 40: 40.

I.Q. =  $\frac{50}{180}$  = .26.



No. 280

ROBT (DICKSON) CONNACHIE.

Dec No. 43.

MA III IV: 20: 30: 50.

Total MA:

IV 10: 30: 50: 40.

$$3 - 0 + 0 - 3 + 0 - 6 = 3 \frac{1}{2} \text{ hrs.}$$

V 20: 30: 40: 40.

$$I, Q. \frac{45}{133}$$

VI 10: 20: 40: 60

$$= .34.$$

No. 281.

James MARSHALL.

Dec No. 115.

MA IV 10: 20: 40: 50.

VIII 10: 20: 30: 40.

IX 10: 30: 40: 40.

V 20: 30: 40: 40.

$$\text{Total MA: } 4 - 0 + 0 - 6 + 0 - 6 + 0 - 6$$

VI 10: 20: 40: 60

$$+ 0 - 3 = 5 \frac{1}{2} \text{ hrs.}$$

VII 10: 30: 50: 40.

$$I, Q. = \frac{69}{127} = .54.$$

No. 282.

RONALD McDONALD.

Dec No. 95.

MA: III IV: 20: 40: 50.

VII 10: 30: 50: 40.

IV 10: 40: 50: 40.

$$\text{Total MA: } - 3 - 0 + 0 - 9 +$$

V 20: 30: 40: 40.

$$0 - 6 + 0 - 9 = 5 \frac{1}{2} \text{ hrs.}$$

VI 10: 20: 40: 60

$$I, Q. = \frac{60}{138} = .43$$

No. 283

Wm. MORRISON.

Dec No. 94

M.A. III IV: 20: 30: 50.

$$\text{Total MA} = 3 \frac{1}{2}$$

IV 10: 30: 50: 60.

$$I, Q. = \frac{3}{15}$$

$$= .20.$$

No. 285

John GRAY.

Dec No. 96.

M.A. IV IV: 2V: 4V: 5V. IX IV: 30: 40: A.O.

V 2V: 3V: 4V: A.O. X. 10: 20: 50: 60.

VI IV: 20: 4V: 60. Total M.A.:- 4-0+0-9+0-6+0-6

VII IV: 30: 50: 6V. + 0-3+0-3 = 6 Yr 3 hrs.

VIII 10: 2V: 30: 40. I.Q. =  $\frac{75}{143} = .52.$ 

No. 286.

Willie STARK.

Dec No. 32.

M.A. VI IV: 2V: 5V: 6V. Total M.A.:-

VII IV: 3V: 50: A.O. 6-0+0-6 = 6 Yr 6 hrs.

VIII 10: 20: 30: 40. I.Q. =  $\frac{78}{170} = .46.$ 

No. 287.

Hector WHITE.

Dec No. 58.

M.A. VI IV: 2V: 4V: 60. Total M.A.:-

V 2V: 3V: 4V: A.O. 5-0+0-9+0-3 = 6 Yr.

VII 10: 30: 5V: A.O. I.Q. =  $\frac{72}{166}$ 

VIII 10: 20: 30: 40 = .44.

No. 288.

Adam CAMPBELL.

Dec No. 30.

M.A. III W: 2V: 3V: 5V. Total M.A.:-

IV 10: 30: 5V: 60. 3-0+0-3+0-3 = 3 Yr 6 hrs.

V 20: 30: 4V: A.O. I.Q. =  $\frac{7}{50}$ 

VI 10: 20: 50: 60. 11 + 1 + 1 + 1 + 1 + 1 = .23.

No. 289

James ORROCK.

Qu. No. 66

MA VII 20:30:50:60

XIV 20:30:40:AL0.

VIII 10:20:30:40.

XVI 10:30:40:50.

IX 10:30:40:ALV.

Total MA: - 7-0 + 0-9 + 0-9 +

X 20:40:50:ALV.

0-6 + 0-9 + 0-2 = 10 4/10 hrs.

XII 20:30:40:60:80.

I.Q. =  $\frac{121}{151} = .81$ .

No. 290.

Geo. HELLIS.

Qu No. 3.

MA: VI 10:30:50:60.

X 20:40:50:ALV.

XII 20:30:40:60:80.

VII 10:30:50:ALV.

Total MA: 6-0 + 0-9 + 1-0 +

VIII 10:20:30:40.

0-0 + 0-9 = 9 4/10.

IX 10:30:40:ALV.

I.Q. =  $\frac{108}{139} = .80$ .

No. 291.

Betty RICHMOND.

Qu No. 108.

MA. V 10:30:50:ALV.

IX 10:20:40:AL0.

VI 10:20:50:60

Total MA: - 5-0 + 0-6 + 0-6

:

VII 20:40:50:60

+ 0-3 = 6 4/10 3/10.

VIII 10:20:30:40

I.Q. =  $\frac{75}{107} = .70$ .

No. 292.

Geo. Giffen.

Qu No. 73.

M.A. V 20:30:40:50

VIII 10:20:30:40.

IX 10:30:40:ALV. X 20:50:60:ALV.

VI 10:20:40:60

XII 20:40:60:50:80

Total M.A. = 8 4/10 6 hrs.

VII 10:30:50:ALV

I.Q. =  $\frac{102}{171} = .60$ .

No. 293.

JACK JOHNSTONE.

Dec No. 5.

M.A. VI IV: 2V: 4V: 6V. Total MA: -

VII IV: 3V: 5V: 6V.  $6 - 0 + 0 - 6 + 0 - 3$ 

VIII IV: 2V: 3V: 4V. = 6 hrs 9 hrs.

IX: 1V: 2V: 4V: 6V. I.Q. =  $\frac{81}{180} = .45$ .

No. 294.

ALEX LAVERTY.

Dec No 63.

M.A. VIII IV: 2V: 3V: 4V XVI 3V: 5V: 6V: 6V.

IX IV: 3V: 4V: 6V. XVIII. 1V: 3V: 4V: 6V.

X 2V: 4V: 5V: 6V. Total MA -  $8 - 0 + 0 - 9 + 0 - 6 +$ XII 2V: 3V: 4V: 6V: 8V.  $0 - 10 + 0 - 4 + 0 - 7 + 0 - 10 = 11\frac{11}{12}$  hrs.XIV 3V: 4V: 6V: 8V. I.Q. =  $\frac{141}{180} = .77$ .

No. 295.

MARG AULD.

Dec No. 68

M.A: III IV: 2V: 5V: 6V. Total MA = 3 hrs.

IV 1V: 3V: 4V: 6V. I.Q. =  $\frac{36}{141} = .25$ .

No. 296.

BARBARA ANDERSON

Dec No. 35

M.A. VII IV: 3V: 5V: 6V. XIV. 1V: 2V: 4V: 6V.

VIII IV: 2V: 3V: 4V Total MA: -  $7 - 0 + 0 - 9 + 0 - 6$ IX. 1V: 3V: 4V: 6V.  $+ 0 - 3 + 0 - 5 = 8\frac{4}{11}$  hrs.X 2V: 4V: 5V: 6V. I.Q. =  $\frac{107}{156}$ 

XII 2V: 3V: 4V: 6V: 8V. = .69.

No. 297.

Willie DEANS.

Dec No. 53.

M.A. VIII IV: 2V: 3V: 4V. XIV. 10: 40: 50: 60.

IX 10: 3V: 4V: 40. Total M.A.: - 8 - 0 + 0 - 6 +

X 20: 40: 50: 40. 0 - 3 + 0 - 10 = 9  $\frac{1}{2}$  hrs.XII 20: 30: 40: 60: 80. I.Q. =  $\frac{115}{159} = .72$ .

No. 298.

Annie TODD.

Dec No. 74.

M.A. VI IV: 3V: 5V: 6V. Total M.A.: -

VII IV: 3V: 50: 40. 6 - 0 + 0 - 6 = 6  $\frac{1}{2}$  hrs.XIII. 10: 20: 30: 40. I.Q. =  $\frac{78}{143} = .55$ 

No. 299.

Helen SHEARER

Dec No. 69.

M.A. III IV: 3V: 4V: 6V. Total M.A.: -

IV 10: 30: 5V: 60. 3 - 0 + 0 - 3 + 0 - 3 = 3  $\frac{1}{2}$  hrsV 20: 30: 4V: 40. I.Q. =  $\frac{42}{166}$ 

VI 10: 20: 40: 60. = .25.

No. 300.

Margaret DENHOLM.

Dec No. 6.

M.A. VII IV: 3V: 5V: 4V. Total M.A.: -

VIII 10: 20: 3V: 40. 7 - 0 + 0 - 3 = 7  $\frac{1}{2}$  hrs.IX. 10: 30: 40: 40. I.Q. =  $\frac{87}{155} = .56$ .

The Value of Intelligence Tests as  
 means of Diagnosing Mental Defect  
 in Children.

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"Binet's critics have been so concerned about what he has not done that they have neglected to give him credit for what he has done."

1  
- Ballard.

The measurement of intelligence has long been a cherished aim of Scientific Investigators. We have it reflected in the work of Gall; we can trace it through the researches of the physiognomist Lavater; while with Lombroso we reach the recognition of stigmata. Galton believed that there was a relationship between intelligence and certain bodily traits: the advent of Ebbinghaus marked the beginning of the scientific study of memory. The measurements, originally physical, ultimately became largely psychical. These pioneers paved the way for Binet, whose notion in formulating his Bareme d'Instruction was the quest of the

1. "Mental Tests by P.B. Ballard D.Litt., Hodder and Stoughton, 1920.

subnormal child. He regarded intelligence as being three-fold, - comprising purposefulness, capacity for adaption, and power of self-criticism, -and his scale, based on this conception, was designed to take stock of these qualities.

Is it possible to diagnose mental deficiency (in children) on the results of intelligence testing? To answer this question positively, the Psychologist would require to lay down a definite figure as indicating the lowest level of intelligence compatible with normality. This, it must be confessed, is extremely difficult, for, even though we confine our attention temporarily to the most simple case of straightforward primary Amentia, we find that there is no definite dividing line between the higher degrees of this condition and the dulness which we must regard as being consistent with the lower degrees of normality. What allowance must be made for "standard deviation."?

"The brightest children in special schools are distinctly brighter than the dullest children in ordinary schools," says Burt, <sup>1</sup> The division <sup>is</sup> arbitrary and is largely

1. "Definition & Diagnosis of Mental Deficiency."

influenced by circumstances: important, also, is the personal equation of the Examiner. In further proof of this overlapping of classification is the fact that whereas American census returns place the %age of defectives in the community at 0.2, Binet estimated it to be about 5.0 and later American observe<sup>r</sup>s have returned a figure nearly as high.

The issue is still further obscured by the circumstance# that not all cases are of this simple primary variety, which is p<sup>o</sup>robably the most legitimate field for the application of intelligence tests. As has been pointed out, the ultimate test of feeble-mindedness is a question of the subject's ability to get on - "to maintain a separate existence." We may have to contend with the question of temperamental deficiency; we are face to face with "the Psychopathic child."

Let us deal first with that group of cases where the issue is one of simple primary mental defect. Such defect is frequently perfectly obvious and capable of diagnosis without any very prolonged examination. Idiots and imbeciles can often be recognised at a glance, and such cases invariably show pronounced weakness in their



responses to intelligence tests. There can be no question as to the deficiency of a boy whose age is ten, and whose mental level is that of a four-year-old. The difficulty with this group concerns rather the upper end of the scale: it is bound up with the diagnosis of "feeble-mindedness," early recognition of which is so important. The lower limit of normality, as expressed by the intelligence quotient (relation of mental age to chronological age) has been variously placed, but Authorities are generally agreed that it is about .70.

<sup>1</sup> Terman and <sup>2</sup> Kuhlmann, in America, for instance, and <sup>3</sup> Cyril Burt, in this country accept such a standard. Binet himself suggested .75. This principle of regarding defect as depending on the intelligence quotient has obvious advantages over the older method of working in terms of "years of retardation." A mental retardation of three years in a fifteen-year-old subject does not necessarily imply feeble-mindedness, but a similar retardation occurring in a child of six would be diagnostic of mental defect: such a child would, in all

1. Terman "The Measurement of Intelligence" (Harrap)
2. Kuhlman, Journ. Psycho-Asthenics Monographs Sept. 1912.
3. Cyril Burt "Mental & Scholastic Tests" 1922.

probability, be a pronounced imbecile. The intelligence quotient in the first instance works out at .80: in the second, it is .50.

