



MR. W. ALEXANDER (MECHANICAL ENGINEERING).

diligence. Butterflies, birds, fishes, flowers, shells, beetles—whatever forms breathe the mystery of creation—these are set before the young student and he studies them at first hand with pencil, pen, brush and clay, while at the same time he trains his taste and imagination in arranging simple designs composed from, rather than based on, the forms he has studied, and whatever he designs he carries out in some material and by some method for which the design has been suitably arranged. As his skill and appreciation grow, the student attacks more difficult problems, and passes on to the higher branches of pure and applied art. The object of the courses is not to produce disciples of a particular school of painting or art, but to develop the student in his own natural direction, and guide him to a practical and living understanding of the main principles of art.

The Art Department is provided with life-rooms, modelling-room, metal-work, jewellery and carving room, elementary art rooms: a large supply of casts and materials, facilities for keeping birds, animals, and plants, etc. All these rooms have been recently renovated

and brought as far as possible up to modern requirements

The Engineering Department.

Mr. Wm. Alexander, A.M.I.C.E., A.M.I.M.E., etc., has charge of the Mechanical Engineering Department. This department possesses an exceedingly convenient and fairly complete machine and fitting shop, with smithy attached. The tools are recently bought, and are mostly of the most modern design, and of sound construction. There is also a large drawing office, borrowed temporarily from the Education Board, in which the Board of Managers has decided to instal a complete modern draughting office equipment, which will largely increase the convenience and efficiency of teaching. Courses of lectures in steam, the steam engine and other heat engines, machine design and construction, in applied mechanics, and mathematics are provided, and a mechanics' laboratory is being fitted up.

In electrical engineering, which is in the care of the Director and Mr. H. Luks, the same workshops, drawing office, etc., are made use of as by the mechanical engineering classes. This department also possesses an electrical and physical laboratory, containing some £300 worth of apparatus, some of it of fine quality. Arrangements are now being made for systematising the instruction for electric fitters and wiremen, to enable the school to provide the necessary training and to give qualifying certificates for the licensing of electric workers in the city. As the work of the institution develops, it is hoped that certificates obtained on completion of similar courses, which are at present being perfected for apprentices and workmen in other trades, will receive consideration, not only from the City authorities, but also from the Labour Department and Arbitration Courts. The courses arranged for electrical workers will be sufficient to give the students a sound training in the basic principles and their leading applications in electrical engineering design and construction.

Architecture and Building Trades.

The courses in this department include building construction and architecture, light and shade, modelling and drawing for archi-

MR. G. R. PITKETHLEY
(ART AND ART CRAFT DEPARTMENT).

itects, applied mechanics, mathematics, etc., plumbing (sanitary and roof), waterworks, etc.; carpentry and joinery, stair-building, design and cabinet designing: painting and decorating, etc. The building and construction class is under the direction of Mr. Chas. Lawrence: the plumbing under Mr. George Reed, and carpentry and joinery, etc., under Mr. Graham. The plumbing classes are among the most successful and useful in the school. Large numbers attend, and the work done is of a satisfactory character. The course occupies four years, and covers the whole ground, so far as all ordinary sanitary and roof work is concerned. The certificates granted by the school to students completing their course, fulfilling all the conditions, and passing the final examination in plumbing are accepted by the City Council as evidence of fitness to hold a plumber's license. The system employed in arranging examinations in plumbing deserves a word of explanation, especially as it may easily be extended to other trades. The courses are laid down and all details of the examinations arranged by the Plumbers' Board of Control, which is constituted as follows:—

Chairman—Mr. W. H. Morton (City Engineer), member *ex officio*.

Members—Mr. D. Robertson, representing the Associated Board of Managers; Mr. J. F. Adams, representing the Master plumbers; Mr. Johnson, representing the Journeymen plumbers. Mr. W. S. La Trobe, Director of the School, *ex officio*.

This Board scrutinises the applications of candidates, appoints examiners, and receives their reports. It also makes recommendations from time to time as to the general methods of conducting the classes and examinations. In addition to attending the courses and passing the examinations of the school, candidates must show that they have served five years at the trade, and have attained the age of twenty-one years, before they are granted the certificate of the school. The system of examination followed and the conditions imposed cause the certificate to have a very high practical value—so much so, that the certified plumber has been awarded 1d per hour higher wages beyond the wages of the uncertified man, in a recent decision of the Arbitration Courts. The certificate is thus worth to the holder at least 3s 6d per week in wages alone. A similar system is proposed at the present time in regard to



THE PHYSICAL LABORATORY.