

**PROTECTION AGAINST FIRE.**—The report was issued in August of the select committee of the House of Commons appointed to inquire into the existing legislative provisions for the protection of life and property against fires in the United Kingdom, and as to the best means to be adapted for ascertaining the causes and preventing the frequency of fires.

The committee, after stating the course which they have pursued in making these investigations, and describing the general character of the evidence they have received, proceed to offer a series of recommendations. They advise a building act for all towns and places in the United Kingdom governed by municipal corporations, &c., similar to the Metropolitan Buildings Act, and to the Buildings Act of Liverpool, the suggestions of professional witnesses as to thickness of walls and other details being taken advantage of in passing such an act. In all buildings composed of shops below and dwelling-houses above, the committee recommend the floor immediately above the shop should be made fireproof, and that there should be a ready means of escape from the roof; and also that the floors of all large lodging-houses for the poor be made fireproof, and that there should be ample means of escape. It is a somewhat singular fact that the architects, builders and district surveyors who were examined before the committee, deposed that when a fire takes place in a warehouse, iron is of little use in stopping its progress. Generally speaking, they prefer wood well plastered, for fire-proof purposes, to iron, and some of them give a preference to wooden stairs instead of stone, as the latter crumbled with the heat. It seems that bills for the supply of water by companies or local authorities containing clauses providing that the water need not be constantly laid on, have been allowed to pass without investigation, and the committee recommend that it should be made a standing order of the house that such bills should be referred to the referees to inquire whether sufficient reasons exist for such provisions. Where it is proved in an investigation that the fire was caused by culpable carelessness, the person or persons implicated should be deemed guilty of a punishable offence.

Other recommendations of the committee relate to the igniting point of mineral oils used for illuminating purposes, which ought not, they think, to be sold with an igniting point under 100 Fahrenheit. All such oils imported ought to be tested in this respect and marked before being stored, and more stringent regulations should be made regarding the storing in warehouses and keeping in shops of turpentine, camphene, and similar spirits. In very few other towns save London and Liverpool is this subject attended to. There remain fires that are wilfully caused. On referring to the evidence the committee find that these are to be traced to several sources. 1st, to individuals and organised gangs of men who make a trade of it to defraud the insurance companies; 2nd, to parties who have been unfortunate in business and who cannot meet the claims made upon them; 3rd, to persons in warehouses to conceal theft of goods made by them on the warehouses; 4th, to malice. The witnesses concur in the belief that an inquiry made into all fires would reduce the gross number of them. The committee specially recommend that no claim should be settled by any insurance company without a certificate from the police or fire brigade or officer appointed to conduct the investigation into the origin of the fire; but this certificate should not debar the insurance officers from opposing the claim if they think proper.

### Mines.

**THE MADOC MINES.**—Mr. T. Bawden has written to the Kingston News, the following interesting letter:—

The Golden City lieth four-square by the Hastings road side; it consists of a tavern, by a "geographicalism" placed this side the river Jordan. El Dorado is composed of two towns, connected by an unmacadamized road, but divided by a wood and the hostility of rival interests. The lower town has a post office, seven taverns, is in a direct line with the richest known mine in this unknown world, and it has a quartz mill nearly completed. The upper town has five taverns, a bakery, a daguerreotype saloon, whereof the back-ground is veritably a bed-sheet and a grassy sod, an assay office and laboratory, and it is alleged, but disputed, good water. It should be added, there are stores in both places. Women have ventured to follow their husbands thither. In less than six months the nucleus of a mining town has been established.

I am writing of a district about seventy miles north-west of Kingston, east and west from El Dorado, along the ridge wherein is the Richardson Mine; and on many parallel ridges to the north, there are a great number of shafts or pits varying in depth from twenty to thirty feet. A Kingston gentleman who is superintending mining operations in Tudor, tells me he has many shafts much deeper, but throughout this sketch I shall confine myself to what I myself saw. In each of these shafts there are from two to five men employed. In Madoc I am told, there are five hundred men at work. I crossed many of the ridges, and visited six shafts, but I saw in the distance the stony deposits at the mouths of a great many I could not visit, and I heard far and wide the frequent sound of blasts. There can be no doubt that in Madoc alone, at least three hundred men are steadily at work. In Tudor, Elgin, and in Marmora, excluding the iron mines, there must be as many more. It was pleasing to notice that they were for the most part Canadians. A finer lot of fellows could not be met with. Upon some the habiliments of gentility turned out to "rough it," were unmistakable.

Having no desire to contribute any material for the uses of the stock market, I shall not particularize any localities, save the Richardson Mine. The wooden building constructed over the shaft occupies a commanding position at the top of the hill. The mining territory comprises, I believe, about three acres, around which is a pile of cordwood. While in the building a blast was fired, and the loosened rock hoisted to the floor. In one lump a piece of gold of irregular shape, about the bulk of a garden pea, was seen. In other pieces which I picked out here and there from the mass of rock lying on the floor, the gold was distinct and unmistakable. At a guess I should say there were about 50 tons of rock lying on the floor. A number of potash barrels were placed in one corner. The depth of the shaft, I was told by one of the workmen, was about twenty feet. They had drifted from this gallery about 12 feet in length, but I was told they were not going any further with it. The men were engaged in drilling in the shaft.

