

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

Published weekly by
THE WILLIAM WELD COMPANY (Limited).

JOHN WELD, Manager.

Agents for "The Farmer's Advocate and Home Journal,"
Winnipeg, Man.

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it is obviously of little use to average results, for soils vary so much in their fertilizer requirements. And so it is that we advise that all farmers who can find out for themselves which of the leading varieties is best suited to their individual conditions, and which of the three plant foods nitrogen, phosphoric acid and potash, or the combinations of these are required on their farms. We would also suggest that, if possible, the Experimental Union work take into consideration the different types of soils, and if averages must be made, make them for, say, sandy soil, clay soil, loam soil, and muck soil in separate groups. Averages for all could be made as before, but it would be a great step forward to be able to tell the farmer which is the better crop and which is the best fertilizer for his particular soil. His experiment under the present system may show him clearly that his soil needs a certain fertilizer or that his land will produce a certain variety to better advantage than any other variety, and yet the average results may show that fertilizer to give poor results, and that variety to be second best. In experimental work averages are all right on the same plot with the same experiment over a period of years, but they are not worth so much when the farm changes and the experiment changes yearly. To be absolutely sure it is better to let the experimental stations find out the few leading varieties, and then make the results of an individual and more valuable nature on your farm at home.

Milk by Test.

As the time approaches for the Dairy Standards Act to be put into force there arises in various quarters of the province a certain amount of opposition. There are reasons to believe that this opposition was kindled by cheesemakers who resented having extra duties imposed upon them, and by dairymen who harbored in their stables very low-testing cows. It has been proven many times that the fat in milk influences both the quantity and quality of cheese made from 100 pounds of milk. For instance 100 pounds of 4.2 per cent. milk makes 11½ pounds of cheese, while 100 pounds of 3.2 per cent. milk only makes 8¾ pounds of cheese.

At the average price of 20 cents a pound this is a difference in value of 55 cents. When these two samples of milk are mixed 100 pounds makes 10 1-8 pounds of cheese, and the dairyman producing the low-testing sample gets more for his milk than it is really worth, at the expense of the man who has, by breeding and selection, increased the percentage fat as well as the flow of milk. There is nothing fair about it and so long as the "pooling system" is in vogue at the cheese factories there is no inducement for a man to improve the quality of his milk. True, the casein enters largely into the composition of cheese and is a factor to be considered, but if fat does not count why not separate the milk and sell the cream and supply the cheese factories with skim-milk? Consumers would resent the quality of cheese produced and the demand would decrease. For twenty years the question of paying for milk has been before dairymen, and the majority desire to market their product on a quality basis. It is the only method which should be tolerated in this age. The Babcock test proves reliable in determining the fat content of milk. That the new Act is workable is proven by the fact that over ten per cent. of cheese factories have adopted the system and the number is increasing each year. It is time Ontario dairymen realized that marketing all dairy products on a quality basis is the only way to build up the dairy industry.

The Act provides for disinterested persons to do the testing at no expense to the patrons and cheesemakers. There is slight expense in the way of a tester and sample bottles, which must be met by the factories, but it is very small compared with having fair play meted out to every patron. Don't knock the Dairy Act until you have given it a fair trial.

Punk Patriotism.

BY IETER MCARTHUR.

At the time of the American civil war Artemus Ward wound up a burlesque patriotic outburst by saying that he wanted to see the war fought to a finish and was willing to have it go on as long as there were any of his wife's relatives left to send to the front. Some things that have happened since the outbreak of the present war have convinced me that the kind of patriotism Artemus Ward satirized can be found in Canada to-day. One hates to say much about patriotism at a time when so many people are making very real sacrifices and when so many homes have been darkened by the shadow of death, but it will do no harm to tell of some examples of patriotism that have come under my notice. For instance, I have on file a statement made by a Canadian publicist of some note in which he told with tears in his voice how he had given the only son of his favorite sister to the cause. I think that case ranks with Artemus Ward's wife's relatives. A few days ago a prominent business man told me with an air of deep sadness that four of his boys are now at the front. I felt awed in the presence of so much patriotic sacrifice but a few minutes later I felt like smashing the furniture to ease my feelings when I found that the four boys were not his sons, but four clerks from his business office. He spoke of them as "my boys". I learned a short time later that he had replaced these heroic boys with four girl clerks at about half the wages and had made a neat profit from the sacrifice that had affected him so deeply. What burned this case into my memory and gives me a feeling of disgust when I recall it was what happened a few minutes later. I was walking along the street when I saw a man approaching whose appearance was somewhat familiar. I had to look at him closely before I realized that he was a friend whom I had known all my life. He had suddenly grown old. His son had been buried "somewhere in France" a few weeks ago.

