

was not whether it was prudent or imprudent. He must decide upon the issue raised by the words of the Act of Parliament. Mr. Serjeant Sargood pointed out that the Court was to consider whether it was "just and equitable" to wind up the company, or to let it continue its business, and so prove injurious to the public. The Vice-Chancellor said he had nothing to do with the general public, except the shareholders and general creditors of the company. He had nothing to do with people who might hereafter become shareholders or creditors.

The petition was then read, which set forth, among other matters, that the amount assured by existing policies exceeded £8,000,000; that other companies had been amalgamated, large sums being paid on the transfer, with compensation to directors and other officials; that in this way about £200,000 had been spent, and was entirely sunk and gone, although in the balance-sheets of the company that sum was put down as an available asset for the payment of debts. Although the premium income of 1868, was less than £380,000, so great was the strain upon the resources of the company by claims for debts, heavy charges for management, &c., that instead of investing a large reserve fund, they had been compelled to make a call of 5s. per share.

After some further remarks by Serjeant Sargood, Mr. J. Napier Higgins proceeded to read the affidavits of actuaries. Mr. A. H. Bailey, actuary to the London Assurance, made affidavit that, taking into account the business and liabilities of the company, it should have a reserve fund of £1,304,000 in actual possession, invested at 4 per cent. The only available funds were about £475,958, and in a few years he was of opinion that the funds of the company would be entirely exhausted. Mr. Robert Tucker, actuary to the Pelican and National Reversionary Societies, estimated the necessary reserve at £1,444,000. This actuary dwelt upon the fact that Mr. Walker had made his statement regarding the incoming premiums without deducting the "loading," the 25 per cent. for the expenses of management, and this was converting all the new policy premiums into an asset against the actual liabilities standing under the old policies. Mr. W. Pollard Patteson, actuary to the Commercial Union Assurance Company, estimated the assets and requisite fund at nearly the same amounts. Mr. Kekewich read the affidavits of other actuaries, to a similar effect.

Mr. Miller then read the affidavit of Mr. Lake, general manager of the company, which alleged that the company was perfectly solvent and able to cover all its liabilities, that the statements of the petition were untrue, and that new assets would become available in course of time.

Mr. J. Napier Higgins then proceeded to read the evidence given by Mr. Lake in his examination. He (Mr. Lake) was receiving a salary of £500 per annum, and one per cent. on the premium income. The income derived by him from the company in the years 1866, 1867, and 1868 would amount to £3,000 or £4,000 per year. Mr. Cleland received £13,000 or £14,000 compensation on the amalgamation of the British Nation with the European. He did not know how much was paid to Mr. Sheridan, M.P., but thought it was about £10,000.

After some interruption, Mr. Higgins proceeded with the evidence of Mr. Lake with respect to the company's account at the bank having been overdrawn by some thousands of pounds. Mr. Lake admitted the fact, but in this, as in other cases, when asked to show the books, he declined to do so. Mr. Higgins went on with the evidence of Mr. Lake, who further admitted that the directors had made him a present of a life policy, paid for £5,000, for foregoing a percentage of 2 per cent. on the British Nation business. He admitted that the claimants on the society had been annually, for the last four years, £100,000, £20,000 of which were set down as "old claims." Then Mr. Lake believed the banker's account was overdrawn £4,000 or £5,000, and the company

had had a loan of £10,000 from the bankers; but he could not remember when the money was paid off. In July three was a fresh loan, and the company paid off these loans as it had the money.

Mr. Higgins then read the evidence of Mr. Walker, the actuary of the company; which was to the effect that he did not know the annual expenditure of the company, but he had been told by the accountant that it amounted to 15 or 20 per cent. per annum, or £70,000. It was a very large expenditure. In the balance-sheet for 1868, the liabilities on annuities were not mentioned. He could give no information as to the amount of existing endowments, although he had sworn to the accuracy of the balance-sheet.

After hearing some further evidence, and the respective counsel, the Vice-Chancellor summed up the case and dismissed the petitions with costs.

Mining.

GEOLOGICAL INVESTIGATIONS.

