

hails, but she is a woman orator of the first rank, proud to be a Canadian, but still more proud to be a citizen of the British Empire. She made a really noble speech, putting the emphasis on the main things—the home, education and religion. For some of us it is getting towards evening, but one feels that it is good to live in such a time. Canadian speakers, so far as we have heard, are generous to a fault in their praise of Scotland and Scots men and women. Miss Guest made no secret of the fact that if place cannot be found in Scotland for the returning braves who will desire to settle on the land, Canada will only be too glad to have them. In the years immediately before the war, 600,000 of the pith and marrow of our population emigrated, very many of them to Canada, and other British Dominions across the seas. We in the homeland cannot afford to have that repeated—yet repeated it will be, unless a change comes over the mood and temper of some of our political guides and leaders. The Women's Rural Institutes may do something to hinder such a catastrophe, but much more is required. The Women's Institutes are also grappling bravely with the problem of child welfare; that means better housing, and in the direction of providing such there is abundant room for advance.

To deal for a little with questions on a lower plain, one surprising feature of our time is the grip which the British-Friesian breed of dairy cattle has taken of the farming community. Two sales of such cattle have recently been held in England. At F. B. May's sale in Essex, the cow Eske Hetty, with a record of 2,413 gallons in 365 days, made the extraordinary price of 3,500 guineas, or £3,675, which, multiplied by five gives the result of \$18,375. We take it that no such price has ever before been paid for a cow of any dairy

breed. Has any such price ever been paid for a cow of any breed? At the sale, 29 cows and heifers realized the great average of £418 14s. 8d., and 33 head of both sexes made £382 12s. The second sale was held about a fortnight later at Reading, Berks., to which the cattle were transported from Colonel Morgan's Cymric herd in Glamorganshire. At this sale 28 females made an average of £387 4s. 6d., and 36 of both sexes made £316 12s. 8d. These figures reveal an astonishing vitality in the dairy world in spite of all difficulties and handicaps. Another important movement in the same connection has taken place. This is the initiation of a scheme for the registration in the Dairy Shorthorn Record Book of the grading-up pedigrees of what are known as non-pedigree dairy Shorthorn cattle. These cattle are mainly, although not exclusively, to be found in Cumberland, Westmorland and the northwest riding of Yorkshire. They are great cattle, but have been bred irrespective of pedigree registration for many generations. To put it otherwise, the sires have been selected not because they were pedigreed, but because they were known as the result of long experience to be of the type which produced dairy cattle. The proposal of the Dairy Shorthorn Herd Book authorities is to record foundation cows on the result of inspection and milk records. These cows will be mated with selected bulls numbered in Coates' Herd Book, whose dams must have milk records up to a given standard. In process of time the requisite number of crosses will be built up which will entitle to registration in Coates' Herd Book. This is a most commendable effort. There are no finer cattle in Great Britain than the so-called unpedigreed Shorthorns of the north of England. They are really not unpedigreed—they are pedigreed but their

pedigrees have not been recorded. They are mostly of Bates' type, and it will be a great thing for the Shorthorn breed when this splendid stream of wholesome breeding is incorporated with the great main streams in Coates' Herd Book.

The Shorthorn Society itself is engaged in a big scheme of reconstruction. A new set of subsidiary regulations are being debated. They have been drafted by the Council, and their object is to minimize the openings for fraud by the substitution of calves. The three principles resolved upon are that only members of the Society shall be allowed to make entries in Coates' Herd Book; that entries of calves must be made not later than one month after birth; and that a system of herd marks be arranged. There can be no doubt of the advantages to be gained by these proposals, but on the other hand there is some reason to fear that the last has not been thought out with sufficient care. A system of marks to be satisfactory must be universal, and the registration of the marks is all important.

Reverting for a line or two to agrarian questions, the Reconstruction Committee has recently reported. I cannot go into their report in detail in this letter, but here are some figures which suggest the need for reform in the Scottish system of land tenure. In 1883, 1,710,000 acres of land in Scotland were given over to deer forests within the northern counties. In 1912 the number of acres similarly utilized within the same areas was 2,932,000, with 668,000 outside these areas, or altogether 3,600,000 acres. In 1895, 320,000 acres of these areas were scheduled as capable of being cultivated. The War Audits experiences have driven home the significance of these figures, and the end is not yet.

