## SEWER PIPE JOINTS.

The usual manner of making sewer pipe joints with cement has not in all cases proved sufficient, where there is the usual amount of underground water to be guarded against. The use of asphalt is advocated for the making of practically water-tight joints. The bells and spigots of the sewer pipe are first coated with an of the sewer pipe are first coated with an asphalt paint applied with a brush. A strip of burlap is then dipped into hot asphalt and twisted into a roll or "gasket." The spigot end of a pipe is placed in the bell of another, the roll or burlap is calked into the joint space, and the joint is then completed with hot asphalt. The results are said to be very much more satisfactory than can be obtained from company used. than can be obtained from cement used in the ordinary way.-Municipal World.

## WOODEN WATER PIPES.

Excavations along Oxford street and near the Marble Arch, Hyde Park, London, Eng., laid bare many of the old wooden water pipes which were used in times past by the New River company for supplying the metropolis with water. All were in a remarkably good state of preservation and lay at a depth of from two to three feet. lay at a depth of from two to three feet. The diameter of the pipes was from five to seven inches. In Park lane was found a double line of such pipes—one line forming a by-pass, joined to the main by a caved junction of cast iron. These oaken or elm pipes were laid in lengths of from four to fifteen feet; each section was neatly fitted together, trimmed down outside so as to fit into the next pipe, whose bore had been enlarged. The bark had been allowed to remain on all. bark had been allowed to remain on all.

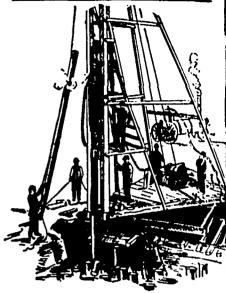
The New River Water company has laid no wooden pipes since 1817, up to which time it had expended between \$25,000 and \$30,000 annually on such material. \$40,000 annually on such material. At that time the fifty acres of land round the head of the New River in Clerkenwell, was covered with a network of pipes—"like the threads of a garment" (Engineer Mylne, "Minister of Evidence" before the House of Commons, July 29th, 1851.) The iron pipes sealed the door, of their wooden predecessors. In order to enable the New River company to make the change, Chancellor of the Exchequer Van-\$500,000 on condition that the iron be Staffordshire—the iron trade of the country being at that time in a state of great depression. Pipes of fir were also found in the East End of London. So thoroughly wedded were the Londoners to the system of wooden water pipes that they displayed a vigorous opposition to the change, on the ground that iron pipes were liable to produce cancer in those who drank the water carried by them.

Mr. Charles Alston has been appointed town engineer of Greenwood, B.C.

The New Brunswick government has purchased from the Waterous Engine Works Co., Brantford, and will have delivered to them early in September, a Champion rock crusher and a Buffalo Pitts road roller. The rock crusher is a portable machine and can be driven by the road roller, saving the expense of a special engine. These machines will be used by the provincial government in demon-strating to the towns and settlements of the province the way to build good roads.

The waterworks system at Stayner, Ont is completed, and the town is now provided with first-class fire protection. The engineers, Messrs. Galt & Speakman, of Toronto, recently made an official test, and found everything satisfactory. The reservoir was found to contain 220,762 imperial gallons, whereas the contract only called for 200,000. At the top it is 84 ft. square and at the bottom 32 ft. square.

Its depth is to ft. 6 inches. Average Pressure with 50 ft. of hose, 65 lbs. With 250 ft. of hose, water was thrown 20 ft. above the hose tower (75 ft.) at the rate of 200 gallons per minute.



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