

## AN OPEN-AIR SCHOOL FOR MENTALLY DEFECTIVE CHILDREN.

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SINCE the establishment of the Charlottenburg school in 1904, the claims of open air as an adjuvant to, and often a necessary condition for, the adequate education of certain classes of children, have been receiving a steadily increasing recognition. This recognition can hardly fail to lead to a very wide and

visited the school in the course of the summer. The children selected were those attending one of the special classes for mentally defectives; the number on the register being forty-three. The children all belonged to very poor families, and included cases of cretinism, mongolism, hydrocephalus, moral deficiency, etc.

*Grounds and Buildings.*—The school was held at the Eaton Road Estate, about one-and-a-half miles from the centre of the city. Rooms in a disused boarding-school were made to do duty as dining room, cloak room, kitchen, etc. Proximity to the tramway line made access easy; the children came by tram in the morning and returned at four, half-



A CLASS UNDER THE TREES.

practical application; nor can it be doubted that open-air schools will ultimately be established, not by a few of the more progressive local authorities only, but everywhere throughout the country.

It is possible, too, that teaching under open-air conditions will not always be limited to children who are obviously physically defective: but that attempts may be made to free the ordinary routine elementary education, to some extent, from the present confessedly illogical indoor system, which compels the shutting up in buildings—however well lit and ventilated—of developing children during the best and most health-giving hours of the day.

The following notes deal with an experimental open-air school for mentally defective children held during the summer months of 1908. Instituted by the Norwich Education Authority, it received the sanction of the Board of Education, whose inspector, Dr. Eichholz.

price tickets being kindly issued by the tramway company.

The grounds, six acres in extent, were well suited for the purpose; the soil was sandy, and protection from northerly and easterly winds was afforded by sheltering trees and hedges.

The indoor conditions were not so favourable; for example, the room used as a dining room was poorly lighted. But the buildings were occupied at meal times only, except during a fortnight of broken weather in August and September. Even at this time, however, no day was spent entirely indoors.

*Daily Routine.*—The following is the time table which was originally drawn up:—

TIME TABLE.

9. 0 to 9.15	Arrival of children.
9.15 to 9.30	Lunch.

TIME TABLE.—*Continued.*

9.30 to 9.55	Religious instruction.
9.55 to 10. 0	Marking registers.
10. 0 to 10.10	Physical Exercise.
10.10 to 10.40	Secular instruction.
10.40 to 11. 0	Free play and organized games.
11. 0 to 11.30	Secular instruction.
11.30 to 12. 0	Ditto.
12. 0 to 12.30	Dinner.
12.30 to 1.30	Rest.
1.30 to 1.45	Wash.
1.45 to 1.55	Breathing & singing exercises.
1.55 to 2.35	Secular instruction.
2.35 to 2.55	Play and organized games.
2.55 to 3.30	Secular instruction.
3.30 to 3.45	Tea and dismissal.

As will be seen, it was intended that an hour's rest (and, if possible, sleep) in deck chairs should be insisted on after dinner; but in practice this was found difficult, and, indeed, impossible to enforce. Mentally defective children are more fidgety and perverse than physical defectives, who take more readily to the after dinner *siesta*. As a result, the time spent in free play, cricket, football, etc., exceeded the forty minutes set apart for them. Swedish drill and breathing exercises occupied twenty minutes, some time being also given to systematic eye movements. The afternoon wash (in a disused coach-house turned temporarily into a lavatory) was a much-appreciated item in the daily routine.

Secular instruction included reading, arithmetic, clay modelling, basket work, paper-folding, and kindergarten games. A period was given each day to nature study, with the surrounding tree and plant and animal life for object-lessons.

It may be noted that boots and stockings were worn by all the children throughout; but these might with advantage have been discarded during school hours in suitable weather.

*Meals.*—Three meals were provided :—

(1) A lunch of milk with raisin bread on arriving in the morning;

(2) Dinner, consisting of—(a) Monday: Rice pudding, bread, and jam; (b) Tuesday: Shepherd's pie; (c) Wednesday: Cheese and bread, with lemonade; (d) Thursday: Shepherd's Pie; (e) Friday: Fruit and bread, with lemonade;

(3) Tea, consisting of bread and butter or jam, with milk.

