

mate. No systematic attempt has been made to arrive at any conclusion in this direction, and such statements as have been made are merely the opinions of individuals, many of whom have very little knowledge of the situation, and are not competent to give a reliable estimate. Some statements sent out are certainly wide of the mark. For instance an "Ontario Miller" writes to the *Miller*, of London, England, stating that there will be an increase in the wheat area of thirty per cent. Where "Ontario Miller" got his information I do not know, but it is pretty certain that he is far over the real increase. Circumstances have conspired to prevent a large increase in the wheat area this season, the cause being, as previously noted, the backward state of fall plowing last fall, and the late spring this year. It is the custom here, as a rule, to sow wheat only on fall plowing, and as fall plowing was backward, it is evident that the increase in the wheat acreage could not be very great. There will be a considerable increase in the acreage of all grains this year, but principally in oats and barley. The increase in the wheat acreage in 1887, as compared with 1886, was placed by the Manitoba Agricultural Department at slightly over ten per cent. Now, in 1887 there was a falling off in the acreage of both oats and barley, on account of the low prices for these grains in 1886, consequently the wheat acreage was increased at the expense of these coarse cereals. This year it is generally admitted by those in a position to judge, that the area of oats and barley will be very largely increased, hence a large increase in the wheat area cannot be expected. We have therefore two good reasons for believing that the wheat area will not be anything like thirty per cent. greater than last year, nor even half that. Ten per cent. is probably the maximum. Last year the wheat area in Manitoba alone was placed at 432,134 acres, and these figures were probably within rather than in excess of the real acreage. The wheat area in Manitoba for 1888 may therefore safely be placed at 450,000 acres. In the territories there will probably be a slight increase in wheat, but nothing to signify, as the area sown to barley has been greatly increased.

In coarse grains, particularly barley, the area in Manitoba and the Territories will be much greater than in 1887. Spring plowing is usually devoted to coarse grains, and as there was more spring plowing done this year than last, the reports of large increases in the acreage of coarse grains look remarkable. A great deal of land has been devoted to barley, for two reasons, namely, the very late season this spring, and the favor with which Manitoba barley was received last winter. On account of the very late spring farmers hustled their wheat in as soon as possible on their fall plowing, and then got what barley they could in on spring plowing, as this grain matures in this climate in a remarkably short time, and is therefore not in danger of damage from frost, even when sown late. About 60,000 acres were devoted to barley in Manitoba last year, and some samples of the grain forwarded to malsters in the United States, were highly recommended. This was followed by the arrival of buyers, and shipments were made direct to points in the States. The Winnipeg Board of Trade issued a circular calling the attention of farmers to the advantages of growing some barley, instead of so much wheat, and this no doubt had some influence in increasing the area sown. In some districts the increase in the barley area is placed at 50 per cent. over last year, but the total area for the Province will be from 80,000 to 108,000 acres. The area sown to oats last year was slightly over 155,000 acres, and this will be increased considerably, though to what extent it is difficult to say.

Next to the crops, the most important matter under consideration here is the proposed changes in the grain standards. This is a matter which has attracted keen interest here, and upon which we westerners are wont to look with a feeling of jealousy. There is certainly a feeling of resentment against any interference in the matter by eastern grain men and millers. Manitobans think they know what is best for their own interests, and they further think that they should have full control over the grades of wheat grown only west of the Lake of the Woods. They say, let Eastern people grade their own wheat as they choose, but let them not interfere with Manitoba grades. The action of the Toronto and Montreal Boards of Trade in petitioning the Government at Ottawa in opposition to the wishes of western people regarding the wheat grades, is therefore causing a decided feeling here of resentment. Still, looking at the question fairly, the voice of eastern grain men and millers is worthy of some consideration. Many of them are dealing largely in Manitoba grain, and their opinions should carry some weight. Though the Winnipeg Board of Trade was the first to move in the matter of requiring

a change in the wheat grades, yet the question is looked upon here as mainly a farmer's matter. The local grain men have asked for the change, not so much in the interest of the wholesale grain trade as in the interest of the farmers and the country at large. So far as the local grain dealers are concerned it would matter but little whether the grades are kept up to the present high standard or not. Indeed, it would seem that it would be an advantage to the dealers to have the standard as high as possible. Still the dealers are willing, in justice to the wheat producers, to have the standard lowered, and with the unanimous opinion in the west that the grades should be reduced, the Government should accept the proposals put forth by the Western Boards of Trade. The bulk of the Manitoba wheat crop of 1887 has graded No. 1 northern, while Duluth gets a much larger proportion of No. 1 hard than Winnipeg. The difference is not in the quality of the wheat, but in the grades. With the same grades in force here as at Duluth, Winnipeg would get more hard wheat, proportionately, than Duluth. Now, it has been found that Manitoba hard and Duluth hard brings about the same price, and though there is a difference in quality in favor of Manitoba, yet buyers will not make a difference in the price. No. 1 hard is No. 1 hard, whether it is inspected at Duluth or Winnipeg. Manitoba wheat is always valued here at Duluth prices, but at the same time wheat which would grade No. 1 hard at Duluth, will only grade Northern here, thus practically a great deal of our crop is sold at two cents under Duluth. As Duluth is our natural competitor, it would seem but reasonable to have the grades here more in keeping with the quality there. Before another crop commences to move the Northern Pacific railway will have a road running into Manitoba, and as the road will be operated in connection with the Manitoba Northwestern railway, the Northern Pacific will have control of a line running the entire length of the Province, and some miles beyond into the Territories. This will give direct connection with Duluth, and will allow of shipping wheat to that point. In case the Manitoba grades are kept up to the present high standard it may be expected that considerable Manitoba wheat will go to Duluth for grading, where advantage can be taken of the lower standard in force.

