

PROTECTION TO ALL.

Editor CANADIAN ARCHITECT AND BUILDER.

DEAR SIR,—The policy of this country is to build up its industries, and to that end high duties are imposed on all materials which are or might be produced at home. I will not offer an opinion as to whether this policy is a good or bad one. In the eyes of some it is bad, but there are others (and they are certainly the majority at the ballot box) who believe it to be the best method of building up the country. If such is the case, then the further the principle is extended the better; in fact in justice to all it should be carried out to the fullest extent. We find that while all manner of manufactured goods have to pay large duties, and the manufacturers are thus enabled to carry on their business to their own profit and to the benefit of the country as a whole—still to the loss of the individual who has to pay the increased values—there are those who have pay this increased value on every article they consume, while they are not protected in the slightest degree from foreign competition in their pursuits, and are thus placed in an unfair position. Such treatment of the individual is not just or honorable, and may be detrimental to the best interests of the country as well.

One of these branches to which I refer is that of architecture. An architect in this country must pay his proportion of customs duties on what he consumes, and also on all architectural works which he may require for advancement in his profession, while he is not protected from the competition of architects living under another Government. It is true that duty has been exacted on plans, etc., at various times, but there is no fixed charge, nor is any definite line of action followed. There should be a duty on all plans prepared by foreigners for buildings erected in this country equal to, if not greater than that imposed on manufactured goods. The duty should also be placed at so much per cent. on the total cost of the building, which would save all trouble in arriving at the value of the plans. For instance, if it were decided that the duty on plans should be 30 per cent. on the value, it could be raised by requiring a payment of $\frac{1}{4}$ per cent. on the total cost of the building.

It may be asked, why should a duty be placed upon plans for the benefit of Canadian architects? First, that they may be placed in equal position with those who are now benefited by protective duties; and, that they may be encouraged to study their profession that they may be enabled to carry out important work; 3rd, that art may be encouraged and fostered in Canada through her own citizens; 4th, that men who are unable to judge as between good and bad architecture, and who are under the impression that they can not secure outside an American city an architect of sufficient capacity to execute their work, may be obliged to entrust their work to home talent or pay to the Government duties on the plans they thus obtain outside the country in which they have been enabled to make a fortune, largely through their not having to compete with foreigners; 5th, to prevent our ablest men leaving their native land for another, which will thus receive the benefit of their energy and ability.

There is no truer proverb than that "A prophet is not without honor save in his own country." Largely, all the architectural work that has been done in this country by outside men is inferior to the work of Canadian architects. Much of this work has cost very much more than any work done by a Canadian architect, but excessive cost does not constitute good work. A man with plenty of money can build a solid building, but what about the design? and that is where nearly all the work by outside talent is defective. Some of it is exceedingly bad—worse it could not very well be—but it is saved in the eyes of the public because it has the appearance of great solidity and cost. A good design has merit no matter of what material it may be constructed—even though of the cheapest—and a bad one is meretricious, even though carried out in the most expensive materials. I may also mention that size does not constitute artistic excellence, as the vast majority of people seem to imagine. If such were the case, the pyramids would be the most perfect piece of architecture in the world. Excellence of design may be found in small unpretentious structures, and inferiority in large structures built of the most expensive material.

The reason given by those who have patronized outside talent is, that Canadians have not had the necessary experience, and that in giving the work to others they are entrusting it to capable men in whom they have confidence, because they have erected work of a similar character to that which they contemplate. In many cases the reason is not based on facts, for often these parties have gone to incapable men who are not Canadians; but the fact that they live far enough away to allow of their being credited with qualities they do not possess, is sufficient to transform an incompetent man into a most capable one. But if Canadian architects have not the necessary experience to erect their buildings, when will they have seeing that they are not afforded any opportunities? So far, they have been expected to put up as substantial and expensive looking a building for \$50,000 as an architect from the States has been enabled to do with twice or three times that amount. That they have erected more artistic buildings does not count, so long as they have not been erected in costly materials—the rebuke of inferior designers. It is only fair that Canadians should be given the opportunities requisite to allow of their perfecting themselves in their art. Advancement in art will benefit this country just as much as the increase in the commercial and manufacturing interests. The people have shown that they believe that such increase benefits the country, or they would not pay the protective duties. Then why should not those who have benefited by their business interests being protected, be made to assist in the cultivation

tion of the much more desirable than mere material progress.

