

the Province, and the prices obtained by some of them for last year's apples have made the growers enthusiastic over this method of handling the crop.

An effective co-operative association for this purpose involves the selection of an honest, wide-awake business manager, and the erection of a central packing and storage house at the most convenient point for shipment. Through such an organization boxes and barrels can be purchased wholesale to better advantage than they can be obtained by single individuals; the grower can devote his whole attention to gathering the crop at the proper season, and delivering it in good condition at the central packing-house; the association relieves him of all care and responsibility in grading, packing and marketing; and, with this work in the hands of expert packers, the grade of fruit can be made uniform, and the packing can be done properly, which, in time, inspires confidence in the purchasing public. In short, the co-operative system of handling the apple crop, under proper management, assures the consumer of a better product, and realizes to the grower a greater profit.—[O. A. C. Press Bulletin by Prof. H. L. Hutt.

The Mediterranean Fruit Fly.

A FALSE ALARM.

Editor "The Farmer's Advocate":

I have your letter of 15th July respecting the Queensland Fruit Fly. There must be some mistake in the press despatch which you refer to, to the effect that I advised caution lest the Queensland Fruit Fly should be introduced into Canada, for I can find no record of anything that I have written that would bear that construction. The Queensland Fruit Fly is popularly supposed to be the author of most of the damaged fruit of New South Wales. As a matter of fact, it is not the Queensland Fruit Fly, but the Mediterranean Fruit Fly, which was introduced into Australia some years ago. Neither of these flies is likely to do damage in Canada, owing to the winter frosts.

J. S. LARKE.

THE FARM BULLETIN.

Why Englishmen Left the Land.

Editor "The Farmer's Advocate":

In your issue of September 27th your editorial, dealing with conditions in England, says: "The roots of England's danger are real. . . The evidences are visible in physical and moral degeneracy and poverty. . . Hungry men, women and children, etc. . . Thousands of recruits for the Army rejected! . . . Surgeon-General Evat charges the caten as the graveyard of the British army; denounces the conditions that drove the people from the land and massed 80 per cent. of them in the cities and towns, where vice and ignorance thrive." Allow me to inquire, "What are those causes or conditions that have driven the English people off the land?" There can be no doubt of the fact, that while the cities of Great Britain have, during the last 60 years, increased their population by 50 per cent., the rural population of England is less by 30 per cent. than it was forty years ago. Why is this? The principal reason is "Free Trade." Don't hold up your hands, please! It is as true as preaching, whether you believe it or not. Some years after the abolition of the "Corn Laws," a large number of British farmers found that they could not pay their rents and continue to grow wheat in competition with Russia and the United States, so they turned their lands into grass, and went into dairying, and, subsequently, into beef production. The result is that not more than one-third of farm help is required that was 60 years ago. As to Joseph Chamberlain's propaganda being "stillborn," I think you are simply mistaken. Prejudice may have blinded your eyes to a certain extent. You speak of the "dominant middle classes." There is no dominant middle class in England at present. Since the universal suffrage was adopted, "the man with the hoe" is the dominant class in Great Britain. In conclusion I would say, that between free trade and labor unionism, England is between the devil and the deep sea.

York Co., New Brunswick. WILLIAM BOYLE.

Fair Dates for 1906.

International, Chicago Dec. 1-8
Ontario Winter Fair, Guelph Dec. 10-15

[Note.—For general list of Ontario fairs, see "Farmer's Advocate," August 23rd, page 1343.]

Managers of fairs whose dates do not appear on our lists will confer a favor on our readers by sending in their dates.

Commercial Agent McKinnon, reporting to the Trade and Commerce Department from Bristol, England, notes that owing to the drouth in England and consequent burning up of the pastures, cattle are being already fed hay, which sells for \$17 per ton as against \$10 to \$12 this time last year. The agent thinks there will be a good market in England for Canadian hay, which is preferred to any other imported. High prices for hay in Canada this season are in prospect.

Milking Machine at the O. A. C. a Disappointment.