SCOTLAND YET.

Canada's Young Farmers and Future Leaders.

Food For Thought.

During the past fifty years many changes of a very profound nature have taken place and a large number of these directly or indirectly affect the economy of the individual family. It is probably not too much to say that the burden of poverty has been lessened during this period to a considerable extent. Although the problem of the very poor is always with us, one can only infer from writings that even in such large cities as New York and London the degree of poverty noticeable fifty years ago is not to be found at the present time. The reason for this is that industry has made such rapid and remarkable strides as to absorb the labor of all classes of the population, except those few people who will neither work at all, or are so over-supplied with money as to be able to live upon the productive labor of their fellows. The cost of living has been a particularly keen problem for several decades, and economists have studied prices in their relation to this problem from the standpoint of the purchasing power of money. Wages has been compared to salaries in this connection, and in Europe as well as in North America the high cost of living has been one of the uppermost problems to be solved for many years.

It would seem, too, that average conditions in all civilized countries are improving. Accompanying their improvement in the economic welfare of the individual, there has been during the past twenty-five or fifty years a great multiplicity of wants or desires, and this increase has been much more astonishing and more rapid than the improvement of conditions referred to above. The average person is informed to a much greater degree at the present time than was the case fifty years ago regarding the topics of the day; and not only that, the general level of education is higher than it was fifty years ago and this has given rise to changed standards of living. The average family now feels the need of more house room; better food is insisted upon, in larger quantity and in greater variety. The average family also dresses much better than fifty years ago, as is evidenced by the fact that there is now less difference between the dress of an office boy and the chief clerk, or between the chief

clerk and the president of the firm, than was the case at an earlier date. In fact, it is very often difficult to tell from the dress of the individual whether the person one meets in an office is the employer or one of the employees. With the increase in facilities for supplying the wants of the individual or the family, these wants have increased in number to a very remarkable degree.

These conditions, while true more or less with respect to all classes of people, apply more particularly to the inhabitants of cities, towns and villages. That part of our population which is strictly agricultural is working under somewhat different conditions. In certain parts of the country the value of farm land has reached somewhat giddy heights. Not only is this true with regard to special branches of agriculture, such as fruit or vegetable growing, but in certain sections of the country such as North-western Canada, for instance, farm land values have risen to unwarranted heights because of an assumed value regarding the profits which might be secured from raising a few crops of grain before the natural fertility of the virgin soil has become unduly depleted. Certain sections of older Ontario, and perhaps other provinces might also reveal similar conditions, indicating, perhaps a prosperity that is not quite real and one that belongs to what might be called a pioneer or a preliminary period. These facts lead us to wonder how agriculture may become most quickly established upon a permanent and solid foundation. Some farmers there are in almost every part of the country who appear to be farming under normal conditions, but it has been said with regard to the United States, and the same condition should prevail in Eastern Canada, that taking the farmed area as a whole it is well within bounds to say that only a small percentage of it is farmed in such a way as to increase the producing power of the soil. The same statement has also been made with regard to Canadian agriculture, but it is not necessary that we become particularly alarmed over this situation, because it does seem that with the progress being made along lines of agricultural education, and in the direction of crop rotations, improvement in live stock, and in a

more widespread recognition of the value of manures and leguminous crops, the tide is beginning to turn and we may expect an increased percentage of farms where the fertility of the soil will be steadily increased. This condition will be brought about much quicker by some way of establishing agriculture upon a permanent basis.