Before proceeding further to discuss the role of the intelligence quotient in the diagnosis of Amentia, it may be advisable to emphasise once more the essential difference between the statutory definition of the feeble minded child, and that of the adult defective. To be labelled "feeble-minded" a child need only be incapable of deriving benefit from an ordinary public school education, whereas in later life the standard is economic. A boy of sixteen, with an intelligence quotient of 60, representing a mental age of 10, would at school, have every chance of being classified as "mentally defective"; but provided his case was not complicated by the "temperamental deficiency" to be discussed shortly, such a boy, when he began to work would probably be able to earn his livelihood at an unskilled, or even a semi-skilled trade - so that he could scarcely then be regarded as "mentally defective" in the legal or practical sense. American Army tests showed that 45% of recruits had an intelligence quotient below .75: it is obviously untrue that 45% of the

population is "defective"! How many labourers in this country could answer all the questions constituting the tests for a mental age of twelve? It would seem that, our standard of normality works out at a figure relatively higher for children than for adults.

That many children really mentally defective, are not recognised as such is a fact beyond all controversy. As long as there remains in the public mind the idea that feeble-mindedness is some reflection on the status of a family, the detection of such cases is likely to be a matter of considerable difficulty. To be "feeble-minded" is degrading; to be "dull" is merely fashionable. But the converse is also, though much more rarely, true. Children are occasionally said to be "mentally defective" when in reality they are well within the limits of normality. That such is the case, is, perhaps, one of the unfortunate consequences of over-zealous application of the "new Psychology" - possibly, also a reflection on the teaching methods of the "New Psychologists". The case of Agnes Walker (No. 112) is an instance of this. Patient had been labelled "mentally defective" by the School Authorities, and was taken by her

mother to a Children's Hospital. The family history was bad - three members of the family suffer from Pulmonary Tuberculosis, while an uncle has "mental trouble!" Patient herself has been a physical weakling since birth. She has had diphtheria, measles, chicken-pox, Herpes zoster, Scarlet Fever, Mumps, Influenza, and Pneumonia. She complains of pains in her left side, she always feels tired. She has not done well at school; her age is now  $9\frac{9}{12}$  years, and she is not yet clear of the Infant department. And on this evidence the child was diagnosed as mentally defective! Her mental age worked out at  $7\frac{1}{2}$  years, giving an Intelligence Quotient of over .76.

Such a case is instructive. There is a mental retardation of  $2\frac{1}{4}$  years, - which may be used to indicate one point that has to be borne in mind in evaluating the results of intelligence tests. These tests are designed to measure intelligence, rather than scholastic attainments - capacity for education rather than education itself: but surely such a history of illness as is cited above is consistent with a degree of retardation, quite apart from any definite mental impairment. The fact that the child has been off

school for, say, nine months is not nearly so important as the fact that the child has been ill for nine months.

But this is not the only lesson to be learned from the case. Surely ~~the case~~<sup>it</sup> is an eloquent reminder of the consequences which are certain to follow the tendency to divorcement of these problems from the realms of medicine. This is a subject with which we shall have to deal in more detail later, but there seems little doubt that the root of the trouble in the case under consideration was physical disability: we can imagine that possibly the child's plight was not much improved by her treatment at school.

Rather striking is the relationship between clinical experience and intelligence quotient existing ~~in~~ in the case of Ella Anderson (No. 19). This child was admitted to Larbert Institution as a case of thyroid deficiency (cretinism). Under energetic treatment with the dried extract, however, physical and mental conditions alike improved. At the time of examination she was regarded by Dr. Clarkson as being mentally normal: her intelligence quotient worked out at 1.12.

Another point strikingly exemplified during this investigation was the clear cut difference that exists among these children when regarded from the point of view of temperament. Some children while exhibiting a pronounced degree of feeble-mindedness are yet capable of regulating their conduct and disposition to conform with the behaviour of their more fortunate brothers. They are quite unable to derive benefit from an ordinary Public school Education: yet they are easy to get on with, display no serious moral traits, and are altogether lovable. Mongolians are popularly supposed to belong to this class - from our present view point we should regard such cases as instances of Amentia, uncomplicated by temperamental deficiency. Again, we meet children whose intelligence is little, if at all, subnormal, but who exhibit such outrageous traits as to require supervision in an Institution for the care of Mental defectives. Considering for the moment only cases examined at Larbert Institution i.e., dealing only with children already certified as mentally defective. we find that of cases examined 10%, had an Intelligence Quotient above .70, while of these 90% were cases of temperamental

deficiency.

This question of "character" or temperamental stability cannot fail to influence profoundly the clinical estimate of our patient's mentality, just as we might expect it to be one not readily probed by the ordinary intelligence tests. Are we correct in considering these cases as Amments? This is a problem which has been recently invested with a very real degree of importance on account of the recognition of the peculiar mental syndrome associated with Encephalitis Lethargica. Some Authorities,<sup>1</sup> notably in England go so far as to asert that "Such children cannot be classified as mental defectives in the ordinary sense of the term, and cannot be dealt with under the Mental Deficiency Act," These cases will be analysed in greater detail later (p. 166. ), but for the moment we prefer to regard them as instances of abnormality rather than subnormality. Intelligence Tests, so far as they can be applied to the problem, would certainly seem to support the view, for an Intelligence Quotient of 86 (vide Case No. 46. ) is quite inconsistent with a condition of simple uncomplicated Ammentia.

1 E.g. Auden "The School Service in Relation to Mental Defect", Journal of Mental Sciences, Oct. 1921.

What are the clinical features of the typical case of temperamental deficiency - "the Psychopathic Child" of American investigators? Such a child tends to be solitary, and does not generally get along well with children of the same mental level. He is apt to prefer adults to children of his own age, and frequently has strong likes and dislikes, especially as regards food. He is apt to be of violent temper, and moody. He tends to be unusually destructive - especially if he be of fairly low grade. At School he may get along fairly well till he reaches an age about eleven. The Intelligence Quotient, in these cases, tends to be high, but among mentally defective children there must be many who have these psychopathic traits grafted on to a very real degree of subnormality; possibly these cases of temperamental deficiency associated with encephalitis lethargica, in which the quotient is below .70, belong to this category. It is possible that these children were subnormal prior to the onset of the toxic process.

This question of psychopathy, then, may be advanced as a very real drawback to the widespread routine application of intelligence tests by inexperienced



examiners to the diagnosis of mental deficiency.

THE MENTAL WORTH OF A PSYCHOPATHIC CHILD CANNOT BE STATED DIRECTLY IN TERMS OF THE INTELLIGENCE QUOTIENT.

Yet between these two phases of mental deficiency, - the subnormal and the abnormal - there would seem to exist a certain similarity - a degree of parallelism. Etiologically, for instance, they are comparable. In each the condition may be primary. On the one hand we have the child who was always "backward" and on the other, the child who was always "queer". Or, again, the condition may appear later, and we may have either the progressive deterioration from a higher level as in Amentia, or the more irregular temperamental manifestations associated, with, say, an attack of encephalitis lethargica.

It may perhaps have been due to such considerations as these that some workers have recommended the use of Intelligence tests even in these cases of temperamental deficiency hoping thus to get some indirect idea of the child's complete mental picture, very much as the Analyst measures the total impurity of the atmosphere in terms of the carbonic acid it contains. Unfortunately the present investigation does not lend

support to that belief, and while we may agree tentatively with the opinion of Mr. Burt<sup>1</sup> that in temperament, as in general intelligence, there may be conceived a minimal baseline consistent with efficiency, we have no definite unit or scale with which to measure, and consequently, no very accurate idea of where this dividing line ought to be.

But with all their obvious defects, intelligence tests may yet have some usefulness in the diagnosis of psychopathy, and that along lines still imperfectly explored. Classes of defectives differ in their responses to tests and groups of tests. Simple primary aments, for instance<sup>2</sup>, may - and do - meet with only very indifferent success when they are confronted with the tests based on comprehension and reasoning power, whereas temperamentally defective children are - relatively - very successful with these problems. This question of reaction to particular tests is one which will call for consideration later.<sup>2</sup> Meantime it may be stated that psychopathic children are particularly good in tests involving comprehension and

1. See "Studies in Mental Inefficiency" pub. by C.A.M.D. Vol. I No. 4, Oct., 1920.

2. p. 153.

powers of reasoning, and fail badly in tests involving memory, and in such tests as the enumeration of sixty words in three minutes. These findings coincide with the results obtained by Goddard,<sup>1</sup> who has recently directed attention to this question in America. He also states that these children are poor at tests involving the copying of designs, but our results do not support this latter contention. (See Table "Year VII," 6, p. 157.)

One other interesting point concerning the relationship of intelligence tests to the diagnosis of psychopathy in children is the fact that the mental age is usually the result of successes scattered over a wide range of years, with a comparatively low 'basal year' (i.e., the year after which the child first fails to answer all the tests submitted. The results obtained would seem to indicate that if such a range amounts to or exceeds four years, the possibility of temperamental deficiency must be considered. The average range in simple cases of Amentia is about two years: in psychopaths it is generally twice as much.

This conception of the psychopathy of childhood is a matter of prime importance. Temperamental

1. Goddard "The Subnormal Mind versus the Abnormal" Journ. Abnormal Psychology, April, 1921.

deficiency exists alike in children whose General Intelligence is normal and in those who are subnormal<sup>2</sup>, and its early recognition is essential, for here we have a condition which, under skilled medical and Psychological treatment, might yield good results. We have outlined the uses of intelligence tests on these cases - largely corollaries on the classic work of Kent and Rosanoff<sup>3</sup> - and we have indicated the imperfections of the method. Ours is still the quest of old - "How can we measure character?"

It is impossible to conclude any study of the diagnosis of mental defect without emphasising the need for an expert medical examination of every case. Public Authorities, in these days of economy, grumble at the expense this involves, but if such an examination be made by a physician trained in this particular field of medicine, the money will indeed be well spent. It would ensure the early diagnosis of defect, subnormality and abnormality alike. This would mean the removal from school classes of these disturbing elements,

2. Goddard found 3% of feebleminded children psychopathic, and 13% of children whose intelligence was normal.
3. Kent and Rosanoff "Study of Association in Insanity" 1910.

while it would also prevent much crime in later days. On the other hand it would act as a powerful check on the unqualified zeal which appears to be such an *Some of* unfortunate attribute of our present day Investigators. Too much of this work has been allowed to slip from the grasp of the Physician to that of the Educationist, whose judgements are apt to be entirely pedagogical. The case of Margaret Wa~~son~~<sup>lker</sup> already referred to is an instance of this.

Even in apparently simple primary cases there are several factors which may influence the Intelligence Quotient. In the first instance, the fault may be simply with the school system of promotion. We have not yet reached the ideal of promotion by ability rather than by attainment and by attainment rather than by age, and this may provide the etiology of many of our borderline cases.

Then there is the question of health.

Defective vision and deafness are only gross instances of physical disability which may produce retardation, and a reduction of the intelligence quotient without the essential implication of feeble-mindedness. But the<sup>re</sup>~~re~~ are other conditions more

subtle than these abnormalities of the special senses, for the detection of which a thorough medical examination is essential. There are, for instance, such general diseases as syphilis<sup>1</sup> and tuberculosis. It is recognised that the ~~mind~~<sup>brain</sup> bears the brunt of these toxæmias just as do the other organs, and much may be done in the treatment of these cases by dealing medically with the condition present.

A fallacious result may be obtained by testing the intelligence of children when they are physically below par. A normal child, if tested while suffering from chora<sup>e</sup>, will probably have an intelligence quotient of only .70, - a reduction which is generally reflected in a perceptible dulness of the child.