Our readers will be disappointed to learn that the milking machine installed at the Dairy Department of the Ontario Agricultural College is proving a failure. A member of our editorial staff visited the College last week and made it a point to enquire about its working. Up to the time of the June excursions the machine did good work, and sanguine hopes were entertained of its success, although final judgment was reserved. Since then, as the cows get further along in lactation, they do not yield their milk completely, and some of them refuse to let down any at all. We were shown two good heifers which had dried up four months before their date of calving. From three cows, 32 pounds of strippings were obtained in one day, and in nearly every case change from mechanical to hand milking causes an increase, and change back to mechanical milking (even when followed by hand stripping), a decrease in flow of one pound a day and upwards. Holsteins stand it the best, and none but the Black and Whites are now being milked with the machine. In fact, it is being used on only about half the herd. The bacterial content of the milk is also decidedly higher than in hand-drawn milk, and some trouble in flavor, complained of by milk customers, was only overcome by taking the machine apart once a week and boiling the parts—something the manufacturers had claimed unnecessary. The company's expert had been sent for and his arrival awaited, though without much hope of his being able to effect improvement. Unless he can, the edict will have to go forth that, so far as their make is concerned, the milking machine is not yet a practical success.

Annual Meeting of the Ontario Entomological Society.

The forty-third annual meeting of the Entomological Society of Ontario was held at the Agricultural College, Guelph, on October the 10th and 11th. As usual the meetings throughout were full of interest and enthusiasm.

THE CODLING MOTH.

The first session, held on the afternoon of the 10th, was chiefly devoted to a discussion on the codling moth. Dr. Brodie, of Toronto, introduced the subject, by a paper on "Parasites of the Codling Moth." The chief point of interest dwelt upon was that we have already in Ontario several kinds of parasites of the codling moth, but that these in turn are preyed upon by secondary parasites. In speaking of parasites, Dr. Bethune referred to a paragraph in the newspapers some time ago, which stated that California had obtained a parasite which had practically rid that State of the codling moth, and that the Minister of Agriculture was taking measures to introduce the insect into this Province. The hopes aroused by this paragraph were, he feared, doomed to disappointment, because the Minister had authorized no such statement; and, further, if there were such a beneficial parasite, he felt sure he himself would have heard of it from some reliable source before this. He was, however, making full inquiries into the matter, and would discover the facts of the case in a few days.

[Note.—Such a parasite as described was introduced into California over a year ago by an expert, named George Comper, and has been proving successful in the limited experiments so far conducted. It is yet to be proven how it will do when set loose and depended on to clear the whole State, but "The Farmer's Advocate" has official advices from State authorities, to the effect that considerable hopes are entertained of it.—Editor.]

Dr. Jas. Fletcher, of Ottawa, pointed out that we must not trust to parasites to fight our battles. The fact was that very rarely had parasites succeeded in controlling any of our insect foes. The one great exception was *Vedalia cardinalis*, a species of ladybird beetle imported from Australia, which had been of very great assistance in checking the ravages of the white scale, which was devastating the orange plantations of California. Farmers, however, in the case of the codling moth, could not afford to wait for a parasite, but must act at once if they wished to save their apples and pears.

Further discussion showed that this pest had been worse this year than usual, and had destroyed nearly one-half of the apple crop of the Province. It had spread even to New Ontario, and was attacking the fruit there. Of this loss Dr. Fletcher pointed out that at least 75% could have been prevented if the prescribed remedies had been applied. A striking proof of this was the orchard at the Experimental Farm, Ottawa, where spraying was done systematically. During the last eight years injury from the codling moth there was almost unknown, though separated from it by only about sixty feet was a badly-infested orchard.

TWO BROODS OF CODLING MOTH IN WESTERN ONTARIO.

It was, however, a much easier task to control the codling moth east of Toronto than south-west of it, because in the east there was but one brood in a year, whereas in the other district there were two broods, and of these the latter was much the more destructive. The first brood could easily be controlled by spraying, but to be effectual this must be begun very soon after the blossoms fell (not more than a week after), and

should be repeated three times, at intervals of fifteen days or two weeks. This, however, was not sufficient protection against the second brood, which did not all hatch out at the same date, but must be supplemented by scraping the rough bark off the trees in the winter or spring, and in the summer by banding them with some coarse material, leaving both the top and bottom of the band loose, to permit the larvæ to crawl in and spin cocoons. These bands must be removed at least every tenth day, and the cocoons destroyed by immersion in hot water or by other means. Mr. Jarvis said, as an illustration of the benefit of banding, that he had taken from under the band of one tree three hundred cocoons and larvæ in two weeks.

