

While much is to be said in favor of asphalt, it is not to be considered faultless. It does not afford a good footing for horses, it is dusty, it is difficult to repair, or to relay after the street has been excavated for the purpose of laying sewer connections, gas or water services. It is expensive, and for that reason alone, is not very acceptable, except where property is of a proportionate value.

The materials of which asphalt pavements are composed may be either natural or artificial. Natural asphalt is obtained by grinding to powder bituminous limestone found in Texas, Utah and elsewhere, or the bituminous sandstones found in California, Kentucky, Texas, etc. This powder is then heated until soft and is spread while hot on the roadway. The chief source of artificial asphalt is the Island of Trinidad, W.I., where crude asphaltum is obtained. This is refined and mixed with sand and stone dust; is heated and applied to the roadway. The artificial roadway pavement is composed of about 90 per cent. sand and 10 per cent. bitumen, so that the quality of sand used is nearly as important as that of the asphalt proper, and with the abundance of first-class sand at Bird's Hill, No. A 1 pavement of this material should be laid. Underneath the surface layer, which should be about 2 inches thick, should be a foundation bed of concrete 6 inches in thickness. A 4-inch base will be found too light for the traffic of such streets as Portage Avenue and Main Street.

Owing to the skilled labor and machinery needed in laying this pavement, it is found most satisfactory to have it laid and kept in repair by contract. When properly laid, its durability cannot be questioned, but there is some difficulty in surrounding a contract with such safeguards as will ensure first-class material and workmanship. A reliable company should be employed and the maintenance of the pavement guaranteed for fifteen years, which is its estimated life. A common guarantee is for a term of five years, but this is not sufficient. Breaks in asphalt pavements must be immediately repaired, otherwise moisture enters, causing rapid decay.

VITRIFIED BRICKS.

Vitrified bricks are different in composition and manufacture from ordinary building brick. They are made from clay, shale, or a mixture of the two, which is heated to the