

ILLUSTRATIONS.

DESIGNS FOR ONE ROOM, TWO ROOM, THREE ROOM, AND FOUR ROOM SCHOOL BUILDINGS, AWARDED FIRST POSITION IN THE RECENT COMPETITION BY THE EDUCATIONAL DEPARTMENT OF ONTARIO.

The Educational Department of Ontario recently offered a series of prizes for designs of school buildings, suitable for rural localities. One hundred sets of plans are said to have been submitted by architects in this competition. By the courtesy of the Minister of Education reproductions of the selected designs are given in this number. The names of the authors are as follows: One room school, Mr. Harkness Toronto; two and four room school, Mr. J. Francis Brown, Toronto; three room school, Mr. H. C. McBride, London.

Below will be found an abstract of the authors' descriptive specifications accompanied by estimates of cost.

ONE-ROOMED SCHOOL.

The building has been designed for brick elevations, but with a few slight alterations in minor details is equally suitable for stone.

The basement walls are of stone and the gables and roof of shingles. The steps and floors of the porches would be of wood. The basement floor would be concreted.

All the woodwork in the building would be of a very simple description; the architraves, baseboards, etc., being plain with rounded corners.

The ground floor throughout would have a cement dado to the height of the window stools.

The remainder of walls and the ceiling would be plastered in two coat work.

The class room would be sand-stucco finished and painted a suitable tint. A picture mould would be provided and the angles at the ceiling in the class room would be slightly caved.

A recitation seat, a necessary adjunct to a single roomed school, is also shown on the plan in front of teacher's platform.

Heat is supplied to the classroom by a hot air furnace through two flues of the proper size discharging over the blackboard.

The room is ventilated by means of a flue leading from a register under the teacher's platform.

The girls' cloak room is heated through a register placed at some height above the floor, and the boys' through a register in the floor.

Both cloak rooms are supplied with vents, thus insuring the proper airing and drying of the garments left in them.

It has not been considered necessary to show inside lavatories, as such buildings are seldom, if ever, provided with a water supply or drainage system.

In the basement a suitable well lighted play-room is provided for the boys for rainy and cold weather. The furnace and fuel rooms occupy one end, being separate from the play room.

Attention is called to the arrangement of the separate entrances, and cloak rooms. This arrangement of the cloak rooms in direct connection with the class room and lighted from the outside is the one most approved by the best authorities on school architecture.

Since the play-room in the basement is for the boys only, it was not considered amiss to give access thereto through the boys' cloak room.

The following estimates are made on the basis of first class workmanship and material at such prices as are likely to prevail in country places. The estimates do not include the seats, teacher's table, blackboards, or any other school furniture.

Excavation.....	\$45
Masonry and concrete floor.....	440
Brickwork.....	365
Carpentry.....	615
Plastering.....	130
Painting and glazing.....	115
Heating.....	175

\$1,885

TWO-ROOMED SCHOOL.

The ground floor shows two well proportioned rooms about 24 x 32 x 14, scientifically lighted from the left of scholars, is provided with ample blackboard space and with separate cloak rooms for boys and girls to each room.

Basement is simply divided into play-rooms for boys and girls,

and with heating and ventilating compartments compactly arranged.

The following has been avoided:—a two storey building, flat roof, tower, roof valley situated directly over entrances, combined cloak rooms, etc.

The heating and ventilation has been carefully considered and amply provided. A furnace with a capacity of 40,000 cubic feet is necessary, and may be a wood or a coal heater; two large brick or galvanized iron heating ducts convey heat to the class-rooms, and a hot water coil to teachers' room. Separate vent flues have been provided for each class room, with smoke flue adjoining to insure efficiency of operation; vent flues are calculated to exhaust air of class-rooms every twelve minutes when furnace is heating. Foul air ducts of heavy galvanized iron of ample capacity are connected with floors at the coldest positions in rooms at windows, and are carried at basement ceiling to vent flues; this arrangement being quite simple, economical and most effective. A foul air gathering room can easily be provided, but the author considers it no improvement. If foul air registers are placed other than as shown, cold air from windows travelling across floor to them, chill the feet of the scholars in the room, and impair the utility of the system.

Basement walls to be built up of local stone, and may be faced on interior with grey brick in colored mortar, wainscot to be alternate courses of red and grey brick, stonework above grade to be of broken ashlar or coursing.

Brick walls above foundation to be 14" thick laid up of sound stock brick in lime and mortar.

The estimate of the various trades is based upon recent work of similar description erected under the direction of author, and will be found quite reliable.

Masonry.....	\$1,385
Carpentry.....	1,600
Plastering.....	200
Painting and glazing.....	140
Heating and ventilating.....	195
Galvanized iron work.....	85
	\$3,605

If the roof is to be slated instead of shingled add \$150.00

In some districts where labor and material is cheap 5 and 10 per cent may be deducted from the above amount.

THREE-ROOMED SCHOOL.

All the outside walls tinted blue on foundation plan to be built to the forms and dimensions shewn with large flat limestones.

All the exterior stonework above ground line where exposed to view to have stones laid with joints quite horizontal and vertical and to be rock faced.

All the walls colored red on plans and sections to be built up with good hard well burnt brick. All those used in foundation walls to be hard green clinkers.

The finishing throughout in clear red pine or black ash which will be put on proper bevelled grounds.

All wood-work to be of pine unless otherwise specified and to be thoroughly seasoned throughout.

The rooms on ground floor throughout to be sheeted up 4' high with inch matched and beaded sheeting in 3" widths and to be finished on top with moulded capping.

The building will be heated with one furnace for burning wood or coal. The furnace to be of sufficient capacity to properly heat the building up to a temperature of 65 degrees when the thermometer is 20 degrees below zero.

The following is the estimate of cost:

Brick and stonework.....	\$1,900
Carpenter work.....	2,500
Plastering.....	170
Painting and glazing.....	300
Plumbing.....	400
Heating and ventilating.....	200
	\$5,470

FOUR-ROOMED SCHOOL.

The ground and first floor plans have four properly proportioned class-rooms 24 x 32, are well lighted from the left of scholars with five large windows arranged to operate from top to bottom: ample blackboard space is provided at teacher's end of room; separate cloak rooms for boys and for girls are provided to each room.

Plan shows possibility of enlargement without disturbing present plan, and can be executed at the minimum of expense. Stairways and rear entrances would be central then and most convenient.

The heating and ventilation has been carefully considered and