

SPIRIT OF THE COMMERCIAL AND INDUSTRIAL PRESS.

AMERICAN SUPPLIES OF GRAIN TO EUROPE

(Monetary Times)

The deplorable reports of the harvest in England have no doubt that there will be a large deficiency in the crops of that country, and that an unusual large quantity of breadstuffs will require to be imported. Heavy generalizations about the crops in the rest of Europe do not encourage the belief that more than an average crop will be found there. The United States wheat crop is unquestionably deficient. The United States Department of Agriculture, on the 1st August, reported spring wheat at 81 as against 88 at the same date last year. Winter wheat at a little earlier date was set down at 63 as against 75 last year. The statement does not show what are the respective proportions of winter and spring wheat grown. But there are states which find that spring wheat answers best, and which grow this kind almost exclusively. In these States the aggregate of spring wheat is 11,854,000 acres this year, against 14,140,000 in 1880. Whatever reasons there may be for doubting the estimates of the Agricultural Bureau, and these are very strong, being based on their wide discordance in previous years, with facts afterwards ascertained, no one contends that this year's crop is equal to last year's. It follows that the United States will be able to spare for export less wheat from the crop of 1881 than she exported of that of 1880.

It is possible to over estimate the future ability of the United States to contribute towards the supply of European deficiency. Considering the newness and the supposed fertility of much of the soil, the average yield of the United States is very low. An average crop of spring wheat is put down at 14 bushels to the acre; and the data are probably very nearly correct; but the official estimate for this year, 81 on the 100, brings it down to 11.74 per acre. This decrease, which is but a bushel less to the acre than last year, if it could be relied on, would aggregate 41,000,000 bushels. The decline in the quantity of winter wheat is made to appear still greater. This in spite of the increase of acreage, from 21,892,000 to 24,149,000 acres; the assumed difference being in the reduction from 13.72 to 12 bushels to the acre, and amounting to an aggregate of 25,000,000 bush. According to these figures, the total decrease in the wheat crop as compared with last year is 93,000,000 bushels.

It seems difficult to believe that there has been no increase in the acreage of wheat grown this year; which would show the States to be, temporarily at least, in the extension of the growth of wheat, in a non-progressive condition. Much labour has been employed in railway construction during the year which might be otherwise utilised, but if the area sown with wheat, under the stimulus of last year's prices, has not increased, the fact is one which may prove to have great significance for the United States. It may show that the area of land available for the profitable growth of wheat is not capable of very great immediate extension. Supposing the estimated reduction of yield per acre to be true, it would not necessarily follow that the decline is more than accidental and is due to permanent causes. Still, the "average yield" of an average year would naturally imply an approaching exhaustion of soil in some parts of the country. But this area would not seem to be relatively very large; for among the States which show a decrease are Texas, California, Nevada, Colorado and territories, which are too young to have given much opportunity for exhaustion. It might be different with Virginia, Tennessee, and even Wisconsin and Iowa, which also show a deficiency as compared with last year. But when what is taken as the normal average is only a little over 14 bushels an acre, there must be a very low average in some places to balance the heavier crops produced on the new soils of the West.

Want of progress in the extension of wheat cultivation, if the fact be certain, may find a partial explanation in the increase of corn cultivation, which the Agricultural Bureau first put at 2, and then, a month after, at 20 per cent. The average of corn must have been the same on the 1st July that it was on the 1st August; and this extraordinary revival between these two dates shows on what a sandy foundation these figures rest. What reason is there to suppose that the average of wheat is any more correctly given? If the average of wheat is low, that of corn is probably high; but how low it really is is the question. The Bureau's estimate of the increase of corn is almost certainly too high; and corn is not accepted as a universal substitute for wheat in Europe.

