

A bill prepared by the Hon. Horace Plunkett, after consultation with some of the best dairy authorities and representatives of the Chambers of Agriculture, has been printed. Its title is the "Margarine Act and Sale of Food and Drugs Act Amendment Bill." It proposes to repeal certain portions of the two Acts referred to, in order to make the Act relating to margarine more effective than it is. Its most important provision is the prohibition of the coloring of margarine, or the mixing of margarine with colored butter; and it further proposes that this commodity shall be sold by retail only, in brick-shaped blocks of 1 lb. or $\frac{1}{2}$ lb. each, while every package, large or small, containing margarine, is to be marked with that term. Every person who sells margarine is to take out a license, which the local authority is authorized to grant, and he must affix prominently to his premises a notice stating that he is licensed to sell margarine. A false invoice or description applied to margarine is made penal, in which cases heavy fines will be imposed.

Scotland is to have a national dairy school.

THE EFFECTS OF THE DROUGHT.

Now that the great drought of 1893 has broken up, it will probably be found that its effects are not so disastrous as was anticipated. It has been very general in all parts of the kingdom. The root and corn crops in Scotland, North of England and in Ireland are a fair average, while the hay crop everywhere is very short, and in many places a complete failure. This is a serious matter, as it has caused a great many lean cattle to be disposed of at very low prices, making the summer grazing unprofitable, with no prospect of recouping the loss in the winter months.

The deficiency caused by the hay failure is estimated at 15 cwt. per acre under a fair average crop, and taking the area as 6,000,000 acres, this at £1 a ton means a loss in value of £18,000,000 sterling. We have no doubt, however, that the present rapid growth will bring on a heavy second crop, by which much of the deficiency will be made up.

The number of visitors who passed the turnstiles at the Royal Show at Chester was 115,000, which is the largest total since the show held at Windsor in 1889.

According to an official despatch from Aleppo (Turkey), the vilayet of Adana has recently suffered from an attack of cattle plague, which caused a heavy mortality amongst the live stock, and inflicted serious losses among farmers and breeders. Indeed, it is stated on good authority, that in some districts farmers lost about two-thirds of their cattle in consequence of this disease. Naturally great difficulty was experienced in replacing the animals thus unfortunately lost, and in many cases replacement could not be effected through lack of funds. It is estimated that the losses in the Adana vilayet from the cattle plague amounts to £500,000, which indicates the severity of the visitation.

At the Chester meeting of the Royal Show was conducted a contest between the various dairy breeds of cattle, to ascertain by actual test with the churn which breeds produce the most butter per day. The contestants were divided into two classes, viz., those weighing 1,100 lbs. and over, and those weighing less than 1,100 lbs. Of the heavy class, Shorthorns proved themselves to be superior to all others, taking first, second and fourth prizes, while the third was won by a cross-bred Shorthorn and Red-Poll. The average yield was 33 pints of milk: being separated and churned made 1 lb. 6 $\frac{1}{2}$ oz. butter. In the light weight class, the Jerseys came out ahead, taking all the prizes offered. The average milk yield was 29 lbs., yielding 2 lbs. 3 $\frac{1}{2}$ oz. butter.

Sir Adolph Caron found opportunity, before he sailed for Canada a few weeks ago, to meet Mr. Arnold Morley, the British Postmaster-General, and Sir Arthur Blackwood, the Secretary of the Post Office, to discuss various postal matters with them. He also met Mr. Hermiker Heaton in the lobby of the House of Commons, and had an interesting discussion with him and other members of Parliament on the subject of Imperial Penny Postage and other questions of Canadian interest. May those discussions bear good fruit at Ottawa.

CANADIAN HAY IN BRITISH MARKETS.

The unprecedented drought in England this summer has brought Canada to the front as a source of supply for the fodder now so sorely needed in this country. Especial interest attaches, therefore, at this moment to the references made to the Canadian hay trade with Great Britain in the commercial reports of the High Commissioner and the Canadian agents in this country. The trade practically had its origin last year, when the home supply was very scarce and prices ruled much higher than usual. This year the home supply is much scantier; provided freights are reasonable, there should be a fair margin of profit to the Canadian shipper. It is to be hoped, however, that last year's mode of shipping will be improved on this season, as just complaints were made by extensive dealers here about the shipments there as being irregular and slovenly, and if the trade is to assume any dimensions attention must be paid to these points. The quality that commands the best sale here is timothy well mixed with clover, and bright and green. Bales weighing from 100 to 130 lbs. are preferred to larger ones. The present prices in the London and Liverpool markets for Canadian hay are £5 for inferior, £7 and £8 for the best, for 2,240 lbs. (not 2,000 lbs. as in the Dominion).

Remedies for Agricultural Depression.

BY WALLACE RATHBUN.

Much has been said and written of late concerning agricultural depression throughout our fair country. Various reasons have been presented as being the cause of the present extremely low prices of all kinds of farm produce. Certain it is, at all events, the farmers of this country have had to cut down expenses pretty close in order to make ends meet, leaving little or no margin as profit for his hard year's toil. Practical farmers, in giving their views on this all-important subject, are united in stating that the only remedies lie in lowering the cost of production and strict economy in every detail. Taking it as such, we are forced to the only alternative—that this is the only true solution of the present difficulty. The cost of production and true economy, then, lie to a great extent in our hands, and can, without doubt, be lessened.

