MUNICIPAL DEPARTMENT

HOW BRITAIN IS PAVED.

The following data will form interesting reading for municipal officers :

Belfast has 11 miles of granite-paved streets, 100 miles pebble-paved, 50 miles of ordinary macadam, and no tar. The watering of the streets takes place from three to five times a day. About 57 men are employed watering in summer, and 224 in cleaning the streets, the number of cleaners being increased in winter to 270. Salt is used by the tramway company, and it is sometimes used even on footpaths. In Birkenhead there are two miles of granite paving, a certain amount of wood, fully seven miles of boulder paving, 67½ miles of ordinary macadam, and here there are 13¾ miles of tar macadam. The watering of the streets takes place twice a day. In this case 15 men are employed in the watering of the streets, and 44 men in the cleaning—a number which is increased in the winter to about 50. The salting on the tramway lines is also allowed in Birkenhead. Then we come to the large town of Birmingham. Here there are 23 miles of granite paving, 6 miles of wood paving, and about 220 miles of ordinary macadam. The borough surveyor looks after the watering and cleaning of the streets, and employs in this work 303 men and 22 boys. Watering takes place two or three times a day in the city, and once or twice in the out-districts. The tramway companies are not allowed to put salt on the streets, and in this case the occupiers clear the pavements. Bournemouth uses only one kind of material for street paving—ordinary macadam, of which there is 55 miles. Watering takes place two or three times a day. In this case the local authority and occupiers join in clearing the footpaths of snow in winter. Bradford is a specially interesting case. In this town there is 78¾ miles of granite paving, half a mile wood, 57¼ miles of ordinary macadam, and four miles of tar macadam. The watering aud cleaning are under due control. The watering and cleaning of the macadamised streets are in the hands of the borough surveyor, while the case of the other streets is in the hands of a separate department. Twenty-two men are employed in watering and 100 in cleaning the streets. All the principal streets are watered twice a day.

In Bradford salt is occasionally used on the tramways, and the local authority clears the pavements of snow in winter. Brighton comes next on the list, and, like the other fashionable watering place of Bournemouth, it has only ordinary macadam as a street-paving material. The streets are "constantly" being watered. No salt is used on the streets, and the householders are charged with the duty of clearing the pavement of snow. In Cardiff it is the same thing. There also the use of salt is prohibited. Cardiff paves 98 miles of its streets with local stone. It uses asphalt for 1½ miles, and ordinary macadam for 100 miles, but neither granite nor tar macadam, and it waters its streets three times a day. Dublin has 50,000 yards of granite paving, 56,000 yards of local stone, 615 yards of asphalt, 4,381 of wood, and 1,658 yards of ordinary macadam. It waters its streets once to four times a day, with a staff of 50 men—the cleaners numbering 258—a figure which in winter is increased to 308. Salt is used extensively on the tramways, and occupiers clear the pavements. In Edinburgh 5 miles of streets are laid with granite pavement, 67 with whinstone, 2 miles with wood, about 60 miles with ordinary macadam. The streets of Edinburgh are watered two or three times a day, salt is used frequently on the tramway lines in winter, and the responsibilty of clearing the pavements rests with householders.

Leicester, so far as concerns the tar macadam, is a pioneer town. It has 75½ miles of granite paving, half a mile of wood, and one mile of tar macadam. Watering takes place twice a day, by a staff of 11 men, the cleaning staff numbering 53 men and six boys, with an increase in bad weather. Salt has been used on tramways, but a special system is to be adopted, and in Leicester the occupiers clear the pavements of snow. Next on the list is Liverpool, with 237½ miles of its streets paved with local stone, 17½ miles with ordinary macadam. Exclusive of carters, the cleaning staff consists of 375 men. The streets are watered on an average three times a day.

