

real sea-going ship of the turbine class, were witnessed by engineers representing every important shipbuilding company in Great Britain and on the Continent, and the opinions expressed appear to be generally favorable. Her regular performances will be followed with interest on both sides of the Atlantic.

—The steady and rapid advance of independent telephony in the United States in the last few years can be appreciated from the single fact brought to public notice at the recent convention of the Independent Telephone Association in Chicago, that there are now in existence throughout the States 3,000 companies, independent of the Bell and its allied corporations. While these independent companies almost invariably charge lower rates and give better service than the Bell did when each came into competition with the monopoly, they are yet with few exceptions good paying investments, and have now an aggregate patronage larger than the Bell and its subsidiary companies. Heretofore, the Independent Telephone Association has been composed of company membership rather than individual membership, and its efforts have been spent in defending its interests against the enormous capital of the Bell, which endeavored to crush them by litigation. The decision of the Berliner and other cases in favor of the Independents has left the field open, and the final result will, of course, be all the worse for the Bell, because public sympathy has been alienated when the people realize that the money spent to perpetuate a high rate monopoly has been taken out of the people who were most affected by the law suits. The independent companies—a large number of which are really municipal systems—having proved their right to exist, have this year taken an important step in reorganizing their association so that it will become to a great extent an educational institution like the engineering and electrical associations. To this end the membership fee has been reduced to \$2, with annual dues of only \$1; and it has been decided to hold the next annual meeting during the World's Fair at St. Louis, the date being the week commencing September 12th, which will be the "electrical week" of the exhibition. In view of the efforts of the Canadian Bell Company to hold a monopoly of the telephone business of this country, this movement in the United States is of great interest to Canadians. The time is ripe, in fact, for an independent telephone association here. The nucleus can be formed now, and a delegation would, no doubt, be welcomed at St. Louis, where much useful knowledge could be gained from the experience of the organization in the States.

—The Brotherhood of Locomotive Engineers held its general meeting, which was largely of a social nature, at Winnipeg, in July. It was marked by a tragic event, namely, the sudden death of P. M. Arthur, Grand Chief, who dropped dead while speaking at the banquet which closed the convention. He had just risen to respond to a toast, and uttered the words: "It may be my parting words to many of you" when he fell backwards and expired in a few minutes. Mr. Arthur was a born leader of men, and a power for good in the great organization of which he was the head. He exercised an uplifting and steadying influence, not only on that body, but on many kindred organ-

izations. His course was marked by reasonableness and desire for justice and good feeling that won for him the devotion of his labor following and the respect and confidence of the great railway corporations with whom he was daily called to deal.

—The silver-lead industry in British Columbia must receive a great impetus from the decision arrived at by the Government to encourage it by means of a bounty. The bounty will be 75 cents per 100 lbs., to be paid on evidence that the lead has been produced from Canadian ores smelted in Canada. The bounty is not to exceed \$500,000 in any fiscal year. When the price of pig lead exceeds £12 10s. sterling per ton in London, England, the bounty shall be reduced in proportion by the amount of such excess. Sixty per cent. of the bounty shall be paid from time to time, the balance at the close of the fiscal year, and if it appears that the quantity of lead produced exceeds 33,333 tons of 2,000 lbs. the bounty shall be reduced so as to come within the \$500,000 authorized. Lead mining in Canada should now take on new life. The iron and steel industries will also receive additional encouragement. For the last fiscal year the bounties paid on the latter amounted to \$1,245,382, apportioned as follows: On pig iron: Dominion Iron and Steel Company, \$386,337; Hamilton Steel and Iron Company, \$90,915; Nova Scotia Steel and Iron Company, \$38,974; Canada Iron Furnace Company, \$187,473; John McDougall and Company, \$4,598; Deseronto Iron Company, \$12,309; A total of \$620,706. For steel ingots \$499,625; Hamilton Steel and Iron Company, \$36,793; Nova Scotia Steel & Coal Company, \$79,851. A total of \$616,269. On puddled iron bars the Hamilton Steel Company was paid \$8,406.

NORTHERN ONTARIO AND QUEBEC

Vaughan M. Roberts, C.E., of St. Catharines, Ont., has done some noteworthy surveying for the Trans-Canada Railway project, and for the Grand Trunk Pacific, and gives to the Globe a graphic sketch of the resources of the regions he has traversed through Northern Quebec and Ontario. Railway building in those regions presents few engineering difficulties. In Northern Quebec, Mr. Roberts found only a difference of 150 feet between the last of his work and the height of land, the range of mountains crossed only requiring a grade of one per cent. Rivers furnishing large water powers, large stretches of land clothed with timber and furnishing a good soil for farming, were the features most frequently noticed. Along the Abitibi for 200 miles is a rich agricultural country, and enormous areas of peat, some of the beds being 12 feet deep, are to be found there. The Abitibi at a distance of a hundred miles from its junction with the Moose averages four hundred feet in width, contains numbers of magnificent water-powers, awaiting development, varying from 15,000 to 150,000-h.p. each. The banks of the river are lined with the best pulpwood of all descriptions, which is practically valueless, however, until it is made available by the construction of a railway into the territory. The tributaries of the Moose river possess powers equally good, if not better, than those of the Abitibi. There is one alone on the Missanabie, not far from the proposed crossing of the river by the railway, which is capable of developing at least a quarter of a million horse-power. Above this fall there are three others within a distance of four miles, having altogether a fall of about 300 feet, capable of furnishing fully half a million horse-power. Apart from its great wealth of timber and pulpwood, there is much excellent agricultural land in this north country, and indications of very great mineral wealth. Mr. Roberts says that there are a