

THE last Bulletin issued by the Ontario Bureau of Industries contains an interesting account of the world's wheat crop. The estimates of the European grain crop annually made public at the opening of the international grain market in Vienna, are usually accepted as the most reliable on that continent. The market opened this year on August 26th, when estimates were submitted for each of the countries of Europe, being made in percentages of the average harvests of the various countries. For the six years, 1881-86, the average wheat crop of Europe was 1,211,072,192 bushels, and in 1888 it was 1,240,379,925 bushels. For this year the estimates are about fifteen per cent. less than last year, or an aggregate of 1,054,322,936 bushels. The *Echo Agricole* estimates the average yield at 1,219,072,000 bushels, and Prof. Grandeau, at the Millers' Congress, held at Paris, during the first week of September, gave a report on the wheat crop of the world stating the average yield as 1,307,625,000 bushels. The three estimates differ widely from each other, the difference between the highest and the lowest being 253,302,000 bushels, or more than enough for the requirements of Great Britain and Ireland. Prof. Grandeau also gave figures of the average wheat yield per acre in different countries, as follows:—Great Britain, 28.0 bushels; Germany, 17.2 bushels; Australia, 17.0 bushels; France, 15.6 bushels; Austria-Hungary, 15.0 bushels; Spain, 14.0 bushels; Canada, 12.3 bushels; Italy and the United States, 10.8 bushels; Algeria, 10.6 bushels; and India, 10.0 bushels. The Canadian figure is much too low, even if Quebec and the Maritime Provinces are included.

"SOME men are born great, some achieve greatness, and others have greatness thrust upon them." Of the men who are born to success, nothing need be said, as there are but few in this country. There are really but two classes and it would be a difficult matter to decide to which of the two belong the majority. There are men in every business and profession who have achieved greatness by judgment, wisdom and labor, but there are others who have to thank accident for any greatness they may have achieved. These latter may know little or nothing of the scientific details of their business or profession, but some lucky speculation or chance result puts them in the way of rapidly becoming men of wealth. Where the long-headed, shrewd business man has been able to make a dollar, the reckless speculator has made thousands of dollars. The former, however, manages to keep his dollar and add to it while the latter by some sudden decline in prices loses every dollar he was possessed of and spends the latter days of his life in poverty and not unfrequently in disgrace. Such instances are common in the States and they are not unknown in our own country. There is nothing to prevent a young man, starting out in life with fair health and his own pair of good hands, attaining the position of a capitalist, that is, a position where he has an accumulation from his labor which he can invest in some way to help him forward, but his motto should be "economy, integrity and industry" and he should avoid unhealthy speculation as he would a pestilence. When one achieves success in a legitimate way, every grain of his fortune is more full of honor and enjoyment than tons of success which results to one from mere accident.

PROF. JAMES, of the Ontario Agricultural College has issued a bulletin to the farmers of the Province on oats, with the hope of adding somewhat to their information and of contributing to agricultural science. From the Ontario oats used at the Ontario Experimental Farm, during the present year, he took ten fair samples, which may be considered as representing the best of our home-grown oats. The average of the chemical composition of these ten samples, as determined in the chemical laboratory at the College, was:—water, 12.96; crude protein, 9.82; fat, 5.24; soluble carbohydrates,

56.97; crude fibre, 11.91; ash, 3.10. The average of the Ontario samples is closely identical with the average of 153 German samples analyzed by Koenig. The average weight per bushel of the ten samples was 37.39 lb., the average weight of 100 kernels, 2,910 grams. The average weight per bushel of the United States oats, as per bulletin of the Department of Agriculture, Washington, D.C., 1886, was 37.2 lb., and the average weight of 100 kernels, 2,507 grams. The individual samples giving the heaviest and lightest weights came from the following States:—Colorado, 48.8 lb.; Dakota, 48.6 lb.; Alabama, 24.7 lb.; and Florida, 26.9 lb. The average of the States in the great divisions was—Northern States, 38.0 lb.; Southern States, 34.5 lb.; Western States, 37.8 lb.; Atlantic Slope, 37.0 lb.; Pacific Slope, 43.2 lb.; all States, 37.2 lb. The best samples of oats came from the rich soils of the north and west. Prof. James says:—"The quantity of husk or fibre can be approximately determined by examination, and we have thus an easy mode of determining the comparative values of two samples of oats as to their food values—the more husk, in most cases, the less valuable. Without going further into samples I cannot do better than quote here one sentence from Bulletin 9, Department of Agriculture, Washington, D.C., 1886, as follows: 'The proportion of husk to kernel and the compactness of the grain prove to be the all-important factors, and the weight per bushel the best means of judging of the value of the grain.'" In conclusion he says:—"In studying the samples of Ontario oats I was much impressed with the great variety in each sample as regards the size, shape and plumpness of the grains. What were apparently choice samples contained a large proportion of inferior kernels. It occurred to me that there is a possibility of great improvement by, in some way, culling each sample of seed grain. It may at present be impossible for the farmer to select and inspect minutely every individual grain he sows; but I believe that the farmer who can find the time and means or devise a method of selecting his grains individually, as he does his animals, will have taken one step, one very important step, in advance of his less careful neighbor. 'Trifles make perfection, and perfection is no trifle.'"