A low average in the United States means more than a low average in Canada, because there a large part of the best soils have been brought under cultivation, while here our best soils have scarcely been touched. It is, no doubt, true that there is everywhere a tendency to bring the best soils under cultivation first, but this is not always possible. It was not possible to the immigrants who came in the *Mayflower* to the rocky coast of New England, because the best lands, which lay in the interior, were inaccessible to them; and in like manner the French immigrants, in the early days of colonization, spent their energies on a

soil much less grateful than that of our North-West. There is now no very large area of land in the Western States of which the productive powers have not been tested to a greater or less extent while it is correct to say speaking in the bulk, that our great North-West still retains all its original power of production. It cannot be doubted we think that the time will come when Canada will supply a larger surplus of wheat to Europe than the United States. But, of course, many years must elapse before that change is brought about.

THE ADVANTAGES OF A GOOD REPUTATION TO MAKERS OF MACHINERY

(Chicago Industrial World)

There are many makers of machinery who do not seem to understand the true value of a good reputation for their productions. They evidently think that the saving of a few hundred dollars here and there in careless and inefficient workmanship is clear gain. But in this they are sadly mistaken. Nowhere does good and meritorious work pay so well as in the manufacture of machinery. As a general rule machinery is costly and is intended for permanent use in factories, shops or other places where it receives severe and practical tests of its strength, durability and general working qualities. Deception in the manufacture of machinery will almost invariably come to light when the machines are put to use. It is a comparatively easy matter to slight the work in producing machinery of many descriptions, and it is often a difficult matter to show where care and labour have been bestowed upon certain machines until they are placed in operation. A manufacturer went into one of our machine shops the other day and asked the cost of making a certain special machine. Upon being informed that it would cost double the amount that he paid for one which he already had in his shop he was surprised, and demurred at what he thought was an extravagant price. But, says the maker, "the machine you now have does not do perfect work, the one I propose making will." The purchaser reluctantly left his order, but after getting the machine home and using it for some time he returned to the makers and frankly acknowledged that the high priced machine was in fact the best purchase he ever made. Now suppose this manufacturer had, after receiving the order for the special machine, slighted the work, as evidently the makers of the other had done; the result would have been that he would have made a few dollars on one machine, and would ever after suffer from the ill will of his duped purchaser, because the latter would have discovered the cheat the moment that he had set the machine in operation. Now, as it happens, the purchaser cannot say too much in favour of his new machine, and the high class of workmanship exhibited in its construction. He is, in fact, a perpetual advertiser of the skill, good workmanship and honesty of the manufacturer who thus furnished him with a good job.

Frequently the inquiry is made, why does not such and such a manufacturer succeed in building up a trade? The reply will be that while it is true that he has a good kind of machine, it is so poorly constructed that it will not sell. It is a common practice for buyers to take time to look around and examine different kinds of machines, and make numerous inquiries of those using them, before making their selection. It can thus readily be seen how essential it is for the manufacturer to establish a good reputation for his goods. Suppose one is in search of a steam engine. The purchaser would not be likely to rush off, at once, and make a selection, without first learning something about the working of the engine from those who had employed it, or had knowledge of its good or bad qualities. Sometimes buyers rely on the statement of the seller in such matters, but a careful and prudent purchaser would investigate the merits of the engine for himself before buying it. Should he get into a shop where a similar engine was employed, and there find that, while the principle of its construction was all right, the work itself was slighted, the materials employed were poor, and that parts that should be finely finished were only roughly and imperfectly made, he would most likely conclude that he needed a better finished engine, and thus the maker would have lost a customer. But slighting work and employing cheap material are not confined to the most costly machines. We find this trouble cropping out in all descriptions of machine work. True there are certain kinds of machinery made rough and cheap on purpose. The buyer purchases them as such and intends them for a purpose where quality is not a prime consideration. In such instances the maker is not depending upon the reputation of his work, but upon the price.

The value of good workmanship is probably nowhere made more apparent than in agricultural machinery. A farmer buys a reaper; he takes it into the field to work, and finds that the gearing is defective, made of poor material, and ready to break at any moment; he also finds that the woodwork is poorly constructed, and of inferior material. What is the result? In the midst of harvesting, when every hour is valuable, his machine breaks down and he has to leave his work and rush off to town for a new casting or for some set of repairs. He is not slow in learning that he has a

poor machine on his hands and will most likely disclose that fact to all his neighbours. The most popular machines in the market to-day, and those that meet with the largest sales, are those having the best reputation for durability and "stability." We do not mean on the machine that are judged the most of as the most ornamental, but such as have well finished working parts, which finish and fit are essential, and that have strength where power and strength are required.

