

of the city bounded by Catharine, Hunter, Bay and Cannon streets, or in that part of King street between Catharine and Wellington streets, shall, while any part of the material remains upon such street, enclose and keep enclosed the ground thereby occupied with a close board fence of a uniform height of not less than six feet, the public sidewalk to be left clear in all cases where it is not necessary to occupy it, and to be roofed over, wherever necessary, at a height of not less than eight feet above the level of the sidewalk with two thicknesses of one inch boards, and where it is necessary to occupy the sidewalk with building material, a plank sidewalk three feet wide shall be made by the person depositing the building material, such sidewalk to be made immediately outside of the said fence, and the ground covered thereby to be reckoned as part of the space which the person depositing the building material is allowed to occupy.

(c) Every person who shall deposit or place any building material upon any public street for any of the purposes herebefore mentioned in any part of the city other than that portion thereof bounded by Catharine, Hunter, Bay and Cannon streets, or that part of King street, between Catharine and Wellington streets, shall, while any part of the material remains upon such street, enclose and keep enclosed the ground occupied thereby with a board fence of sufficient height and strength to fully protect the public from injury or danger therefrom, and if the public sidewalk shall be enclosed within such fence, he shall make a sidewalk three feet wide immediately outside of said fence, and the ground covered by such sidewalk shall be reckoned as part of the space which the person depositing the building material is allowed to occupy.

(d) The fence, and roof and sidewalk mentioned in the preceding paragraphs of this section shall be removed by the person by or for whom they were erected as soon as the building material enclosed thereby has been used or removed, and he shall also thereupon put the street and sidewalk where such material has been deposited in as good repair as it was before such material was placed thereon.

2. The following section is hereby substituted for section 6 of said by-law: (a) Whenever any person or persons, whether contractors or proprietors, shall be engaged the erection or repairing of any building or other structure whatever within this city, and shall cause or permit any building material to be placed on any public street, lane or alley in the said city, and whenever any person or persons who shall be engaged in constructing any sewer or laying any gas, water or other pipes or conductors, in or through any of the streets, lanes, alleys, highways, sidewalks or other public places in said city where persons pass and repass, whether by appointment of the city, or its agents, or as contractors, or otherwise, it shall be the duty of all such persons to protect the public from injury therefrom by placing a sufficient number of red lights upon such materials, rubbish, goods, wares and merchandise, heaps, piles, excavations or any other thing so caused or permitted by them to be or remain in or at any of the places above mentioned, and in such manner as to enable the same to be distinctly seen by all passers-by, and to continue such lights from dusk till daylight, during every night in which any such obstructions are allowed to remain in or at such place, and if such materials or obstructions are enclosed by a fence such lights shall be put on or above the fence.

(b) No person shall allow building material of any kind under his control to remain in any public street, lane or alley after dark without being closely piled, and being also sufficiently lighted in the manner herebefore required, or to remain more than twenty-four hours in any public street, lane or alley without being properly enclosed by a fence in the manner herebefore required, or to remain in any public street, lane or alley, in any other manner or for any other purpose, or for any longer time than is permitted by this by-law, nor shall any person put any fence or obstruction or allow any fence or obstruction under his control to remain in any public street, lane or alley, in any other manner or for any other purpose, or for any longer time than is permitted by the provisions of this by-law.

(c) No owner or occupant of any building shall place or construct, or authorize the placing or construction of any overhanging, conductor, water pipe or gutter pipe so as to permit or cause the water from the roof of such building to escape upon, flow over or run across or upon any public sidewalk, provided that it is adjacent sewer, and the owners of all buildings hereafter erected or rebuilt shall connect all conductors or gutter pipes upon that part of the building abutting upon any street with the sewers upon such street as the case may be, and whenever the pavement upon any street, not being a wooden sidewalk, is being constructed or reconstructed, the owners of all buildings abutting upon the street shall connect with the sewer upon such street every conductor, water pipe or gutter pipe, the water from which would otherwise flow over or upon such pavement.

(d) It shall be the duty of the inspector of buildings to keep a record of all permits granted under this By-law, and to enforce the provisions herebefore contained, except the last provision contained in section 6 b, and to prosecute all persons who, after due notice from him, shall fail to comply with the requirements thereof, and as to the last provision of section 6 b, such duty shall be performed by the street commissioner.

3. Any person or persons guilty of a breach of any of the provisions of this By-law, shall for every such breach be subject to the penalties imposed by chapter seventy-one of the Consolidated By-laws of this City.

4. This By-law shall take effect on and from the passing thereof, but nothing herein contained shall limit or restrict the rights as to space of those who may have erected fences enclosing building material under the By-law hitherto in force; but with regard to such fences herebefore erected and now standing, the By-law hitherto in force shall continue to have effect as to the space thereby permitted to be enclosed by such fences for the deposit of building material.

NOTES ON PLASTERING.*

By J. M. GANDER.