About one quarter of the cost of these meals was defrayed by the parents.

(The additional cost of maintenance—that is the cost above the usual cost of the special class—including such items as extra tram fares, food, salaries for housekeeper, etc., and excluding cost of site—worked out at about 30/- per head for the whole period.)

No cod liver oil or similar food was given to the children; and no drugs were administered.

*Circumstances Modifying results.*—In considering results, the following facts have to be borne in mind :—

1. Out of the four months over which the experiment extended, one month in the middle of the period was taken up by the summer "holidays;" during which time the children (with one exception—a boy who had a week at the seaside) remained at home. As they live in the poorer parts of the city where unsatisfactory and unhealthy home conditions prevail, the break of a month naturally acted as a set-back. Several children lost weight, and many were distinctly less fit after the vacation than before it.

2. Out of the twenty-four hours of each school day, seven only were spent at the open-air school: during the remaining seventeen, the children were back at home. No special arrangement was made with the teaching staff, the hours being as usual 9 to 4. Consequently, it was not possible to extend the time to 6.30 or 7, as is done in some of the schools in Germany and London. Again, on two days in each week school was not held.

This constant return to squalid home surroundings and the back streets of the city, is a serious obstacle to continuous physical and mental progress, from which a residential school is free.

*Physical Results.*—I examined the children six times in all; at the beginning and end of the open-air period, three times during the period, and finally one month after the return to ordinary school conditions. On each occasion they were very carefully weighed and measured, at a particular hour of the day; the results as regards weight and height being the practical index of physical improvement. In order that they may be easily appreciated, I have arranged them in chart form.

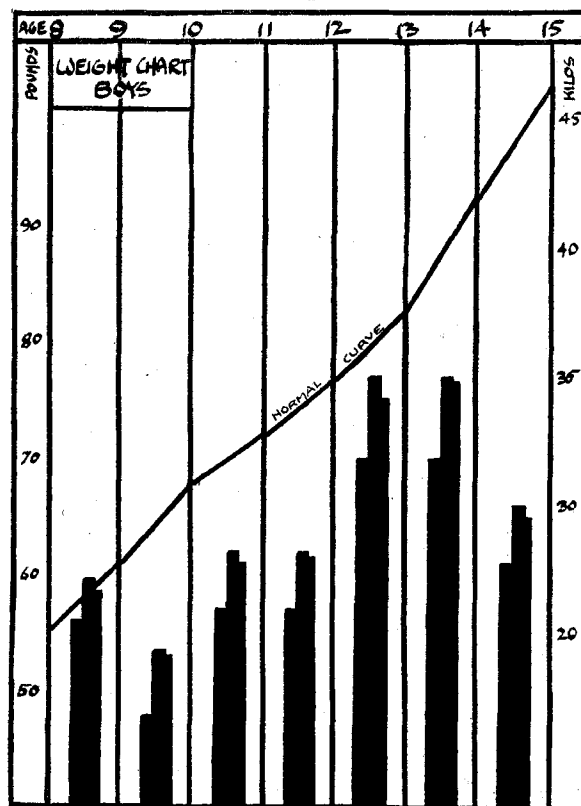


CHILDREN AT PLAY.

## A—WEIGHT.

On the two weight charts are shown :

(a) The normal weight curves of average boys and girls at successive ages, the statistics of the Anthropometrical Committee of the British Association being taken as a standard.