The manufacturer should always bear in mind that there is substantial capital in the good reputation of his work. That falls in the future, and if honestly acquired should grow with the years. It is better to sacrifice a few dollars in the sale of the present to reap thousands of dollars on the sales of the future. Purchasers in this age of investigation are being more and more educated to buying with their eyes open. Information is now being wattered broadcast, and people are better able to find out the deceptions practiced in the trade than they were, and therefore, shrewd from any considerations of duty, the manufacturer who is the most conscientious and painstaking in his work will be the most successful, other things being equal. The demand for good and substantial work in machinery is growing as the experience of manufacturers is growing. The day for "cheap and shoddy" in machinery is rapidly passing away, and what is more good work and good prices are going hand in hand together. While cheap and worthless machinery will doubtless be made and sold as long as dishonesty and shiftlessness remain to curse the world, it is still an indubitable proposition that it is far more profitable to make good work than poor work in every case where the manufacturer depends on the good reputation of his machinery for its sale.

THE UNCERTAINTIES OF FREE TRADE.

(Toronto Mail)

Free trade in England has resulted in some six or eight manufactures in a state of congestion; all the others being depleted. It is curious to note how the vigorous English pertinacity has struggled in the vain effort to sustain manufactures in places where under the old system which made England a manufacturing country, some branch had taken root and flourished till the new system killed it out. Coventry, for instance, was first celebrated for its manufactures of cloth caps and bonnets. These were superseded by the manufacture of woollen broadcloths, that by weaving, that by watchmaking, that by the manufacture of ribbons. The history of Coventry is the history of many places. The history of manufactures in England is a history of efforts succeeding each other like the transient boarders in an urban hotel. Manufactures, like that of sugar refining, have risen to a great height. They have fallen to nothing. The cotton manufacture, notwithstanding its immense development, is in a precarious and uncertain condition. It is dependent upon a foreign supply of the raw material. The silk manufacture has taken to itself wings and found a home in France.

The industrial history of France and the United States shows no such changes. It is steady progress. Let an industry get a hold in either country and it goes on growing. In illustration of this, take the best-root sugar industry and the silk industry in France, both started under the protective policy of the first Napoleon, and both growing year by year. The silk industry in the United States shows the same steady growth; beginning from nothing, it has grown to respectable dimensions, with every promise of attaining immense proportions. In England, when the free trade policy was adopted, the silk weavers were an important element in the population. They have been dwindling in numbers every since.

The great industries to which, under England's peculiar conditions as to labour, a free trade policy has given an impetus are the cotton, the woollen, the iron, the linen manufactures, the manufacture of machinery, and the coal industry; and there is not one of them but has shown a yearly decline in the amount exported. There is not one of them but has been attacked in its home by outside makers. You will see American cotton goods in Manchester. American cutlery in Sheffield, and so on. Then it comes to this, that the industrial history of England shows a great variety of manufactures springing up under a protective policy; a great decay of these, and an enormous development of a few manufactures under the free trade policy. Ever since England began her career as a manufacturer, there has been a constant procession of manufactures; first, into the country under protection; and second, out of the country under free trade, industry after industry retiring like scarred ghosts from the island, just as they retired, as we have shown, one by one from Coventry.

Now, we content that any country is safer just in proportion as it maintains its variety in manufactures, just as in broader lines a country has its prosperity better assured by the proportionate development of agriculture, commerce, and manufactures, rather than by the inordinate development of any one of the three. We content further that the industrial history of the several nations shows beyond a doubt that under the free trade policy there is a survival of the fittest for that country, while under a protective policy there is a harmonious develop-

ment of all industries. As a consequence of this it follows that the free trade country is a good country to emigrate from and the protected country a good country to emigrate to, because under free trade there must be frequent changes of manufactures, resulting in driving out those who followed the old industry, while under a protective policy the necessary industry of every industry stated is to grow. It may be laid down as an absolute certainty that since free trade in England there have been more changes in the manufactures of England than in all the protected countries of the world put together—more industries that have fallen to the rear, wounded and sick, while the world's army of workers in these countries has increased in numbers, more that have sorrowfully bowed themselves out of England than in any protected country, or than in all together.