It is impossible to diagnose psychopathy on the intelligence Quotient alone, - James Geddes (No. 211) for instance, had an intelligence quotient of 1.02 - it is similarly impossible to diagnose the higher degrees of subnormality. Imbecility and idiocy can be detected, but less marked cases of feeble-mindedness remain a problem. In these cases intelligence testing is but a first aid to the physician, and the ultimate

1. Dr. Transean, Chief of Medical Dept., Bureau of Juvenile Research, Ohio, found that, of all the defective children examined there, 16% had syphilis, - Report of the Bureau, 1920 p

diagnosis can only be made on a consideration of history, family and personal, social and moral re-actions, sexual habits, emotional stability, interests and associations, supplemented by an appropriate psychological investigation by formal tests, together with a complete physical examination - a study of the cephalic index and the detection of deformities, abnormalities, stigmata, (awkward gait &c.), plus the recognition of any constitutional disease. <sup>1</sup>

1. Terman, in his book "The Measurement of Intelligence"

(p.135) advocates that the following supplementary material should be gathered when possible -

(a) Social status (b) Teacher's estimate of child's intelligence.

(c) School opportunities (d) Quality of school work.

(e) Physical handicaps, if any.

The Intelligence Quotient as a Means of  
Grading Mental Defect.

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At present there is a tendency to regard mentally defective children from two main viewpoints, and their classification runs chiefly along two lines; they are graded according to standards which we may regard as being either clinical or legal. On the ~~other~~<sup>one</sup> hand we have the subdivision into Mongols, Cretins, Simple Primary Aments, and the like, while on the other, we talk of the feebleminded, of Imbeciles and of Idiots. The first of these classifications is frankly, and entirely, clinical: it does not attempt to differentiate the high grade defectives from the low - it does not distin~~guish~~<sup>guish</sup> between the Mongolian imbecile and the Mongolian idiot. The second or legal classification, ~~on the contrary~~(is, ), an effort ~~is~~<sup>to</sup> classify defectives according to the degree of their defect, and it is based on a recognition of the fact that in all clinical groups of Aments are to be found varying degrees of subnormality. But the division between these grades is ill-defined, and the exact location of a patient a matter considerably dependent on the interpretation of the examiner.



Particularly is this the case when, as frequently happens, an effort is made to identify three degrees of imbecility - High-grade; middle; and low grade.

Grading of any considerable number of children along these lines by several examiners would obviously

produce results corresponding only in a very general kind of way. Can intelligence testing render more

scientific our system of grading mentally defective

children? The following summary of results obtained

by testing at Larbert Institution may be of assistance in dealing with this question.

Columns I and II indicate Dr. Clarkson's Evaluation of the child, I being based on legal definition, while the figure in II represents the group in which the subject would be placed, if the children were to be divided into six grades according to their mental level (group 6 corresponding to the higher and group I to the lower ends of the scale). So far as possible, the patients entire mental equipment was taken into consideration in determining this figure.

For details of cases see p.p. 25-119.

F.M.	-	Feeble Minded.
H.G.I.	-	Higher Grade Imbecile.
I.	-	Middle Grade Imbecile.
L.G.I.	-	Lower Grade Imbecile.
Id.	-	Idiot.

No.	Case	Clinical Grade.			No.	Case	Clinical Grade.		
		I	II	I.Q.			I	II	I.Q.
1	J.McK	F.M.	6	.69	22	L.W.	I.	45	.52
2	J.K.	F.M.	6	.65	23	P.M.	H.G.I.	5	.40
3	G.N.	F.M.	3-4	.77	24	E.S.	Id.	1	.16
4.	M.W.	F.M.	6	.67	25	T.D.	Id.	1	.19
5.	J.J.	H.G.I.	5	.39	26	C.McL.	L.G.I.	2	.30
6.	M.D.	F.M.	5-6	.51	27	J.B.	L.G.I.	2	.30
7.	S.W.	I.	4	.50	28	P.F.	I.	4	.41
8	J.C.	L.G.I.	2	.27	29	J.O.	L.G.I.	2	.30
9	C.L.	I.	3	.37	30	A.C.	L.G.I.	2	.23
10	I.S.	L.G.I.	2	.22	31	T.J.	L.G.I.	3	.32
11	M.McD.	F.M.	5	.56	32	W.S.	H.G.I.	5	.59
12	W.S.	I.	3	.35	33	M.H.	L.G.I.	3	.31
13	A.McC.	L.G.I.	2	.21	34	A.O'H.	I.	4	.48
14	H.L.	L.G.I.	2	.29	35	B.A.	F.M.	6	.66
15	G.A.	L.G.I.	3	.32	36	C.M.	I.	3.	.39
16	J.I.	Id.	1	.18	37	M.W.	F.M.	6	.82
17	M.McI.	L.G.I.	2	.26	38	H.L.	I.	4	.50
18	R.F.	L.G.I.	2	.29	39	A.P.	F.M.	6	.65
19	E.A.	Normal	1-12		40	A.P.	L.G.I.	3	.31
20	E.S.	F.M.	6	.71	41	L.A.	I.	3	.38
21	J.H.	F.M.	5-6	.61	42	A.W.	L.G.I.	2	.30

No.	Case	Clinical Grade.		I.Q.	No.	Case	Clinical Grade.		I.Q.
		I	II				I	II	
43	B.C.	I	3	.39	64	T.P.	F.M.	5	.67
44	T.C.	L.G.I.	3	.33	65	J.O.	F.M.	6	.79
45	J.M.	F.M.	5	.63	66	P.L.	F.M.	6	.81
46	J.M.	F.M.	4	.86	67	B.Q.	H.G.I.	4-5	.55
47	A.C.	F.M.	6	.76	68	M.A.	L.G.I.	2	.29
48	A.R.	F.M.	6	.79	69	H.S.	L.G.I.	3	.31
49	W.H.	H.G.I.	5	.54	70	C.C.	F.M.	6	.68
50	E.S.	I.	3	.40	71	W.P.	F.M.	6	.64
51	J.H.	F.M.	6	.67	72	A.F.	H.G.I.	4-5	.53
52	E.B.	I.	4	.46	73	G.G.	I.	3	.67
53	W.D.	H.G.I.	5	.59	74	A.I.	F.M.	5-6	.64
54	A.G.	I.	4	.44	75	N.H.	F.M.	5-6	.75
55	W.C.	I.	4	.44	76	T.P.	L.G.I.	2-3	.30
56	J.C.	L.G.I.	3	.33	77	J.A.	F.M.	5-6	.59
57	D.D.	I.	4	.41	78	J.D.	I.	4	.45
58	H.W.	I.	4	.44	79	J.L.	I.	4	.35
59	R.M.	H.G.I.	5	.56	80	B.F.	I.	3-4	.36
60	T.McS.	L.G.I.	3	.31	81	W.McP.	H.G.I.	5	.59
61	R.D.	I.	3	.34	82	W.H.	H.G.I.	5	.60
62	W.O'N.	F.M.	6	.78	83	G.M.	H.G.I.	5	.53
63	A.L.	F.M.	6	.62	84	J.P.	I	3	.38

No.	Case	Clinical Grade			No.	Case	Clinical Grade		
		I	II	I.Q.			I	II	I.Q.
85	A.McG.	H.G.I.	5	.32	106	M.E.	H.G.I.	5	.53
86	G.T.	L.G.I.	2	.25	107	A.P.	L.G.I.	3	.32
87	A.J.	I.	3	.32	108	B.R.	F.M.	5	.66
88	W.G.	L.G.I.	2-3	.33	109	J.C.	L.G.I.	2	.28
89	R.H.	I.	3-4	.43	110	A.B.	H.G.I.	5	.54
90	A.McG.	I.	4	.42	111	J.W.	H.G.I.	4-5	.57
91	W.B.	I.	3	.25	112	A.W.	Low Normal		.76
92	A.F.	L.G.I.	3	.20	113	M.J.	I.	3-4	.29
93	D.R.	I.	3	.35	114	M.C.	H.G.I.	4	.59
94	W.M.	L.G.I.	3	.22	115	J.M.	F.M.	6	.67
95	D.McD.	I.	3	.40	116	R.D.	F.M.	5	.83
96	J.G.	I	4	.56	117	W.M.	I.	4	.46
97	J.M.	F.M.	6	.73	118	C.H.	I.	4	.47
98	M.S.	I	4	.45	119	A.B.	F.M.	5	.82
99	D.D.	L.G.I.	2-3	.28	120	R.W.	F.M.	6	.68
100	C.McF.	H.G.I.	4-5	.51	121	H.H.	F.M.	6	.70
101	J.S.	H.G.I.	4	.79	122	M.S.	F.M.	6	.67
102	M.M.	L.G.I.	3	.27	123	J.P.	L.G.I.	3	.30
103	W.H.	H.G.I.	5	.57	124	B.H.	F.M.	5	.66
104	A.S.	F.M.	6	.61	125	G.M.	I.	3	.54
105	W.McC.	H.G.I.	5	.54	126	N.McL.	I.	4	.40

No.	Case	Clinical Grade.			No.	Case	Clinical Grade.		
		I	II	I.Q.			I	II	I.Q.
127	D.C.	L.G.I.	3	.40	148	C.G.	I.	3	.42
128	J.P.	L.G.I.	2	.27	149	G.F.	H.G.I.	4	.57
129	T.W.	L.G.I.	2	.21	150	J.D.	I	4	.43
130	J.G.	Low Normal		.70	151	W.A.	L.G.I.	2	.26
131	W.R.	I.	3	.53	152	H.M.	H.G.I.	4	.54
132	F.B.	F.M.	5	.58	153	J.H.	L.G.I.	3	.30
133	J.R.	H.G.I.	4	.49	154	J.A.	L.G.I.	3	.28
134	G.R.	I.	3	.43	155	J.McP.	I.	3	.37
135	J.P.	I.	3	.45	156	J.G.	L.G.I.	2-3	.43
136	J.M.	H.G.I.	5	.48	157	J.M.	H.G.I.	4	.48
137	E.M.	L.G.I.	3	.32	158	H.W.	L.G.I.	3	.30
138	J.McG.	L.G.I.	3	.32	159	A.McL.	F.M.	6	.60
139	J.T.	L.G.I.	3	.22	160	G.B.	L.G.I.	2	.32
140	J.R.	F.M.	5	.61	161	A.L.	Id.	1	.23
141	W.B.	H.G.I.	4	.70	162	J.G.	I.	3	.79
142	M.K.	I.	3-4	.33	163	R.M.	L.G.I.	2	.21
143	J.S.	L.G.I.	3	.30	164	C.H.	L.G.I.	2	.30
144	T.S.	L.G.I.	2	.21	165	J.C.	L.G.I.	2	.25
145	A.T.	I.	4	.40	166	R.U.	F.M.	5-6	.73
146	J.B.	L.G.I.	2	.21	167	J.McF.	H.G.I.	4	.69
147	A.McG.	I.	3	.48	168	D.S.	I.	4	.41

No.	Case	Clinical Grade.		I.Q.	No.	Case	Clinical Grade.		I.Q.
		I	II				I	II	
169	M.C.	F.M.	5	.76	190	J.L.	I.	4	.37.
170	A.McC.	H.G.I.	4	.73	191	J.M.	I.	3	.39
171	N.M.	I.	3	.50	192	J.McA	H.G.I.	4	.49
172	M.O.	L.G.I.	3	.33	193	J.Q.	F.M.	6	.93
173	H.McK.	I.	3	.42	194	J.E.	I.	4	.45
174	M.F.	I.	4	.34	195	N.McC.	L.G.I.	3	.33
175	T.W.	L.G.I.	2	.21	196	R.McC.	I.	3	.38
176	J.R.	I.	4	.46	197	J.McL.	I.	3	.38
177	M.G.	L.G.I.	2	.48	198	G.McB.	L.G.I.	2	.53
178	R.G.	L.G.I.	2	.50	199	T.D.	I.	3	.40
179	J.G.	L.G.I.	2	.52	200	W.F.	F.M.	5	.60
180	F.A.	L.G.I.	2	.40	201	H.McL.	I.	3	.40
181	M.F.	L.G.I.	2	.24	202	J.W.	L.G.I.	2	.26
182	B.A.	H.G.I.	4	.50	203	E.R.	F.M.	6	.03
183	J.H.	L.G.I.	2	.60	204	S.A.	L.G.I.	2-3	.33
184	M.R.	I.	3	.35	205	A.W.	I.	3-4	.42
185	M.H.	L.G.I.	2	.29	206	L.W.	I.	4	.44
186	A.F.	L.G.I.	2	.21	207	M.F.	H.G.I.	4	.52
187	T.P.	L.G.I.	2	.21	208	W.S.	L.G.I.	2-3	.39
188	J.S.	L.G.I.	2	.24	209	H.H.	I.	3	.70
189	W.W.	I.	4	.40	210	J.C.	I.	4	.42

No.	Case	Clinical Grade.		I.Q.
		I	II	
211	J.G.	F.M.	6	102
212	F.A.	I.	3	.35
213	M.McK.	I.	3	.39
214	E.B.	F.M.	6	.70
215	N.K.	H.G.I.	5	.50
216	J.D.	I.	4	.45

The Coefficient Of Correlation  
between the Intelligence Quotient  
and the more stringent of these  
Clinical Gradings (·II·) is ·88.

