

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN
THE DOMINION.

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pamphlet will give them an inkling. What we require now—and this is the main point—is an effective Railway Commission, with power to enforce its decrees. Canada being essentially an agricultural country, when such a body is created by Parliament we desire to see upon it one member at least competent to represent that great interest in connection with the transportation of the products of the soil, animals and their products, etc. He could be of real service to the farmer there.

Such a commission would investigate and settle all disputes, and it would shift the burden of investigation from the shoulders of the shipper. Railway charges for postal service would probably bear enquiry if U. S. experience is any guide. Hon. W. Clark, Associate Justice of the Supreme Court of North Carolina, tells us that the two great defects in the administration of the U. S. postal department are the enormous overcharges paid to the railways, amounting to fully \$15,000,000 annual loss to the Government, and the prevention by corporate influence of the adoption of the telegraph and telephone for the betterment of the postal service.

Besides the Intercolonial we have but two great lines in Canada—the G. T. R. and C. P. R.—so that effective regulation should not be difficult if Parliament has backbone enough to make the tribunal right on the start. True, over the C. P. R. main line the right of public control is limited by the charter clause which prohibits reduction of rates until the earnings net 10 per cent. on the capital invested; but even here, while we have not the right to reduce, we have probably the right to prevent discriminations between shippers and communities, so that what we want, as Mr. Willison points out, is effective machinery to enforce our present legal powers. We trust the pamphlet will be widely read, and we commend it to our readers.

The World's Model Agricultural College.

The *Scottish Farmer* for May 15th has an article strongly advocating the establishment, for the counties of South-western Scotland at least, of an institution patterned after the Ontario Agricultural College at Guelph, of which a very complete outline is given. "Mr. James Biggar and many others," to quote from the editorial in question, "including the writer of this article, who have leisurely inspected the institution and its workings, have emphatically testified that in their opinion it is just the sort of place suited to the requirements of Scotland." It is no small honor in this the Queen's Diamond Jubilee year to have the repre-

sentatives of British agricultural progress coming to Canada for the model of an agricultural college, but they evidently know what they are about. Pending the establishment of this institution the FARMER'S ADVOCATE begs to suggest that a ship load of prospective young Scottish farmers be sent over to Guelph for training in the true faith of agriculture. Under President Mills and staff we can assure them they will be nurtured according to orthodox principles. Come West, young men of Scotland, and welcome!

Science Justified by Practice.

To the Editor FARMER'S ADVOCATE:

SIR,—The ADVOCATE of May 15th contains a very able article from the pen of Mr. R. Gibson, entitled "Practice, with Science." It is well worth careful reading, and the motto adopted is eminently sound. But I am afraid that the casual reader may possibly derive some wrong impressions, not so much from what has been said as from some things that have been left unsaid, and this letter is not intended as a criticism of Mr. Gibson's article, but rather as an addition thereto.

In the first place there is a danger that some may infer that the Aberdonian ration of 120 pounds turnips, 15 pounds oat straw, and 4 pounds linseed cake is not a balanced ration, an inference which surely was not intended. If we take the ration as given we find that it contains digestible nutrients as follows: Protein, 2.7 lbs.; carbohydrates, 14.1 lbs.; fat, .6 lbs. Now, compare this with Wolff's feeding standard for fattening oxen. For the finishing period Wolff recommends the following quantities of digestible constituents: Protein, 2.7 lbs.; carbohydrates, 14.8 lbs.; fat, .6 lbs. Thus we see that the Scotch ration is a perfectly balanced one, and the success of the Aberdonian establishes the soundness of scientific teaching.

It is further stated that the Scotchman does not cut and mix his feed as is the practice in England. Now, science teaches that cutting, mixing, pulping, etc., do not increase the digestibility or nutritive value of fodders, but the practice is frequently adopted by good feeders for the reason that the food is thus rendered more palatable and animals may sometimes be induced to eat fodders which they would otherwise refuse. Hence, we see that the Aberdonian is still in accord with science.

Still further, it is stated that the meal is all given at one feed, usually at night. But the meal ration is a very light one, and four pounds of linseed cake at a feed is not such a heavy dose after all, especially when we consider that it is given only once a day. Some American feeders give as much as this at a feed three times a day. So far as I can glean there is nothing in scientific teaching that would condemn the practice of the Aberdonian in this particular.

Therefore a careful review of the whole matter will show that the Scotchman is not such a heretic as some would have us believe, and his world-renowned success affords the finest demonstration of the soundness of scientific principles that could possibly be found. But science does not pretend to "know it all." There are many things yet to be learned, and patient investigation is gradually perfecting knowledge; but it would be the height of folly to scoff at what is known simply because all questions cannot be answered.

We must be careful, too, in the use of the terms "scientific feeding" and "scientific men." The world is full of men who have dabbled in the great question of scientific feeding just sufficiently to turn their poor heads, and they take a delight in airing their ignorance on every possible occasion. People call them "scientific men" and blame science for all their grotesque contortions of common sense. Like Mr. Gibson, "I get riled" when I hear such men talk, and also when I hear them styled "scientific men." "Blundering ignoramus" is the proper term. It is such men as these who have discredited science in the eyes of many practical men and led them to believe that science is diametrically opposed to all established practice, whereas nothing could be farther from the truth.

