

chasing tenant breaking down in his payments before the 49 years were out.

Therefore, while foreign competition may be one element in causing the decline in British agricultural prices, the main cause, claims the bimetalist, is the rise in the value of gold. Hon. Mr. Goschen, though not a bimetalist, stated before the Institute of Bankers, in 1883, that the increase in the value of gold was the true explanation of the "fall in prices." The relation between bimetalism and agricultural depression is thus explained, and Dr. Walsh, Archbishop of Dublin, in a concise statement of this subject, lately issued by the Coin Publishing Co., of Chicago, went so far as to say that if bimetalism or some equivalent remedy were not adopted, the agricultural tenants of Ireland were destined to "inevitable ruin."

Bimetalism, to be workable and effective, would, it appears to us, require some sort of international monetary arrangement between the leading nations of the world.

American Experimental Work.

Agricultural experimental work in America, though eminently practical, is, according to Old World authorities, lacking in scientific guidance. That well-conducted periodical, "Agricultural Science," however, contends that much of American experimental work is just as brilliant scientifically as the best that Europe has offered in the same time. We are constrained to say, nevertheless, that many of the bulletins issued from time to time do evidence crudity, and there are reasons for it. A large number of experiment stations were hastily organized within recent years; the supply of qualified men for directors and a working staff was very limited, and in not a few instances places were filled largely on the score of the political or social standing of the applicant. A great deal of the work, too, is conducted by raw subordinates, because of the public demands on the time and attention of the directors. Then, there is the pressing and incessant clamor characteristic of the New World for results which unquestionably has tended to undue hurry, thus proving detrimental to the value of the results. Scientific conclusions cannot, speaking generally, be attained in a hurry, and experimentalists make a very grave mistake in publishing bulletins, etc., merely to make a "show" that they have been "doing something." If work of this character is to be substantial and lasting in character, it must be wisely and systematically planned, and be carried on with the utmost patience and fidelity, down to the minutest detail.

Care of Stock in the Fall.

Many people are too careless of their live stock in the fall, and this is especially true in regard to cattle. The days are often bright and warm, and seeing this, the farmer overlooks the fact that the nights are cold and often wet, and the ground damp and uncomfortable, so he will leave them out until much injury is done by their having run down in condition, or, if dairy cows, a shrinkage in their milk will be noticed. This is not an economical way to prepare cattle for the winter, whether they are intended for beef or for dairy. To feed stock to the best advantage, they should go into winter quarters in good condition, instead of being weakened by exposure to storms, or thinned in flesh from semi-starvation. If this be not attended to, a large amount of feed will be wasted in the attempt to bring the animal up to its former condition.

Every farmer knows (or should) that it is much easier to keep a cow in a good flow of milk, or a beefing beast moving steadily on for the market, than it is to restore either.

Do not be too anxious to make the stock gather up all the waste blades of fodder and late, frozen grass in the fence-corners; it will be much more profitable to let these go to make humus than to force the animals to feed on them.

Get the stables ready early in the season, and have the stock housed cold days and nights, and keep them in an improving condition.

A report, prepared by Major Craigie, was lately issued by the British Board of Agriculture, showing the grants for agricultural education made in Great Britain during the financial year ended March 31st, 1891. Out of a total of £8,000 granted to the Board for this purpose, the sum of £550 appears to have been consumed in the expenses of inspection, leaving £7,450, which has been distributed as follows:—

University College of North Wales	£800
Yorkshire College	800
Durham College of Science	700
University College of Wales, Aberystwith	400
Canals and Counties Agricultural Education Committee	400
University College, Nottingham	200
University Extension College, Reading	150
Bath and West of England Society (experiments)	350
Eastern Counties Dairy Institute	250
British Dairy Farmers' Association	600
Glasgow Technical College	500
University of Edinburgh	200
University of Aberdeen	250
Scottish Dairy Institute, Kilmarnock	200
Highland Agricultural Society (experiments)	100
Aberdeen Agricultural Research Association	25
Douby Science School, Orkney	175
Class for Dairy Teachers	150
Class for Foresters and Gardeners, Edinburgh	150
Records of Rothamsted Experiments for fifty years	350
Total	£7,450

Agriculture in the Schools.