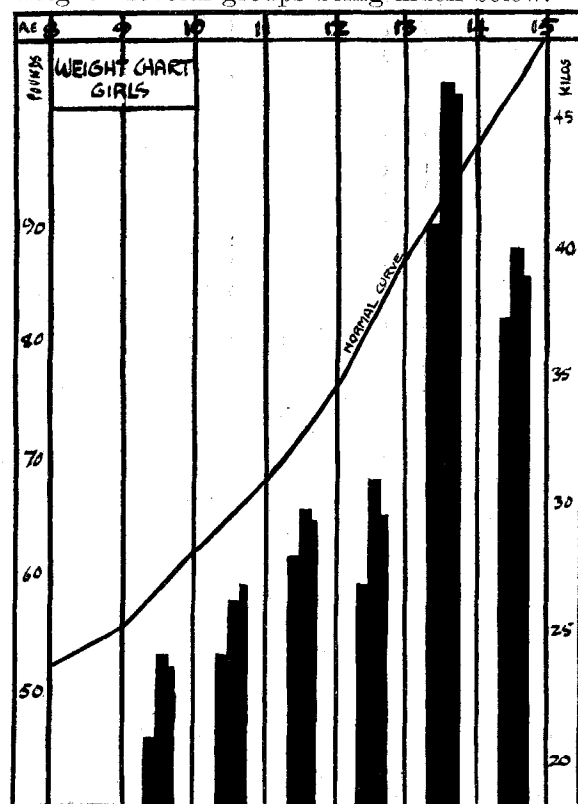


(b) The weight of the mentally defective children in different age groups shown by columns. The first column shows the weight at the beginning of the open air period, the second column the weight at the end of this

period, and the third the weight a month after the return to the old condition of school life.

From the charts it will be seen that :

1. These mentally defective children are in nearly every group below the average weight—several groups being much below.

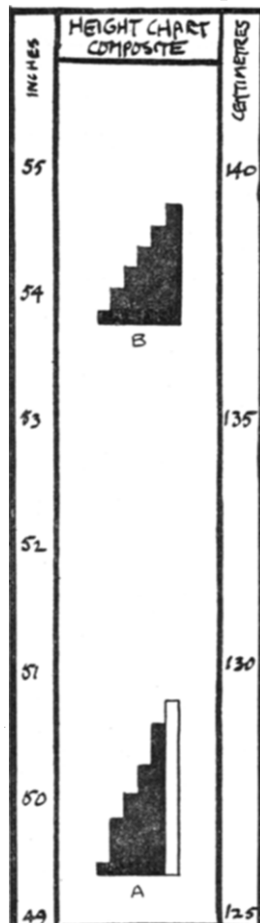


2. In one group on the girls' chart the weight is above the average. This is to be explained by the fact that this group contained only one girl, who was an illustration of the fact that occasionally in cases of mental

deficiency the capacity for physical growth is above normal. It will be seen that this girl's gain in weight was very striking.

3. The gain in weight under the improved conditions is in every group above the average gain of an average child of the same age for a similar period.

4. The gain in weight is not maintained on a return to the old unsatisfactory conditions; instead, an actual loss in weight occurs.



A. Height and growth of the mentally defective children.

B. Calculated height & growth of normal children similarly distributed as to age and sex.

#### B—HEIGHT.

The height chart is a composite one; it shows:

(a) The average height and average growth month by month of the mentally defective children.

(b) A corresponding average height and average growth worked out for a like number of normal children, similarly distributed in age and sex groups.

From this chart it will be seen that:

1. The mentally defective children averaged 4.4 inches below normal children in height.

2. The gain in height month by month was more rapid than the average gain of normal children, so that, on the last measurement, the children had reduced their deficit to 4.1 inches.

3. The gain in height is maintained even after return to the old conditions. They seem to have received a stimulus to growth the effect of which is felt even after its cause is withdrawn. This is the more important when we consider that any height gain is permanent, whereas a weight gain may be only temporary.

#### C—GENERAL PHYSICAL IMPROVEMENT.

Corresponding to the increase in weight and stature there was a general raising of the health-level of the children. The respiratory capacity was increased, and there was evidence of improved blood quality—both points of particular importance in children whose mental power is below normal.

During the whole time at the open air school none of the children suffered from colds; in this respect and in the comparative freedom from minor ailments there was a marked improvement, the attendance benefiting in consequence (it averaged 88.3 per cent.)

#### D—PARTICULAR CASES.

There were many individual features of interest. Two cases only need be quoted:

1. A boy who suffered habitually from headaches was practically free from them while at the special school. Since his return to the old conditions the headaches have reappeared.

2. Another boy, an epileptic, had no fits during school hours at the open air school. The chart shows the number of fits in these and preceding and subsequent months as registered at school.

1	2	3	4	5	6	7	8	NO OF FITS	
								MAY	
								JUNE	
								JULY	OPEN AIR SCHOOL PERIOD
								AUGUST	
								SEPTEMBER	
								OCTOBER	
								NOVEMBER	

The child was not on bromide or other treatment.