If something is not done to encourage literature and art in this country, we will have all our most capable young men seeking other fields. The man who feels he is capable of great efforts will not be satisfied to fulfil small duties. He will seek wider fields for his talent; and is to be blamed for doing so when he is not only refused the opportunities which are justly his, but is practically insulted as well in the land of his nativity? For myself, I intend to recommend all young men of ability with whom I come in contact, to go to the States in preference to remaining in Canada. When a Provincial government goes to a foreign architect and accepts at his hands a design for the Provincial Parliament Buildings so very inferior to the Canadian design, little can be expected. It is unpatriotic and worthy of highest condemnation to throw our country over for money, but it is equally if not much more worthy of condemnation, when a country will not cherish its own children, but instead, gives assistance to those of a foreign state.

PROTECTION OF ALL INTERESTS.

PRECAUTIONS IN BUILDING.

By OWEN B. MAGINNIS.

BUILDERS having cellars and foundations built, on which to erect frame structures, should carefully watch the work of the stone mason or bricklayer, to make sure that they are correctly measured from the cellar plan, and all breaks, as bay windows, etc., should be built from wood templates. The tops of the cellar walls must also be finished perfectly level from corner to corner, and level across all bays, in order that the sills may lie solid and level on the stone or brickwork. After the lot lines have been determined, and the ground is ready to be staked out, it should be measured exactly off the plan, and wooden pegs driven at the extremities of all the interior and exterior angles of the intended building. From these pegs lines are stretched, so that the digger may be able to cut the sod to a line, and dig out the foundation to the shape and depth required. It would be well if the house be set on a level or slight hollow, to keep the cellar up higher than stated in the specification, to permit the owner, if he so desire it, to grade the ground surrounding the house on a slight pitch, to carry the rain dripping from the walls away from the foundation, making the cellar much dryer.

In regard to footings, they ought to be of large area, especially under piers supporting girders. A broad stone, well bedded into sound, well rammed clay, or on cement concrete, makes a good footing.

Some builders do not build their piers until the house is framed and raised, but it is better building to put them in with the rest of the underpinning. Posts under cellar girders, should also have a good footing of stone, not likely to crack. These too are often omitted, and the girders temporarily sustained till the frame is complete, as it is claimed they can be more solidly placed when the weight is on the girders, by raising the girders to a slight camber with a jack, and setting in the posts to suit, and retain the camber. Chimneys likewise require wide, sound footings, and all footings should be laid in good cement.

Framed houses, which are situated on very much exposed sites, and likely to be subjected to extreme wind pressure, should be anchored to the foundations. The anchors can be made of flat wrought iron, having a round shank which passes vertically through the sill, holding it firmly to the top of the foundation wall, by having a nut and washer on the upper end. In ordinary frame work, anchors are rarely used, as the weight of the superstructure is sufficient of itself to resist the pressure. Rough or under-flooring in dwellings of this class is better laid diagonally than in the usual manner, reversed on each story, to brace the buildings horizontally, also sheathing and roof boarding.

Corner boards, outside window and door casings, and vertical bands, generally have their edges against which the clapping boards, wrought square. It is a better method, however, to see they are jointed a little off the square, or, mechanically speaking, a trifle standing from the back, for the reason that this edge throws off the rain water, and in putting on the clapping boards or siding, if they be marked to the length on the outer arrises when they are driven or pushed back against the sheathing, the joints are bound to close tightly, which is very essential where there is sure to be shrinkage, as in this case.

All tin flashings on top of door and window caps, if shingled in with each course of shingles, need to be given plenty of overlap. Valleys in roofs can be constructed in this way, but it is preferable to make the valley gutter in one entire piece, of sheets of tin soldered together, to diminish the chance of leakage, and all nails should be kept as far back from the intersection of the valley as possible.

Shingles in valleys and on hips 1-2 longer when laid with their grain running in the same direction as that of the hip or valley. When they are cut on the angle, the end wood absorbs water and hastens rot, whereas the straight, close running grain of the wood rejects the moisture more, and leaves the shingles more durable. Few carpenters can now be found, except among the older hands, who are familiar with this mode of shingling, as it is really a very old, yet excellent one, and comparatively simple, involving little more time than the later and inferior method. All that is necessary is to taper the shingles so that they radiate as it were from the angle of the hip or valley to straight joint square to the eave. Counts on ridges are scarcely to be recommended, but if they must be employed for the sake of economy, are best run up on that side on which the angle of the rain in that latitude usually falls. Tongued and grooved ridge boards are an improvement on the count, that is, if the joint is well bedded with white lead. Wooden ridge rolls are better still, and the best of all is the galvanized iron cresting. Rolls and ridge boards should be well nailed through the shingles and into rafters, and not to the shingles only. Hip shingles should be cut with the saw to make a straight job and not hewn with the hatchet, and properly overlapped.