defective children were tested. The most satisfactory tests of innate ability should be those in which superior natural endowment enabled the physically defective children furthest to outstrip the mentally defective despite inferior educational opportunity, while the least satisfactory tests would be those in which superior educational opportunity enabled the mentally defective to approach nearest to the physically defective.

A close agreement between the theoretical judgment made on the basis of the noegenetic principles and the practical decision obtained by testing these children was found to exist. Thus it seems likely that Ebbinghaus's completion test is a satisfactory mental test, not because "intelligence" consists in "combination activity," but because the performance of the test is mainly a matter of educing novel correlates, or that the "opposites" test succeeds, not because "intelligence" consists in seeing differences, but because the performance of the test is essentially a matter of educing relations.

(2) PHYSICAL DEFECT AND MENTAL EFFICIENCY.—Children in metropolitan schools for the physically defective, and patients in the Lord Mayor Treloar Hospital at Alton, were tested. The London children show a retardation of 1·95 years, the Alton children of 1·14 years. This difference of almost a year in favour of the Alton children was found on analysis to be inexplicable in terms of social environment and heredity, of the nature of the physical defect or of educational opportunities. One explanation alone seemed feasible, that the alleviation brought to the physical defect by the medicinal measures and environmental conditions of the Hospital stimulates the mind as well as the body.

	Metropolitan Schools.	Alton Hospital.
No. of cases . .	117	62
Average age . .	11·13 years	11·85 years
Average mental age .	9·18 years	10·71 years
Average mental ratio	82·5	99·4

Sir Henry Gauvain, Medical Superintendent at the Hospital, is inclined to invoke as explanation of the mental superiority of the Alton children the setting free from the skin by ultra-violet rays of certain organic compounds which are essential brain foods. Whatever the true explanation may be, it would appear tolerably certain that physical defect, if widespread and of long duration, simulates the symptoms of some degree of amentia, and that these symptoms may be removed by such treatment as is afforded at the Treloar Hospital. In the ensuing discussion, Dr. Shrubsall questioned the validity of pooling the London children together, as they represented several specified categories of diseases. It was stated, however, on behalf of Dr. McRae, that this point had been considered in his full report, of which the present paper was a partial summary.

New Laboratories at St. Andrews.

NEW chemical and physical laboratories were opened by Sir William Bragg at the United College of St. Salvator and St. Leonard, University of St. Andrews, on the afternoon of Friday, December 4. Before proceeding to the new building, Sir William Bragg, who received a cordial welcome in the city of the scarlet gown, was promoted to the honorary degree of LL.D. at the hands of Sir James Irvine, Vice-Chancellor. Mr. William Whitelaw, chairman of the London and North-Eastern Railway Company, was the recipient of the same honour. In a memorable address, Sir William Bragg described the modern developments of atomic and molecular theory, pointing out the extreme delicacy of the method of X-ray analysis, not only in determining the structure of crystals, but also in measuring the length of one of the curious chain-like molecules which are based on carbon links. He emphasised the importance of inquiry into details in pure and also in applied science. It is that intimate examination of details which results in the advance of knowledge, and affords so fascinating a prospect to the inquirer.

The new building opened by Sir William adjoins the Chemistry Research Laboratory and runs southwards with a frontage of 170 feet. It is in the Renaissance style, two stories high, and faced with local sandstone from Nydie. Above the entrance doors are mullioned windows and a moulded gable, in keeping with the seventeenth-century type of work of the old quadrangle. The architect was Mr. J. Donald Mills, and the internal benches and fittings were designed in collaboration with Prof. J. Read, of the Chemistry Department, and Prof. H. S. Allen, of the Department of Natural Philosophy.

The chemistry accommodation, which is located in the northern part of the block, forms an extension of the institute for chemistry research, which was presented to the University and endowed by the late Prof. Purdie. This institute, which has been reorganised during the alterations, contains accommodation for twenty research workers, in addition to rooms for special purposes. For the past twenty years the research institute has been widely known as a centre of research work on sugars and carbohydrates, problems of optical activity, and general synthetic organic chemistry; during the War much important work was carried out within its walls under the supervision of the present Principal and Vice-Chancellor, Sir James Irvine.

The new accommodation for chemistry tuition comprises on the ground floor an elementary laboratory, containing bench space for forty students at once, together with a balance room and other service rooms. A fully equipped laboratory for advanced students occupies a position on the first floor; this has accommodation of the most modern type for eighteen students, and is provided with fume-chambers, apparatus for organic combustion work, steam-ovens, and other necessary accessories. Adjoining it are a small balance room and two physical chemistry rooms, to which low voltage current is supplied from an accumulator room. The addition also includes private rooms for members of the staff, a chemistry museum, a lecture room for advanced classes, and store accommodation. A telephonette system has been installed throughout the building.

The Physical Laboratories are contained in the southern block, and have been fitted up to provide for advanced teaching and research, as well as for the usual elementary courses. On the ground floor is a large laboratory for elementary students, together with dark rooms for photographic and optical work, and two rooms which are available for research work. On the same floor is a mechanic's shop provided with machine tools, each driven by its own electric motor. Above is a long room which is arranged as a photometer room. On the first floor is the advanced laboratory, which adjoins the reading room and reference library, so that students can write

a record of their experimental work and immediately refer to the standard authorities on the subject of their experiment. On the same floor are the professor's room, three research rooms, and an optical room. The laboratories are well equipped with gas, water, and electric light and power, provision being made for an electric supply from accumulators in a separate building. At the top of the main staircase is a large room which is being arranged as a laboratory for experimental mechanics. Research work is already in progress, and is at present directed to the study of band spectra, for which purpose two large spectrographs have been installed.