In considering these results, we have to remember the essential difference between the abnormal and the subnormal. We have also to remember that the mentality of the psychopath cannot be assessed directly in terms of the intelligence quotient. Further, the presence of a temperamental element in a case of subnormality, grafted on, as it were, to a case of simple primary, amentia is bound to influence any clinical grading such as we have adopted. Its influence will be reflected in a reduction of the child's mental assessment, but since we have no accurate method of measuring temperamental deficiency, it is impossible to estimate the precise influence in any particular case.

Analysing the results obtained, we find that the percentage of cases showing disparity between Dr. Clarkson's evaluation and the results of intelligence testing varies somewhat with the classification adopted in fixing the clinical evaluation. Where the legal definitions are accepted, it is found, on comparing this grading with the Intelligence Quotient, that the percentage of cases in which the results do not absolutely correspond is about 15, while the percentage of cases showing any very considerable variation does not exceed 7. Working along these lines/



we can suggest the following figures as indicating the broad lines of division between the various grades of defect :-

Idiocy : Intelligence Quotient below .20

Imbecility : " " .21 - .60

{	High - Grade	I.Q.	.21	.33
	{ Middle " " .34 .47			
	{ Low " " .48 .60			

Feeble-mindedness " above .60

These figures are merely suggested as approximates which may prove useful in grading: it is, of course, recognised that varying degrees of mental deficiency merge very gradually into each other, and that it is impossible to attempt to lay down hard and fast rules on the subject.

The following table shows the degree of correspondence between this arbitrary division and what we have called the legal classification :-

of Children whose I.Q. exceeded .60

81.2% were graded as Feeble-minded

10.4% " " " High Grade Imbeciles

6.3% " " " Medium Grade "

2.1% " " " Low Grade "

of Children with I.Q. ranging from .47 - .59

56.0% were graded as High Grade Imbeciles.

9.8% " " " Feebleminded

24.4% " " " Medium Grade Imbecile

9.8% " " " Low " "

of Children with I.Q. ranging from .34 to .46

88% were graded as Medium Grade Imbeciles

4% " " " High " "

8% " " " Low " "

of Children with I.Q. ranging from .21 to .33

92% were graded as Low grade Imbeciles.

3.2% " " " High " "

4.8% " " " Medium

of Children with I.Q. below .20

100% were graded as Idiots.

When we arrange the children in six groups, (from 1 to 6) varying with their value, and compare these placings with the Intelligence Quotients, we find some degree of discrepancy in a higher %age of cases but these exhibiting serious departures are again about 7%.

Assuming the following arbitrary classification -

Group 1	-	I.Q.	under	.20
2	-	"	.21	- .31
3	-	"	.32	- .42
4	-	"	.43	- .53
5	-	"	.54	- .64
6	-	"	above	.64

We can again compare clinical grading with the results of intelligence testing, -

of Children whose I.Q. exceeded .64

60.0%	were placed in group	6
17.1%	" " " "	5
11.4%	" " " "	4
8.5%	" " " "	3

of Children with I.Q.'s ranging from .54 to .64

56%	were placed in group	5
16%	" " " "	6
16%	" " " "	4
8%	" " " "	3
4%	" " " "	2

of Children with I.Q.'s. ranging from .43 to .53

64.5% were placed in Group 4

9.7% " " " " 6

16.1% " " " " 3

9.7% " " " " 2

of Children with I.Q.'s. ranging from .32 to .42

63.4% were placed in Group 3

7.3% were " " " 5

24.4% " " " " 4

4.9% " " " " 2

of Children with I.Q.'s. ranging from .21 to .31

69.2% were placed in Group 2

28.2% " " " " 3

2.6% " " " " 1

Of Children with I.Q.'s. under 20.

100% were placed in Group 1

Many of the cases in which there is a discrepancy between clinical evaluation and the Intelligence Quotient are sequelae of Encephalitis Lethargica: but others are ordinary cases of simple primary Amentia, in which the difference is mainly due to some outstanding feature of the patient's practical ability.

The average I.Q. for all cases tested at

Larbert Institution was .46

In working with mentally defective children in such an Institution as that at Larbert, we find that the majority of the children are over 12 years of age and that their chronological age begins to approach that usually regarded as the upper limit of mental development (about 15 years). As a result of this, there tends to be a close relationship between the Intelligence Quotient in any given case and the highest level of test question which the child is able to negotiate successfully. Up to the mental age of 10 years, this relationship is particularly marked -

Average I.Q. of child unsuccessful with tests above year X is	.70
" " " " " " " " " " IX "	.66
" " " " " " " " " " VIII "	.60
" " " " " " " " " " VII "	.54
" " " " " " " " " " VI "	.49
" " " " " " " " " " V "	.45
" " " " " " " " " " IV "	.39
" " " " " " " " " " III "	.31

The reactions of mentally defective children to  
tests and groups of tests.

pp.153-186.

## TABLES.

Table A gives a general resume of the results obtained by testing children exhibiting various grades of simple primary ameynia; it permits of comparison with figures obtained by some of the American observers, who tend to express their findings in terms of the grade of amentia present, irrespective of age.

Table B, on the other hand, is designed exclusively to allow of comparison of the results of individual tests; there have been neglected in its construction all performances in which the subject was unable to pass any of the tests for the year in question, or in which he dealt successfully with all the tests submitted at that year group. This affords a clearer view of the results obtained with the individual tests of any particular group, and on it is based most of the remainder of this section.

TABLE A, showing Percentage of Simple Primary  
Aments of various grades who dealt successfully  
with the several tests.

## Year III.

Test No.	1	2	3	4	5	6	Al.
Feeble Minded		All		Successful.			
High Grade Imbeciles.		All		Successful.			
Medium " "	100	100	93	-	100	-	-
Low " "	100	97	86	84	100	87	-
Idiots..	100	33	0	50	-	0	-

## Year IV.

Test No.	1	2	3	4	5	6	Al.
Feeble Minded.	100	-	100	96	96	96	-
High Grade Imbeciles.	96	100	100	94	100	-	-
Medium " "	82	-	80	85	86	86	-
Low " "	55	-	39	40	68	53	-
Idiots.			None	Successful.			

## Year V.

Test No.	1	2	3	4	5	6	Al.
Feeble Minded.	95	95	95	95	-	100	95
High Grade Imbeciles.	94	89	82	100	-	-	100
Medium " "	61	50	55	93	-	-	71
Low " "	24	11	11	6	-	0	31



## Year VI.

Test No.	1	2	3	4	5	6	Al.
Feeble Minded.	96	96	-	80	-	88	95
High Grade Imbeciles.	82	65	-	60	-	89	73
Medium " "	55	23	-	27	-	20	55
Low " "	10	4	0	5	-	0	24

## Year VII.

Test No.	1	2	3	4	5	6	Al.
Feeble Minded.	100	77	94	-	77	82	92
High Grade Imbeciles.	89	80	60	-	62	39	73
Medium " "	54	22	6	-	35	12	35
Low " "	10	0	8	-	4	4	0

## Year VIII.

Test No.	1	2	3	4	5	6	Al.
Feeble Minded.	50	54	62	0	-	-	33
High Grade Imbeciles.	13	29	36	16	-	-	-
Medium " "	8	4	4	8	6	10	5
Low " "				None Successful.			

## Year IX.

Test No.	1	2	3	4	5	6	Al.
Feeble Minded.	37	25	42	42	27	14	33
High Grade Imbeciles.	25	25	22	29	-	-	27
Medium " "	0	0	4	8	-	-	5

## Year X.

Test No.	1	2	3	4	5	6	Al.
Feeble Minded.	13	22	-	23	17	8	-
High Grade Imbeciles.	25	25	22	29	-	-	27
Medium " "	0	0	4	8	-	-	5

## Year Xll.

Test No.	1	2	3	4	5	6	8 Al.
Feeble Minded.	0	14	37	43	-	12	5
High Grade Imbeciles.			None Successful.				
Medium " "			None Successful.				

TABLE B, Showing percentages of Mentally defective children of several types who dealt successfully with tests submitted. For key to numbers see pages 7-21. (Tests Used). A blank space indicates that there had not been obtained a sufficiency of material on which to base a trustworthy Estimate.

The figures for Simple Primary Aments are based on the results obtained from all grades of primary amentia.

## Year III.

Test No.	1	2	3	4	5	6	Al.
Simple Primary Aments.	94	88	-	10	87	-	-
Mongols.	100	100	-	40	75	-	-
Encephalitis syndrome	-	-	-	-	-	-	-
Psychopaths.	-	-	-	-	-	-	-

## Year IV.

Test No.	1	2	3	4	5	6	Al.
Simple Primary Aments	50	-	40	-	79	33	-
Mongols	67	-	100	46	56	33	-
Encephalitis syndrome	-	-	-	-	-	-	-
Psychopaths	-	-	-	-	-	-	-

## Year V.

Test No.	1	2	3	4	5	6	Al.
Simple Primary Aments.	33	34	29	86	-	-	29
Mongols.	-	50	25	51	-	-	57
Encephalitis syndrome	-	33	38	88	-	-	86
Psychopaths	-	-	-	-	-	-	-

## Year VI.

Test No.	1	2	3	4	5	6	Al.
Simple Primary Aments.	64	33	-	30	-	-	68
Mongols.	75	0	-	29	-	-	57
Encephalitis syndrome	82	64	-	20	-	-	73
Psychopaths.	-	-	-	-	-	-	-

## Year VII.

Test No.	1	2	3	4	5	6	Al.
Simple Primary Aments.	72	-	36	-	36	44	59
Mongols.	100	-	-	-	-	33	33
Encephalitis syndrome	81	-	75	-	42	80	61
Psychopaths.	25	-	-	-	75	100	100

## Year VIII.

Test No.	1	2	3	4	5	6	Al.
Simple Primary Aments.	34	36	67	15 (80)	-	-	-
Mongols.	-	-	-	-	-	-	-
Encephalitis syndrome	38	50	58	44	-	-	-
Psychopaths.	64	88	79	10	-	-	-

## Year IX.

Test No.	1	2	3	4	5	6	Al.
Simple Primary Aments	53	-	53	63	25	-	59
Mongols.	-	-	-	-	-	-	-
Encephalitis syndrome	0	-	75	78	43	-	67
Psychopaths.	27	-	30	67	46	-	58

## Year X.

Test No.	1	2	3	4	5	6	Al.
Simple Primary Aments.	-	69	-	38	34	44	-
Mongols	-	-	-	-	-	-	-
Encephalitis syndrome	-	-	-	-	-	-	-
Psychopaths.	-	83	-	58	50	33	-

## Year XII.

Test No.	1	2	3	4	5	6	8.
Simple Primary Aments	0	14	37	43	-	12	5
Mongols	-	-	-	-	-	-	-
Encephalitis syndrome	-	-	-	-	-	-	-
Psychopaths.	0	25	42	10	-	85	0

It might be pointed out that in this direction, at any rate, a series of tests such as that introduced by Binet has a distinct advantage over some of the later efforts, e.g., the Porteous mazes, which aim exclusively at the determination of the intelligence Quotient, and can be of but little assistance in any further analytical survey.

