

slopes and in the valley. These men the bearer column with the aid of the electric light were to find, dress their wounds and take them into the collecting station in the valley. The electric apparatus did not work so smoothly as was desirable, the light being very intermittent (this defect can no doubt be remedied by other lamps or carbons). When the light was on, the searchers could not possibly have missed a wounded man lying in the white light, there was abundance of light for dressing wounds. The whole of the imaginary battlefield was searched in sections, the light being turned on to the next station as soon as the one immediately preceding it was cleared of the wounded. The experiments proved the success of the principle, but many details will require to be perfected before it can be considered absolutely successful. The next step that we may expect to hear of is the continuance of a battle after nightfall by the illumination from the electric light. These experiments show that there is still further scope for the electrical engineer *Journal of Commerce.*

Checks Upon Dishonesty.

The July *Century* contains an editorial on "Dishonesty in Commerce and Politics," from which the following remarks are quoted:

"The most powerful check upon dishonesty would come, of course, from an increase of the genuine religious spirit, from a deeper love of ideal virtue, and an endeavour, so far as humanity can, to reach it. Whenever in the history of mankind such a sentiment has existed, and men have tried, in obedience to their own higher impulses or to some great teacher or exemplar, to reach a higher standard of life, mere material good has ceased to have that commanding importance which in most men's eyes it is apt to have. There is no reason to doubt that what has always proved true in this respect in ages past would prove equally true in our own time, if by any means the right impulses could be more deeply stirred than they are now in the hearts of men.

"Another antidote to dishonesty would be the cultivation among business men of the true business ideal, which consists in a sincere and hearty devotion to the commercial interests of society and the intelligent management of the commerce of the world, and not in the mere accumulation of wealth for one's self. Even now this spirit prevails among many capitalists, and their example is powerful in making dishonest practices much less frequent than they would otherwise be. Such sentiments as these, if once highly developed in a community, would put a powerful check upon dishonesty in all its forms, and the men guilty of it would become the scorn and detestation of their neighbours, and not as is sometimes the case now, objects of admiration.

"But we need also to cultivate the intellectual interests of humanity, which contribute so much to rise men above the sordid pursuits and temptations which attend them. The love of virtue and of the general good is never so strong as it should be and needs all the support it can get from other agencies, and nothing will serve so well for this purpose as the cultivation of the

higher pursuits of the intellect. A deep interest in the things of the mind tends to lift men above the passion for gain, and leads them to regard wealth as a means to those higher things, and not as an evil end in itself. True lovers of science, art and philosophy, while they know better than other men do the real value of wealth, never treat it as the great objects of life's aim, but always as subordinate to intellectual good. To be sure, all men can not devote their lives to rich pursuits; but there is no reason why all should not take an intelligent interest in them, and thus counteract that engrossing passion for material good which now corrupts the conduct and wears out the lives of so many."

Northwest Mineral Deposits.

The *Canadian Manufacturer* says. Dr. Dawson has just received copies of a pamphlet, containing a paper on the geology of the line of the Canadian Pacific Railway, read by him during his recent trip to Europe before the Geographical Society. In his lecture, the doctor described the geology of the country, as he passed over it. He stated that on Port Arthur to Rat Portage in bands of greenish schistose beds, probably Huronian, occur the veins now being worked for gold in this vicinity. He did not visit any of the mines, but saw specimens, more especially from the "Huronian Mine," about seventy miles from Port Arthur. They consisted of white quartz, holding visible gold and sylvanite, in a rock which appeared to be chloritic slate. Several of these veins are being worked on the shore of the Lake of the Woods, and are very accessible from Rat Portage. Describing a coal-bearing strata near Medicine Hat, the doctor stated that about ninety feet from the base of the section is a bed of coal three feet thick, and covered with a shale rock, or parting, of two feet six inches, above which is another stratum of coal, four feet thick, with a shale roof. For about fifty feet above this the cliff is occupied with shales holding several thin coals, and on this rests another bed of coal three feet ten inches thick, with a roof of shale three feet thick, and over this a small coal stratum ten inches thick. Above this shales again occur, and near the top a bed of ferruginous and pebbly sandstone. The less pure coals in this section are brown coals, composed of leaves and vegetable debris compacted together. The better coals, including the thicker beds are composed principally of coniferous wood, having the texture of a bright, hard lignite, approaching to the character of true bituminous coal, and affording a valuable fuel. Beds of this character are very extensively distributed over the region. Beds of coal, some of them supposed to overlie those seen at Medicine Hat, occur at Maple Island, Blackfoot Crossing and elsewhere near the base of the mountains. West of Calgary, as the Cretaceous and Laramie beds enter into the Rocky Mountains and approach the junction with the Palaeozoic rocks, they become much folded and disturbed, and the coals contained in them become harder and drier in quality, in some places approaching to anthracites.

The Timber Trade of America.

Prof. Rothrock, of the Pennsylvania University, in speaking of the danger of a timber famine, says that the area of the United States, including Alaska, is 2,306,560,000 acres. Of this, it is stated officially, 380,000,000 are in woodland chiefly belonging to private parties. In other words, taking our area as a whole, we have about sixteen and a half per cent. remaining in forest growth. Of this, we must remember, that a large proportion represents lands which have been cut over, and are covered with immature growth of good timber, or with trees of such kind as have no commercial value. It will, no doubt, be surprising to learn that as a whole, Europe has twenty-eight per cent. of its area remaining in forest. This, however, is very unevenly distributed, and, to be of further use as a point of comparison, we must examine into the timber statistics of each important district. The percentage taken in this are: Sweden and Norway, forty; Russia, thirty-nine; Austro-Hungary, twenty-three; Germany, twenty-three; Switzerland, nineteen; Italy, seventeen; France, sixteen; Belgium, twelve; Spain, eleven; Portugal, six; Great Britain and Ireland, about three. None of those countries which have less timber land than above seventeen per cent. of their total area have sufficient wood to get along with. They have to import. Making, as far as I can, due allowance, and testing, my results by various standards, I am now prepared to assert that we are in danger of a timber famine at any time our forests fall below fifteen per cent. of the entire area of the country. At this hour, so far as I can estimate, we have not more than 16.47 per cent. This gives 1.47 per cent. between ourselves and want, so far as our industries are concerned. Of all civilized countries driven to make the largest use of iron and to exercise the greatest economy in wood, Great Britain heads the list. Here then we might suppose there existed the greatest ability to dispense with it. Her importations of wood were valued at \$77,963,399 a year from 1872 to 1876, or \$2.50 worth for each soul per annum.

The Canadian Harvest.

The summer so far has been an unusually wet one down by the sea; and in Nova Scotia, especially, the crops have been greatly injured by the continued downpour of rain. In New Brunswick the crops are reported good, with the exception of hay, which is light, owing to the want of rain early in the season. Here in the west, and over the greater portion of the Northern States, the early part of the season was very dry, but a welcome change came the last week of June, and since then the weather has been on the whole extremely favorable for the filling-up and ripening of grain. During the last few weeks splendid ripening and harvest weather has prevailed in Ontario, in Manitoba and the Northwest, and in the States along the border. The Ontario official report shows a heavy yield of wheat and other grain and all of extra good quality, too. Flour from this year's wheat will be exceptionally good and barley is both heavy and bright.