University and Educational Intelligence.

BIRMINGHAM.—The University has received a magnificent gift from Sir Charles Hyde, Bart., who writes to the vice-chancellor: "It will give me the very greatest pleasure to put at your disposal the sum of 100,000*l.* unconditionally for the immediate needs of the University." The donor mentions in his letter some of the more pressing needs of the University which are known to him, namely, a Union building for the students; an extension of Chancellor's Hall (the hall of residence for men); the extension of the Harding Library; the purchase of certain land (if it can be bought at a reasonable price); and "the endowment fund of the research committee, which I consider of the most supreme importance." The vice-chancellor (Sir Gilbert Barling, Bart.) states that the gift will be applied to all these objects. Sir Charles Hyde has long been a generous benefactor to the University, and during his tenure of the office of warden of the Guild of Undergraduates, he showed himself particularly interested in the welfare of the students and keenly alive to the advantage of providing residential facilities. Sir Charles Hyde's wisdom in making the gift "unconditionally" is much appreciated and indeed greatly enhances its value. It is understood that no part of the money will be used for the building of the new biology block which is in course of erection.

In addition to the generous gift of Sir Charles Hyde, referred to above, a donation of 2400*l.* from the Miner's Welfare Committee has been given towards the further equipment of the coal-mining department.

Dr. Ratcliffe has presented to the anatomical department casts of fossil remains of Rhodesian man.

The Council has decided to establish an honours school in geography.

CAMBRIDGE.—The University Commissioners have issued regulations for initial appointments to lectureships and demonstratorships under the new statutes. Roughly these regulations provide that, within certain age limits, all persons who have held college lectureships for three years or were University lecturers or demonstrators on October 1, 1924, are to be offered lectureships or demonstratorships under the new regime. An appointments committee is to be nominated by the Council of the Senate to fix the financial terms of each offer. It will be a matter of interest to note whether this committee merely contents itself with making such offers that each person concerned receives the same salary as heretofore, or if it makes a definite effort to interpret the spirit as well as the letter of the Statutory Commissioners' recommendations by regulating salaries according to services performed.

SIR THOMAS KIRKE ROSE, past-president of the Institution of Mining and Metallurgy, will deliver an address on "Metallurgy and Minting" at the Sir John Cass Technical Institute, Jewry Street, Aldgate, London, E.C.3, on December 15, on the occasion of the annual distribution of prizes and certificates.

FROM the Battersea Polytechnic we have received a copy of the Principal's report on the work of the session 1924–25. A summary of student hours per week shows that the decrease which has been going on since 1921 continued last year. The evening class work, however, showed an increase, and the number of students taking courses in preparation for university degrees increased from 190 to 210. Technological courses for flour millers and lectures on hygiene and sanitary science were attended by twice as many students as in the previous year. Forty-two students obtained degrees of the University of London, including 19 B.Sc. honours degrees in chemistry. The Polytechnic was attended by 68 university graduates for advanced technological instruction.

THE fourteenth annual Conference of Educational Associations will be held at University College, Gower Street, London, W.C.1, on December 31-January 8, under the presidency of Prof. A. C. Seward, vice-chancellor of the University of Cambridge. Prof. Seward will deliver his presidential address, entitled "The Relation of a University to Secondary Education," on the first day of the Conference. Other noteworthy features of the provisional programme are: a joint discussion on the relation of technical education to other forms of education and to industry (Dr. Schofield, Miss Fox, and others); a lecture by Dr. Harold Wager to the School Nature Study Union on "Some Aspects of Nature Study"; and a lecture by Sir Robert Blair to the London Head Teachers' Association on "Education and Industry." Exhibitions are being arranged of books and school apparatus.

THE annual report of the Royal Technical College, Glasgow, for the session 1924–25 records a decrease in the number of day students from 1006 to 936, and an increase in evening students from 3810 to 3817. Considering the depression in the Clyde industries, the decrease is surprisingly small. The Clyde engineering apprentices form the principal reservoir from which the College students are drawn, and the report points, with justifiable pride, to the fact that although only half as many apprentices have been engaged in the local shipbuilding and engineering works as before the War, the number of College engineering students taking a degree or diploma course is almost double the corresponding pre-War figure. There is evidence of revival in the demand for trained chemists and metallurgists: the College has not been able to respond to all the requests for qualified metallurgists and the list of unemployed chemists is small. Some indication of the range and standard of the evening classes is given by the number (148) of graduates of universities (English, Welsh, and Irish, as well as Scottish) enrolled in them and the number (2648) of students more than twenty years of age. Six students received the Ph.D. degree of the University of Glasgow, 95 the B.Sc. of Glasgow, and 4 the B.Sc. of London. The College received during the year substantial recognition of esteem in the form of a gift of 50,000*l.* from an anonymous donor and an undertaking by the Carnegie University Trust to continue for five years an annual grant of 1000*l.* and increase it by 120*l.*, provided that sufficient money from other sources is forthcoming to form, with 5000*l.* of the Trust's grants, an endowment for a chair of metallurgy. The first number of a new official College journal appeared during the winter and contained the results of research work in the departments of chemistry, mechanical engineering, metallurgy and bacteriology.