

HARDENING PLASTER.

The following process is noted from France for hardening plaster, so that it may be used as flooring, as wood and tiles are at present. About six parts of good quality plaster are intimately mixed with one part of freshly-slacked white lime finely sifted. This mixture is then laid down as quickly as possible, care being taken that the trowel is not used on it for too long a time. The floor should then be allowed to become very dry, and afterwards be thoroughly saturated with sulphate of iron or zinc—the iron giving the strongest surface, the resistance to breaking being twenty times the strength of ordinary plaster. With sulphate of zinc the floor remains white, but when the iron is used it becomes the color of rusted iron, but if linseed oil, boiled with litharge, be applied to the surface, it becomes a beautiful mahogany color. Especially is this the case if a coat of copal varnish be added.—Invention.

A NEW STATION.

It is said that arrangements are being perfected to build a magnificent passenger station in Chicago, on the land between States street and Pacific avenue, and south from Polk street. The roads interested in the project are those now entering Dearborn station, including the Grand Trunk.

The death is announced of M. W. M Briggs, plumber, Montreal.

AQUARIUM CEMENT.

How to cement the glass sides in an absolutely waterproof manner is, to many, an unsolved problem. Most of the recipes given, although of easy application by manufacturers, are by no means available to amateurs. The latter may be glad to know that twenty five parts of gutta percha, carefully melted, seventy five parts of ground pumice stone, and 100 parts of burgundy pitch, all mixed and melted together, form the best known cement for the purpose. A little deftness in applying (after the fashion of putting glass in an ordinary window frame) is necessary; but once properly in place, it forms a leak-defying cement.

THE OLDEST STEAM PUMPING ENGINE.

The oldest engine in the world is in the possession of the Birmingham Canal Navigation in England, and was constructed by Bolton & Watt in the year 1777, the order being entered in the firm's books in that year as a single-acting beam engine, with chains at each end of a wood beam, and having the steam cylinder thirty-two inches in diameter, with a stroke of eight feet, and erected at the canal company's pumping station at Rolf street, Smethwick. During the present year this remarkable old engine, which has been regularly at work from the time of its erection to the current year—a period of, say, 120 years—was removed to the canal company's station

at Ocker Hill, Tipton, there to be re-erected and preserved as a relic of what can be done by good management when dealing with machinery of undoubted quality. It is worthy of note that the Birmingham Canal Navigation favored Bolton & Watt in 1777 with the order for this engine, and in 1898, or 120 years afterwards, the company have entrusted the same firm, James Watt & Co., Soho, Smethwick, with the manufacture of their modern, triple expansion, vertical engines, to be erected at the Walsall pumping station, having 240 horse-power and a pumping capacity of 12,713,600 gallons per day.

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