At another mine about two miles distant I descended a shaft 20 feet in depth, making the descent from pin to pin driven through a cedar pole. On one side the rock appeared to be a talcose slate; on the opposite side was a rock, by some called a "quartzose dolomite;" the quartz was beginning to intrude in the character of a vein at the foot of the shaft. After watching the operation of lumping I ascended, followed by the miners. One piece from the product of the blast contained a small scale of gold. Several spangles of native silver were pointed out to me, which I would have passed by as pyrites; a penknife, however, revealed the difference. Before coming to this mine, I was shown a button of silver weighing 13½ grains taken from a pound of the rock. I was told it contained gold, but no evidence was afforded me of the fact.

Proceeding to another shaft I found five men engaged; a blacksmith had erected his forge against the side of the ledge and was busy sharpening drills. A vein of milky quartz, about fifteen inches in width, was distinctly visible from the mouth of the shaft, cutting the dolomite on the west side. The east side of the shaft was much higher than this, was composed of talcose slate, and a vein of quartz cropping out on the surface of the hill could be distinctly traced on the face of the ledge running between the slate at an angle near the perpendicular. The stone around the mouth of the shaft contained very small crystals of iron pyrites. There was no gold visible, but I do not hesitate here to venture the prediction that this mine if properly worked will prove very rich. The quartz vein was better defined than any I elsewhere saw. The property in this and several other shafts is managed by a Canadian Scotchman of indomitable perseverance and pluck—two elements essential to the character of a successful miner. Through thick and thin he has stuck by his claims, and a few weeks will find him in possession of some mining property of some value.

There are several barren ridges of limestone between the elevations on which the shafts are sunk. A vast deal of the surface of Madoc is of little worth for either mining or agricultural purposes. No pretensions to the possessions of placer diggings are put forth. There is no other method before the miners than that of hard and deep work in the hard rock.

I shall now communicate my impressions of some of the features of the "mining interest" struggling to assert itself. In the first place it must be noted that

the description of the country given by the miners is more in accordance with what everyone may see for himself than anything that may be learned from geological reports. Nearing Madoc a hill of slaty rock, weathering black, with a vein of quartz running through it, met a Cornish miner's eye, and he said "there ought to be mineral there." And all the ridges in which shafts have been sunk are of this character. How deep must be the shafts! what shall be the most profitable method of treating the ores! what will be the average return from the rock per ton? All these are questions yet to be determined. By this day week we shall probably be in possession of the results obtained at the El Dorado quartz mill. But until the shafts attain a depth of one hundred feet or more we shall be ignorant of the character of the metalliferous veins, and of consequence of the economics of mining operations.

The history of mining operations in Madoc is this. The discovery of the Richardson Mine drew to the district a great number of placer diggers and scallywags without money and without its equivalents, enterprise and energy. A "salted" show or color here and there kept up the excitement, but having nothing to feed upon it played out. The wet weather last spring interfered with shaft sinking. The ardor of speculators was damped. The "thing" was pronounced "played out;" "the bottom of the tub had fallen out." Everybody proved his claim to superior wisdom by having predicted it. The geological reports were cautious-toned, and there was nothing in science to warrant the belief of an Upper Canadian El Dorado. People thought the raid on the Richardson Mine a part of the game; it was all a "gambling" speculation; a land-jobbing affair.

Four weeks ago there came to Madoc one Dr. Otway. He had seen mines in various parts of the world, but never having seen even a mining speculation killed out on the results obtained from holes 15 and 20 feet deep, he encouraged the miners to proceed, condemned many shafts, and pointed out where they should be located. In a rude cabin of boards he built a laboratory, built his own furnaces and muffles, and went to work like a useful philosopher. He had no book at hand. Without crucibles adapted to assays of more than a pound of rock, he has demonstrated that gold and silver may be got in Madoc. I found him sweating and toiling over the charcoal fires, teaching a native the mysteries of assaying, inspiring confidence and energy in the minds of all round. Had the whole staff of the geological survey dropped in upon Madoc, they could not have done more. He confesses that he has yet to learn the country, that until the shafts are down a hundred feet at least, we shall not begin to acquire the necessary data. He is hopeful of success, yet speaks with philosophic caution. The services of such a man in the hour of need merit public recognition.

From sundry copies of the New York Mining Journal I take statements of the depth of various mines. "The great shaft on the Comstock ledge is down on nine hundred and five feet, and drifting will commence at nine hundred and fifteen feet. The hoisting works and pumps have capacity to work to the depth of 1500 feet." This mine paid in dividends for the year ending 31st May, 1867, thirty-six per cent, and expended about 6 per cent in permanent improvements. "The Mountain Mine, Alpine County, California, is in with a tunnel one thousand feet, working night and day, confident of success." It had not paid any dividend, and yet the "honest miners" were "confident of success." At Fortuna mine on Lauder Hill, in Nevada, "at the depth of two hundred and fifty feet," they had begun to take out rock for assay.

Madoc rock is taken out for assay at ten feet. If gold is not found at fifteen feet, "the thing is a swindle." At twenty feet the money of the honest and enterprising Canadian gives out. Brother Jonathan comes along, buys up "the country," and when he gets his shaft down one hundred feet, then he looks for a "color" or a "show." If not found, he will still go on, and at a depth of 200 or 300 feet he will in all likelihood get a monthly return of three to five per cent on his investment, continuing over several years. Enterprise such as this has reaped harvests of wealth from the rocky slopes of the Pacific. To judge from the popular feeling of the last two weeks, were the Comstock ledge by some convulsion of nature thrown into our back woods, there would not be wanting men who would pronounce the gift a "swindle," and yet in Nova Scotia the enterprise of the "blue noses" has developed a mining country. A piece of gold worth \$13,000 was lately exhibited in Halifax as the product of 350 tons of quartz.