If you want to see "punk patriotism" at its most insolent just read some of the annual addresses that are being published in bank statements at the present time. Most of them make a great show of their contributions to the Patriotic fund and of the number of men who have enlisted from their branch and head offices. In order to get at the true inwardness of this patriotism I made careful enquiries, and although I am not certain that the same conditions prevailed in all banks I found that it worked out in this way with at least three of our leading banks. They gave a lump sum to the patriotic fund, I think fifty thousand dollars was the usual amount, and that certainly looked fine. But at the same time they made the war an excuse for refusing to give their underpaid employees the annual increase of salary to which they would be entitled in normal times. The saving made in this way amounted in some cases to fully one hundred thousand dollars. This means that they made their employees, who as a class are about the most poorly paid in the country, pay much more than the entire amount of the contribution to the Patriotic Fund. And when their clerks enlisted their positions were filled by girls, in many cases at lower wages. A bank director who was willing to talk told me how humiliated he felt at the annual meeting of the bank with which he is connected. The president had worked off the usual bunk about the patriotic spirit shown by the staff of the bank, the number of employees who had enlisted and the number that had been

killed or wounded. Presently one of the stockholders rose and asked for definite information about what the bank was doing for the boys who had enlisted. Was it holding their positions for those who would return and was anything being done for the dependents of those who had fallen. The president was unable to tell and referred the enquirer to the general manager.

The general manager mumbled something about having no fixed policy in regard to the matter. They "dealt with each case as it arose."

"Everyone at the meeting" declared my friend the director, "knew perfectly well that nothing had been done. Most of the boys who had enlisted were juniors who not only had no one dependent on them, but could not live on the incomes they got from the bank without help from their parents. After their enlistment their places had been taken by girls—in many cases at lower salaries. Besides, the older clerks who remained with us had to do a lot of extra work without increased pay in order to carry on the business. Everyone at that meeting knew that 'because of the war' the bank had been able to effect economies that saved tens of thousands of dollars. Yet we were parading the fact that we had given to the Patriotic Fund and that many of our employees had enlisted. It made me sick."

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When present day conditions are finally studied and understood it will be found that there are many corporations that should be jolted out of their complacent greed. We are being told that we should all make sacrifices for the great cause, but I do not think there has ever been a time in the history of Canada when corporations of all kinds have been making so much money. Some of them try to hide their abnormal profits by improving their equipment, buildings, etc., from earnings and by putting away vast sums to provide for possible hard times in the future, and yet they are compelled to pay larger dividends than ever before. Some years ago when I tried to call attention to the dangerous growth of trusts, mergers and corporate combinations of various kinds I was either laughed at or scolded for knocking when everyone else was boosting. To-day I find that the very men who opposed me then are loudest in proclaiming that the business of the country has been "tied into hard knots." Corporations are taking advantage of present conditions to enrich themselves and most of them are succeeding in doing it. In the annual statements printed in such papers as the Montreal Journal of Commerce I find that twenty per cent. dividends are not unusual and in the current issue I find a statement of one concern working on war supplies, that earned sixty per cent. in 1916. If I were hunting for trouble I could prepare an interesting list of these corporations that are prospering by their patriotic services to a stricken Empire, but if you watch the papers and study the financial page you can make your own list. And Canada is not the only part of the Empire where such work is going on. Here is a quotation from a recent copy of the London Economist.

"The rise in prices and the big profits earned by shipowners and coalowners and others have roused a natural suspicion among the working classes that they are being exploited, and have made still more difficult the task of those who urge the workers, in their own interests and in those of the nation, to self-denial for the cause of victory. Example at the top is still, though many rich people have set it with excellent results, plentifully lacking."

When the war is over our schemes of taxation should pay special attention to the fortunes that have been made since the outbreak of the war. "Punk Patriotism" that led to fortune should be estimated at its true value when the price of victory has to be paid.

Nature's Diary.

A. B. KLUGH, M. A.

Now that I have, in the past two articles, defined the point of view in comparative psychology, and dealt with the different methods by which data on this subject may be acquired, we are in a position to consider the mental status of the different groups of animals. The only logical way to proceed in this matter is to begin with the lowest animals and to pass from lower to higher groups until we arrive at man.

In the simplest animals it is quite obvious that we cannot use the word "mind" in the sense in which we use it in the higher animals and in man. In the way in which the lowest animals respond to stimuli they are far nearer akin to plants than they are to the higher animals. Now it has been contended by some that plants "feel" and that they have "minds". But the fact that plants have no nervous system quite definitely rules out any such conception as "feeling" in their case, since we know conclusively that the capacity for sensation depends entirely upon the possession of a nervous system. To talk of "mind" in connection with plants is therefore mere unfounded metaphysical speculation.

A great many experiments have been made with the Amœba—a microscopic, single-celled animal, which consists of a minute drop of protoplasm (a clear, somewhat jelly-like substance which is the physical basis of life). The Amœba commonly moves by sending out a projection of the protoplasm, the rest of the body flows into this projection, and thus the Amœba has changed position. Another projection is sent out, and by a repetition of the process the Amœba progresses. Amœba feeds by sending out a projection on each side of a food particle, and when the two projections meet the particle is drawn into the interior of the protoplasm. The nutritive portions of the particle are digested and the residue is ejected from the protoplasm. It is interesting to notice that a drop of chloroform will draw in a