Science in cattle feeding comprises a knowledge of those principles which underlie successful practice. It is merely common sense. It is an aid to the intelligent feeder, but was never intended to be blindly followed. It does not presume to supplant practical knowledge, but merely supplements it. It fully recognizes the hundred and one modifying influences which may occur in practice. It is no terrible "bugaboo" which the practical man need fear; it is no "rule of thumb" which the ignorant may hope to follow; but it is the lawfully wedded wife of practice, and the truly scientific feeder will never attempt to have science and practice divorced. When we cast aside all prejudices and extravagant conceptions, when we determine neither to belittle nor to magnify the aim and scope of scientific teaching, and when we earnestly set to work to study the subject in the light of common sense, we are forced to acknowledge that science is justified by practice.

G. E. DAY.
Ontario Agricultural College.

On the 7th inst., Mr. F. C. Harrison, Bacteriologist of the Ontario Agricultural College, sent out the first lot of tuberculin manufactured at the College to a veterinary surgeon in the neighborhood of Owen Sound, to test some cows in that locality.

STOCK.

AN IMPERILLED INDUSTRY.

A Visit of Investigation by the "Farmer's Advocate" to the Essex Infected District.

TWO TYPES OF SWINE DISEASE—INVESTIGATION AND INSPECTION—LAX METHODS—SOURCES OF INFECTION—SUPERVISING TRANSPORTATION—SANITARY REFORMS NEEDED—PREVENTION BETTER THAN CURE—WESTERN STATES METHODS MUST BE DISCARDED—HINTS FOR THE HOG RAISER AND THE AUTHORITIES.

The hog disease affected districts of Essex County, Ont., were recently made the object of a special personal visit by a representative of the FARMER'S ADVOCATE with a view of learning as nearly as possible the truth as to existing conditions in order to assist in overcoming some one-sided prejudices which unfortunately appear to exist, and to suggest the line of action which in the interest of this important branch of Canadian live stock husbandry ought to be pursued. More than one influential resident expressed himself deeply gratified at the presence of our representative on the ground, as it was an indication that proper independent interest was being taken in the situation in a way that had not hitherto been done, and from which beneficial results would flow.

We referred above to swine rearing as an important industry, for such it unquestionably is, 1st, as a natural and essential adjunct of the immense dairy industry of Canada; 2nd, by reason of the splendid reputation of Canadian bacon and hams in Great Britain; and 3rd, because of the dimensions our exports of pork products have already attained, amounting last year to some \$1,000,000 worth, not to mention the vast quantities produced for home consumption. A trade like this must be preserved. Once the public realizes the seriousness of the menace, any half-hearted or misdirected procedure will not be tolerated. The Government cannot afford to be parsimonious in dealing with the situation, and individuals must necessarily bear with temporary inconvenience, possibly hardship, in the disturbance of their operations. On the one hand there must be tact and determination, on the other forbearance, and on both earnest efforts based on the best available knowledge.

Periodically we have been assured during the past two years that the "cholera" or "plague" was stamped out, but just as certainly has come the tidings of "another outbreak," none of them very extensive or alarming, but still sufficiently pronounced and fatal to periodically wake up the authorities. The ADVOCATE may be criticised for "disturbing" the subject again, but we believe that some "disturbing" is useful. While the trouble is yet confined to a limited area is the time to act, for neglect of duty at this juncture would not only be ruinous to this particular industry in "the peninsula," but imperil it as far as the whole country is concerned.

TERRIBLE WARNINGS.

Look, if we will, at the situation across the border, where its ravages have increased year after year until the situation has become most alarming—in fact, beyond control of the authorities—and weekly we see reports in the more prominent U. S. stock journals wondering what next they can do to stop or even check its ravages. Take for instance Ohio, where the losses in 1895 amounted to over \$3,000,000; or Iowa, where last year they ran up to the enormous sum of \$15,000,000; other swine-raising States being devastated in like manner. The annual losses in the United States are put at from \$10,000,000 to \$25,000,000. The new Secretary for Agriculture, Hon. Mr. Wilson, has addressed himself to this serious problem and proposes drastic measures whereby it will be eradicated, root and branch, in limited districts, in order to show what can be accomplished and that it might be done throughout the entire swine belt; but we notice that the Iowa *Homestead*, an exceedingly well-informed journal on that subject, despairs of success by the heroic method proposed, though the sanitary arrangements connected therewith would admittedly be beneficial.

Or take the lamentable experience of England with swine fever, where despite an expenditure of over \$800,000, and incalculable trouble, the attempt to suppress it proved a failure, because, in the judgment of the National Veterinary Association a year ago, the proper measures were not properly applied. These facts indicate the peril to which the Canadian industry may be exposed, and the magnitude of the work of suppression, if it once obtains a general foothold.

THE SOURCE OF INFECTION.

There is no use shutting our eyes to the fact, the quicker more decisive action is taken the sooner we can see our way out of the difficulty, or else submit to disastrous consequences in the end, and from our brief investigation in the matter we are almost convinced that no one is in a positive position to state just to what extent swine plague or cholera now exists, for apparently without warning it crops up sufficiently well defined to become recognized, and in many cases in altogether different townships, and the question arises, from whence

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