AGRICULTURE IN IRELAND.

(St James' Gazette)

The authors and friends of the Land Bill are too much occupied with the theories which they are now forcing upon Ireland to have much time to bestow on so dry a subject as agricultural statistics. Those, on the contrary, who expect no miraculous prosperity to be the effect of that measure will look with as much interest this year as before at the returns compiled by the Irish Registrar, and just issued by the Lord Lieutenant. Dr. Grimsshaw's figures show very clearly the position of the Irish farmer during this year which has been the most venturous yet known to him. It attests, as do the annual returns of English agriculture, the slow and steady course in which things rural move, whether from bad to good or—as in these days is too often the case—from bad to worse. It will be seen, too, from these statistics how little the relative prosperity of the Irish farmer depends upon such nostrums as are presented in the Land Bill.

Of the total surface of Ireland—about 20 million acres—more than 2 million acres must be deducted from the agricultural returns as consisting of barren mountain, and nearly 1½ million acres as bog and marsh; though it is certain that the greater part of this last could be converted into good land if capital and labour were forthcoming for the purpose. "Water, roads, fences, etc." comprise an extent not coming far short of one million acres; so that there remains available for culture of one kind or another a total of rather more than 18½ million acres. Of this, speaking in round numbers, 5 million acres were last year under arable cultivation, and 10½ were occupied as meadow or pasture land, leaving 15,000 of fallow and 340,000 acres of woods and plantations. Comparing this with past years, it seems that the barren mountain land has increased 10,000 acres since 1873, and the "water, roads, fences, etc." 1,000 acres, whilst about 23,000 acres of bog and marsh were reclaimed, or otherwise disappeared from the returns. In the ten years ending with 1880 the total of unproductive land, excluding fallow, increased more than a quarter of a million acres—from 4,390,000 to 4,620,000. The land bearing cereal and grown crops decreased in the same period from 5½ to 5 million acres, while the grass lands increased from 10,000,000 to 10,750,000. Woods and plantations show an insignificant increase in size; and fallow land remains within the average of the ten years. At the same time the number of holdings has steadily but very slightly declined; showing no greater change in the subdivision of farms than might naturally be expected in any country. The total number of holdings in 1880 is reckoned at 674,000, whereas about 50,000 were held in mere patches of less than one acre in extent, and 524,000 were holders of the same of 2 ares. It appears that the average size of holdings in Ireland is about 27 acres; and indeed the most numerous class of farmers consists of those who own between 15 and 30 acres. These number 101,000 against only 138,000 who hold between 30 and 50 acres, and 73,000 who hold between 50 and 100. The whole class of "peasant proprietors" who occupy less than five acres does not include more than 115,000 persons. This latter class is, moreover, shown to have remained nearly unchanged in numbers during the last year; and it is only in the increased number of the larger holdings—above 100 acres—that there was any notable alteration. It is, however, remarkable that, excluding the petty holdings over one acre, there was during the period a decrease in every province in the number of occupiers, amounting in the whole to a falling off of 1,300, although at the same time the holders of 50 acres increased 50 in number.

The land, thus parcelled out among its occupiers, was estimated in 1880 a stock of cattle almost equal to that which it maintained in 1871. Even since 1873 the falling off in horned beasts has not amounted to more than about 5 per cent.; and in the matter of horses, mules and asses there was an increase of some 6 per cent. Every one of these categories show, however, a decrease since 1873; and so do those which enumerate the goats and the poultry, though they are still above the level of ten years ago. But it is in the items of sheep and pigs that the year 1880 shows the most conspicuous decrease. The loss in sheep since 1873 has been more than 20 per cent., and the total of the smaller animals, which was until lately greater than that of the horned cattle, has now

