

STUDENTS' DEPARTMENT.

"CANADIAN ARCHITECT AND BUILDER"
STUDENTS' AND DRAUGHTSMEN'S
COMPETITION.

THE publisher invites from architectural students and draughtsmen, other than practising architects, designs for front cover page for the New Year (1897) Number of the CANADIAN ARCHITECT AND BUILDER.

Designs must be rendered either with pen and perfectly black ink or with brush in sepia on a sheet of white drawing paper or card-board, drawn to the size of 22×14 inches, and capable of being reduced to 7×11 inches. The wording to appear on the design is as follows:

"CANADIAN ARCHITECT AND BUILDER.

NEW YEAR NUMBER. 1897. TORONTO, CANADA."

Drawings must be marked only with the motto of the author, and accompanied by the motto, full name and address of the author, in sealed envelope, must be sent, charges paid, addressed to the publisher of the CANADIAN ARCHITECT AND BUILDER, Toronto, so as to reach this office on or before 5 o'clock p. m., on Monday, the 6th of June next.

This competition will be decided by a majority vote of a committee of architects to be appointed for that purpose by the Council of the Province of Quebec Association of Architects and of the Ontario Association of Architects. The decision of this committee will be final.

If two or more suitable designs are submitted, a prize of \$10.00 will be given to the author of the one awarded first position and \$5.00 to the one awarded second place. The right is reserved to withhold the prizes if two or more suitable designs are not submitted. The right is also reserved to publish any of the designs submitted.

NOTE.—This competition is announced with the object of testing somewhat outside the lines of their every day work the artistic skill of Canadian students and draughtsmen. It is hoped that the response will be generous and earnest, and the result satisfactory.

PERSONAL.

James Hobbs, a well-known builder of Hamilton, Ont., is dead.

Mr. Kivas Tulley, chief architect of the Public Works Department of Ontario, has been succeeded by Mr. F. R. Heakes, formerly assistant architect. Mr. Tulley has been retained as consulting architect and engineer.

Mr. J. B. Resther, senior member of the architectural firm of Resther & Sons, Montreal, and a leading member of the Province of Quebec Association of Architects, died on the 14th inst., after a brief illness. He was sixty-six years of age, and had been a resident of Montreal for many years.

The death occurred in Toronto, on the first of May, of Mr. William Hynes, at the age of 69 years. In his earlier days Mr. Hynes was a prominent contracting plasterer, being a member of the firm of Hynes Bros., who carried on business from 1840 to 1875. During that time contracts were executed in many of the best buildings of the city, among which were Osgoode Hall, Toronto Insane Asylum, Customs House and R. Walker & Son's store.

ELECTRICITY IN STONE QUARRIES.

IN Europe electricity is being largely used in the operation of stone quarries, and is claimed to have many advantages over steam power. A French writer has recently made comparisons showing the efficiency and economy of the two systems. Concerning the steam plant he says: Suppose we have a boiler evaporating 8.5 kilograms per kilogram of coal. A good machine of 300 horse power requires not more than 6.5 kilograms of steam per horse power indicated. This will give an additional horse power for every 765 grains. The transformation of mechanical into electrical energy means 6 per cent. loss; add to this 7 per cent. lost in conductors, and absorption in receiver of 7 per cent., and there is a total loss of 23 per cent. Suppose we have a stone saw motor of 20 horse power, the central machine will develop 30 effective horse power, or about 33 indicated horse power. The consumption of coal then will show a total of 610 kilograms per 24 hours.

In the old method condensation was responsible for much loss of valuable power, and the great item was the enormous consumption of coal in comparison with the amount of work done.

On the other hand, with electrical apparatus the principal generator only absorbs an amount of energy proportioned to the work. Other advantages are fewer employees, and consequently a smaller percentage of accidents, the prevention of many breakages, while the speed of the machinery is more readily controlled.

The electrical system of operating their quarries was adopted about two years ago by the Hainaut Quarries Company, at Soignies, Belgium. The quarries of this company cover an area of 96 acres. For the handling of immense blocks a travelling crane of 60 tons capacity is actuated by an electric motor. A second motor is at the bottom of the quarry for drawing the blocks away from their bed. A travelling crane of 10 tons capacity is moved by a third motor. All the machines are shunt wound and have reversing rheostats. The system is said to have given entire satisfaction.

ILLUSTRATIONS.

ONE-ROOM SCHOOL, PORTAGE LA PRAIRIE, MAN.,—GEO.

BROWNE, ARCHITECT, WINNIPEG, MAN.

HOUSES ON EMSLEY PLACE, TORONTO—LANGLEY &
LANGLEY, ARCHITECTS.

STAINED GLASS WINDOW, ST. ANDREW'S CHURCH, BELLEVILLE, ONT.—BY N. T. LYON, TORONTO.

"ROBERTSON MEMORIAL WINDOW," SICK CHILDREN'S
HOSPITAL, TORONTO—BY WM. HALLIDAY,
LONDON, ENG.

SOLAR ROOM, STOKESAY CASTLE.

NOTE.—The design for a summer hotel, by Mr. G. A. Monette, architect, published in the ARCHITECT AND BUILDER for April, is to be built shortly at Grosbois Island, opposite Boucherville, Que. The building has a frontage of 120×100 feet, and will contain about 120 bed-rooms, with all modern conveniences. It has been so planned that a part of the hotel may be used in winter and the other part closed. The exterior will be clap-boarded and shingled, with panels in rough-cast work.

The James Smart Manufacturing Co., of Brockville, Ont., in their advertisement in this number, print some particulars of the Kelsey Warm Air Generator, of which they are the exclusive manufacturers for Canada.