*Mental and Moral Results.*—In these directions very little improvement could be expected in such a short time. The sudden change to

entirely new conditions was necessarily unsettling, making it difficult to enforce discipline as rigidly as is desirable for this class of children, in whose training mental athletics are so essential.

But in certain directions an improvement was noticeable. There was at the end of the period a greater mental alertness, a quicker and more intelligent response to external stimuli. The attention could be longer sustained, probably because of the greater inherent interest of the objects to which attention was directed; and the power of observation, being constantly put to use, was perceptibly strengthened.

As to moral improvement, the effect of communal life was in some degree demonstrated; self-control and sacrifice for the sake of others, being looked upon as "part of the game," come more easily when children live together as a family. And, whether or not we think with Nietzsche that sin is "the moral interpretation of physiological depression," we must at least agree that where the possibility of physical improvement is, there, if anywhere, will the possibility of moral improvement be also.

**SMALL BEDROOMS AND THE INLAND REVENUE ACT.**—It is no uncommon thing to find in recently-erected houses bedrooms of such tiny dimensions as are represented by a floor area of from 40 to 70 square feet. I have persistently refused to grant certificates of exemption under the Customs and Inland Revenue Acts for houses possessing rooms of such small size. They do not, in my opinion, provide suitable accommodation for the families dwelling in houses where such rooms have to be occupied. The task of refusing these certificates, however, is a thankless one. The houses are built in accordance with the building bye-laws of the council, and the owners not unnaturally feel a grievance when, having complied with the council's requirements, they find they are precluded from the benefits under the Customs and Inland Revenue Acts which would follow but for the withholding of the exemption certificates. The responsibility for this anomalous state of affairs rests, however, in some measure with the Local Government Board. In promoting their Bill of 1903, the council endeavoured to get powers to prevent the erection of houses with rooms having less than a given specified floor area, but in this they were successfully opposed by the Local Government Board. As the granting of the certificates under the Customs and Inland Revenue Acts is entirely within the discretion of the medical officer of health, he is bound to act according to his judgment, and it would be a travesty of all hygienic knowledge to certify that rooms with 40 square feet floor area constituted suitable accommodation for the unfortunate people who have to spend a third of their life in so confined a space.—*Annual Report of Dr. Wm. Butler, Medical Officer of Health, Willesden.*

## THE SCHOOL CLINIC AT BRADFORD.

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THE Editor has asked for a short account of the school clinic which has been established here by the education authority, and the following particulars will perhaps prove of interest.

Medical inspection has been carried on in Bradford for a number of years; its possibilities and advantages have been fully recognised, but so have its limits. When the demand came from the Government for further inspection, necessitating an expenditure of considerably more money than had been the case in the past, the committee were very loth to incur this expense unless at the same time steps were taken to ensure treatment, to some extent, at any rate, of defects and diseases found. Previous experience had convinced them how necessary this step was if the money spent for inspection was to yield a satisfactory return.

They accordingly applied to the Board of Education for leave to establish a school clinic for purposes of treatment, and obtained their sanction to deal with the following classes of cases, viz., "minor ailments, such as sores, sore eyes, discharging ears, and ringworm," and for purposes also of "testing the eyesight of children believed to be suffering from defective vision, and for prescribing appropriate spectacles." The committee were given the power of providing in certain cases "appropriate spectacles free of cost, or at a reduced rate." The conditions for the establishment of the clinic, followed the lines laid down in Circular No. 596 of the Board of Education.

The clinic was established at the offices of the education committee, the members of the committee being good enough to give up their "members' room" for the purpose. One or two other rooms also were available, and one of these is now being adapted for the installation of an X-Ray apparatus for the treatment of ringworm.

The clinic is open as follows:—Wednesday and Saturday mornings, 9 a.m., for general purposes, especially for the drug treatment of ringworm, the treatment of sores, and of various skin diseases. Tuesday and Thursday afternoons, 2 p.m., for examination of vision and prescription of spectacles. Monday afternoon, 2 p.m., for the examination and treatment of cases of running ears, and children