#### LOGGING BY RAILROAD.

THE past winter and spring has more effectually than ever before demonstrated the superiority of logging by railroad over the old process of depending on the elements to get the crop of logs of the mill booms. As the steam mill, and circular, and gang and band saws have superseded the old water power, and mule saw, and the steam railroad superseded the old stage coach, so is the steam logging railroad gradually but surely superseding the slow tedious and ancient process of banking, breaking rollways, driving, booming and towing logs, besides being dependent on the elements to furnish sufficient *agua pura* to float them to their destination, to say nothing of the attendant loss through the devious methods that only a lumberman understands, and very often an entire loss of capital invested for a whole year through the "hung up" process. The railroad logging process takes the logs from the skidways in the pineries, and drops them surely and safely in the mill boom in a few days after the logs have been skidded, if necessary, without the loss of a single log. As the steamboat is superior in every respect to the old sail vessel, being enabled to push forward to its desired destination with precision and accuracy, so the steam logging road being independent of wind and weather, or floods or drouth, is now recognized as the only method which is safe for a lumberman to tie to. Of course the modern method involves the possession of extensive capital and will gradually result in driving out smaller operators and extending the crop of lumber barons, but this is the result of the natural laws of trade and business. The sawmill industry itself has passed through all the stages of advancement, until a mill man must at the present day necessarily possess great capital as a preliminary to success. The same law has brought about results also in the pine land business, and every year places the timber lands of the country in fewer hands. It is the law of concentration which almost imperceptibly, but surely creeps into the important industries with the concentration of population and business, and hence the rich becomes richer and the poor poorer, notwithstanding the warning voice of the demagogue agitators who present finely spun theories to prevent inevitable results; but never apply them as individuals. The age of improvement and advancement has been reached in the logging business as well as in the mill industry and every other department of lumber, as natural results of American genius, tact and enter-

prise. As illustrative of the drift of the business to "big things," the operations of the J. E. Potts Salt and Lumber Company in Oscoda county, Michigan, may be cited, the company actually banking half a million feet of logs daily on their logging road. It requires master minds to conduct such business and immense capital to handle it, and it is a source of benefit to hundreds of employes as well as to the firm furnishing the capital and brains.—*The Timberman*.

#### TRAINED MECHANICS.

OUR schools, public and otherwise, are apparently constructed on the idea that all who are to attend will in the end be professional men, merchants or clerks. Mechanics are neglected. Most of the knowledge in a mechanical line to-day is of a pick-up nature. We do not mean to say that a boy could be taught to be a miller, baker, machinist, blacksmith or carpenter in our schools, neither is he taught to be a lawyer, a dry goods clerk, or a merchant of any kind. He might be taught as to the general principles of one thing as well as the other. There is an over-supply of clerks, lawyers and doctors, for the reason that all of our schools and colleges have been constructed on the idea that the chief end of man is to occupy a professional position. The result is the over-supply and the stop-over of disgusted clerks and men who have to take anything which is offered and for which they are not particularly fitted. The clerks are, for the most part, fairly well educated men. They are better educated than are the carpenters, builders and mechanics in general. There is no reason why this should be true. The mechanics mentioned have quite as much use for an education as has the clerk. The process of education in the school does not make carpenters or millers or other mechanics. It is exactly the other way; it leads in the other direction. If he goes to school, if he does not study a profession possibly he becomes a book-keeper, or is led into some kind of office or store work. But rarely, if ever, is he especially led into mechanical pursuits. If he gets into that way it is incidental; it is not the result of his training. The unhappiest of men are those who are led into pursuits for which they are not fitted, or if into these for which they are fitted by nature they are not properly educated for the higher walks of that pursuit. An education should be for the purpose of helping one to do that for which he is best suited. In the end this means happiness and contentment. This does not necessarily mean that all should be educated to take high positions in the various branches of work but to take whatever position properly belongs to them—a position which is natural to them. Nothing more or nothing less. An Indian who would receive the education of a divinity student, if that thing were possible, would be an unhappy Indian. He would be worthless as an Indian, and as well worthless in the direction in which he had been educated. He would be thrown out of his world. The man whose education leads him into something for which he is not fitted lives the life of discontent. It is probable that he may have to take up something for which he is the least fitted simply from force of circumstances. If he is educated as a business man and is not suited to business pursuits, he must take the most menial and unsatisfactory department in business life. Now it may be that this same man would have made a most excellent mechanic, and would have lived happy as such, but the public school system does not make mechanics, does not lead them in that direction. It leads them away from it. In this respect the system is wrong. It is rare, indeed, that we hear of a young man in school who is studying to be a miller or a mechanic. It is only too common to know that they are studying to be lawyers, doctors and preachers. Of these we have an abundant over-supply.—*The Millstone*.

#### PRIZE STUDIES OF TORNADOS.

THE *American Meteorological Journal*, desiring to direct the attention of students to tornadoes, in hopes that valuable results may be obtained, offers the following prizes: For the best original essay on tornadoes or description of a tornado, \$200. For the second best, \$50. And among those worthy of special mention \$50 will be divided. The essay must be sent to either of the editors, Professor Harrington, Astronomical Observatory, Ann Arbor, Michigan, or A. Lawrence Rotch, Blue Hill Meteorological Observatory, Readville, Mass., U. S. A., before the first day of July, 1889. They must be signed by a *nom de plume*, and be accompanied by a sealed envelope addressed with same *nom de plume* and enclosing the real name and address of the author. Three independent and capable judges will be selected to award the prizes; and the papers receiving them will be the property of the Journal offering the prizes. A circular giving fuller details can be obtained by application to Professor Harrington.