

\$80 and \$90, but investments at these figures did not pay good interest; the desire for having a home was the cause of these high prices.

OUR MORTGAGE DEBT.

The discussion drifted on the farm mortgage question, a member having stated that this topic was being voluminously written up in the political press.

PRESIDENT LEITCH said he had also read these discussions, but did not see much sense in them. It was all nonsense to contend that the country was going to the dogs simply because the files in the registry office were filled with farm mortgages. Farmers made money by purchasing land and giving mortgages until they could pay them off; both the borrower and the lender made money by these transactions, and what was good for these people was good for the country. He had bought farms himself in this way, and made money out of the transactions.

A member here suggested that the cry against our farm mortgage debt might have been raised to create a government office for somebody who thought he might gather statistics about farm mortgages in order to prove that Canadian farmers were becoming bankrupt.

MR. HAWKSHAW contended that where a tenant could pay rent an owner should be able to pay off his mortgages.

W. WELD said a good deal depended upon the section of the country referred to. They were speaking of favorite localities. In some places the farmers were badly off, owing to inferior soil and other drawbacks, and the farmers could not pay off their mortgages.

JOHN O'BRIEN said that was the fault of the farmers and not of the localities, for the land should be cheaper in the less favored localities, so that the profits in farming should be about the same. The farmers must be bad calculators where they could not pay off their mortgages. The trouble was that such farmers had a mania for speculating in novelties, etc., instead of attending to their legitimate business, which often brought them to grief.

The question was asked if many foreclosures of mortgages were personally known to the members, but very few of such misfortunes were related.

A vote of thanks was tendered to Mr. Freeman for his instructive paper.

CENTRAL FARMERS' INSTITUTE.

A MEMBER—I wish to ask our President if he attended the meeting of the Central Farmers' Institute held in Toronto, on the 28th of April, in accordance with a resolution passed by the Council.

PRESIDENT LEITCH—The resolution stated that I was to attend, providing the Council received an invitation. I am not aware that an invitation was received, and so I didn't go.

Some of the members spoke of having read the reports of the meeting of the Central Farmers' Institute, and a short discussion ensued.

W. WELD—I was in Toronto on the day of the meeting of the Institute, and availed myself of the opportunity to attend it; but as I had no authority to speak or act for the Council, I said nothing, but only listened and took notes. There were between 100 and 200 people present, composed of intelligent farmers from different parts of the Province, including three M. P.'s. The name of Permanent Central Farmers' Institute was given to the organization. Mr. Valancey E. Fuller, Ham-

ilton, was elected President, and Mr. Thos. Shaw, of the same place, Secretary. The meeting was called by Mr. Fuller, and he took the most active part in the work of organization. The Government granted \$250 to defray the expenses of the representatives, and one of the M. P. P. speakers stated that the Government was ready to spend more money in the cause. I should like to present a few points to the Council and ask if this Institute proposes to do necessary work which this Council or other organizations is neglecting. It would also be well for you to inquire whether this Institute is a representative body so far as the farmers of the Province are concerned. It was decided at the meeting that the President and the Secretary with a third party should have the power to choose the executive committee, which virtually throws the control into the hands of the President and the Secretary. Would it not be well to inquire who these men are? The President is largely interested in the Jersey breed of cattle, and the Secretary is also largely concerned in stock. Do you think that these facts bear the impress of another live stock boom? The President is also a dairyman, and no doubt considers that every farmer should patronize his favorite breed. He spoke on dairy matters, but two dairymen from the east contradicted an assertion of his by stating that the milk which brought 10 cents for cheese in their locality only brought 8 cents for butter, and the farmers were therefore leaving the creamery and patronizing the cheese factory, to which the President answered that the lacking two cents were found in the manure. Would it not be well to inquire if these statements are true? A proposition was made to the effect that the proceedings of the Institute be published by the Government. How would it do to inquire into the value of the Government literature already published, and ask if further expenditures in this direction be judicious? Are not other Government organizations going over the same ground as that proposed by the Central Institute? It was also proposed to have a farmer appointed as Commissioner of Agriculture, and Mr. John Dryden was mentioned as the most suitable man for that position. Mr. D. is an extensive Shorthorn breeder, and is President of the Dominion Shorthorn Herd Book Association. After the meeting was over, an intelligent representative informed me that he regarded the concern as the germ of another Jersey boom. A letter from Mr. Erastus Wiman, of New York, which was published in the daily press of the same day, created quite a stir, and a farmer told me that the Institute was a put-up job by Messrs. Fuller and Wiman for the purpose of securing commercial union between Canada and the United States for the supposed benefit of the farmers. This is another question worthy of inquiry, and it would be well to know whether our farmers would derive the same advantages from commercial union as our stock speculators. I make these as mere suggestions, and I don't wish to influence your action in any way.

