

change the seat of the evil: certainly it would work no cure. Something more than this is required; and there are many shapes the change might take. One of them, that has been suggested, is an independent Treasury, at the seat of government, with sub-treasuries at five or six of the principal cities of the Dominion. A Treasury Department thus organized could act as receiver and disbursing officer of the public revenue; it could manage the Provincial note issue and redemption, if these notes are to continue to exist; buy and sell necessary exchange, and perform all the functions that any Canadian bank can perform as fiscal agent of the Government. But whatever plan is adopted, the extraordinary power for mischief, so mischievously used by the Bank of Montreal, must be taken from it, at the earliest possible moment.

DOMINION TELEGRAPH COMPANY.

At the second annual meeting of this company, held on Tuesday last in Toronto, a report was presented and directors elected, thus completing the organization under the charter. The position and prospects of the undertaking were discussed, and, as may be supposed, did not evoke much enthusiasm. Matters remain pretty nearly the same as they were stated to be at the informal meeting in October last. The line has been built to Oshawa, the shareholders still refuse to pay calls, the Company owes some eighteen or twenty thousand dollars, and the existing line is being worked at a loss. The enterprise is dragging out a feeble kind of existence without any satisfactory results; and so the matter rests.

To us it is surprising that the Directors still ascribe all their difficulties to the hostility of the press and the opposition company; and even defend the original arrangement with Reeve, whereby he was to receive \$250 per mile for building the line. In justification, a case was cited in which \$440 per mile had been paid for building a line in the United States. This proves nothing except that speculative contractors are well paid there for floating doubtful schemes as well as here. The opposition of the Montreal Company did not prevent, not even retard, the construction of the Peoples' line, because it was projected and built on a business basis, nor would it that of the Dominion line under like circumstances. It would be far more courageous for the Directors to admit that their names were made the basis of a scheme which in its inception was little else than an attempted fraud upon the public. This seems as certain as the entire innocence of these gentlemen from any wilful complicity in an attempt to do a public wrong, for of that we do not believe them to be capable.

As the undertaking now stands, however, it presents a very different case. The only question is whether to abandon the project or push it forward to completion. We want a healthy opposition; the sooner it is had the better. We want the head office at Toronto, so that the interests of Ontario shall be thoroughly represented, and the opposition made effective. But it is useless to expect anything from the Dominion Company, unless a vigorous effort is made to raise money. To get it from the shareholders is impossible. Either the whole project will have to be treated as a failure, or the directors will have to act on some such business proposition as that put forward by Mr. McMurrich at the meeting. He suggested that a strong effort be made to induce a number of gentlemen, possessed of means, to pay over, out of their own pockets, the sum necessary to build the line to Ottawa and Montreal; and argued that in this way confidence would be restored and the subscriptions made collectable. Unless some step of this kind is taken, we agree with Mr. McMurrich in describing the prospects of the enterprise as very dark and discouraging.

THE NARROWEST OF NARROW GAUGES.

The Welsh two-foot gauge railway pays a dividend of thirty per cent. upon its original capital of £36,000; and its successful working furnishes facts which are worthy of consideration in the discussion of gauges, and in the modern attempts to ensure economy and efficiency by reducing the proportion of dead weight to paying loads on railways. The engine and tender upon the line referred to weigh about 10 tons, as against 40 tons upon the wider gauge of other lines. Instead of a first-class carriage weighing $7\frac{1}{2}$ tons, to carry 32 passengers, and representing nearly 5 cwt. of dead weight for each passenger, the carriages weigh only 30 cwt. for 12 passengers, or $2\frac{1}{2}$ cwt. for each person carried. A truck weighing 17 cwt. is made to carry a load of nearly four times its own weight; while on the ordinary gauge a truck will not carry more than twice, and in many instances a load not greater than its own weight.

One of the engines is described as having four cylinders, $8\frac{1}{2}$ in. in diameter, with 13 in. stroke and 2 ft. 4 in. (28 in.) coupled wheels. The tanks contain 1,000 gallons of water, and the whole weight, in steam, is estimated at about 20 tons. The total wheel base is 19 feet, each bogie having its wheel centres spaced 5 feet apart. For each pound average effective pressure on the piston sixty pounds of tractive force are exerted at the periphery of the driving wheels, or, with 100 pounds mean effective pressure, a total force of

6,000 pounds. It is worked at a boiler pressure of 160 pounds to 200 pounds; the boiler, of steel, being 2 feet 4 inches in diameter, $\frac{3}{8}$ inch thick, and double riveted in the longitudinal seams. It is said that the engine easily hauls from 100 to 150 empty slate trucks up the line, or, say 100 to 150 tons, including its own weight, on a line rising, on the average, 1 in 92, and occasionally 1 in 80.

The *Engineer*, in its account of a trip over the road, says:—"Over the new portion of the road a speed of over 16 miles an hour was attained with ease, and on one occasion a velocity of about 35 miles an hour was reached, the bogie engine swinging round the curves with graceful ease and a total absence of strain or jerk. During each minute the train passed over a distance of 1,760 feet, and as the wheels were 2 ft. 6 in. in diameter, they made 240 revolutions per minute; a velocity increased during many portions of the run to as much as 360 revolutions per minute; but even at this tremendous speed—corresponding to a velocity of about 90 miles per hour for a 7 feet wheel—the engine ran with an almost total absence of scillation, nor did the bearings heat in the slightest degree. A speed of 90 miles has never yet been attained on any railway, and up to the present moment it follows that the narrow gauge has beaten the ordinary gauge in its relative power of transporting passengers at high velocities. Nor is it to be assumed that 35 miles an hour is a limit which cannot be exceeded. An engine with 2 feet wheels works under just the same relative conditions as a 4 feet $8\frac{1}{2}$ inches engine, with 4 feet $8\frac{1}{2}$ wheels. No one expects an express speed from such engines; but there is no good reason why the Festiniog line should not be worked with 3 feet wheels, that is to say a gauge and a half high—a proportion adopted in many of the best engines of the day which have driving wheels 7 ft. 1 in. in diameter."

PROVINCIAL INSURANCE COMPANY.

Mr. Arthur Harvey, of the Finance Department, Ottawa, has been appointed to the management of the Provincial Insurance Company. Mr. Harvey is a young man, clear-headed, enterprising, and possessed of good judgment; he has earned for himself a reputation at his late post which renders it a judicious step on the part of the Company to secure his services. The place is no sinecure, if an effort is to be made to bring back public confidence and to repair the mischief that past mismanagement has wrought. It is hoped that this will be effected, but much will depend upon the surroundings of the new Manager, and upon the state of facts which a fair exhibit of the Company's position would reveal it were made.