The tests used in this investigation - the Stanford re-  
:vision - have been carefully standardised on the  
assumption that between 60 and 70 per cent of normal  
children of the corresponding age will pass success-  
:fully each test of the series. Our attention is,  
for the moment, focussed on these tests in which de-  
:fectives show any considerable departure from this  
normal; and for this purpose we may regard as notably  
good any %age success which exceeds 70, and as par-  
:ticularly bad any figure which falls short of 30.  
In the case of SIMPLE PRIMARY AMENTS, we find that  
the following tests are negotiated with a high degree  
of success (Table B).

- Year III tests 1, 2, and 5.

IV test 5

V /

Year V test 4.

VII test 1.

while the results are particularly poor at

Year III test 4.

V test 3.

VIII test 4.

IX test 5.

XII tests 2 and 3.

Test III, 1, (pointing to parts of the body) was devised by Binet to ascertain whether the subject is capable of comprehending simple language. It introduces a personal element, and is said to give some clue to the development of the sense of self.

Test III, 2, (Naming familiar objects) is a test of association between these familiar objects and their names. It is obviously closely related to test III, 1.

Test III, 5, (giving the family name), like the other two tests just mentioned, is largely an attempt to estimate dawning interest, coupled, again, with the development of a sense of self.

Test IV, 5, (comprehension, first degree), like the other comprehension tests of the series, is designed to /

to ascertain whether the child can appreciate the situation suggested, and give a reasonably pertinent reply. The questions used in this particular question were not standardised prior to the Stanford revision, though (a) and (b) were suggested by Binet in 1905.

Test V, 4, (giving definitions in terms of use) throws an interesting light on the child's apperceptive processes. The quality of the replies of mentally defective children is undoubtedly poor, and, as is to be expected, never reveals much intellectual maturity, but it was found that very few defectives had any difficulty in returning efforts which were passably correct.

Test VII, 1. (giving the number of fingers), is somewhat on the lines of test IV 3 (counting four pennies), though the %age of successes obtained at the two shows wide diversity. It really involves a conception of number relationships, and it is stated by Terman<sup>1</sup> that middle-grade imbeciles can rarely pass this test.

Our results would not appear to support this statement.

Of /

1. Terman, The Measurement of Intelligence, p. 189.



Of interest also, is Test X, 2, (detecting absurdities) has been hailed as one of the most serviceable tests of the entire scale: Terman states that it comes nearer than any other to being a test of that species of Mother-wit which we call common sense. It is claimed to be an invaluable test for the higher degrees of mental deficiency. From Table A it will be seen that only 22% of feebleminded children were successful with this test, while in no case was an imbecile, even of the highest grade, able to tackle it; but the results obtained from this test were not pitched on a lower key than several others of the same group.

Turning now to the tests with which simple primary aments fared badly, we consider first:

Test III, 4 (giving sex), success in which would seem to depend on the ability to discriminate between familiar class names which are to some extent related. It is perhaps significant that Binet found this test too difficult for normal 3-year-old subjects.

Test V, 3. (aesthetic comparisons) would seem to show that mental retardation reveals itself in weakness of of the aesthetic test quite as markedly as in any of the /

the other tests; lower grade defectives, especially, seem particularly prone to failure here.

Test VIII, 4, (comprehension, third degree). These three questions were in Binet's original series, and were placed by him in year X, though the Stanford revision showed that they were within the capabilities of normal 8-year-old children.

Test IX, 5. (using three words in sentence) 'the Masselon Experiment' is quite beyond the range of most defectives, and the quality of the efforts is very markedly poor. This is a form of the 'completion test' and the power to combine more or less separated and isolated elements into a logical whole is one of the most essential features of intelligence.

Test XII, 2. (the definition of abstract words) attempt to estimate generalising ability; the formation and use of abstract ideas represent fairly well. "the higher thought processes". It has been pointed out that delinquents who test near the border line of mental deficiency show inferior ability in arriving at correct generalisations regarding matters of social and moral relationships.

Test /

Test XII, 8. (giving similarities, three things) is generally recognised as a good test. Failure may result either from weakness in the Power of educational representations of objects, or from inadequacy of association. Even twelve or fourteen-year-old defective children are prone to give differences rather than similarities, while there is still present a well-marked tendency to stereotypy.

Reviewing the essential qualities on which these several tests are based, we are forced to the conclusion that, so far as these extreme degrees of success are concerned, simple primary elements do not adhere rigidly to type. They may fare well with a test of comprehension at Year IV, for instance, and again at Year VIII, while their failure with the same type of test is pronounced at the intermediate year 6, and they are equally unsuccessful with the test of the fourth degree of comprehension submitted at Year X.

This lack of consistency renders it still more impracticable - and unscientific - to lay down isolated tests from each year group as being more or less indicative /

indicative of mental defect. After formulating such a list of "crucial tests", Mr Burt writes,<sup>1</sup> "with the complete series of tests arranged in the order of their difficulty for defective children, a child who fails with tests easier than these mentioned is presumably 'deficient', and a child who answers harder tests is presumably normal". That such a list cannot be of any very widespread applicability is illustrated by a comparison of Mr Burt's results with these obtained from the examination of defectives at Larbert.

No.	Mr Burt's "Crucial Test" for	No. of Test in Stanford Revision.	Ascending Order of Difficulty, present investigation *
1	Year V	V3	2
2	" VI	V2	1
3	" VII	VII6	5
4	" VIII	VI2	3
5	" IX	VII5	4
6	" X	IX Alter	6

\* See Table A p. 154.

(b) Mental Defect Associated with EncephalitisLethargica.

It has long been recognised that these may act as causes of amentia toxins produced by the actions of micro organisms. In some instances the action on the brain is secondary to an acute process elsewhere, as in pneumonia or influenza; but in others the brain would appear to be involved primarily, the pathological process commonly taking the form of a poliomyelitis (as described by Strümpell).

The children at present under consideration represent the aftermath of that wave of Encephalitis Lethargica which followed the influenza epidemic of 1918 - 19, and there is still some doubt whether the mental condition present is to be regarded as a sequela of the acute process or rather as a continuation of it; whether, indeed, these children are suffering from the results of Encephalitis Lethargica or from that condition itself. In England it is commonly held that "Such children cannot be classified as mentally defective and cannot be dealt with under the Mental Deficiency Act",<sup>1</sup>

<sup>1</sup> Auden: The School Service in Relation To Mental Defect, Journ of Mental Science Oct. 1921.

Act", because their deficiency has not existed "from birth or from an early age", and because it is not known whether or not the condition is permanent.

A discussion of the views held regarding the etiology of the condition <sup>1</sup> is beyond the scope of a paper professing to deal with the application of mental tests, but it may be pointed out that these cases would appear to fall into the second of the three subdivisions of the "Mental Forms of Epidemic Encephalites" <sup>2</sup> of Briand and Rouquier.

"psychopathic sequelae - hypomania, depression, hebephrenia, catatonia of variable evolution and progenesis."

Several writers have already described the clinical condition present - Bremer <sup>3</sup>, Macphail <sup>4</sup>, etc.

These children sleep badly at night, and are then often /

1. Mental Disturbances in Enceph. Lethar. Abrahamson. see Journ. Ment. and New. Dis. Sept. 1920.

2. Mental Forms of Enceph. Leth. L'Encéphale. Nov. 1920. (Briand & Rouquier).

3. Bremer M. Mental Forms of Enceph. Leth. L'Encéphale August, 1920. 4. Macphail Mental Disorder resulting from Enceph. Leth. Journ Ment. Sc. April 1922.

often very destructive, tearing up sheets and bedding. They are dirty in <sup>their</sup> habits, and their general character is changed. They are restless, and their attention tends to wander, so that they cannot remember for any length of time any instruction that may be given to them. Yet it has been very generally observed that their intelligence is not so much below par as the the rest of the mental picture might lead us to believe. The Intelligence Quotients from 25 examinations of these children at Larbert were .81, .72, .73, .81, .77, .86, .76, .79, .57, .75, .68, .70, .53, .73, .70, .74, .79, .71, .83, .63, .67, .78, .56<sup>\*</sup>, .74 and .63, an average of .72. There is, further, a suspicion that these children returning very low Intelligence Quotients may have been subnormal prior to the onset of the Encephalitis<sup>i</sup>s; and this view is rather supported by the fact that in the case above (marked by an asterisk) when the I.Q. was .56, trephins showed the right frontal lobe to be practically non-existent.

In this connection it is interesting to note that Dr. Watt, speaking in Glasgow recently, stated that examination/

examination of some 20 of these Encephalitis cases by the Binet (Burt) tests showed the Average Intelligence Quotient to be .68; and as the Burt modification tends to give results distinctly lower than the Terman scale, it is obvious that a (Terman) result of .72 corresponds fairly accurately with Dr Watt's figures.<sup>1</sup> Can we assume on this basis that actual intelligence in these cases is not markedly affected? The answer to this question involves a further study of the progress of each case, and will be dealt with in greater detail when we consider intelligence testing as a guide to prognosis; but the test reactions of these children would seem to correspond more closely with these of simple Primary Amentia than with these of Psychopathic Child.

Considering first the tests with which these children are most successful, we have -

Year V tests 4 and Alternative.

VI 1 and Alternative.

VII 1, 3 and 6.

IX /

1. B.M.J. 16th Decr. 1922. Report of Meeting of Medico Chirurgical Society of Glasgow held, 17th Nov., 1922.



Year IX 3 and 4.

While the tests at which their failure is most pronounced are:

Year VI test 4

IX test 1.

Year V test 4 as previously mentioned (p 161) surveys the child's apperceptive processes, and the %age of success among these "Encephalites" subjects corresponds very closely with the result obtained from simple primary aments.

Year V Alternative (giving age) is a test apt to be considerably influenced by the environment of the subject; hence it is not surprising that these children are very successful in dealing with it, since prior to the definite onset of the acute manifestation they were presumably normal. The performances of Simple Primary Aments at this test afford a striking contrast.

Test VI 1 (distinguishing right and left) submits to the child a problem which many adults can only solve by calling into play an intermediate association. It is asserted by some that subjects who are below middle-grade /

middle-grade imbecile, however long they have lived, seldom pass the test: this is certainly true, but it is at least equally true that such subjects seldom pass any of the tests submitted in this group.

Test VI Alternative (forenoon and afternoon) is perhaps one of the most unsatisfactory of the series, being far from guess-proof, and scarcely capable of accurate application to defectives whose "mid-day" centres round "dinner-time".

92  
Test VII,1 (giving number of fingers) has been dealt with previously (page 161) like simple Primary Aments, these "Encephalites" children are very successful with this test.

Test VII,3 (repeating five digits) is more searching than one retailing the repetition of sentences, since numbers suggest fewer associations than do words.

Its value has been questioned on two grounds (a) that it is not a test of pure memory, but depends largely on attention; and (b) that the results are too much influenced by the child's type of imagery. The second of these objections is not borne out by experience; and the fact that the test requires some attention /

attention on the part of the child cannot be regarded as any very serious contra-indication to its use in the measurement of intelligence. Children exhibiting the Encephalites syndrome do well with this test:

Simple Primary Aments are failures.

Test VII,6 (Copying a diamond) is a good one: with it these Encephalitic subjects do much better than Simple Primary cases.

Test IX,3 (making Change) is an attempt to provide just that little addition of "problem" which the defective finds such a trying addition to elementary arithmetic. It may be noted that with this test, also, simple primary Aments are markedly inferior to children of the Encephalites group.

Test LX,4 (repeating four digits reversed) is another test more or less linked up with a study of imagery, type "Feeble-minded Children" says Terman "find this test especially difficult", but our figures would not appear to support this assertion.

