

MUNICIPAL DEPARTMENT

BRICK ROAD IN THE COUNTRY.

The first country road in Illinois to be paved with brick was constructed last summer in Warren county, just outside the city of Monmouth. The people of this locality four years ago became disgusted with ordinary earth roads, and began experiments in hard road building. A combination dirt and stone road was first tried, and this gave such general satisfaction that an experiment in paving with brick was determined upon.

Under the State law passed in 1883 a special assessment was levied, providing the necessary funds. The road was first graded and allowed to stand for two months. It was given an occasional leveling and scraping, so that when the contractors were ready to lay the brick it was as hard and even as a floor. Two 2 x 6 oak planks were set on edge, seven feet apart, and were held in place by oak staves eighteen inches long and four feet apart. The space between these boards was covered with four inches of sand. This was carefully leveled, and a single course of paving brick, set on edge, was laid. Outside the boards, or wooden curbs, was placed two feet of crushed rock. Then the earth was graded up to this, making a gradual approach. The hard road is thus eleven feet wide, with a good earth track on each side, making in all a total width of forty feet, thus providing one solid track for wet weather and two natural earth ones to be used in drier time. Up to date this road has given perfect satisfaction, the only objection being urged that it is not wide enough. This, however, is not serious, as the road is capable of taking care of all its travel. It is easy for the driver to get on and off the road. The total cost of the combination brick and stone road was 90 cents per running foot.

It is necessary, of course, that roads built in this manner be thoroughly drained. This is accomplished in Warren county, where land is level, by putting in a line of five-inch drain pipe on each side to a depth of three feet. In some places only one line is necessary. In one instance of hard road building two lines of five-inch tile were put down five feet, one on each side of the center. Where the land is rolling, the water will take care of itself and no extra tiling is necessary.

In building the stone roads in the same neighborhood the successful plan is to begin by grading the roads slightly, so as to get the completed track considerably above the level. This will prevent mud being

carried upon the stone and the latter covered. Upon this grading is placed a layer of flat stones, about six inches thick, to a depth of eight feet. This layer was covered with two inches of fine screenings, and over the whole eight to twelve inches of crushed rock was laid. Earth was graded up at the sides to prevent the crushed rock from spreading, thus making the road about nine feet wide. The part built on this plan has been in use two years and has grown better all the time. A mistake made in earlier work was to begin with coarse stone and finish up with the finer particles. This was found unsatisfactory, as the upper layers soon worked into a fine dust or mud, which was almost as bad as the original earth road. In repairing, the parts to be rebuilt are plowed and harrowed, then dressed up with crushed rock. Orange Judd Farmer.

LEGAL DECISIONS AFFECTING MUNICIPALITIES.

WIGLE VS. VILLAGE OF KINGSVILLE.

—A by-law of a village corporation authorized the raising, by way of loan, of a certain sum for the purposes of mining and supplying the village with natural gas, and the issue of debentures therefor. A Divisional Court held, having regard to section 282 of the Consolidated Municipal Act, 1892, that a by-law was necessary to authorize the making of a contract for the mining work to be done, and that this by-law did authorize it. Also, that a resolution of the council, though entered in the minute book and containing the contract at full length, and having the seal of the corporation attached to it, could not be considered a by-law because it was not signed as required by section 288.

It is said to be the intention of the F. C. Austin Manufacturing Company, of Chicago, to establish a branch factory in Canada.

The sedimentation basin being built for the Chatham water works system is being rapidly pushed to completion. This will be a valuable addition to the city water works, ensuring a supply of clear water. Any municipality contemplating similar works might obtain valuable assistance from Mr. Edwin Jones, the superintendent, as to the construction of this, which presents numerous good features.

A VIENNA PAVEMENT

A pavement used in Vienna consists of granulated cork mixed with mineral asphalt and other cohesive substances, compressed into blocks of suitable size and form. Among the numerous advantages set forth in its behalf are cleanliness, noiselessness, durability, elasticity, freedom from slipperiness, whether wet or dry, and moderate cost. Unlike wood it is non-absorbent, and consequently inodorous. It presents the minimum resistance to traction, and being elastic under passing loads, does away with the vibration caused by heavy teaming. The blocks are embedded in tar, and rest upon a concrete base six inches thick. When taken up for examination they have exhibited, when compared with new ones, a reduced thickness by wear of less than $\frac{1}{8}$ inch—this in the case of a section of a London street leading to the Great Eastern Railway station, subjected to continuous heavy traffic, the blocks having been in use nearly two years.

INDIA RUBBER PAVEMENTS.

The latest innovation is paving streets with india rubber, which material threatens to enter into competition with asphalt. The new pavement is an invention of Herr Busse, of Linden, who has introduced it in Hanover. He used it first in the summer of last year for paving the Goethe Bridge, which has a surface of about 1,000 square metres, or 10,764 square feet. The new pavement, it is stated, proved so satisfactory that 1,500 square metres (16,146 square feet) of ordinary carriage-way in the city were paved with it last summer. The Berlin corporation, being favorably impressed with the new pavement, has had a large area on the Lutzow-Ufer paved with india rubber as an experiment, and the magistracy of Hamburg is likewise trying the pavement. It is asserted that the new pavement combines the elasticity of india rubber with the resistance of granite. It is said to be perfectly noiseless and unaffected either by heat or cold. It is not so slippery as asphalt and is more durable than the latter. As a covering for bridges it ought to prove excellent, as it reduces vibration; but a question may be asked as to its cost. The expenses must be heavier than that of any known pavement.

The American Ball Nozzle Company of Toronto has been incorporated by the Ontario government, to manufacture ball nozzles and all kinds of appliances for extinguishing fires and for sprinkling lawns. The promoters are J. F. Risley, A. R. Boswell, G. L. Lennox, and others, of Toronto, and the capital stock \$12,500.

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