WITHIN the past few months death has been playing a lively game. Details of shocking calamities in almost every quarter of the globe have been published in the press. A few days ago forty seven lives were lost by a landslide in Quebec. Shortly before that about 150 lives were lost through a powder mill explosion at Antwerp, Belgium; then there was the colliery disaster at Penicuik, Scotland, where sixty-three persons perished; and the railway accident near Armagh, Ireland, in which seventy-three lives were lost, mostly children. But these sink into insignificance when compared with the awful loss of life by the Johnstown flood, and the floods in China and Japan. There never have been so many striking illustrations of the fact that casualties come in "waves" or "epidemics" than the present time. In the domain of crime the same phenomena have been observed. Murders, poisoning cases, robberies, suicides, forgeries, scandals, and all manner of crimes have been prolific of late. Scientists attempt to account for these epidemics of crime upon the hypothesis of suggestion or imitation, but it will not always fit. There must be some other cause. How would it do to apply the germ theory? Possibly there are murder bacilli and larceny bacteria floating in the atmosphere, making criminals of those who inhale them. Messieurs Pasteur and Brown-Séquard might look into the matter, and if they find such to be the case, invent an antidote.

The Fall Fairs.

THE month of September is always welcomed with a vast amount of pleasure as it is the time when both dwellers in town and country have the opportunity of visiting our Fall Fairs. It is impossible to look upon the magnificent displays of farm produce and live stock at our leading Fairs without coming to the conclusion that these gatherings have helped in no small measure to the success which has attended the agricultural industry of Canada.

The competition for prizes instils into the minds of the unsuccessful ones the desire to outstrip their more successful brethren, while those who are not in a position to compete are encouraged to strive for better results in the future. In the domain of agricultural implements and manufactures of every description these exhibitions stand unrivalled as a means of suggesting new ideas and new applications of existing resources in art and science, and the competition excited tends to produce an excellence of result by which the public is a direct gainer. They also show the wonderful capabilities of our great Dominion to the strangers within our gates. First in importance was the Toronto Exhibition. Every year has demonstrated the fact more plainly that increased accommodation for this great Exhibition is an absolute necessity. Every department was filled to repletion and many exhibitors had to be content with half the space they required for a proper display of their goods. Entries in several of the classes were so numerous that it was impossible to find space for them all. The exhibition was formally opened by Sir John Macdonald, and from what he said in the course of his speech it is not at all unlikely that before next exhibition the directors will have their long-looked-for desire for enlarged space gratified. Notwithstanding the fact that during the first week other leading exhibitions were being held, and that during the second week the weather was very unsettled, the receipts amounted to \$57,806 as compared with \$59,554 last year and \$52,076 in 1887. On Farmers' Day the attendance was estimated at 75,000, being the largest on any one day since the Fair was inaugurated. The popularity of the Toronto exhibition is wide-spread and many visitors from the Old Country and the United States did not hesitate to express the opinion that it was second to none. This grand result has been brought about by as hardworking and capable body of directors as could be gathered together, and chiefly by an indefatigable secretary possessed of rare administrative ability. Regarding the fair itself we have not space to go into details. The cattle exhibit was something to be proud of, and a gratifying feature was that nearly all the best animals were of Canadian breeding and rearing and compared favorably in point of merit with the best at leading English shows. All the leading stock breeders were represented. In sheep and pigs the entries were numerous and the competition keen. It was admitted that never before at any fair in Canada had such a magnificent display of horses been on exhibition, which shows the value placed on the awards at the Toronto Fair. The poultry exhibit was also grand and the birds looked their best in their handsome new quarters. The Dog Show was an immense success, the best known kennels in Canada and the United States being represented. The exhibits of farm products etc. in the Agricultural Hall, including those from the Ottawa Central Experimental Farm and the Model Farm, Guelph were unsurpassable. What attracted great interest in this building were the exhibits from Manitoba and the North-West and British Columbia. They displayed to advantage the wonderful fertility and resources of these portions of our Dominion. The display of fruit, considering the drawbacks of the season, was first-class, and the exhibits of flowers and plants were even better than last year. It is unnecessary to say that the displays of agricultural implements, machinery, stoves, carriages, etc., etc., were, as usual, magnificent. Take it all in all the exhibition was an unqualified success. The directors wish to have the exhibits of Live Stock during the whole of the fair next year. The Provincial Fair in point of exhibits was a success, but financially it did not come up to expectations. It was a pity that the Toronto and Provincial clashed with each other, as no doubt this had a damaging effect upon both in regard to the attendance. The Provincial since its inauguration in 1846 has done yeoman service in the cause of agriculture, but the feeling is growing stronger that it has outlived its usefulness. It is no fault of the management, but there are now too many local and county fairs which serve the purpose for which the Provincial was started. The Great Central Fair, Hamilton, was most successful both financially and otherwise, and if the directors would only erect more commodious buildings there would be nothing to find fault with. The directors and secretary are men of the right stamp and in their hands the future success of the Great Central is assured. We regret we have not space to refer to any of the other Exhibitions.