

PRISMATIC GLASS.

The prismatic lighting of dark interiors has of recent years received considerable attention, says the Irish Builder, as it mitigates an evil necessarily associated with the crowding into towns and the erection of high buildings. Prismatic glass is a great improvement on the antiquated reflector, which was not only an eye-sore, but generally inefficient, and all forms of such glass are to be recommended, though of course some are better than others, the most satisfactory test in commercial use being personal observation of the degree of improved lighting produced by various makers, for as each problem requires separate treatment and the glass needs to be proportioned as it were to the situation, it means that scientific application and intelligent supervision are often better than greater theoretical efficiency. The "MAXimum Light Glass" (an American invention) at the same time possesses many theoretical advantages. As regards the theoretical value of this patent form of prismatic glass, the fact that the John Scott Legacy medal of Edinburgh was awarded it testifies to its scientific design. The distinctive feature about "MAXimum Light Glass" is that it has a lenticular instead of the usual plane surface (i. e., its front side has a number of rounded ribs or panels, which are virtually lenses.) The lens ribs run transversely to the direction of the prisms on the inside surface. We would point out what this means.

By way of introduction we may state that the object of all prismatic glass is to gather light impinging in a downward direction at a more or less sharp angle, by reason of the narrowness of streets or courts, and to alter its direction so as to transmit it into the room. This is done by the prisms, the angles of which should be suited to the room so as to throw the light into the furthest corner; but this has led to the erroneous conclusion that as much of the light as possible should be transmitted parallel to the walls, floor and ceiling of the room. The result of such a procedure is that shadows are cast by objects in the room. After the first desideratum has been achieved, namely, that as much extraneous light as possible shall be directed into the interior, and practically all the designs in prismatic glass are equal theoretically in this respect, the next consideration is how to direct it to the best advantage, and, as shadows are most objectionable, to diffuse the light evenly over the room. The way to do this is to transmit the light on divergent lines so as to cause it to strike the bounding walls, ceiling and floor of the apartment

and be reflected from them so as to counteract and neutralize the shadows. Glass which is simply prismatic and not lenticular exaggerates the divergency of the transmitted light in the vertical plane only and directs the light in the horizontal plane in parallel lines without diverging it. If lenses are formed on the other (outward) face of the glass running exactly the same way as the prisms the divergency in the vertical plane is increased, but no alteration is caused as regards the horizontal plane. The lenses, however, have an indirect advantage over the flat surface by total reflection, and they look better than the latter. By running the lenticular panels transversely to the prisms the light is transmitted divergently in both the horizontal and the vertical planes, while additional light is gathered as explained above. In this way practically all shadows are overcome, especially if two windows can be placed in the same apartment, as then the light from one completely overlaps that from the other. This arrangement of lenses and prisms has the advantage also of giving extra strength and allows the larger size of prisms to be readily made, and also the thickness is less compared with other forms, which is an advantage, since there is a loss of light from absorption in every glass. The "MAXimum Light Glass" is made in larger sheets than usual, namely, 18 in. long by 60 in. high, and thus all the many usual joints are avoided. Twenty-one different angles are made, so that the glass may be suited to each particular condition of site and length of apartment. It has truer prisms without so many flaws or roughness as are usual in this kind of glass, and as each blemish means loss of efficiency, this is another important point. When the light comes from high up it reduces to a minimum the use of artificial light. It has been used in 1,200 different windows in London alone during the past month, and recently it has been fixed in several places in Dublin.

STRIKES IN CANADA.

The loss of time to employes through trade disputes throughout Canada during June was approximately 62,488 working days. This is an increase of nearly 30,000 days compared with the previous month, and is largely accounted for by a strike of iron and steel workers at Sydney, Nova Scotia, in which 39,000 working days were lost. In June, 1903, there was a loss of 122,612 working days, about 60,000 more than in the present year.

CANADIAN MARBLE.

A letter comes from Glasgow this week to the secretary of the Toronto Board of Trade. It asks for a general description of the marble being quarried in Canada, clear and natural, pointing out what defects, if any, exist, and asking for the names and addresses of the quarries and their agents, the size of the blocks available, with prices per cubic foot. Enquiry is also made regarding mode of delivery and cost thereof. This is a very circumstantial and business-like enquiry, and should have a very comprehensive answer. The Ontario Bureau of Mines can give valuable aid in filling the requisition, and the Ottawa publications of the Geological Survey. We would suggest correspondence with the Nova Scotia Department of Mines, or with the Crown Lands Department of Quebec. These provinces are both nearer the source of the enquiry. At the present time, so far as known, only two marble quarries are being worked in Ontario, both in the neighbourhood of Renfrew. There are, however, several unworked quarries in different sections, while in Algoma there is said to be marble of an excellent quality. According to Prof. Carter, the reason so few of these quarries are being worked lies in the demand for Tennessee marble, which has gained quite a market in Canada, though in many respects Ontario marbles are just as good. All the interior marble used in the Parliament Buildings, at Ottawa, is Renfrew stone. There is but little doubt that nearly all the marble quarries in Ontario could be easily and cheaply worked, and there seems no good reason why a strong demand should not be created for their products.

Messrs. Arnold & Ewart and Messrs. Band, Burritt & Meredith, architects, of Ottawa, have entered into partnership to carry on business in Ottawa, Toronto and Winnipeg under the name of "The Architectural and Engineering Co."

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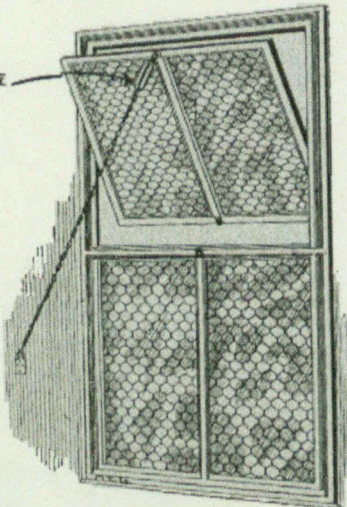
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