In London, Clerkenwell has twenty miles of wood paving, which is cleaned at night under the supervision of the Wharf Superintendent. Watering takes place twice a day. Salt is used on the tramways, and here, as in every one of the Metropolitan districts, the local authority clears the footpaths of snow in winter. Chelsea has 1½ miles of granite paving, ¼ mile of local stone for foot traffic only, 1 mile of asphalt, 4 miles of wood, and 24½ miles of ordinary macadam, and 8½ miles of tar macadam. Watering takes place about three times a day on the paved and ordinary macadamised streets. There are no tramways. Hammersmith has 100 feet of granite, 3 miles of wood, and 43 miles of ordinary macadam paving. Watering takes place twice a day. Salt is used in the winter. The Holborn district has 8¼ miles of granite paving, 2¼ miles of asphalt, a small piece laid with wood, and a similarly small piece laid with macadam. Watering on the stone paved streets takes place twice or thrice a day. Salt is used on the wood paving at night to clear away snow. Kensington has 90 miles of wood paving, which is watered sometimes as often as six times a day. Salt is used at night in winter. St. Giles district has 7¼ miles of granite paving, 6¼ miles of asphalt, 1 mile of wood, and 1½ miles of ordinary macadam. The streets are watered four times a day, and on all paving except macadam salt is used in winter.

The other districts of London run thus: —Poplar: Streets granite pitched, ordinary macadam and gravel, watered once to three times a day, salt used in winter; St. George's district: Streets chiefly wood paved and ordinary macadam, watered as often as possible, salt used ; Paddington: 6½ miles granite paving, ¼ mile asphalt, 8½ miles wood, 20½ miles other material (no tar macadam), 16 miles ordinary macadam, watered three times a day, salt used on wood paving only; St. Martin's-in-the-Fields district: 1,750 yards granite paving, 1,700 yards asphalt, 6,055 yards wood, 935 yards ordinary macadam, watered as required, salt used; Stoke Newington district: 17 miles of wood paving, watered twice and three times a day, salt used ; Westminster district: 27 miles asphalt paving, watered as often as necessary, salt used.

Of the other important towns, Nottingham stands out as the town where tar macadam has been most extensively adopted. It has 85 miles of granite streets, 38 miles of ordinary macadam, and 30 miles tar macadam. Sheffield is also notable as a tar macadam town. It has 20¼ miles of granite streets, 20 miles of local stone, 41 miles of wood, 47½ miles chiefly boulders, 189½ miles of ordinary macadam, and 14 miles of tar macadam. The watering varies. Scarborough has been regarded as conspiciously a tar macadam success. It has 20½ miles of asphalt streets, 1 mile of Yorkshire setts, 8 miles of ordinary macadam, 2½ miles of tar macadam. Here watering takes place five times a day on the main streets, but very little is required on the tar macadam. Southport has 11½ miles granite paving, 26½ miles laid with local stone, a quarter of a mile wood, 3¾ ordinary macadam, and 9½ laid with tar macadam.

A SEWERAGE SYSTEM FOR FAR ROCKAWAY, N. Y.

The report and recommendations of Mr. Alexander Potter, Assoc. M. Am. Soc. C. E., upon a sewer system for Far Rockaway, L. I., have been accepted by the village President and Board of Sewer Commissioners, says The Engineering Record, and the construction of the works proposed is expected to be immediately undertaken. It will involve the division of the area into four districts, three of which will drain by gravity into a collecting tank, the contents of which will be pumped into the most convenient part of the system of the fourth district, and will thence be collected in a main receiving tank and pumped again to the disposal grounds, where it will be subject to intermittent filtration. All the power is derived from steam generated at a central station, where it drives the large pumps and dynamos. Electric motors at the auxiliary stations actuate the primary pumps, thus effecting an economy of supervision and plant without detriment to the intermittent and comparatively light service. It is also proposed to use a special form of boiler which will burn all the village garbage and refuse. The plant is designed to have a capacity sufficient to dispose of the sewage from some adjacent villages, and to be constructed at a cost of about $70,000. This particular combination of features is intended to promote economy, and to be adapted to the requirements of a summer resort place, where a simple gravity system is not feasible, where the duty is far greater in summer than in winter, and where the disposal cannot be by a simple outfall.