

be of stone. They are substantial in character and good in design. The entrance to the company's offices is massive and in good proportion, but the tower shown by a flap on the Richmond street elevation and on the perspective drawing, would have to be dispensed with on the score of expense, and it is this tower which gives most expression to the design. The main portion of the building is six stories above basement, and has a very high pitched roof, in which the sixth story is formed. The roof over the shop is flat, and hardly harmonizes with that of the main building. Query—Is a restaurant in basement an advantage or otherwise in a building such as this would be?

"DOMINION."—Sends required number of drawings. The buildings are distinct. The main office fronts on Richmond and Victoria streets, entrance to basement from street level. The main office is well situated for light, but the arrangement of the vaults and window openings would not make a good feature, and the breaks also in this room are not pleasing. There appears to be a want of sufficient light in the hall, which depends in a great measure upon a skylight sixty-five feet above the ground-floor ceiling. In the basement corridor there would be a great want of light. The elevations are neat and substantial. The two entrances to main building might have been varied somewhat in treatment with advantage, by giving more importance to the one leading into the Association's own offices.

"INTEREST."—Submits one elevation only, and no perspective view, and has consequently not carried out the "Instructions" given to competitors. A considerable portion of the frontage on Richmond and Victoria streets is taken up by subsidiary offices. For the reason given above, namely, neglect to comply with instructions, this design is disqualified.

"TWO CIRCLES, ONE WITHIN THE OTHER."—Submits a considerable number of plans, original and alternative ones, but has not completed the perspective drawing, it being unfinished and partially only in pencil, and thus fails to carry out the "Instructions." In the original plan, the arrangement of the main office is not at all keeping with the requirements of the Association, being cut up into separate portions wanting in light and accessibility. The basement is below ground. The alternative plan of the Association's offices is better in arrangement than the above, but is not satisfactory, and the elevations have no special features denoting the purposes for which the buildings are intended.

"A GOOD INVESTMENT."—Submits a number of drawings, among them three "alternative elevations" two plans, and part of a skeleton section. These alternative drawings are not sent in as required by the "Instructions," viz., bearing a different motto or cypher, and there is no finished perspective. No complete section is furnished in either case. In the first original set, part sections through main offices and hall, are only given. The buildings are distinct on the basement and ground floors, above that the offices are carried over the shop. The main office is lighted from the lane in rear by a skylight in ceiling, which also lights the public corridor. Staircase on ground floor would be dark. The greater portion of the street frontages is taken up by typewriters, lunch and other rooms. For reasons given above, alternative plans and elevations cannot be entertained, and for want of proper sections and perspective the original design becomes disqualified.

"860."—Submits plans and sections, two elevations (Richmond and Victoria streets—none for Yonge street), and perspective. Also two alternative elevations on Richmond street, over the same motto, without the drawings which should accompany them, as requested by the "Instructions" in such cases. The latter therefore cannot be considered as being in the competition. In the original set of designs, the buildings are distinct. Basement four steps down from the street level. The main office is lighted from the lane in rear. The Secretary's office is too large, and does not face on the space for the public, and the Manager has no retiring room. The typewriters and two lavatories occupy a considerable portion of Victoria street front. The lavatory for clerks is not well placed, being between the main office and the Actuarial Department. Elevations are plain, basement and ground floors of stone, above them brick and terra cotta and space dressings. The entrance from Richmond street is bold and well-proportioned.

"C. L. A."—Submits the required drawings, excepting a cross or transverse section. The buildings are distinct in basement and on ground floor only. Offices are carried over the shop on all the upper floors. The main office is in the eastern end of the block, having large banking or other offices between the portion to be occupied by the Association and Victoria street. The main or general office would be lighted from a yard or space in the rear which is widened to twenty-one feet including the lane. The Manager has no retiring room and his private entrance is likely to be somewhat dark, as would also be the store room adjoining. The Secretary's office does not face on the space for the public as desired. The offices in basement, with one exception, are cut off from the elevators, and they are three feet six inches below the street level. As regards the elevations, they are very effective. The tower which is a prominent feature in the design, gives a great deal of character to the edifice, but would be an expensive item. If dispensed with, the want of it would materially diminish the attractiveness of the design. Sufficient thickness of walls to sustain a tower one hundred and eighty feet in height to the cornice does not appear to have been calculated upon in preparing the plans, but this would of course be looked to by the architect in carrying out his work. The space occupied by the building, the style of the work externally, and the carrying out of the tower as contemplated, would possibly make the building exceed materially the sum named in the instructions.