Turning now to the tests with which these children are markedly unsuccessful, we have:

Year VI test 4 (comprehension, second degree), which was /

was not standardised previous to the Stanford Re-  
 :vision, though Binet had suggested the questions as  
 early as 1905. With this test, as with test VIII, 4  
 defectives of all types seem to experience a diffi-  
 :culty curiously inconsistent with their performances  
 with other tests of the "comprehension series".  
 Year IX test 1. (giving the date) shows these children  
 in a peculiar light. This test presented no particular  
 difficulty to simple primary aments, whereas not a  
 single child exhibiting the Encephalitis<sup>t</sup> Syndrome  
 dealt with it successfully. Such a state of affairs  
 would seem to indicate that the nature of the defect  
 in such cases is particularly noticeable as regards  
 problems which entail a grasp of present events, and  
 adaptability to the circumstances of the times.

Indeed, the general impression created by these  
 children is that, so long as the tests submitted are  
 based on such facts as were within the scope of the  
 child before the onset of the acute attack of En-  
 :cephalitis Lethargica, the results obtained are  
 little, if at all, inferior to these obtained from  
 the examination of normal subjects. But with the  
 beginning /

beginning of the toxic process the child appears to have lost the capacity for development along normal lines, and he deals much less successfully with problems based on circumstances requiring adaptability, and not answerable from rote. Dr. Finlay<sup>1</sup> states that these children test inferior to the age at which the disease developed.

It is not always easy to recognise these cases in the absence of a definite history of the acute disease, and, in view of recurring outbreaks in Glasgow and other places, their diagnosis is becoming increasingly important. They have a few physical peculiarities - notably of respiration, suggestive of the puffing of a locomotive - which help to distinguish the condition. Their general mental attributes have been described above: the Intelligence Quotient is usually high, and the combination of a high I.Q. with habits more compatible with imbecility is strongly suggestive of the possibility of the presence of this condition. The differentiation from Simple Primary Amentia /

1. See Report of Meeting of Royal Medico Chirurgical Society of Glasgow. B.M.J. Dec. 16th, 1922.

Amentia may be assisted in doubtful cases by the consideration of the results of intelligence testing in the light of the following figures from the Table on pp 156-8.

	Test V, A1	VI, 2	VII, 3	VIII, 4	IX, 1
%age of Simple Primary Aments successful	29	33	36	15	53
%age of Encephalitic children successful	86	64	75	44	0

(c) Mongolism,

Mongols constitute such a definite clinical group that to anyone at all conversant with Mental Defect the diagnosis of the condition presents little difficulty. It is generally recognised that, while affectionate, loveable children, they are, from the point of view of intelligence, rather low-grade defectives. This is reflected in the general low level of the Intelligence Quotient, which averages, in the cases under consideration, .28; but there are to be found Mongols of distinctly higher status, as is evidenced by the fact that in two of the cases examined, the Intelligence Quotient worked out at .68 and .49.

It is further noteworthy that with some of the individual /

individual tests Mongols attain a measure of success considerably in advance of that achieved by Simple Primary defectives of a similar mental level. Such

tests are -                   Year III test 4  
                                   " IV       " 3  
                                   " V       " Alternative  
                                   and " VII " 1.

With other tests, however, their success is very in-  
 :different, and among their most marked failures maybe  
 ranked:

                                  Year V test 4  
                                   " VI " 3  
                                   and " VII " Alternative.

Test III, 4 (Giving sex) depends, as has been stated, on the ability to discriminate between familiar class names which are to some extent related. The measure of success attained by Mongols in dealing with this test is not itself very high: but it is three times higher than that attained by Simple Primary defectives of a similar mental level.

Test IV, 3 (counting four pennies) requires for success the ability to repeat by rote the names of the numbers but does not presuppose any power of calculation, or a mastery of the number concepts from one to four: the success attained by Mongols in dealing with this test is striking.

Test /

Test V Alternative, (giving age) is, as has been pointed out, rather apt to be influenced by the environment of the subject; but, under circumstances essentially similar for the two groups, it was found that Mongols/<sup>were</sup> approximately <sup>ce</sup>twice as successful with this test as were simple primary elements.

Year VII 1 (giving the number of fingers) involves a conception of number relationships, yet it is to be noted that the success of Mongols with this test is even more emphatic than that of Simple primary cases.

Year V, 4 (giving definitions in terms of use) which has been cited as throwing an interesting light on the child's apperceptive processes, is one of those with which Mongols are far below the general level of defectives, as is also

Year VI, 2 (finding omissions in pictures) which is one of the many forms of the Completion Test; with this test the success of Mongols was found to be absolutely nil.

Test VII Alternative (Naming the days of the week) has been criticised as too dependent on rote memory, It has been designated a test of time orientation, and the /



the inferiority of mentally defective children with such tests is believed to be due to the poverty of their associations, which results in less definite location with reference to other events. With this test Mongols were but half as successful as were their simple primary compeers.

Summarising, it may be said that Intelligence Testing in its relationship to Mongolism, is not likely to be of any great service. The condition can be easily diagnosed on physical appearances; and while the Intelligence Quotient is generally low, the degree of mental defect is as a rule, so extreme as to be strikingly obvious. There are a few Mongols, however, distinctly better than their fellows, and Intelligence Testing may be of service in the recognition of their superiority. Nor are the results of individual tests very helpful. We get the impression that Mongols are relatively good at problems involving figures, and rote memory; but their powers of association would seem to be especially primitive: while they exhibit stereotypy even more than do Simple Primary Cases.

(d) Psychopathy.

It /

It has already been stated that the mental worth of a psychopathic child cannot be stated directly in terms of the Intelligence Quotient, which is, therefore, of little service in the diagnosis of Psychopathy. But while the final product of Intelligence Testing is comparatively unimportant in this connection, the intermediate steps in the determination do throw some light on this question of temperamental deficiency.

The psychological examination of these children reveals some features more or less characteristic of the class. In the first instance, there is to be noted the fact that these cases generally have a relatively low base-line, with a large range of correct responses above this figure. For instance, such a child may be unable to deal successfully with all the tests in any year above Year VII, though he may be able to score with one test in a group as high as Year XIV, and his Mental Age may be about nine years.

Another point is the great unevenness which marks their performances. Their success does not gradually diminish as we ascend the scale, and this lack /

lack of uniformity tends to be much more marked than with ordinary defectives. A typical score summary card will illustrate this: -

M.W. aet. 13 <sup>10</sup>/<sub>12</sub> years.

Credit at Years up to 7... 7 years 0 months

" " Year 8..... 9 "

" " Year 9..... 1 year 0 "

" " Year 10..... 6 "

" " Year 12..... 4 "

" " Year 14..... 6 "

Mental Age 10 years 1 month.

Intelligence Quotient .73.

The responses to individual tests are likewise fairly characteristic.

The tests with which these children attain most striking success are :

Year VII tests 5, 6, and Alternative.

Year VIII tests 1 and 2;

while their failure is most pronounced with

Year VII test 1

and Year XII test 4.

Year VII test 5 (giving differences from memory) is held /

held to be an index of the child's higher thought processes, and from the degree of success of psychopaths with this test we can confirm the fact that these children do have an ideational development which is high, albeit perverted - they are abnormal rather than subnormal.

Year VII test 6 (copying a diamond) is quite searching when applied to simple primary defectives, but in our experience absolutely unreliable in the detection of psychopathy. It must be stated, however, that Goddard finds that these children are poor at the "copying" tests.

Year VII Alternative (naming the days of the week) is a test of time orientation, and has been extensively criticised as being too dependent on rote memory, so that it is perhaps not surprising to find psychopaths scoring much more heavily than any of the other defectives at this test.

Year VIII test 1 (the ball and field test) is a test of practical judgment, and is probably one of the best of the entire series, when applied to simple primary defectives, but, like most of the others, it fails /

fails to discover the kink in the mental outfit of the psychopath.

Year VIII test 2 (counting backwards from 20 to 1) demands, in the first place, ability to count from 1 to 20; but it also entails apprehension of the quantitative relationships of numbers, and the ability of the child to give the task undivided attention for, say, half-a-minute - and in doing this Psychopaths are extraordinarily successful.

Year VII test 1 (giving the number of fingers) like year VIII test 2, with which we have seen these children to be very successful, entails some conception of number relationships, yet in the test under consideration, which is much easier than VIII, 2 when applied to simple cases of subnormality, psychopaths are very definitely inferior - though the reason for this state of affairs would not appear to be very obvious.

Year XII test 4 (dissected sentences) is another form of the completion test, and success with it depends on the ability of the subject to utilise hints or clues and this in turn depends on the logical integrity of the associative processes. With this test these

Abnormals are not nearly so successful as are Subnormals.

In conclusion, it may be useful to summarise the tests in which there is most obvious difference between psychopaths and

#### A Simple Primary Aments

Test	VIII1	VIII5	VIII8	VIIA1	VIII11	VIII12	XII4
%age of psychopaths successful	72	36	44	59	34	36	50
%age of Primary aments of corresponding mental age successful	33	37	100	100	67	100	13

#### B Children exhibiting Mental Sequelae of Encephalitis

##### Lethargica.

Test	VIII1	VIIA1	VIII11	VIII12	IX1	IX3
%age of psychopaths successful	33	100	100	12	33	45
%age of "Encephalitis" children of corresponding M.A. successful	81	61	50	44	0	75

Before leaving the consideration of the test reactions of mentally defective children, it may be interesting /

interesting to deal briefly with the quality of individual responses.

It is probable that the value of any such investigation is almost entirely scientific, and of little actual practical importance in diagnosis, grading or treatment. It is a truism to state that the test reactions of defectives are uniformly poor - in many cases just displaying the minimal amount of intelligence to allow them to rank as successes.

Stereotypy, too, is a well-recognised concomitant of mental defect, and is certainly very common, particularly, perhaps, in the case of Mongols. Pronounced stereotypy in any suspected child is to be regarded as an unfavourable sign.

Comparison of the type of results obtained from defectives with these from normals does not as a rule yield very much information. Consider as an example test 6 of the Year X series (naming sixty words in three minutes) "Some subjects," writes Terman, "maintain an almost constant rate throughout the test; others rapidly exhaust themselves, while a very few make a bad beginning and improve as they go."

Mentally /

1 Terman "The Measurement of Intelligence" p. 276.

Mentally retarded subjects exhaust themselves so rapidly that only a few words are named in the last minute." He states the average number of words given in the six half-minute periods by normal children to be:

18 · 12½ · 10½ · 9 · 8½ · 7

The average numbers obtained at Larbert were:-

Subnormals 11 · 8 · 7 · 8 · 6 · 6

Psychopaths 13 · 8 · 7 · 8 · 7 · 6

From these figures it would appear that defective children sustain their responses quite as well as do normals.

On the other hand, the responses to test 1 of the Year VIII group do show a tendency which seems to be rather characteristic of mental defect. 34% of children tested were successful here; of these wrong, 54% responded by drawing a line more or less straight across the field, as in fig A, while approximately 20% simply drew a short line across the entrance to the field, as in fig. B.



TYPICAL FAILURES of DEFECTIVE CHILDREN:-

YEAR VIII. Test 1.

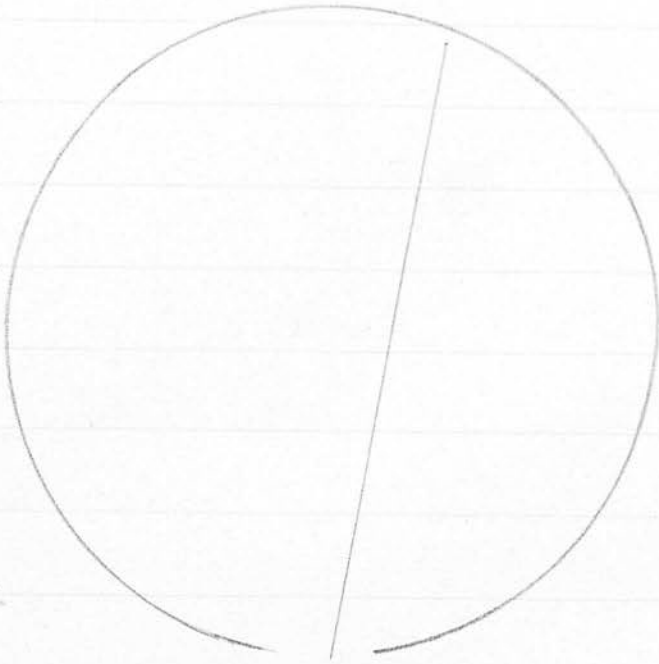


FIG. A.