Mr. Fisher, of Burlington, advocated allowing hogs or sheep to run in the orchard and eat the fallen apples.

Dr. Bethune emphasized the importance of destroying in some manner the fallen apples before the larvæ could escape from them. He also spoke of the great benefit birds were in an orchard, both in summer and winter, and of the need of protecting them.

On the close of this discussion the reports of the directors on insects for the year were read. These showed that the injurious insects which had spread most during the season were the blue asparagus beetle, the Buffalo carpet beetle, the white fly, the tarnish bug, and in the Niagara district the San Jose scale. This last insect, Mr. Fisher declared, could easily be controlled by the lime-sulphur spray, which was also very serviceable in preventing fungous diseases.

Dr. Fletcher and other members spoke of striking examples of the benefit of spraying potatoes with Bordeaux mixture to prevent blight and rot.

The public meeting in the evening was well attended, and of an attractive character. The programme consisted of an address of welcome by President Creelman; the annual address of the President of the Society, Mr. J. D. Evans, of Trenton; and papers by Professor Lochhead, of Macdonald College, Ste. Anne de Bellevue, Que., and Mr. Paul Hahn, of Toronto, the latter paper being illustrated by lantern views. Reference was made in the speeches to the transference of the headquarters of the society from London to the O. A. C., Guelph, and the great benefit this would be to the College.

In the Thursday morning session, Mr. Lyman, of Montreal, read an interesting account of his search for an entomological specimen, viz., a borer that infested the roots of the pitcher plant.

Mr. Smith, official inspector of the San Jose scale, acting on the suggestion of the Department of Agriculture, asked the opinion of the society on the danger of the spread of the scale by the selling of infected fruit. Dr. Fletcher felt convinced that danger from this source was small; other members were more afraid of it, but sufficient observations had not been made as yet to make a definite statement on the matter.

Mr. Jarvis gave a talk, illustrated by lantern views, on "Gall Insects." The number and variety of gall insects and of trees infected by them was amazing to the uninitiated. The damage to the tree from galls was sometimes very great, especially in the case of the spruce gall and the pear-leaf blister. Mr. Jarvis has made a very close study of this subject, and described many specimens not hitherto studied carefully elsewhere.

In the afternoon, or closing session, Dr. Brodie gave some further interesting information regarding galls and their parasites, and then read a short paper on "A Snout Beetle" (*Balaninus Nasicus*), whose life history and habits he has investigated thoroughly.

Mr. E. J. Zavitz read an instructive paper on "Notes on Forest Insects," in which he called attention to the close connection between forestry and entomology. He also said we were likely to have new forest insects soon, because of the necessary introduction of forest nursery stock from Europe, such stock bringing its native insects with it.

Mr. Nash said that nature's remedy for forest insects was the birds, especially the woodpeckers.

The last two papers read were, one by Mr. Nash, in which he called the attention of would-be entomologists to the fact that there were many insects in their own gardens well worthy of study, even without roaming afar in search of specimens; and another by Mr. Gibson, of Ottawa, who gave a brief account of a new insect that is attacking the bean, but has not yet reached Ontario. It can be controlled by the use of carbon bisulphide.

The officers elected for the ensuing year (1906-07) were:

President—Dr. Jas. Fletcher, Ottawa.
Vice-President—Mr. T. D. Jarvis, Guelph.
Secretary—Mr. E. J. Zavitz, Guelph.
Treasurer—Prof. S. B. McCready, Guelph.
Directors—Ottawa District—C. H. Young, Ottawa.
Simcoe District—C. E. Grant, Orillia. Toronto District—J. B. Williams, Toronto. York District—C. W. Nash, Toronto. Niagara District—G. E. Fisher, Burlington. London District—J. A. Balkwill, London.
Librarian—Rev. Dr. C. J. S. Bethune, Guelph.
Curator—Mr. J. E. Howitt, Guelph.
Auditors—Messrs. Burrow and Peart, Guelph.
Delegate to the Royal Society—Mr. Winn, Montreal.

Russia, apparently, is not solely occupied with politics, bonds and revolutions, for the British Embassy at St. Petersburg has just informed the Foreign Office here that an international poultry show will be held at Moscow in November.