

and there was a drizzling rain, and as he and his wife neared the house he heard a noise like the rumbling of a railway train and saw the house shaking. He immediately rushed in to get hold of his children, ten in number, but when he got the youngsters outside he found that he had only secured eight, whereupon he returned to secure the other two, a girl five years of age and a baby four months old. He brought them downstairs, and after that he remembered nothing, except that he felt himself going through the air at a tremendous speed, and there was the roar of rushing water all round him. When he came to a standstill he struck some matches which he had in his possession in order to determine, if possible, where he was, but the night was so dark that he could see nothing at all. He walked about all night, the water still rushing and roaring around him. When daylight dawned he saw that where his farm had stood the previous day was a big lake, and he and his family had been carried on a section of land, grass, fence and everything, for something like three-quarters of a mile, and landed across the old bed of the river. They were on an island some 50 feet in height, from which they were rescued as previously described. Where formerly was a large tract of forest is now a lake, and the remainder of the country, instead of being a plateau, as formerly, is a mass of broken, undulating sandbanks, 150 feet below what was formerly the level of the land. A waterfall of 108 feet, which was there previous to the catastrophe, no longer exists. This extends for a distance of five miles. The country used to be wooded down to the edge of the river, a stream about 100 feet wide; now the stream is 300 or 400 feet wide, and the whole sides are cut away, leaving nothing but bare, sandy banks on either side. About seven miles below where the slide really took place the river rose 150 feet and carried away immense trees, as well as a bridge that spanned the stream." The river, Mr. St. George says, must have been backed up behind the fall that has now disappeared, and found its way by natural channels to where the slide took place. It must, he says, have taken centuries to undermine the sand so as to cause it to slide off the clay in the immense section it has done.

AN International Electrical Exhibition is to be held in Paris in 1895. It will be opened on July 1st, continuing until Oct. 31st. There will be two sections: an exhibit of electrical accessories, which will be shown in actual operation in the Palais de l' Industrie, and the generating plant in the Palais des Machines; the former at the Champs Elysees, the latter at the Champs de Mars. This should transcend in interest and value the Chicago Fair or any previous exhibition in electricity.

PROF. BOVEY, of McGill University, recently made a test, for the benefit of the visiting American engineers, of a bar of ordinary Montreal iron, 1 inch by $\frac{1}{2}$ inch in thickness. The result was a surprise to the Americans, for previously some of them had not guessed at what Canada could produce in the way of good iron. The testing machine showed that the elastic limit of the bar of iron was reached at a tension of 14,500 lbs., or 29,000 lbs. to the square inch, and that the yielding point was not reached until the tension amounted to 16,500 lbs., or 33,000 lbs. to the square inch. It should be remembered that the iron experimented on was not a piece specially prepared for the process, but a bar picked out from others practically at haphazard.

CREOSOTE is a by-product in the manufacture of coke, and as creosoted timber is now being used more largely than heretofore by the railways of Canada and for timbers used in marine works, it is suggested that it should be made in Canada. Large quantities of timber ready creosoted are now imported, Georgia pine being much used in this way. The creosoting of timber will increase with years, and it is worth while for those interested to consider whether works for this could not be profitably started at one of the coking establishments in Nova Scotia, or elsewhere.

APART from the exaggerated newspaper reports, it appears to be only too true that British Columbia has been visited by the greatest flood in its recent history. Several bridges and dykes have been swept away or damaged, and much of the C.P.R. track has been seriously impaired. Besides these things, the farmers, especially in the Fraser Valley, will have to bear the loss of the whole of this season's crop, in addition to the complete ruin in many cases of the homesteads which they have worked so hard to obtain. British Columbia, with its wonderful possibilities, was progressing so well in their development, that this flood will be a cruel blow, and may throw the province back for some time. Still, British Columbians are steadfast, energetic people, and very likely will only take it as a rebuff to be made up for by still harder work. Already, mining men have begun to take this view; some of them think that when the floods shall have subsided, one of the results of the washing of debris down the sides of the mountains will be the discovery of new metaliferous deposits hitherto unsuspected. This would indeed be the coming of good out of evil, and we hope, for the sake of this great province, that such may prove to be the case.

IT is well known that in operating a mechanical device it requires less power to keep the apparatus in motion after it has been started than it does to start it. In the case of a locomotive, for instance, it requires very little steam to keep the machine in motion after it has started, but it requires great power to start it from the condition of rest. Not so with the armature of a dynamo, however; in its mechanical aspect it is altogether different from any other piece of machinery, observes the *Electrical Age*. It is a remarkable fact that the faster the armature is revolved the greater is the power required for maintaining the motion. To run an armature of a 500 h.p. generator at a speed of several hundred revolutions a minute requires a steam engine of great power; but so delicately is it balanced that to turn it by the hand from a state of complete rest is quite easy. The reason for this apparent anomaly is that when the armature is in a state of rest, there is no magnetic field, the existence of which of course depends upon its motion. The faster that the armature is run, the denser will become this magnetic field. The elements of the magnetic field consist of what are ordinarily termed "lines of force," and when we speak of a dense magnetic field, it is another way of saying that there are a great number of "lines of force." One of the peculiar properties of the magnetic "lines of force" is that they tend to arrest motion, and in the case of the dynamo, the tendency always is to stop the armature from revolving. The stronger the magnetic field, therefore, the greater will the tendency be to arrest motion, and hence, in a large dynamo, the power for overcoming this retarding influence must necessarily be very great.