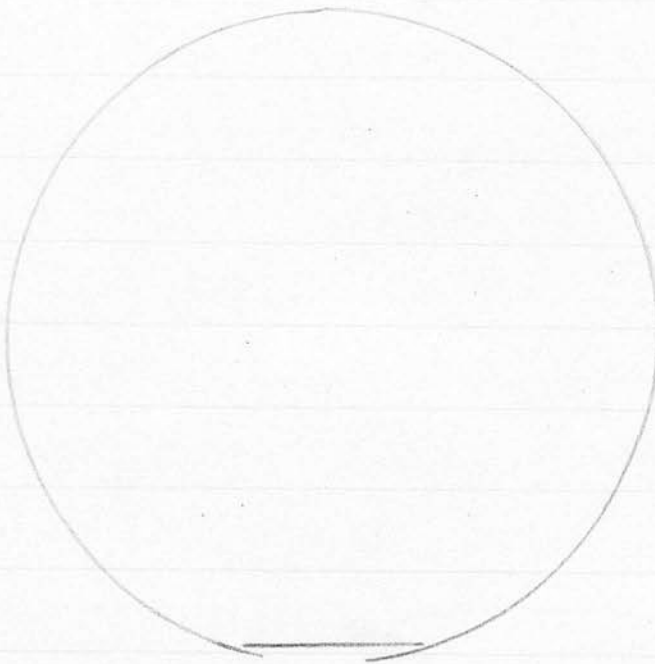


FIG. B.

Table summarising the results of re-examination of  
mentally defective children in three successive years.

Orig Test No.	Name	Clinical Progress	Mental Age in months.			Intelligence Quotient.		
			1921	1922	1923	1921	1922	1923
46	J.M.	Improved	75	81	-	.86	.83	-
15	G.A.	I.S.Q.	39	33	30	.32	.25	.21
48	A.R.	Improved	59	63	63	.79	.74	.70
13	A.McC.	I.S.Q.	39	39	33	.22	.22	.18
12	W.S.	I.S.Q.	53	54	51	.35	.33	.29
10	I.S.	I.S.Q.	42	50	36	.22	.26	.20
115	J.Ma.	I.S.Q.	72	72	69	.67	.63	.54
43	B.C.	I.S.Q.	42	38	45	.39	.31	.34
30	A.C.	I.S.Q.	45	45	42	.25	.25	.23
95	D.McD.	Improved	48	52	60	.40	.41	.43
94	W.M.	I.S.Q.	39	36	36	.21	.20	.20
79	J.L.	I.S.Q.	63	54	-	.33	.30	-
3	G.N.	Much improved	89	99	108	.77	.79	.80
96	J.G.	Improved	57	63	75	.47	.48	.52
82	W.H.	Improved	96	90	-	.60	.53	-
32	W.S.	Improved	81	78	78	.60	.49	.46
58	H.W.	I.S.Q.	64	66	72	.44	.43	.44
54	A.G.	Improved	61	75	75	.45	.51	.43
73	G.G.	Much improved	102	90	102	.68	.56	.60
83	G.M.	I.S.Q.	93	96	-	.53	.52	-

Orig Test No.	Name	Clinical Progress	Mental Age in months.			Intelligence Quotient.		
			1921	1922	1923	1921	1922	1923
63	A.L.	Much improved.	102	133	141	.62	.76	.77
38	H.L.	Much improved	90	84	84	.50	.47	.47
62	W.O'N.	Improved	129	174	158	.78	.99	.88
88	W.G.	I.S.Q.	33	36	36	.30	.26	.24
142	A.B.	I.S.Q.	-	86	86	-	.51	.50
97	J.M.	Improved	63	72	72	.73	.74	.68
75	N.H.	Much improved	95	-	90	.75	-	.66
21	J.H.	I.S.Q.	82	69	78	.59	.49	.50
5	J.J.	Improved	71	78	81	.39	.43	.45
68	M.A.	I.S.Q.	33	36	36	.29	.28	.25
35	B.A.	I.S.Q.	87	90	107	.66	.62	.69
6	M.D.	Improved	67	84	87	.51	.58	.56
66	J.O.	I.S.Q.	102	106	121	.79	.75	.81
53	W.D.	I.S.Q.	81	84	115	.59	.56	.72
47	A.C.	I.S.Q.	75	81	-	.75	.71	-
108	B.R.	Improved	59	66	75	.68	.67	.70
74	A.T.	I.S.Q.	70	75	78	.58	.56	.55
20	A.P.	I.S.Q.	60	57	48	.40	.32	.27
67	B.Q.	I.S.Q.	54	66	-	.55	.59	-
37	M.W.	Improved	123	121	151	.82	.73	.86

Orig Test No.	Name	Clinical Progress	Mental Age in months			Intelligence Quotient		
			1921	1922	1923	1921	1922	1923
102	M.M.	I.S.Q.	48	45	48	.27	.25	.27
69	H.S.	Improved	45	45	42	.31	.29	.25
166	R.U.	Improved	98	-	113	.74	-	.80
152	H.M.	Improved	-	77	84	-	.54	.55
81	W.McN	Improved	107	-	96	.59	-	.53
193	J.Q.	Improved	158	-	141	.93	-	.80
126	N.McL	Improved	66	-	96	.37	-	.53
109	J.C.	I.S.Q.	51	-	50	.27	-	.26
162	J.G.	Improved	99	-	67	.79	-	.65

Intelligence Tests as a Guide to the Prognosis  
in Mental Deficiency.

"The mental ages of the feeble minded increase with age at a rate proportionate to the degree of mental deficiency."<sup>1</sup> -Kuhlmann.

On some such assumption as that just quoted rest all attempts to forecast the level which a mentally defective child will ultimately reach. Before any conclusions can be reached as to the justice of such prognosis, it is essential to study the variation in mental age revealed by repeated intelligence testing.

The following table summarises the annual variation in months of mental age found on repeated examination at Larbert: for comparison there are included the results of a similar investigation conducted by

<sup>2</sup>  
Kuhlmann in America.

Annual variation in Mental Age.	%ages.	
	Larbert examination.	Kuhlmann.
Increase exceeding 3 mths.	46	36
No change of more than 3 months in either direction	46	62
Loss exceeding 3 months.	8	2

1. Ruhlmann, The Results of Repeated Mental Re-Examination of Feeble-Minded over a Period of Years.

*Jour. Applied Psychology*, Sept., 1921: Vol. V 195-224.

2. Ibid.

The figures obtained at Larbert show a greater annual Excursion than those recorded by Ruhlmann, and this contrast is even more marked when the results are compared with these of other American Investigations<sup>ors</sup>.

Another point worthy of note is that, in approximately 12% of cases, there is inconsistency in the results of successive tests, the results for 1922 being either appreciably higher or appreciably lower than those obtained in 1921 and 1923: W.O'Neill for instance, tested at  $10^9/12$  years in 1921: at  $14^6/12$  in 1922, and at  $13^2/12$  in 1923. So far as possible conditions were preserved unchanged at successive examinations, but it is difficult to believe that the results just reported afford an accurate reflex of patients' mentality over the three years in question. Though such variations would probably tend to correct themselves over a longer series of years, their occurrence complicates the formation of an accurate prognosis.

In no case was the mental age found to increase after the child had reached the chronological age of 15 years, but in some cases there was subsequent deterioration.

Attempts have been made to forecast the future development

of mental defectives by a proportional calculation based on the Intelligence Quotient, assuming the upper limit of development to be fifteen years of age. The I.Q., however appears to diminish with age: in the present investigation, 70% of children showed a reduction in intelligence quotient over the three years. Further the decline of the I.Q., seems to be influenced by the mental grade of the patient, as is shown:-

	Average Annual Decline in I.Q.	
	Figure obtained at Larbert	Kuhlmann <sup>1</sup>
Feeble minded	.017	.017
Imbeciles	.008	.010

Kuhlmann also states that the I.Q. of 94% of Imbeciles changes less than .04 per annum while that of 75% of Feebleminded children has an excursion similarly limited. The corresponding figures obtained at Larbert were 75% and 50% respectively.

It has long been recognised that pronounced stereotypy is a feature of bad prognostic omen, and it seems probable that there is room for further research into the nature of responses to tests and groups of

1. See journal of Applied Psychology, Sept. 1921, Vo. V pp. 195 - 224.



tests.

The applicability of intelligence tests to Encephalitis lethargica has already been discussed<sup>used</sup>. It has been pointed out that the Intelligence Quotient in these cases is uniformly high; and this high level is maintained over three years testing.

	1921	1922	1923
Average mental age in months, of "Encephalitis" children examined.	82	95	98
Average I.Q. of "Encephalitis" children examined.	.72	.73	.71

Speaking at a meeting of the Royal Medico Chirurgical Society of Glasgow, Dr. Findlay<sup>1</sup> said that the application of Intelligence tests to those children who had suffered from Encephalitis lethargica proved that the children tested were inferior to the age at which the disease developed. The following table, which includes the only six cases of this type at Larbert in which the date of onset could be definitely established, does not support this statement

1. See B.M.J. Dec., 16th 1922.

Name	Age at onset.	Mental Age.		
		1921	1922	1923.
J.Orrock	9 <sup>10</sup> /12	8 <sup>9</sup> /12	8 <sup>10</sup> /12	10 <sup>I</sup> /12
A.Campbell	7	6 <sup>3</sup> /12	6 <sup>9</sup> /12	Died
J.Moffat	5 <sup>8</sup> /12	6 <sup>3</sup> /12	6 <sup>9</sup> /12	Went home
G.Nellis	7 <sup>8</sup> /12	7 <sup>5</sup> /12	8 <sup>3</sup> /12	9
J.Murray	5 <sup>6</sup> /12	5 <sup>3</sup> /12	6	6
J.Marshall	6 <sup>10</sup> /12	6	6	5 <sup>9</sup> /12

The Relationship between Repeated Mental Testing and Clinical progress;-

- (a) Of cases in which the increase in mental age exceeded 9 months per annum,
- 75% were clinically classified as much improved.
- 25% " " " " ~~not~~ improving,
- increase in
- (b) Of cases in which the mental age exceeded 3 mths., but did not exceed 9 months per annum.
- 67% were clinically classified as improved
- 33% " " " " showing no change.
- (c) Of cases in which the mental age changed less than 3 months annually in either direction :-
- 74% were clinically classified as showing no change
- 21% " " " " improving
- 5% " " " " much improved.

(d) Of cases in which the mental age decreased by more than 3 months per annum,-

33% were clinically classified as showing no change

50% " " " improving

17% " " " much improved.

Professor Karl Pearson<sup>1</sup> states that "Health and intelligence are correlated, though not very markedly. While recognising this association of health and intelligence it does not seem feasible, in the present state of medical knowledge, to improve intelligence by modifying health." Were this statement true it would remove one of the complicating factors from and attempt to forecast ultimate mental level, but it is a statement which, in its broader aspects at least, we cannot well accept. Adopting the results enumerated above, it is easy to calculate that a child whose present age is 10 and whose mental age is 7 will probably attain at maturity a mental age of nine: or that a child of 10 whose mental age is 4 will probably reach the mental level of a 5-6 year old normal: but there enter such disturbing factors as problems of health and problems of temperament,

1. Pearson, "On the Relation of Health to the Psychological and Physical Characters in School Children" Studies in Mental Deterioration IV, Cambridge University Press, 1923.

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which make it infinitely more difficult to answer  
the question, "How will this child get on in the World?"

Intelligence Testing as a Guide to the  
Treatment of Mentally Defective Children.

