

finished. This work will be complete in little over a month. There will for the present be more connection with the D main than with the B section. At the foot of the streets being connected with D section, a rock formation extends along the shore; and here blasting and stone crushing is being carried on, rapid progress being made. On most of the streets the sewer trenches have been filled in, every street in the district having been excavated. Two strong concrete embankments have been built at the foot of the streets leading to the water. The contract will probably be let very shortly for the laying of the pipes in the Esquimalt village section. This section will cover the whole west end of the municipality not drained by the other sections.

PERSONAL.

D. H. MARTIN has been appointed chief engineer for Jas. Corbett and Sons, Limited, who have one of the sub-contracts for Section 5 of the Welland Ship Canal.

FRANK C. ASKWITH is provisionally in charge of roads and bridges for the city of Ottawa, since the resignation of Mr. Arch. Currie. R. L. HAYCOCK has been placed provisionally in charge of the waterworks and sewerage department, succeeding Mr. A. N. Beer, resigned.

A.S.T.M. EXECUTIVE.

The officers of the American Society for Testing Materials for the year 1914-15 are:—President, A. W. Gibbs; vice-president, A. A. Stevenson; secretary-treasurer, Edgar Marburg; council, Robt. Job, F. W. Kelley, A. Marston and S. S. Voorhees.

CANADIAN FORESTRY CONVENTION POSTPONED.

Owing to the war the president and directors of the Canadian Forestry Association have, after the most careful consideration, decided to cancel the arrangements for the forestry convention which was to be held in Halifax, September 1st to 4th, 1914, and to postpone the convention indefinitely. Whatever it is decided to do in the future, due notice will be given thereof to the members and all others concerned. Attention is particularly directed to the fact that all railway arrangements as published have been cancelled, and that anyone going to Halifax within the stated dates will have to pay full fare back to starting point. All persons receiving notice are requested to make it known to any others who they know were preparing to go to Halifax.

OBITUARY.

The death is reported of Mr. H. W. Anthes, managing director and secretary-treasurer of the Anthes Foundry, Limited, of Toronto and Winnipeg. Mr. Anthes was in his sixty-fourth year.

HARDNESS OF WOODS.

Woods are going rapidly out of fashion in railroad car construction, when only a few brief years ago they formed the entire structure of cars.

The relative hardness of woods is calculated from hickory which is the toughest and hardest wood in popular use. Estimating hickory at 100, we get for white oak, 84; white ash, 77; dog wood, 74; scrub oak, 73; white hazel, 72; apple, 70; red oak, 69; white birch, 65; black walnut, 65; black birch, 62; yellow and black oak, 60; hard maple, 56; white elm, 58; cedar, 56; cherry, 55; yellow pine, 53; chestnut, 52; yellow poplar, 51.

COAL EXPORTS FROM GREAT BRITAIN.

The total amount of coal exported from Great Britain in 1913 exceeded that of 1912 by ten million tons. Cardiff topped the list as usual, according to a consular report. From the Manchester ship canal the export amounted to about 1,100,000 tons, but these figures are insignificant when the facilities for shipment are taken into account. The quay space at Partington coal basin occupies 20 acres and there are 22 miles of railway sidings. Six tips are in use fitted with hydraulic machinery and each tip has a capacity of 300 tons per hour. Manchester is the nearest point of shipment for the Lancashire, Derbyshire and Staffordshire collieries.

EFFECT OF SODIUM HYDROXIDE ON IRON.

In a paper by J. H. Andrew in the Transactions for March, 1914, of the Faraday Society, it is stated that wrought iron corrodes slowly, becomes highly crystalline, and eventually brittle by immersion in a concentrated aqueous solution of sodium hydroxide at 100° C. for several months. The corrosion is attributed to electrolytic action between the two phases, crystalline and amorphous, of which the metal is constituted, iron going into solution at the anode (forming sodium ferrite), hydrogen being liberated at the cathode. Part of the hydrogen is occluded by the metal, being first absorbed by the amorphous constituent, thereby forcing the crystals apart, and ultimately causing the iron to become crystalline and brittle. The brittleness decreases with time, an equilibrium being finally established between the metal and the gas, and is due rather to the molecular rearrangement induced by mere occlusion or evolution of hydrogen than to the mere presence of the latter in solution. The potential difference between the amorphous and crystalline phases and hence the rate of corrosion decrease as the latter phase becomes hydrogenized, the passivity of iron produced by immersion in caustic soda being due to this cause. Similar results were obtained with electro-deposited iron, but steel containing 0.5 per cent. carbon was much less affected by sodium hydroxide solution. The recrystallization of electro-deposited iron upon cooling through the A_3 point is also considered to be due to the evolution of hydrogen.

COMING MEETINGS.

CANADIAN FORESTRY ASSOCIATION.—Annual Convention to be held in Halifax, N.S., September 1st to 4th, 1914. Secretary, James Lawler, Journal Building, Ottawa.

NATIONAL PAVING BRICK MANUFACTURERS' ASSOCIATION.—Secretary, Will P. Blair, 832 B. of L.E. Building, Cleveland, Ohio. Eleventh annual convention and paving conference, Buffalo, N.Y., September 9th, 10th, 11th, 1914.

ROYAL ARCHITECTURAL INSTITUTE OF CANADA.—Seventh Annual Meeting to be held at Quebec, September 21st and 22nd, 1914. Hon. Secretary, Alcide Chausse, 5 Beaver Hall Square, Montreal.

CONVENTION OF THE AMERICAN SOCIETY OF MUNICIPAL IMPROVEMENTS.—To be held in Boston, Mass., on October 6th, 7th, 8th and 9th, 1914. C. C. Brown, Indianapolis, Ind., Secretary.

AMERICAN HIGHWAYS ASSOCIATION.—Fourth American Road Congress to be held in Atlanta, Ga., November 9th to 13th, 1914. I. S. Pennybacker, Executive Secretary, and Chas. P. Light, Business Manager, Colorado Building, Washington, D.C.

AMERICAN ROAD BUILDERS' ASSOCIATION.—11th Annual Convention; 5th American Good Roads Congress, and 6th Annual Exhibition of Machinery and Materials. International Amphitheatre, Chicago, Ill., December 14th to 18th, 1914. Secretary, E. L. Powers, 150 Nassau St., New York, N.Y.