lasted about 10 days, and during which time some of the foam had to be removed and buried. At all other times attention once a month at the most was ample.

(6) Since the foaming period has been passed the scum formation has been slight.

(7) The decomposed sludge obtained from the small-scale Imhoff tanks resembled that obtained in large tanks except that it had a much higher moisture content. This may perhaps be explained by the shallowness of the sludge layer.

(8) A 15-in. sand bed dosed with settled sewage at a net rate of 190,000 gal. per acre per day during the second summer reduced an average oxygen demand of 63 p.p.m. to 12 p.p.m. (24-hour 20° C.). This is probably ample purification for many cases, but insufficient for others.

(9) The sand bed required very little attention during the summer months, but what would seem to be a prohibitive amount of attention during the winter months, even though covered with a tongue-and-groove wooden cover.

(10) No nuisance was produced during the summer months by the dosing of the uncovered sand bed with the Imhoff tank effluent.

(11) The growth of weeds on the sand surface did not seem to have an unfavorable effect upon the operation of the sand bed.

In General.—The foregoing work has indicated the desirability of continuing the experiments upon Imhoff tanks in order to confirm the past satisfactory results, and the desirability of continuing the experiments upon sand beds in order to improve only fairly satisfactory results. Further experiments will be made upon deeper sand beds at lower rates of dosing.

The work has been done under the general direction of Prof. Earle B. Phelps. The analytical work was done by Sanitary Bacteriologist H. L. Shoub. The writer, with Sanitary Bacteriologist C. P. Rhynus as assistant, was in immediate charge.

The Canadian Railway Club, Inc., Montreal, has elected the following officers for the season 1916-17: President, R. M. Hannaford, Assist. Chief Engineer, Montreal Tramways Co., Montreal; 1st vice-president, G. E. Smart, Canadian Government Railways, Moncton, N.B.; 2nd vice-president, Prof. Keay, McGill University, Montreal; secretary, Jas. Powell, Chief Draughtsman, G.T.R., Montreal; treasurer, W. H. Stewart, Imperial Munitions Board, Ottawa; executive committee, T. C. Hudson, Master Mechanic, C.N.Q. Railway, Joliette, Que.; E. E. Lloyd, C.P.R., Montreal; J. Hendry, Master Car Builder, G.T.R., Montreal; C. Manning, Secretary to Superintendent of Motive Power, G.T.R., Montreal; C. W. Van Buren, General Master Car Builder, C.P.R., Montreal; and W. H. Winterrowd, Assist. to Chief Mechanical Engineer, C.P.R., Montreal.

The largest combination of weight and size ever handled on one freight car by an American railway has been started on a journey to Joplin, Mo., from the yards of the Pennsylvania road at Greenville, N.J. This record-breaking load consisted of the generator for an 8,000 kilowatt turbine, purchased by Henry L. Doherty & Co. from the Brooklyn Edison Company. The generator is in one piece, weighs 160,000 pounds, and as measured by the railroad from the surface of the rails to the top of the machine stands 15 feet 7½ inches in height. Because of this extreme height the railroad was forced to lay out a special itinerary of detouring so that no tunnels or other possible clearance obstacles would be encountered on the run from New York to St. Louis. It is thought St. Louis will be reached in about six weeks, and then another journey must be taken to Joplin, where the generator will be installed at the plant of the Empire District Electric Company, a subsidiary of Cities Service Company.

TREATED WOOD BLOCK FLOORING.*

By C. H. Teesdale,
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SINCE 1900 there has been a steady and rapid increase in the use of creosoted wood blocks for paving the streets of our cities. A more recent development has been their adoption for a variety of uses other than street paving. Those qualities which make the wood block desirable for street work should also make it desirable for flooring where heavy trucking, the moving of heavy machinery, etc., make the maintenance of floors a serious problem.

Letters were written to those plants manufacturing creosoted wood blocks requesting data on their methods of manufacturing and construction. Not many of the treating plants have as yet produced very much of this product. Reports were received from 13 commercial plants and one railroad plant.

Eleven of the plants reported the use of southern yellow or longleaf pine. Five plants also recommended eastern tamarack as being satisfactory, and the three western plants recommended Douglas fir; black gum, beech, Norway pine, maple, hemlock, and western larch were recommended by one plant each.

Several of the plants, particularly those producing the largest quantity of this material, pointed out that the wood block flooring problem naturally divides itself into two classes:—

(*a*) Blocks used in very dry situations, as in factories and warehouses.

(*b*) Those used in alternately wet and dry, or in wet situations, as in stable floors, docks, wharves, slaughter houses, etc., where the blocks are exposed to the weather, to flushing with water, etc.

The treatment and method of handling the blocks differs radically in the two cases. Eight of the 13 plants reported in favor of using a distillate creosote oil. Three plants recommended paving oil similar to that quite generally used for wood block street paving. One recommended water-gas-tar; one carbolineum; one a mixture of half water-gas-tar and half zinc chloride solution; and one a mixture of half water-gas-tar and half coal-tar creosote. The last mentioned product was, however, recommended only for wet situations, this plant recommending creosote injected by the Rueping process for dry situations. The consensus of opinion was to use a distillate creosote, especially for dry situations, and a heavier paving oil for wet conditions.

In general, the plants were not very specific as to the absorption of preservative that they recommended for the two classes of blocks. The inference to be drawn, however, was that comparatively light absorptions (from 5 to 8 or 10 lbs. per cubic foot) would prove satisfactory for dry situations. Heavier absorptions, ranging from 8 to 16 lbs. per cubic foot, were recommended for alternately wet and dry or for wet situations. In general, the absorption to be given would appear to depend to a considerable extent upon the conditions met with in each individual problem, the more severe conditions especially as to the chance of the water coming in contact with the blocks, requiring heavier absorptions of oil. In the case of plants recommending paving oil and water-gas-tar, heavier absorptions were specified than when creosote was recommended.

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*Abstract of paper read before the American Wood Preservers' Association.