I am, very respectfully,

Your obedient servant,

(Signed) JOHN WM. HOPKINS,
Architect.

ART INSTRUCTION.

EDITOR CANADIAN ARCHITECT AND BUILDER.

THE Toronto Art School is again making an effort to impress the public with its very great value to the community. Its President is out with a statement of what they propose to do, all of which is proper and to the point. But the truth is that it is much easier to impress the public as to what should be taught than to teach it. The school has affirmed that art should be taught, with which we agree, but then the school will persist—we suppose in its ignorance—in not teaching art, and subsequently it finds it necessary to make strong

appeals for assistance. If the school was making any attempt to fulfil its professed mission, persons interested in art would be only too glad to render any assistance in their power. Instead of doing good, however, it is doing much real harm; for it is turning out students with the crudest ideas of art, and an overwhelming amount of conceit. Only those schools which teach painting in a certain number of lessons can compete with it with any hope of success in the turning out of artists according to rule.

It is now time that this school should be taken out of the hands of its incompetent directors and placed under a management capable of directing its powers aright. This must be done, or an effort made by those who would like to see art taught, to establish an art school which would really impart art instruction.

Yours truly,

LOVER OF ART.

HOW TO ESTIMATE.

By "CATO."

IN estimating the cost of labor in masonry, measure the length of the entire wall outside. The corners will be measured twice, but the extra cost of building them, in bonding, etc., counterbalances this gain. Make no allowance for doors and windows in figuring for labor, unless it be specially mentioned by the architect, in which case it is usual to allow one-half the space actually required; but in estimating material, allow for all, viz., doors, windows and corners, as it may make a serious difference in the quantity, if there be many openings. Add whatever additional cost may be incurred for pointing, laying in cement, or any other special work which the specification may call for. Ascertain from the quarry, if it be convenient before figuring up, how much stone will constitute a perch and its cost per cubic yard, perch or foot, and add the 2.75 cubic feet for mortar and filling.

Special work will of course demand a special price, therefore, care must be taken and a thorough examination made of the specification and details, so that the work may be understood to the letter, and its actual labor and material figured on. For example; rubble masonry in foundations will cost approximately from 17 to 20 cents per cubic foot, according to the thickness of the wall, whereas the same wall built of large stone with the joints vertical, oblique and horizontal, filling close, will cost nearly twice as much. The design and manner ought then to be well studied, and a price sufficient to cover its cost, with the added margin of profit put upon it.

Estimates of stonework of gables, can be readily computed by treating them as triangles and, after finding the area, which is done as before by multiplying the base by half its altitude, or really the width of the house or bay by the rise of the roof, and the result by the thickness for number of cubic feet it contains, deducting all the contents of all windows or openings if there be any, for material. Some builders figure up gables as square, which is a sure plan, as the extra time consumed in forming the gable compensates for the gain in material.

The cost of ordinary brick lintels is covered by the material gained from the opening, but if spanned by stone or brick arches, a price per cubic foot must be computed by finding the content of the arch. A fair price would be from 35 to 40 cents for rough finished faces and pointed joints; if faced stones, to be paid for extra.

An important item in openings which must be allowed for, is the centering, which takes both time and material to make a set level. About 5% of the cost should be added.

Ashlar veneering can be figured by the superficial foot, with an extra price for all door jambs, window mullions, columns and cups. Pedestal bases, steps, lintels, etc., can be figured separately or a door and stoops complete; windows complete. It is usual, where there are many, to figure up the cost of one and multiply it by the entire number to be constructed for an average price, adding the extra cost of any detail on which one or two may differ from the rest.

In regard to prices, it would be obviously impossible to give even an approximate one for all the different details and designs, but if any inexperienced estimator be called upon to figure on stone work, let him obtain some, or better still, several stone contractors' prices for working material and selling, and then add his percentage of profit.

There are more applicants desiring to attend the plumbing class in connection with the technical instruction provided under the auspices of the Council of Arts and Manufacturers of Quebec, than can be accommodated.

To make a good paint for shingle roofs that can be applied, cold and dries quickly: Take one barrel of coal tar, ten pounds of asphaltum, ten pounds of ground slate; mix by the aid of heat and add two gallons of dead oil.