

**DURABILITY OF BRIDGE PAINTS.**

An investigation of certain structural paints contained in a paper read before the convention of the American Society for Testing Materials, by R. Job, chemist of the Philadelphia and Reading Railway, Reading, Pa., is of interest as showing the value of the fineness of the pigments compared with coarser ground pigments. In best paint experimented upon (No. 12) the particles were very minute, in No. 8 comparatively coarse. In the latter, when tested, there was a marked separation of pigment from oil, and an almost complete fading of colour upon the glass after the test. The results which were obtained have proved very clearly that it is a matter of extreme difficulty for the manufacturers to take a relatively coarse pigment of the desired composition (e.g., 25 per cent. sesquioxide of iron and 75 per cent. of inert material) and attempt to bring it by milling, after mixing with oil, to the degree of fineness specified." Repeated

milling adds to the cost of production without improving the quality. Dr. Dudley says that pigments can be made fine in the dry condition (i.e., without oil) much cheaper than after mixing with oil. We have also found that excellent fineness is commercially obtained in dry pigments high in sesquioxide of iron contents, and some such pigments will pass our fineness test when merely mixed with the proper proportion of raw linseed oil without any milling, and we have also found that an iron pigment which is relatively low in iron and which contains any considerable proportion of free silica, is exceedingly difficult to get into proper condition of fineness, unless by floating or perhaps by dry grinding, the cause being due to the difficulty of fine grinding of silica owing to its hardness. Our advice, then, in the manufacture of these inert paints, is to use enough finely-ground iron pigment, relatively high in sesquioxide of iron, and to have the remainder of the pigment com-

posed as largely as possible of the finest floated paper clay. Such a combination, if ground with raw linseed oil with the addition of a little japan of good quality, gives, according to the teaching of our service, results of high efficiency in the protection of structural work and of low cost.

**BUILDING STRIKE ENDED.**

The strike of builders' laborers in Toronto, which was inaugurated on August 15th, is now a thing of the past, the men having returned to work last week at the old scale of wages. The strike lasted twenty-four days. While the trades directly affected were the laborers and bricklayers, yet on account of the strike the other trades had to share in the loss, the total number of men involved being about two thousand. The total loss in wages is estimated at \$77,000. The cessation of work has permitted the brick-makers to accumulate a supply of bricks, and it is probable that during the balance of the season building operations will be very brisk.

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