It may be that what agriculture needs is to become industrialized. A year or so before the war this problem was given discussion by the American Academy of Political and Social Science, and the opinion of one of the eminent persons who discussed this problem is summed up in the following extract:

"We need not only larger and better farm production for the benefit of the growing millions of industrial workers in towns and factory centres, but we also need it in order to make country life itself sufficiently interesting and worth while, so that we may be able to keep an intelligent farm population. No small factor in the situation that has affected the cost of living is the lack of good farmers, due to the dreariness and unattractiveness of farm life and to the relative agreeableness of life in towns and cities, and in other pursuits. A vast number of farmers in our southern states are still living in log houses under conditions of squalor and discomfort. Many more are living in very small or ill-constructed frame houses. Millions upon millions of acres of land that ought to be well farmed are simply squatted upon, as in the days when this was a sparsely settled country and when pioneers lived by hunting and fishing as well as farming. We must needs industrialize agriculture. Farming must be put upon a modern basis and capitalized."

Whatever may be the solution, it is scarcely probable that it will become effective during the lifetime of the older men who man the farms at the present time and whose fathers hewed their way into the forests and established their pioneer homes, amid the dangers and the freedom of a country whose boundless resources were scarcely thought of. It remains for the younger generation, the junior farmers of to-day, who in a few years will assume the management of the home farms, to take this problem into serious consideration and to qualify themselves for careful thought and wise action during the years to come.

Automobiles, Farm Machinery and Farm Motors.

Saving Parts.

Not long ago a rich man purchased a roadster. Soon after he became accustomed to driving it he was unfortunate enough to lose control and to crash the machine into a brick wall. One of the side members of the frame was crumpled up, the springs were bent, and the fenders dented. Under ordinary circumstances the garage where the car was kept would have been instructed to order new parts to replace those that had been damaged. The bill could not fail to have been a large one, and in addition there would have been the charge for labor. The war, however, has taught us economy and to-day garages are repairing and reforming a great many parts that were formerly thrown into the junk heap. In this particular instance a blow-torch was applied to the battered end of the frame and when the metal was sufficiently heated to permit hammering the frame was gradually worked back into its original shape. The heating did not weaken the frame and it did not seriously interfere with the strength of the springs that were handled in the same fashion. The point we wish to emphasize and drive home is this, that there is no occasion for extravagance in the purchase of new parts, connected with the frame and body par-

ticularly, because there are cheap simple operations that can make damaged ones almost as good as new.

Should you be unfortunate enough to collide with another car or strike some obstacle with the result that a fender is dented, do not immediately rush to the repairman for a new one, but bear in mind that when properly supported, fenders can be hammered back into decent condition. You must use a wooden mallet. It is folly to strike a fender with metal. The wooden mallet has a gentle action if the blows administered are many and weak, rather than few and strong. It is the constant tapping of the fender, when properly held up, that brings it back to its original shape. If you should break a part of the frame or a great many other sections of your automobile, channel iron and different pieces of metal can be utilized to repair the fractures, and it is interesting to note that sometimes the repaired parts are even stronger, because of the reinforcing material attached to them. Bumpers that are used on the front and rear of automobiles sometimes get caught in the fenders of other cars. This has a tendency to bend them. Do not discard the bars under such circumstances, because with a section of gas-pipe you can bend them back to almost any angle desired. A little heat applied will of course, assist the operation, and in this connection,

it must be remembered that when metal is cold the bending of it produces a strain that is sometimes too great for its good. If you are working on a section of metal that is easily reformed, but still contains dents or rough places, use a file to level the raised sections, and having acquired as smooth a surface as possible, run over the entire job with an emery cloth. This should result in your work having a finished appearance. At even a short distance no one will be able to recognize the fact that an accident has happened. It is when a part has been reformed but still pitted that people are able to determine that a mishap has occurred.

Sometimes it is difficult to determine just what method to pursue in order to save the purchase of a new part and still have a car that is presentable. Perhaps we can provide a number of hints. Do you know that a jack can be utilized to force bent parts back into shape, after they have been heated? Perhaps you have never realized that another good bending tool is the vise. In using always make sure that the pressure is toward the part of the vise that is most strongly supported. Do not throw the strain on rapidly but rather keep it uniform and steady. If you find it necessary to make wood blocks, see that they are either oak or maple, but in any case the wood must be hard, because hard wood has a large