AN ADDRESS BY REV. DR. BRYCE, AT THE MANITOBA CENTRAL INSTITUTE CONVENTION.

On being introduced by the Secretary, Mr. Leech, Dr. Bryce said he had come up to Brandon for the purpose of speaking to the farmers in connection with the subject of agricultural education in our Public schools; that, not being able to spare the time to be present at all the meetings, he had made a mistake in the day on which he was supposed to be present, and was compelled to speak this afternoon. He considered his chances improved by this change, because of the large number of ladies in the audience, who are as much interested in the subject he was about to speak of as the men, though, of course, his remarks would not be as technical as if he were addressing the members of the Institute only. He said it was a very easy thing for a lot of wise men to meet together and say that although they had not had the benefit of an agricultural education they wanted their children taught it. It is also easy for the Legislature to tell the Advisory Board to go on and introduce education of this nature; but it would not be so easy for the Board to carry out that idea. He believed the agricultural education should begin at an early stage—say the third class. The young people must be taught that agriculture is a science, and that intelligence is just as necessary on the farm as in any other branch of public or private life, and that it is a mistake for them to want to leave the farm and go into the already crowded towns and cities, to become poor doctors or poor lawyers. It would be better if half of those who enter the professions had stayed on the farm. In all cities there are a large number of doctors anxiously looking out for a patient; lawyers looking for a client to come in, whether he is able to pay them for their services or not; they want to have a brief—they have not had one for six months, and they want something to enable them to appear in court. A large number of our professional men in Canada and the United States are living upon other people, and giving no return for what they receive. In order to cure this, we must not have an over-supply of professional men, and the young men from the farm must not have an over-desire to rush into the cities. If a farmer can make any headway at all on his farm, he has less difficulty and less anxiety than a man engaged in city life; he has a better time altogether, and he can sleep better at night. It is better for a man to be a successful farmer than to live on the outskirts of a city, wearing a little finer clothes, but having to live on poorer food in order to keep up appearances. Teach the children how to become good farmers. When they are able to read the Third Book they are in a position to grasp some of the simple principles, and at that age a manual, containing pictures and a popular description of twenty or thirty varieties of our prairie flowers, can be placed in their hands, and would be an excellent introduction to the higher branches they would be led on to later. They could also be instructed in the different grains of the farm. Children at that age can be very easily interested in such matters. The different varieties of the hurtful weeds which grow in this country, and some practical lessons in tree planting and culture, would be sufficient for one year's course of instruction, and with the co-operation of the teachers and parents, a good beginning could be made. In the next year a little more specific agriculture and a little chemistry and physics might be introduced; they could be taught the composition of the air we breathe; the properties of water; elements of the soil. In order to make practical chemical experiments, an apparatus would be needed; but one sufficient for thirty or forty experiments could be purchased for \$3 or \$4. A little in regard to drainage might also be introduced, but they would not require very much in that branch in this country. The animals on the farm could be taken up next, and specimens of the leading types could be placed before the children. The difficulty will be not so much in preparing these manuals as to get the teachers to take the trouble to fit themselves to instruct the children in these subjects. Later on it will be necessary for those who have passed the Fourth Book examination to attend some institution where they can be taught agriculture of a higher order. We do not want an agricultural college, because that is too far advanced for this country. An agricultural college is an institution for educating agricultural professors; we want one to educate the farmers' sons and daughters. The worst feature about an agricultural college is, that instead of your sons being educated for the farm, they are educated away from it.

The speaker closed by reminding the members of the Institute that if they had a surplus of funds, a grant of, say \$100, could be used advantageously by the Advisory Board as prizes for the successful candidates in the various schools; but as it would be two or three years yet before this would be necessary, the funds would be safe in the meantime.

The next annual meeting of the Ontario Creameries Association will be held at Chesley, on the 8th, 9th and 10th of January next. The speakers already arranged for are Prof. Robertson, Prof. Dean, Prof. Shutt, and Mr. John Gould, of Ohio. The proposal to unite the Creameries Association with the Western Ontario Dairymen's Association does not appear to meet with favor; at least for the present.

STOCK.

The Toronto Industrial Exhibition.

