

nating and exaggerated in its character. . . . As it is, while it has often failed to assist British traders, it has almost always succeeded in giving a valuable and quite unnecessary advertisement to foreign manufacturers, and particularly to Americans and Germans." It is high time, indeed, adds the Economist, that this policy of self-depreciation were dropped, and that, in the present fiscal controversy facts took the place of the vaporings of empiricism.

### IRRIGATION PROSPECTS.

Mr. J. S. Dennis, late Deputy Commissioner for Public Works in the North-west, has issued a report, from which it appears that 64,621,169 acres of land in the Canadian Territories, at present classed as semi-arid, may be rendered suitable for the production of cereals. This vast tract of land, situated in the southern and south-western portions of the Territories, is at present ranching country. It produces a nutritious grass on which cattle thrive, but owing to lack of rain it is often impossible to raise crops on it with profit. It is, however, an ideal country for pastoral or dairy farming. The soil naturally is very fertile, and as its only drawback is lack of moisture, the possibilities of irrigation speedily became a matter for discussion.

In 1893, as we have recently noticed, the first irrigation work of that district was undertaken, a channel being run from the Elbow river to serve the district west and south-west of Calgary. Since then other like works have been undertaken, and up to a year ago 163 canals and ditches had been constructed with a length of 474½ miles serving 623,362 acres of land. The increased value of this land as a result of irrigation is stated in the report at \$1,850,000, which represents a large profit on the cost of the work. The increased value given by irrigation of the entire semi-arid region, taking the same figures as in the case of the land already irrigated, would be nearly \$200,000,000. It is worthy of note that the Canadian Pacific Railway has taken several million acres in the semi-arid region as part of its land grant, and will irrigate it. The irrigation of the whole region will, no doubt, prove a work of years, but in the meanwhile the idea is gaining ground, and several parcels of land are being taken in hand by private companies. The Americans have employed irrigation very successfully in some of their semi-arid regions in the Western States.

### BOILER INSPECTION.

Since our comments on the question of boiler inspection in our issue of last week, we have had an opportunity of comparing the laws of such of the Provinces of this Dominion as provide for the inspection of steam boilers with the law in England, which indirectly makes a proper inspection of boilers compulsory. The comparison, as will be seen, is very much in favor of English law.

In both countries the law has been enacted principally for the protection of life. The difference, however, between the laws in this country and the law in England is very striking. In Quebec, Manitoba and British Columbia, and, perhaps, in Ontario, where such an inspection as the Acts and regulations of these

Provinces call for has been made, and a certificate granted, a boiler owner can, in the event of an explosion, shelter himself from its consequences behind the Government, which is responsible for the quality of the work done by its inspectors. In England the onus of responsibility is thrown upon the boiler owner.

The law in the latter country is embodied in the "Boiler Explosion Acts of 1882 and 1890." The law itself is contained in the Act of 1882, while the Act of 1890 extends the operations of the earlier Act to all classes of boilers. These Acts provide for strict investigations being made into the causes and circumstances of boiler explosions by the Board of Trade, which is really a branch of the Government, and has far wider powers and authority than is comprehended by the term in this country.

Notice of any explosion, stating the locality of the explosion, the day and hour it occurred, the number of persons injured or killed, the purposes for which the boiler was used, the part of the boiler which failed, and the extent of the failure, must be sent to the Board of Trade by the boiler owner or user, or some one acting on their behalf, within twenty-four hours of the occurrence of the explosion. Non-compliance with this provision makes the person in default liable to a fine not exceeding £20.

Provision is then made for the Board of Trade making a preliminary enquiry into the causes of the explosion, and, if it sees fit, a formal investigation may follow. The scope of this enquiry, or investigation, is very far reaching. It is made by commissioners, one or more of whom must be a competent independent engineer or engineers appointed by the Board of Trade for the purpose of the enquiry only. These commissioners have the power of a court of summary jurisdiction, and in addition special powers as to the summoning and examination of all persons whose evidence in their opinion may have any bearing whatever on the matter before them, and as to the production of any books, papers or documents which they may think necessary.

The scope of their enquiry can go back from the time of the explosion to the time the boiler was built. It covers the boiler owner, the user, the engineer, or others in the employment of the user, the person whom the owner or user has employed to inspect his boiler, a boiler repairer, a second-hand dealer from whom the boiler may have been bought, or the boiler-maker. Any one of these persons may be found responsible for the explosion.

The owner or user is relieved of responsibility by showing that the boiler has been efficiently examined, at proper intervals, by a competent person, and, if any repairs have been recommended, that they have been properly carried out. He is, however, liable for the acts of his servants, and if the engineer were found to blame, the owner or user would be held responsible.

A Boiler Insurance Company may be found responsible where its inspector has been negligent in making an inspection, or the commissioners find him to be incompetent. A second-hand dealer may be found to blame for selling a boiler which he knew to be defective, or misleading a purchaser as to its condition. And a boiler maker can be found to blame for improperly making repairs, or where a boiler has been improperly constructed.