stock, and sometimes even loans, gave governments or municipalities a voice in the direction. It became very much the fashion to decry these directorships; but if government or municipal directors sometimes fall short of their duty, they might furnish an occasion for individual censure, but scarcely for the abolition of a franchise which had a foundation of right. Of the several forms of aid, the bonus is the most objectionable in its tendency and results, and it is probable that its course is about run.

The ordinary share capital of the roads is $195,591,847, upon some of which no dividend has ever been paid. This is true of the ordinary share capital of the Grand Trunk. The Great Western long paid respectable dividends. The Northern, was, as a matter of fact, though not in name, built with government money; and when it required renewal, it became a bond holders' road The aggregate paid up preference share capital of all the roads is $73,500,777. How this has fared in respect of dividends, the official returns, not in this respect so full as they used to be, do not tell us. The bonded debt is $102,134,295, some of it divided almost fantastically into various orders of preference. Preference bonds, removed from the front rank have not always got the stipulated interest, from the all-potent fact that it was not earned. The interest payable on the preference bonds varies from three to eight per cent., but the greater part of it stands at five and six. The great bulk of the share and bond capital is owned in England, where the control of some of the leading roads is vested, not nominally vested merely, but efficiently exercised. These roads lie under some disadvantages in being controlled at so great a distance, where the real situation in Canada is not always easy to understand.

What does this vast, complicated, and costly machine, which we call the railway system of Canada, do for us? Last year it carried 13,266,255 tons of freight—an amount which no other power than that of steam, and on land, through no other medium than rail, would it have been possible to move—and 9,579,948 passengers, a number almost twice as good as the whole population of the country. For carrying this tonnage, $21,320,208 was paid; passenger fares brought $10,538,110; mail and express freight with a trifle from other sources being added, the total receipts are carried up to $33,244,586. Out of this total, maintenance and working expenses took $24,691,667; this necessary expenditure, in a climate like ours, being unavoidably large.

The best days of the railway system of Canada have yet to come. Many of the companies have passed through tribulation and suffered disappointment, and loss. With the increase of population and production, railway property may be expected to improve, and bring its owners a fair return.—*Monetary Times.*

REPORTS from Philadelphia indicate that the iron market is dull and weak for foreign and domestic. One thousand tons of Bessemer were sold a day or two ago at $20 ex-ship, deliverable there or in Baltimore.

India v. America.

For many years past there has been a disposition on the part of English writers to greatly magnify the prospective importance of British India as a wheat-producing and wheat-exporting country, and during the past year or two quite a number of journals on this side of the Atlantic have given the subject what may fairly be considered undue prominence in its bearing upon production in this country, since the matter can scarcely be said to concern the present generation of American wheat-growers to any further extent than they have already realized, since, no doubt, for many years to come the exports of wheat from British India will not exceed, even if they reach the maximum attained in their harvest year ended March 31, 1882, when they amounted to about 37,000,000 bushels, and were nearly three times greater than in any preceding year. This extraordinary burst of exports in 1881-82 was not due to any material extent to the increase in the area cultivated, as so many have been led to believe, as to an exceptional combination of circumstances favorable to a very heavy export. Chief among these may be mentioned the greater exemption from famines in late years with which the country had been so frequently afflicted previously; next, to a large accumulation of stores of all kinds of old food grain, including wheat; then to a very prolific acreable yield in 1881, and to the highly attractive prices which prevailed in Western Europe in 1881-83, coupled with a large supply of ocean steamer tonnage and moderate freight rates. To these exceptionally favorable influences, and good crop prospects during the winter of 1881-82, may chiefly be attributed the big exports for the year ended March 31, 1882. In the following year, 1882-83, the exports fell off nearly one-third or to 26,400,000 bushels; and the present year will undoubtedly witness a further reduction, the out movement having thus far been considerably less than for the corresponding period in the preceding year. Owing to the great efforts of the Indian and British governments to extend and cheapen the facilities of inland carriage, there may, and doubtless has been some little little addition made to the wheat area of India during the past few years. But even now there are only 10,000 miles of railway in India, of which no more than 250 penetrate the wheat regions. After years of parliamentary agitation, looking to the extension of the railway system of a country containing 250,000,000 to 260,000,000 population, and chiefly for the purpose of stimulating wheat production, the above figures are rather a poor showing—less mileage extending into the wheat regions than in a single county in one of our large Western wheat producing States. In face of this snail-like progress in railway building, and the fact that no material enlargement of the area can be made effective without the construction of canals for irrigating purposes, this bugbear of prospective Indian wheat competition has been harped upon *ad nauseam* for years; and there are some who have lately gone so far as to use it as an argument against any improvement in our markets during the present season. In reality, the one has about to do with the other as have our imports of white elephants. In his testimony before the Indian Railway Commission of the British Parliament, Sir James Caird said: "If wheat could be produced in India for 12s. per quarter (36 cents per bushel), as he had lately seen stated in the newspapers, he did not think America could compete with India." But, with primitive methods of agriculture in use in India, who believes that wheat can be produced there for 36 cents per bushel, even with pauper labor at the rate of 6 cents per day for subsistence and 2 shirts per annum? No one whose opinion is worth anything. Manual labor cannot compete with machinery propelled by steam. Sir James further testified that, "The two countries in point of carriage, would be very much on a par." Indeed! There is wheat now on passage, Chicago to Liverpool, rail and steamer, 4,000 miles, for 10 cents per bushel, or 3s. 4d. per quarter of 8 bushels, and negotiations are pending for shipping the grain from Duluth to New York for eight cents per bushel, lake and canal route. Twenty-five or fifty years hence the ryot of the Punjaub may be able to get his wheat to Calcutta, and thence to Liverpool via Suez, at as low a cost as the Dakota farmer now sends his; but by that time our surplus wheat, if any is raised, will probably all be sent abroad in the shape of flour. This particular phase of the discussion may be a little premature, but it will give the reader an inkling, with what has gone before, of the little importance attached by *The Journal* to the mountain that has been made out of the mole-hill of prospective Indian wheat competition.—*Millers' Journal.*

Improved Barb Wire Machine.

The Cambria Iron Company, of Pennsylvania, are the assignees of a patent for making barb-link fencing. The wire is fed to the machine by continuously operated mutilated rolls. The rolls are loosely mounted upon the shafts and are adjustible within certain limits around the shafts by means of tightening screws and circular slots. When the wire has been fed in the length necessary to form a link, it is severed by a knife. A bending device then turns up one end of the cut-off blank and forms a double bend. Next, the blank is grasped by the preceding blank, so as to form two lines of the fencing. The second end of the link is then turned up similar to the first. The links are now ready for action of the coiling device, and are moved to the same intermittently by feeding-jaws. The coiling mechanism consists of two coiling heads, each rotating upon a stationary mandrel, longitudinally slotted. The coiling heads are actuated in opposite directions, and are placed with operating ends facing each other. Each head bends one of the link points. When the link is released it drops a short distance to free its points from the coilers, and the fencing is then carried along the length of one link.—*Industrial World.*

Transmitting Power by Electricity.

The question of the expense of transmitting power by electricity has recently occupied the attention of Professor Osborne Reynolds, who