These questions were discussed in an amicable spirit, and the tendency seemed to be in favor of further inquiry. No member pronounced an emphatic opinion on the subject.

A member proposed to have a paper read before the Council on the subject of our commercial relation with the U. S. and other countries, and it was debated whether a popular authority should be asked to prepare a paper, or an intelligent inde-

pendent farmer who could discuss the question from an agricultural standpoint. As many of the members of the Council had not given much consideration to the subject, it was decided that a farmer should be selected, and the Secretary was instructed to write to Mr. John Waters, M. P. P., for North Middlesex, asking him to prepare a paper to be read at the next regular monthly meeting of the Council. It was held that the subject was of immense importance to our farmers.

The Council adjourned until the third Thursday in June.

The Dairymen.

Testing Milk and Cream.

[A Lecture delivered by W. A. Macdonald before the Dominion Farmers' Council.]

No. VI.

Whether the percentage of butter or butter fat should be adopted as the standard depends on the object aimed at. If the object is to breed cows that produce milk of high quality, the fat standard of the milk should be introduced. The percentage of fat in the cream is neither a guide to the quality of the milk nor the quantity or quality of the butter obtained from the milk or cream. The percentage of butter is not a guide to the quality of the milk; for the percentage of water in the butter may vary from 8 to 18 percent, and is very liable to swing between 11 and 15 percent, so that the farmer who complains of a cow that produces watery milk should be the first to complain of watery butter. There is no greater justice in paying for watery butter than for watery milk, and when it is also considered, as I have shown, that there are easy and practical methods for ascertaining the percentage of fat—which cannot be said with reference to the butter yield—also the object in breeding can only have a practical basis in the percentage of fat in the milk, there can be no question as to the greater practicability of the fat standard, although it may be urged that absolute justice cannot be easily secured to producers and consumers by any known standard. The nearest approach to justice should be our aim.

The percentage of butter from the milk is dependent upon four factors, viz., (1) the percentage of fat in the whole milk; (2) the co-efficient of cream; (3) the co-efficient of butter; (4) the composition of the butter. When butter is made from the milk, instead of the cream, the second factor, of course, must be dismissed. What is meant by the cream co-efficient is the percentage of the fat in the milk which finds its way into the cream, and butter co-efficient means the percentage of fat in the cream which finds its way into the butter. For example, if the milk contains 4 percent of butter fat, 3 of which finds its way into the cream, the cream co-efficient would be 75 percent, three-fourths of the fat in the milk being in the cream. But if say 3.2 percent of the fat gets into the cream, the co-efficient will be 80, as will be found by the following statement in proportion:

$$4 : 3.2 :: 100 : 80$$

Let us now suppose that a given sample of milk contains 3.4 percent of fat, that the cream co-efficient is 80, the butter co-efficient 96, and that the worked but unsalted butter contains 82 percent of butter fat, then we get the following statement:

1. 100 lbs. milk with 3.4% fat contains 3.40 lbs. fat
2. Cream co-efficient 80 equal to .272
3. Butter " 96 " " 2.61 "
4. Fat in butter " 82 " " 3.18 lbs. butter