The following extracts from the last report of Sir William Logan of the progress of the Geological Survey, will be found of interest:—

During the last season and part of the previous one, the labors of Mr. J. Richardson have been devoted to a summary examination of the country on the south side of the St. Lawrence, between the rivers Chaudiere and du Loup, and spreading in breadth from the margin of the St. Lawrence to the boundary between the Province of Quebec and the United States, the object being in continuance of his work above the Chaudiere, to trace out the distribution of the Quebec group, one member of which, the Lauzon, is so valuable for its economic minerals. He has ascertained that in the middle of the area, and extending its whole length, there is a synclinal belt of the Sillery formation, varying in breadth from two to twelve miles, affected by several subordinate undulations, and presenting a ridge of broken country much covered by forest, and little fitted for the purposes of agriculture. From beneath this, on the south-east side, there emerges the Lauzon formation, which accompanies the Sillery in its whole length, and which displays a breadth one mile in some places and six in others, while it is followed by the black shales and limestones of the Levis formation. The greatest breadth of this, at each end of the surface it underlies, is about seven miles, and from each end it narrows towards the intermediate part, for about twenty-five miles of which it becomes covered up by the superjacent unconformable Upper Silurian rocks, which here bound the Quebec group in the whole distance, with only a narrow strip of the Sillery and Lauzon, between the upper rock and the Levis in the more western part.

On the north-western side, the Sillery is followed by the Lauzon only, in circumscribed and isolated portions, without any Levis formation, the Sillery being in contact for the chief part of the distance with what is now supposed to be a lower and unconformable series of rocks. Like the rocks of the Quebec group, this lower series consists of red shales, black shales, limestones, sandstones, and conglomerates with an arenaceous base and limestone pebbles. It was formerly classed as belonging to the Quebec group, and it is only on the evidence of fossils that it can be placed on a lower horizon.

Although rocks of the Quebec group thus continue in a north-eastern course down the valley of the St. Lawrence, they appear gradually to lose the magnesian deposits and accompanying metalliferous minerals, which to the south-west give them so much value. While the strike of the group is north-east, the limit at which the metalliferous indications in succession die out seems to tend more to the eastward, in which direction it finally runs obliquely under the rim of the Upper Silurian series, and leaves the Lauzon barren of metalliferous ores in its prolongation beyond.

For the last three seasons the attention of Mr. H. G. Vennor has been bestowed upon the investigation of various rocks, which are spread out in the counties of Addington, Hastings and Peterborough, in the province of Ontario, and which have been more than once mentioned in previous reports. Their lithological characters and economic contents were given in some detail in the report of Mr. Thomas McFarlane for 1866. Iron, lead, copper and antimony were then known to be the metals by the ores of which they are characterized, to which have since been added gold, silver and bismuth. After much research in tracing out the distribution of these rocks, Mr. Vennor has been able to determine the geological structure of the district and the stratigraphical relations of the iron and gold.

The series consists in descending order of the following general divisions:—

1. Calc-schists, dolomites, mica slates and siliceous slates, the latter two characterized by extensive lenticular masses of conglomerate, with pebbles of quartzite, gneiss and green stone, at the base of which there appears to be an auriferous band.
2. Hornblende, pyroxenic and chloritic slates, characterized at the bottom by passing occasionally into beds of magnetic iron ore of commercial importance, and succeeded in some places by grey and red granitic gneiss and hornblende schist, interstratified with bands of crystalline limestone.
3. Syenitic rocks, varying in color from flesh-red to brick-red, and forming the base on which the rocks appear to rest throughout the district.

This series lies in a general synclinal form between the counties of Addington and Peterborough, with a breadth of about thirty-five miles, which has been traced to the north-eastward from the position where it emerges from beneath the overlying Lower Silurian rocks on the south-west, to within half a mile of the York branch of the Madawaska river, a distance of about forty-five miles. Many subordinate undulations, striking to the north-east, and affected by transverse geological depressions and elevations, cause the distribution to assume a very complicated figure, presenting a number of basins in the upper division, more or less united with one another, the intricate outline of which can only be made intelligible by being represented on a map.

The iron ore beds of Belmont, Marmora and Madoc, which have often been separately described, are found to be on the same horizon with one another, at the base of the upper division, while the localities in which gold has been discovered appear to place an auriferous zone at a short distance above the iron belt, the separation between the two being seldom more than the breadth of half a lot, or between three and four acres.

The calc-schists are in one or two places marked by the presence of *Luzon Canadianus* and anorthosite rocks have been found rising above the upper division in isolated masses; but from the difficulty of finding any marks of stratification in them, it can scarcely be decided whether or not they are conformable, and before the question whether the Hastings series belongs to the Upper or Lower Laurentian can be satisfactorily determined, further investigation will be required. Provisionally the series is classed with the Lower Laurentian.

The investigations of Mr. C. Robb embrace a region which is situated in the central and north-western part of New Brunswick, comprising chiefly the counties of York, Carleton and Victoria. In this he has traced the north-western base of the great carboniferous area of the province for about seventy-five miles, as well as the boundaries of three extensive outliers of the carboniferous series, one situated in the parishes of Prince William, Dumfries and Queensbury, in York county; another, which had not been noticed by any previous observer, in Brighton and