SPECIFICATIONS usually call for laths that are dry, free from knots, sap, and bark. There is only one point here that needs discussing—that is, that laths may be too dry, and for this reason, that when the mortar is put on it will swell them up to such an extent that the key is almost squeezed off. When the lath afterwards shrinks the mortar is quite loose. A good and sufficient key is obtained by spacing the laths $\frac{3}{4}$ of an inch apart, but for two coat work I would recommend rather less space, provided the mortar is well rubbed through, for the wider the key the sooner will the ceilings get dirty and stained at the key. This staining is caused by there being a greater quantity of mortar between the laths than on them—consequently it will shrink and leave small channels that will catch and hold what dirt is floating in the air. This is generally obviated by having three coat work, the first or scratch coat forming a foundation and causing the drying to be more even.

When three coat work is specified it is also necessary to state that the first

coat whether for wall or ceilings shall be quite dry before the second coat or floating is put on, otherwise in the lath work the key will be broken. I know some people will say it is better to put on the second coat before the scratch coat is too dry. The only reason I know of for that argument is that it will take less material and labor, consequently it can be done cheaper. For the first coat on walls it should be put on pretty soft and well rubbed in with the points of the trowel.

When the brick walls are rendered, they should always be done before the strapping is put on, otherwise the battens will shrink, and perhaps just behind them might be seen daylight through the joints in the wall, and as a chain is only as strong as the weakest link that is in it, so it is with the wall—only you may cover all over except just the spot that most required to be done.

In selecting lime for mortar it is best to choose that which is generally described as "poor lime." The word "poor" in this case does not mean that it is so in quality, but rather the reverse—the poor limes will not take as much sand as the rich or fat limes, but the work is very much stronger and better and will set hard in some situations, as for instance a damp wall in a basement, where a rich lime would not set, but in using it it is better to run the mortar a few days before it is required to prevent what is known as blistering or blowing. Here in Toronto I prefer the Georgetown lime, although there are several kinds, and generally of a very good quality. For finishing the Guelph white lime is the best, being of a good color and will trowel to a good face.

It is, of course, necessary to have good sand that would be described as clean, sharp, and coarse, but all sand that would come up to that description would not necessarily make good mortar; for instance, if you take the lake sand and use it alone (that is not mixing other sand with it), it will get hard on the face, but if you break the surface the inside will invariably fall to powder. There may occasionally be an exception, but it is very rare.

Sometimes the sand may be too coarse, then you will not have firm solid mortar, as the spaces between the particles of sand are so large, and being filled with lime, there is no strength in it. In that case it will be necessary to use some finer sand with it to fill up the interstices, so as to make a compact body.

You cannot lay down any hard and fast line as to the amount of sand a given quantity of lime will take; the proportion must always be determined locally; it will vary from three to six parts of sand to one of lime in London Eng., with Dorking lime about three at Sutton Bridge, in Lincolnshire; with Peterborough lime, I have used as much as eight; in Brighton about four, and in Toronto, with what is known as "Bloor St. West sand" about five parts of sand to one of lime. So with hair, it is possible to put too much in. When it is of good quality and long, and too much is used, it will make the mortar so tough that you cannot get it to key through the laths.

As far as possible it is well to do without gauged work. Of course at times it becomes a necessity, but it is seldom satisfactory and never certain in result.

Lately we have had introduced here a new article for plastering, Adamant, and if it fulfils all that is claimed for it, it will certainly fill a long felt want. It is a most useful article for winter use, as you are able to coat and finish complete any reasonable amount in the same day. This is a great advantage in occupied houses.

Soapstone is, comparatively speaking, a new kind of finish, and I think for finishing bath rooms and servants' offices it is the best thing we have. When it is properly done you can take a sponge and water and wash it clean, which is very necessary sometimes after plumbers and hot water men have finished their work.

The ordinary kind of finish here is described as hard finish, that is, putty made from Guelph white lime and to which is added some plaster just as it is going to be used. The addition of plaster and plenty of trowelling constitutes the hardness. Another kind is described as sand finish, that is, a little sharp, clean fine sand, added to the putty, either with or without the plaster. When the buildings are going to be papered or decorated immediately after being built, sand finish is the best, as the paper is less likely to peel off. If a thoroughly good and fine surface is required for decorating, that which is known by the name of "trowelled stucco" is the best finish, but on account of the extra labor required it adds considerably to the cost. This is composed of two parts of sand to three of lime. The second coat of mortar for this finish is left rougher on the surface than for hard finish. The stucco is put on the wall and traversed in with a rule reaching from top to bottom of the wall—that is, when the wall would not exceed 14 ft. in height. When it has been got thoroughly straight and true it is hand floated with water until all the fat or superfluous lime has come to the surface. The process of hand floating is to take out all irregularities or waves. It is then trowelled down, and if properly done, you have as far as is possible, a perfect wall.

Of course when expense is not an object and time is, we have the various cements, such as Keene's, Murin's, and Parian, all of which can also be used for running mouldings such as architraves, base dados, etc. These can all be painted immediately the plasterer has finished. The base of all these cements, as also plaster, is gypsum. The different results are obtained by mixing various chemicals to retard setting and giving time to work it and bring it to a true, hard face, which is capable of being polished equal to marble.

When these cements are used as a finish, ordinary lime mortar alone should never be used. The lath work should be covered with two parts hair mortar, with one part Portland cement added for scratch coating. The brick walls and second coat of lath work should be floated with a mixture of three or four parts of sand to one of Portland cement, the surface

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