As was foreshadowed in our last issue, the Industrial Exhibition of 1894 was assuredly entitled to bear off the palm as the premier agricultural show of America. The aggregation of live stock, agricultural products and machinery was simply superb. Taken altogether, its success was a splendid tribute to the enterprise and intelligence with which it is conducted. We had hardly expected the attendance to equal previous years, but are glad to report an actual increase over 1893. Owing to a couple of wet days, there was a falling off in grand stand receipts, but the total income was about \$60,000. We devote herewith a great deal of space to extended reports of the chief agricultural exhibits:—

HORSES.

The Industrial Horse Show was in keeping with the condition of the trade. Many of the old Clyde breeders are temporarily resting on their oars, by allowing their stock to run along inexpensively instead of keeping them in show condition. This state of things resulted in a meagre show of heavy horses, although the quality was quite up to former years in most of the sections. In light-legged classes there was a decided improvement this year, especially in street and park, harness and saddle stock. The recent growing demand for the high knee and hock actor, with good size and picturesque finish, has led many horse-breeders to bend their energies in that direction, which fact was very apparent at the Industrial this year.

THOROUGHBREDS.

On account of the increased demand for Saddle horses and Hunters, two classes of aged stallions are now shown; one suitable to get racing stock, while the new class, which was instituted last year, calls for producers of hunters and saddlers. Neither of these classes were largely contested this year. In the former, four were shown, which included some excellent specimens. Some of them, however, gave evidence of early campaigning, as in too many cases the forelegs show signs of breaking down. It is a pity that such a useful, enduring breed should be blemished and crippled so early in life, simply to gratify fancy without utility. Brown & Wilkinson, Brampton, received the envied card, with Woodburn, that also received the sweepstake prize, a very breezy, strong horse, sired by King Alfonso. Alex. Holmes' Pallarist and Harris & Welsh's Regent received second and third places in the order named. In the new class, three splendid horses were shown. Norwegian, the last year's winner in this class, again carried away the first premium. He is just the sort to produce the popular saddler, being strong, handsome, vigorous, and breezy. He was sired by Peregrine, and is owned by Fred. Row, Belmont. Regent, the third prize horse in the former class, came second here, and was followed by C. P. Gerris' Mount Eagle. Why the exhibit in this section was so small, we can hardly see, as just now there is a rivalry between this grand old breed and the more modern Hackney, for crossing purpose, to produce the sensational high-stepper. We would say to Blood-horse men: keep your good ones before the public, or there is danger of a decline within the coming five years. The younger stallion class was more noteworthy for merit than numbers. We regret that so few were shown. Three-year-olds were entirely absent. Of two-year-olds and yearlings, just three in each section appeared. We are pleased to say there were no weeds among them, although they were not all in show fix. The mare and filly classes showed quality, but lacked in numbers. Mr. Davies' noted mare, Beehive, was among them, and held her usual front place. The fillies from Todmorton were among the admired ones, and captured their share of the premiums. John Dymont's imported yearling filly by Albert Esterling is specially worthy of mention. Her all-round quality and size gives her an appearance that horsemen admire. The judges were Dr. Robt. Craik, Montreal, and F. Lavery, V. S., Cannington.

ROADSTERS.

The Roadster class was well-filled in every section, there being in all 142 entries, and nearly all present. This useful sort shows improvement year by year. Size was a noted feature this year, while finish and action were no less present. In the mature stallion section were some splendid sires, some of which gave evidence of track work, which robbed them of the fresh appearance of four-year-olds.

H. Cargill & Sons' General Jackson, by Royal Leopard, captured the red ticket premium and sweepstakes prize. He is a perfect model, almost black. His fine, intelligent head, beautifully formed neck and grandly developed arms and thighs, running down to ideal legs, gives him a finish which anyone would notice as superior. His action, too, is showy and rapid. He showed his value as a sire by a pair of his get being awarded first prize for team 15½ hands and under. They were just the type of their sire, and were owned by Mr. Cargill & Son. If the General has a fault, a little more size would do him no harm. The second and third prize horses were G. W. Lang's Tom Collins and John Cherry's Wilmot. They are worthy horses, of black color, with splendid action and conformation, but fell behind the General because they lacked that sweet finish for which he was so much admired. Honest