

plant, and for such other measures of relief as shall be proper under the circumstances.

The business in the hands of private members during the approaching session will undoubtedly be large, and we doubt not the Local Government will bring forward quite a number of public measures. The nearness of an appeal to the constituencies will have its effect both upon the ministry and the people's representatives generally, and we may consequently look forward to a display of unusual activity and zeal on the part of our Provincial Legislators. The disposal of the large surplus now in the hands of the Treasurer will form one of the most important subjects for settlement. The amount is about \$3,000,000, and the Legislature must decide what is to be done with it. The policy of the Local Government in regard to it, has not yet transpired.

GOLD MINING AS A COMMERCIAL ENTERPRISE.

Our remarks upon this subject have been hitherto confined to those operations which have gold for their sole end and object; but there is another series of operations which are designed to make their profit from the utilization of the coarser and more common mineral substances, and in which the precious metal is only viewed as a collateral and supplementary source of gain.

In the Madoc mining district, to which these observations chiefly refer, this sort of combination mining might be carried on to great advantage, as there are many veins in that region which have been proved to contain gold, though in too small proportion to pay for working in the ordinary way, by mill process. In these veins the material that generally accompanies and contains the gold is iron pyrites, (bisulphide of iron) which can be converted at will to the manufacture of sulphuric acid, or of copperas. The first of these products is very valuable in agriculture, and its introduction into common use among the farmers of Britain has been one of the great agents in increasing the quantity of farm produce, and augmenting the value of land, within the last thirty years. If a cheap and abundant supply of this material were accessible to our farmers, they could not fail to reap abundant benefit from it, for there is no civilized country where a larger number of animals are slaughtered, for food, in proportion to the population, than in these provinces, and of course bones are proportionately plentiful, while large beds of apatite, or natural phosphate of lime, are known to exist in the Laurentian formation, which mineral is equally available with the bones for the manufacture of superphosphate,

to which form it must be reduced before being supplied to the growing crops.

The process of manufacture is simple and inexpensive. The apparatus required is a furnace for roasting the sulphurets, chambers of mason work lined with lead, into which a jet of water is made to play, to condense the acid fumes, and vessels of glass, lead, or platinum, for the purpose of concentrating the acid to the proper degree of strength. By the roasting it undergoes in the furnace, the gold contained in the pyrites is set free, and can be obtained either by amalgamating with quicksilver, or dissolving by chlorine, as previously described.

The manufacture of copperas (proto-sulphate of iron) is still more easy, and attended with less expense than that of sulphuric acid. The pyrites, previously broken small, are laid down upon a floor of boards, or of earth beaten hard, under cover, slightly damped, and left to the natural process of decomposition, in which the sulphur of the ore unites with the oxygen of the atmosphere to form sulphuric acid, which again combines with the iron of the pyrites to form sulphate of iron. When the decomposition is sufficiently advanced, the material is thrown into a vat and lixiviated with water, the solution allowed to settle, and the clear liquid transferred to kettles, and boiled down, like potash or maple sugar, until the copperas crystallizes. Decomposition by this means has the same effect as roasting the ore, that is, it releases the gold, and exposes it to the action of the mercury or chlorine.

In this way many mines in Virginia and Carolina used to be worked. Just previous to the late war, the produce of a district of about thirty miles by four or five was stated to be 30,000 tons of copperas, and about 5,000 ounces of gold annually.

We have, therefore, in the Laurentian region of Canada, elements of agricultural and mineral wealth, which only require well-directed enterprise, and a moderate investment of capital, to place us on a level with "the most favored nation," in regard to these valuable sources of progress and prosperity.

A RECENT fire at Newmarket, which destroyed a large amount of property, revealed the fact that the principal sufferer, a large dry goods merchant, held at the time of the fire a stock of \$40,000 to \$50,000, and yet was insured for but \$8,000! And this had been the case for some years. When pressed by some who took an interest in him to increase it to at least \$20,000, he refused, and was with difficulty induced to promise that it should be made \$16,000, which, however, was never done. The result must be ruin to the merchant, and a heavy loss to his credi-

tors. It is too bad that a man should, by such almost criminal neglect, jeopardize his own and his creditors' property. There is one thing creditors can do however, if their customer won't insure his goods, they can do it for him, and prevent such disasters as the above.

ROYAL INSURANCE.

The total fire premiums of this Company for 1869 were, £485,180, of which a little less than 60 per cent. was paid away in losses—a very fair result. The net profit in this branch was £78,154. In the life department the total premium income was £213,420; the interest on investments was £46,162. The sum of £104,383 was paid away in satisfaction of claims, with bonus additions; and £133,059 were added to the life funds out of the business of the year. An appropriation to the proprietors of 10s. per share was also declared. Further information is afforded in the Company's statement elsewhere.

CONNECTICUT MUTUAL LIFE.

"The rock on which so many companies have been wrecked in England, and toward which some of our own are inevitably drifting, is extravagance. We set up the beacon of warning and look hopefully for the day when economy will be the shibboleth that bespeaks success and surely wins the confidence of the public. Meantime, if we are asked to designate the companies most likely to fulfil the trusts committed to them, we point, without a moment's hesitation to those, above all others, which still retain the most of this almost extinct virtue."

This language is used in the XIV. annual report of the Massachusetts Commissioner. It is remarkable for its force, its point, its truth. Let us apply this test to the Company whose name stands at the head of this article and see how much of "this almost extinct virtue" it possesses. Of 57 companies of other States doing business in Massachusetts in 1869, the average ratio of gross expenses, including dividends on guarantee capital, was 18.33; that of the Connecticut was 10.56. Only one other company is worked at so cheap a rate—that is the Mutual Benefit—a company unrepresented in this country. We think this feature of the Connecticut worthy of the highest commendation. It enables the Company to pay large dividends, for the simple, common sense reason that the policy-holders' money is not paid away in the shape of expenses. We have seen several instances of cash dividends on all life policies, applied in reduction of the second premium, amounting to 32 per cent., and on fifteen-year endowment policies of 19 per cent. This Company is deservedly securing a very good business in the Province of Ontario.

FIRE ALARM TELEGRAPH.—Toronto is to have a fire alarm telegraph. A contract has been let to Messrs. Gamewell & Co. for the sum of \$12,000 by the city corporation.

—A new Building Society is to be organized in London, Ont., with Mr. James Burns as Secretary. It is stated that a large portion of the stock has been subscribed.