fallen far below it, and is now only about 11 millions, as against 13½ millions. Pigs have decreased in number, and have decreased in number in the same proportion as the sheep— from 4,500,000 on a million and a half to 3,500,000 on a loss of 1½ per cent., which the past year is a considerable more than 14 per cent. Such a fall in the number of sheep is due, not only to the increased cheapness of wool in the market, but it is to be said that a vast number of cottagers and small occupiers, no longer called upon to pay the rent, have disposed of a single with the animal whose special utility was to furnish this food. It may be now as cheap to buy lambs on the road at home, but the difference between the two processes does not end there. The decline in the number of pigs is not only idleness and improvidence on the part of the quondam pig owner, but also increasing barrenness of the land, cultivators or pretence to cultivate. To single feature in the return of live stock for 1880 that can be called at all encouraging is the comparative steadiness with which the horses are kept up to a level not far below that of the previous year, and above the average of ten years past. But even the satisfaction to be derived from this is largely modified when it is observed that there is a very heavy decline, of 17 per cent. in the total of foals under a year old.

For the culture of arable and meadow land 1880 was a good year in Ireland. The estimated produce per acre was well above the average of ten years, and in the case of oats and root crops as only twice been exceeded in the decade. The much smaller quantity of last year with cereals produced accordingly a considerably larger crop, and should have enabled the occupiers to maintain themselves living beyond the need of charity or a reduction in rent. The statistical details show, nevertheless, that the good harvest was much less productive than it should have been, owing to the small acreage of land cultivated for the crops which turned out best. The potato crop, for instance, was nearly three times as good as in 1873, and 30 per cent. better than in 1871. But the potato better in the latter year covered more than a million acres, whereas in 1880 they included only about 670,000. Again, the wheat lands produced 25 per cent. per acre more in 1880 than in 1871. But in the earlier year there was cultivated for wheat in Connaught alone 19,000 acres, and in the latter year only 7,000. Of the twelve categories into which the crops are divided, all but six are shown to have been grown either on less land than in the previous year or on an acreage practically the same and these two are oats, which were cultivated on 20,000 more acres, and flax, which was grown on 157,000 acres, against 137,000.

Dr. Grimsshaw's report contains an appendix dealing particularly with the inquiry made into potato grounds in Ireland. The potatoes grown are divided into fifteen varieties—the fifteenth class including some forty species of miscellaneous importance. Separate returns are given of the result of planting each several kind in the different districts, and the 820,000 acres cultivated for potatoes are thus separated into distinct testing grounds for ascertaining the relative merits of all the species. The description of (1) sound, (2) partially diseased and (3) lost by disease, is affixed in separate columns to the results in each district, and the effect of the whole is said to be in favour of the "champion." This variety, only recently introduced, already occupies 220,000 acres, or more than one-fourth of the whole area sown with potatoes; being especially popular in Munster, but yet not so well established as the other three provinces. These and the "magnanimous" show the highest percentage of sound produce, and have forced their way into favour. Reports sent in from the different counties all testify to the prevalence of the pernicious custom of using again and again the last year's seed on the same ground, and dwell on the ordination of this slovenly habit and the introduction of new seed into Ireland as a certain cure for the evils which have so sorely afflicted potato growers. In effect the yield of potatoes of all kinds last year amounted to 30 tons per acre, against 1.3 tons in the previous year; and it is impossible to consider the season, for it was led in many respects, as accounting for the whole of this improvement.

There are, I gather from the police report, 7,093 public houses and 442 beer houses in the metropolis. During 1880 29,825 persons have been apprehended for drunkenness—of these 13,198 were males and 13,870 were females. The average apprehension for drunkenness seems to be ever, to be diminishing. During the preceding years the proportion was about 7,500 per 1,000 of the population. Whereas in 1880 it was only 6,315. Against "drunk-houses" there have been 155 convictions, whereas in 1875 there were 1,031.—*Twiss*

A committee of the original board commissioners of the New York World-fair project is canvassing among the best men with a view of carrying out the enterprise, and it is said many prominent men connected with the original movement are offering their every encouragement. F. L. Talbot, the banker, said to-day that \$3,000,000 was really to be subscribed for the enterprise, and that the organization is quietly going on among those interested in the success of the