In the present state of our Knowledge, we cannot treat any case of true Mental Defect <sup>with the exception of</sup> /subthyroidism - along orthodox therapeutic lines. "No means exists" says Tredgold <sup>1</sup> "or ever will exist, by which we can supply intelligence to the mentally deficient." But while this may be true, it is undoubtedly possible to influence the mental attainment of these children. We may say that a given subject is capable of acquiring only 40% of normal intelligence, and will never be able to exceed this 40% no matter what line of treatment is adopted; but such a subject will never attain the 40% in the absence of proper treatment, and with higher grade defectives particularly, the most trivial advance may completely change the entire future of the subject.

The influence of Intelligence Testing, then, may be considered from three chief viewpoints: -

- (a) As a means of determining the potential capacity  
of /

<sup>1</sup> Tredgold Amentia.

of the child:

- (b) in determining the amount of supervision required by the child: and
- (c) more particularly, in relation to such problems as the educational and industrial training of the child.

It has long been recognised that different grades of defectives are capable of attaining intelligence levels which convention appears to have delimited more or less sharply. Tredgold,<sup>1</sup> for instance, states that Idiots are capable of being taught cleanliness and Elementary self help: that Imbeciles can perform simple routine work, and that Feeble Minded can be educated to useful work contributing to their support. Such a statement is - and must be - wide, on account of the difficulty of grading borderline cases with any degree of certainty, and on account of the large range of intelligence slumped together as amounting to "imbecility". It has been suggested that the Intelligence Quotient affords a more accurate index of what might reasonably be aimed at in dealing with these /

1. ~~W. H.~~ Tredgold, *Amertia*.

these children. Working along these lines, and regarding the matter from an Educational Standpoint, Cyril Burt<sup>1</sup> suggests that children whose intelligence Quotient lies between .70 and 1.00 should be treated in special classes for backward children in the ordinary elementary schools: that these with quotients between .40 and .70 should be educated in special schools; and that children with Intelligence Quotients under .40 are ineducable. These figures can probably be taken as indicating fairly accurately educational potentialities; but it is very doubtful whether children whose I.Q.'s fall between .40 and, say .60 can best be treated in a Special School. It is improbable that the mental level at maturity of a child whose I.Q. is .60 will exceed that of a normal 9 year old subject, which is just about the lowest level at which it is possible to maintain a separate and independent existence no matter how favourable the environment. Since Mental Deficiency is a generalised condition in which, from the Economical point of view, Educational Attainment is not the only

- or /

<sup>1</sup> Cyril Burt, Studies in Mental Inefficiency (G.A.M.D.) Vol III No 1 Jany, '21.

or even the chief factor, it would seem preferable to treat these children in the general routine of an Institution for the Care of Mentally Defective Children, rather than through the medium of the typical Special Schools Curriculum.<sup>1</sup> Such cases treated in an Institution between the ages of 9 and 14 would make real progress. It is, of course, perfectly true that such Institutional Accommodation is totally insufficient, especially since Local Authorities are beginning to deal with these children under the recent legislation; but it is also true that much of the available space is taken up by unsuitable cases.

From the tables given on pp 140-5 (where cognisance is taken of this general question of capacity), we are led to believe that the Intelligence Quotient does give a fairly accurate idea of the training possibilities of Aments, and is of value in determining how much progress we may expect the defective under consideration to make. But when we pass to consider in greater detail the relationship of the system with particular /

1 For L.C.C. Special school Curricula see Appendix D  
Shuttleworth & Potts "Mentally Deficient Children".



particular spheres of training, the outlook is not so simple.

Uncomplicated Mental deficiency from the point of view of training, is pre-eminently a condition characterised by lack of mental aggressiveness, and this has to be borne in mind in dealing with defective children, no matter whether the instruction under consideration be along lines moral, educational, or industrial. Aments are as a general rule, amoral rather than immoral. It must be insisted that Intelligence Tests are of no value whatsoever as instruments for the measurement of moral calibre - they are no index to character.

The purely Educational Aspect of the problem needs no further discussion here. From the pioneer work of Binet their value in this connection has been appreciated; these tests certainly afford our clearest conception of the ability of the subject to acquire scholastic knowledge. Were this fact but fully appreciated, we would have less of the mental suffering produced by the pursuit of a goal above the level of the aspirant. - the effort of the sub-normal /

subnormal child to keep pace with the normal.

Tredgold, in discussing the place of an industrial training in the defective's equipment, asserts that for such a child the future is far more a matter of manual than of mental dexterity. There seems to be a popular impression that these qualities of mind that come within the purview of Binet Simon testing are quite independent of the conditions governing Practical Ability. Ballard<sup>1</sup> summarises this Practical Ability as depending on (a) sensory acuteness (b) motor ability (c) capacity to build up sensori-motor habits and (d) practical judgment in complex situations. But these are precisely the qualities which Binet set out to estimate when he introduced his system of intelligence testing, and in the estimation of which the test questions of the earlier year groups - up to age X or XII have been remarkably successful. The fact of the matter would appear to be that in the great majority of cases - at least 70% - practical ability and general intelligence run hand in hand. There are, of course, instances of children whose /

1. "Mental Tests" P.B. Ballard 1920 p 208.

whose performance along one line of practical activity, e.g., mat making - is far in advance of the general level they attain, just as there are children who are successful with one particular type of intelligence test, such as the repetition of numbers, long after they have ceased to score with any of the other tests of the series; but the fact that a child can deal successfully with one problem of the Age XII group of tests cannot be taken as signifying that his intelligence is of the twelve year level. The correlation between these two aspects of the mental picture of the child is further borne out by the remarkable improvement in general intelligence to be observed when the child finds something it can do: but it is true, as the Medical Officer to the Board of Education has asserted, that manual work is not a panacea for mental defect.

Intelligence Tests, then, do yield some information as to the probable level of manual attainment of the child; but here, as in all other spheres, they must be subject to the general clinical survey of the patient: it would be futile to anticipate great manual /

manual dexterity from the coarse hands of Mongolism - even from a Mongolian with an Intelligence Quotient .70.

In conclusion it is necessary to refer to two broad questions of treatment, in the solution of which intelligence testing could probably be of considerable service.

The first deals with the defective prior to the Age at which these children are commonly brought for Institutional treatment, and is intimately linked up with the diagnosis of mental defect in the earlier years of school life. Under the present system of Medical Inspection of Schools, all children are physically graded, , many of them as often as three times, <sup>at ages</sup> /approximately 5, 9, and 13. But of mental grading there is little or none. The result is that we have children being driven to work above their capacity, probably regarded by the School Authorities as dull and stubborn - but not definitely "mentally defective". We get the impression that the only 'definite defectives' that the school knows are idiots and low grade imbeciles; Such a condition is bad for school /

school and child alike, and it is gratifying that recently some of the larger Education Authorities have taken steps for the Psychological examination of their pupils. The systematic psychological examination of School Children would be of immense practical value - and would be economically sound.

In this connection the need for co-operation between teacher and physician is self-evident, and has recently been emphasised by various Authorities, including Mr<sup>1</sup> McKechnie H.M. Inspector of Special Schools, and Dr. Pott.<sup>2</sup>

The second problem is one of After Care.

Of the defectives leaving an Institution for the Care and Training of Mentally defectives, approximately 50% at present remain under supervision, either in such Institution for Adult Defectives as that recently opened by the Glasgow Board of Control at Stoneyetts, in poorhouses, or in asylums: but the other 50% return /

1. "Mental Deficiency and Racial Decay" publ. by Scot. Cent. Com. of Wom. Citizens. Asscn.

2. B.M.J. Aug 11th, 1923.

return to the care of relatives at home. Many of these are pronounced imbeciles, and in many the Intelligence Quotient is actually showing a steady fall. Only a very small proportion of children patients in such an Institution can be turned out as ordinary citizens and self-supporting; the others, freed of supervision, become unemployable, and a menace to the community. The segregation of these patients is a Public Health question of urgent importance, and in this connection the introduction of the Colony System, such as has been adopted widely in the case of Tuberculosis, and has now begun to be applied to mental defect with such conspicuous success by Miss Dendy at Sandbridge in England, and in several of the American States, is worthy of notice. There is evidence to show that such colonies can be made self-supporting while their value is very great. They are, indeed indispensable, if the work of such Institutions as that at Larbert is not to be undone.

Mercier, in his book, "Crime & Insanity" states that /

1. See article by Sir Leslie Mackenzie in "Spectator" Sept. 26, 1922.

that the mode of insanity that, next to drunkenness, most frequently leads to crime, is feebleness of mind; and systematic intelligence testing by trained - preferably medical - observers would seem to afford a procedure which could be readily standardised, and which would succeed in detecting a large proportion of these cases in which continued supervision is essential.

## Conclusions.

1. The diversity of opinion displayed in the evaluation of the role of Intelligence Tests in the study of mental deficiency is probably due, in large measure, to inadequate appreciation of the essential difference between the subnormal and the abnormal.

2. The Intelligence Quotient as an aid to diagnosis.

In cases of uncomplicated subnormality, the I.Q. yields useful information, a figure below 0.60 being diagnostic of mental deficiency. There is, however, a wide range between 0.60 and 0.80 in which, as noted in the case of Margaret Walker, the result is inconclusive; here, as elsewhere, adequate medical <sup>examination</sup> ~~education~~ is essential.

The I.Q. is of no assistance in the diagnosis of psychopathy; as has been shown, many of these cases have an I.Q. greater than 0.80—Jas. Geddes, for instance, reached 1.00, while Eric Robertson actually returned 1.06.

3/ The value of Test Reactions as diagnostic agents.

It has been demonstrated that considerable assistance can be derived from a study of the group reactions/ of the patient under consideration, a line of research which has previously received little or no attention.



Groups of tests have been prepared to illustrate the more striking reactional differences of Simple Primary Amentia, Mongols, Children exhibiting the Encephalitis syndrome, and Psychopaths; and comparison with such standard groups, taken in conjunction with the other points indicated, e.g. the low baseline and uneven performance of the Psychopath, ought to be of some assistance in the diagnosis of doubtful cases. Failure with any one test is insufficient evidence on which to base a diagnosis of mental deficiency.

4. It is found that in the grading of Simple Primary Amentia, the I.Q. is of distinct service; in the series of cases under consideration, the substantial discrepancy between clinical evaluation and the results of intelligence testing does not exceed 7%. The cases shewing variation are mostly cases of Psychopathy, in the grading of which intelligence tests are useless, though there also remain a few cases of uncomplicated amentia, where the difference is apparently inexplicable.

5. In assessing the value of intelligence tests in the estimation of prognosis it has to be borne in mind that temperamental deficiency may exercise an adverse effect. In the present investigation it is found that

46% of defectives show no change in mental age over a period of three years, 46% show appreciable improvement, while in 8% there is actual deterioration. In 12% of cases the mental age is found to be either appreciably higher or appreciably lower in an intermediate year than it is in the years immediately preceding and succeeding this; such inconstancy is obviously a source of fallacy in the formation of a prognosis on the result of one individual year's examination. It is found that the Intelligence Quotient decreases with the advancing age of the patient, and that the decrease is most marked in the higher grades of deficiency. Repeated intelligence testing throws an interesting light on such studies as the mental sequelae of Encephalitis Lethargica, disproving, for instance, the assertion that the mental level of children in this condition remains inferior to their chronological age at the onset of the acute disease.

6. The Intelligence Quotient is useful as indicating the line of education most likely to benefit each particular case. It assists in determining the feasibility of ordinary scholastic training, while it may be of service in indicating one sphere of activity in which the child is most likely to

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succeed above his general level: or it may indicate  
the necessity for very rigid after care.

A P P E N D I X

To show the difficulty of determining the degree of mental deficiency present by inspection only.

The photographs are arranged in the order of increasing intelligence of the patient.



N. McN.

Idiot.

G.H.

Idiot





M. McD.

Low Grade Imbecile

G. S.

Medium Grade Imbecile.





F.A.

Medium Grade Imbecile



W.B.C.

Medium Grade Imbecile.



J.M.

Medium Grade Imbecile

J. McA.

High Grade Imbecile.



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