

William Cane, sr., head of the William Cane & Sons' Manufacturing Company, lumber and woodenware, Newmarket, Ont., died May 16th, after a lingering illness, at the age of 78.

Robert A. Ross, electrical engineer, Montreal, has gone to China for three months to consult with Sir Charles Ross regarding railway concessions, power transmission and lighting in that country.

W. B. McLean, Picton, N.S., who took one of the scholarships in mechanical engineering at McGill University last session, has joined the draughting room staff of the Robb Engineering Co., Amherst, N.S.

H. T. Bovey, Dean of the Faculty of Applied Science at McGill University, Montreal, has had the honor conferred upon him of being elected a member of the Council of the Institute of Civil Engineers, of England.

The Bruce Carruthers scholarships in the School of Mining, Kingston, Ont., have been awarded for the year 1899-1900 to F. George Stevens, Halifax, N.S., a fourth year student, and George H. Dickson, Kingston, a third year student of the school. Mr. Dickson held one of the scholarships during the session just closing.

It is announced that J. Sheedy, Toronto, superintendent of bridges of the Grand Trunk for the middle division, has resigned, and that J. Wilson, district inspector, London, has been appointed in his place. W. Kirkpatrick, Hamilton, has been appointed district foreman, with headquarters at London, and J. Kennedy has been appointed local inspector.

F. T. Walton died at Thorold last month. He was born in Hamilton 61 years ago. In 1861 he settled in Niagara Falls, where he engaged as contracting builder, and built a number of large buildings in Niagara Falls, Toronto and London. In 1879 he moved to Thorold, and for 18 years he occupied the position of foreman of the government gate yard and assistant superintendent of the old Welland canal. Since 1897 he had been superintendent of the Cataract Power Company's canal at Decew Falls.

Lieut.-Col. Caverhill, of the firm of Caverhill, Learmont & Co., died recently at his home, Montreal. The deceased, who was head of the well-known hardware firm of Caverhill, Learmont & Co., was born in Beauharnois, Que., in the year 1854. He was a descendant of one of the old Scottish families, who were amongst the first settlers in this country. Young Caverhill was sent to Edinburgh, Scotland, to receive his education, and later completed his studies in the University of Glasgow. Returning to Montreal in 1872, he commenced a commercial career in the employ of the firm of Crathern & Caverhill, in the capacity of clerk. Upon the death of his father and of his uncle, in the year 1882, in conjunction with the aforementioned partners, he took over the shelf hardware portion of the firm's business. Amongst other things Mr. Caverhill has given a great deal of his attention to military matters. He entered the Royal Scots in 1876, and finally rose to the command of that regiment, which he held for five years. He retired in 1891, retaining the rank of lieutenant-colonel. He had been a member of the Board of Trade since 1888, and was a director of the Montreal Loan and Mortgage Company. He was connected with the St. Andrew's and Caledonian Societies, and was appointed a justice of the peace for the city and district of Montreal.

—Andrew Holland, of Ottawa, has estimated the various water powers in the Ottawa Valley in the neighborhood of the city of Ottawa as follows: Ottawa river, 664,000 h.p.; Rideau river, 1,300 h.p.; Mississippi river, 14,700 h.p.; Madawaska river, 20,600 h.p.; Bonnechere river, 3,400 h.p.; Petit Nation, 2,000 h.p.; Blanche river, 2,000 h.p.; Lievres river, 98,450 h.p.; Little Blanche, 300 h.p.; Quyon river, 1,000 h.p.; Coulogne river, 27,600 h.p.; Black river, 24,000 h.p.; Gatineau river, 31,675 h.p.; making a total of 890,225 h.p. A map showing the location of the various powers with full details in each case will very shortly be issued.

Brief, but Interesting.

The Electrolytic Marine Salts Co., which was organized to operate the Rev. P. F. Jernegan's "process" of extracting gold from seawater, has received a report, it is stated in *The Engineering News*, from Prof. Henry Carmichael, the expert, appointed by the liquidation committee to make an investigation after Jernegan's abrupt departure. Prof. Carmichael reports that the process was fraudulent. The directors are said to have recovered a considerable sum from Jernegan, which, together with the sale of machinery, etc., has realized enough to pay a 20 per cent. dividend to the stockholders.

New Yorkers have been waiting patiently for the compressed air trucks, says *The Horseless Age* in a recent issue, which we were told would be relieving the draft horse of his burdens long before this. Though no trucks are yet visible to the naked eye, we are informed that two of them are receiving final tests at the Worcester shops of the company, and may be expected soon. The promoter is always a long way ahead of the mechanic, because things are easier said than done. However, let us hope that our curiosity will be satisfied at an early day, and our knowledge of motive powers augmented by some actual working data of compressed air motor trucks.

The Wet-Bulb Thermometer for determining moisture in the air, is made and used as follows, says *The Monthly Weather Review*: "Provide two thermometers and tie a bit of the thinnest muslin neatly around the bulb of one of these and keep it soaked with water. Lift this thermometer out of the water and whirl it briskly through the air for two minutes, if the air is very dry, and for three or four minutes if the air is very moist. Read it quickly, and it gives the temperature of a thin layer of water evaporated under the influence of the wind produced by the whirling. The dew-point of the air in which the thermometer is whirled is about as far below the wet-bulb as this is below the temperature of the dry-bulb similarly whirled and read rapidly. The two thermometers may be hung side by side on a short piece of string for convenience; and this is then called the 'sling psychrometer.'"

Electric Traction in the Keeling mine at Pittsburg, Pa., is described in a paper recently presented before the American Institute of Mining Engineers by F. Z. Schellenberg, Pittsburg. Two Westinghouse-Baldwin locomotives are used, weighing about 25,000 lbs., and are each equipped with two 50 h.p. motors. There are seven miles of track of 39-inch gauge, laid with 40 lb. rails, the entries being 8 feet 6 inches wide, and 5 feet 6 inches high. Each locomotive hauls a train of 30 loaded cars (or 60 tons) up a maximum grade of 1 per cent., and makes a speed of about 8 miles per hour. Of the 25,000 lbs. on the driving wheels 15 per cent. is exerted at the drawbar. The pull on good level track is 10 lbs. per ton for the locomotive and 18 to 20 lbs. per ton for the mine cars, but with inferior roadbed and track and common mine cars in bad repair, a pull of 40 lbs. per ton on level track is the initial rating before considering the effect of the grade. The power plant consists of two Fischer engines, belted to two Westinghouse direct-current, multipolar dynamos of 100 k.w. capacity each, at 250 to 300 volts. The current is used also for electric lighting and is being tried for operating coal-cutting machines.

Asphalt for joints in vitrified sewer pipe is being used quite extensively in Germany, and evidently with satisfactory results. A long paper on the subject, in which the objections to clay and cement joints were reviewed, appeared in a contemporary a short time ago. The paper was prepared by A. Unna, city engineer of Cologne, whose experiments with plumbing apparatus were fully described in *The Canadian Engineer* some time ago. The materials used are either a compound of pure Trinidad Goudron and mastic asphalt, or pure Trinidad with a suitable bulking addition. Mr. Lindley, of Frankfort-on-Maine, recommends two parts Goudron to one part Vorwohler mastic asphalt, but Mr. Unna prefers one to one of the same materials. The preliminary step in the calking process is the use of the tarred rope, great care being taken that no holes are left