to the direct horizontal force of the wind overcoming the frictional resistance of the mass of iron-work on its resting point on the piers, which a less force may have sufficed to bring about, since in the case of the destruction of the old Tay bridge in Scotland, the force of the wind is not estimated to have exceeded 56 pounds to the square foot. Some doubt seems to attach to these very high-wind pressures, as evidenced by Prof. Hernot, of the Melbourne University, in his paper on wind pressures read before the Australian Association for the Advancement of Science at Adelaide, when alluding to the anemometric results of some observations such as that of Bidstone near Liverpool, England, and at Sydney, recording pressures or velocities corresponding to pressures of 90 pounds or 100 pounds per square foot, while others, such as Greenwich, Edinburgh, Melbourne, and Adelaide, give results equal to only one-third of those just mentioned. Crosby from his experience inclines to believe in nothing much above a maximum of 30 pounds, and it will be remembered that only 26 pounds to the square foot was to be calculated on in designing the 1,200-foot tower proposed to be erected in London in imitation of the Eiffel.

C. BAILLARGE. City Engineer, Quebec.

CANADIAN SOCIETY OF CIVIL ENGINEERS.

A meeting of this society took place in their rooms at Montreal, on the 15th ult.

There was some discussion on the question whether the society's rooms should remain open every evening, most members being in favor of their being open only on two evenings each week, Tuesday and Thursday, for example. It resolved to request the council to enquire as to the cost of lighting the rooms by electricity.

Mr. Irwin read a paper by James H. Kennedy, on the "Location and Construction of the Great Northern Railway in the Rocky Mountains." This line is composed of the old St. Paul, Minneapolis & Manitoba, Mountain Central, Eastern Minnesota, Fairhaven & Southern, and other railways. It is unique in being the only through line ever built over the Rocky Mountains without Government aid, either as a subsidy or land grant. The author of



One STEAM FIRE ENGINE in hand like that shown in above cut, which will be sold at a great bargain on the easiest possible terms. the paper confined himself to information limited to the Rocky Mountain section, the part between Havre on the east and Kalispell on the west side of the range-a distance of 260 miles-with special reference to mountain work.

Another meeting was held on the 1st inst., when there was a large attendance.

President Peterson read the report on the Engineering Congress of Chicago, giving the number of engineers representing each nationality. From this it appeared that there had been a considerable surplus resulting from the subscriptions of the various engineering societies of America and elsewhere, and that the share of the surplus to go to their own society would be about \$80. The council would decide as to what was to be done with this money. The secretary then read a paper by F. A. Creighton, upon the "Dartmouth, N. S., Water and Sewerage Works," a carefullywritten and interesting essay, giving full details of the working of that system. We will likely refer more fully to this paper later on.

MISTAKES ABOUT ASBESTOS.

In a paper recently read before the Montreal Natural History Society, Prof. J. T. Donald corrected a number of popular misconceptions concerning asbestos :

The first misconception is that asbestos is not destroyed by This idea comes to us from classic writers, who state that fire. napkins made from it were thrown into the fire and brought out cleansed. Charlemagne is said to have had a tablecloth (although it seems unlikely that people used tablecloths in those days) which, to the surprice of his court, he threw into the flames and it was not destroyed True asbestos would not burn, but when it is brought to a red heat, the water is driven off and the fibrous texture is destroyed, so that it will crumble up like soda biscuit.

The second misconception is that the Canadian asbestos is not the same as the Italian, and therefore, much inferior. When asbestos came first to be used in the arts it was only produced in Italy, and in the district where it was found, about 75 square miles, many small mines were opened, and about the time Canadian asbestos came into notice these mines were all combined into one



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