A united combine of the farming community could not in the least effect an advance on the market price of our produce, as it is self-evident that this is solely regulated by the supply and demand. Before digressing further, however, we might dwell on a few of the outgoes that, to our mind, might be avoided. We should adopt as the basis of our economy these words, "Curtailed the expenses." In doing so, we might avoid being pushed to fill obligations that might just as well have been left over for a few years longer.

The system of employing the nomadic agent of to-day, we doubt not, has, to a certain extent, handicapped the farmers more than all others in inducing them to buy implements that they could just as well have done without, and thus he incurs liabilities in the present which he is unable to meet in the future. But, by a nice, plausible story, in which the agent of to-day has become an adept, and in view of a promising crop, the unwitty toiler of the soil becomes so fascinated with the sleek-tongued gentry that he is easily induced to sign an article, the payment of which means cash, accompanied by hard toil in fulfilling the obligation.

These liberal terms, and others of a similar nature, make annually quite an inroad upon our small margin of profit, and this leads us to the thought that we should let them severely alone, until, at least, necessity draws us toward them.

Our object at the outset in writing this article was to discover, if possible, some way out of the agricultural depression that exists in so marked a degree throughout the country; and in attaining this end, even in the least degree, we shall not have written in vain. In the first place we should strive to make our farms more productive, and utilize to more advantage and profit the waste products. It is an established fact that we, as farmers, are not raising anything like the amount per acre that we once did, and this of itself, to our mind, clearly proves that our soils have become deficient in the elements that go to form a crop.

In discussing fertilizers, farmers should become better acquainted with the elements, termed in agricultural science nitrogen, phosphoric acid and potash. These ingredients are found in all fertile soils. Intensive methods have to a certain extent been advocated through the columns of the agricultural press these few years back, and we are glad to note, not without beneficial results to those farmers who took an interest therein. Intensive farming is a term usually applied to methods of agriculture as have for their final outcome the securing of the greatest possible product from the smallest given area of land. All this calls for careful consideration in every detail concerning the farm proper, and is necessary in order that we may make the best use of our intensive farming. A successful farmer, therefore, should know the effect that the above elements have in producing crops. The farmer has at his command three classes of fertilizers in order to bring the farm up to its primeval standing. The classification is as follows: First, general manures; second, green manures; and lastly, specially prepared fertilizers. General manures come under the heading of compost and barnyard manures. Thousands of dollars are annually lost of this valuable element by the utter carelessness on the part of the farmer by making no adequate provision for its keep. This is a crying sin, and should be remedied. How oft do we find the barnyard situated on a hillside, exposed to the outer elements that are continually washing away the most valuable ingredients, in their soluble form, that go to make up the plant-food. This great waste, which means dollars and cents in the farmers' pockets, is annually going on throughout the country, while, perhaps, the "persistent grumbler" is at the village store keenly discussing politics and occasionally making the assertion (with a frown on his brow) that farming has become a poor business. In fact, it don't pay.

Arise, brother farmers, shake off those slothful habits that go far toward breeding discontent with our avocation, and bringing with it a long train of evil in the form of hard times, shiftlessness, and pinching poverty. A few days with plow and

scraper, during a slack time on the farm, would so improve that leaching barnyard so as to retain those liquids which are necessary in restoring those worn-out lands. We repeat: cast aside those lethargic habits that have become so fixed in your vocation; cultivate thrift and business habits.

We, as farmers, have in too many instances stuck to the old style of farming, which was adapted to the conditions of market and life forty years ago, the inevitable outcome being financial embarrassment, if not utter loss of capital and heart. It will, of course, be admitted that the ordinary conditions of agricultural work are not favorable to hasty alterations; but new and better methods must be found, and now is our opportunity.

Green manures for light and heavy soils are most excellent, as they increase in a marked degree the power to hold manurial ingredients in the soil. Plants that grow quickly and absorb mostly their nutriment from the subsoil and atmosphere, such as buckwheat, clover, etc., are very valuable for green manuring. Artificial fertilizers are composed of one or more ingredients, and will supply what is lacking in the soil, and are doubtless most valuable to the market gardener. However, so far as the farmer is concerned, we doubt the wisdom of their extended use, as we are convinced that by a careful preservation of his general manures, and largely aided by extensive seeding of clover, he will not require much from artificial manufacture.

General suggestions only in so short a paper can be given, and if we expect to grow paying crops in the future, we must gain practical knowledge of the elements of growth as sent out from time to time through the bulletins of our Experimental Stations.

Lastly, we might sum up by adding these necessary enunciations:—(1) Economy; (2) avoid debt; (3) persevere; (4) know thoroughly your business and attend to it.

Sow Thistle.

Mr. W. A. Brodie has sent us a weed for identification, and asks for a successful plan of eradication.

On examination we find the weed to be the worst of the several varieties of Sow Thistle (*Sonchus arvensis*), sometimes known as the Corn Sow Thistle. It is a creeping perennial. The plant has an upright habit of growth, and often reaches the height of three feet, or may be much less, according to the conditions to which it is subjected. Like the "Canada Thistle," it is somewhat branched towards the top. The stems are rather hairy or bristly, especially the flower stems. The prickles upon the leaves are harmless. The stems are hollow, and when wounded a milky juice is exuded. The flowers are yellow. A plant produces many seeds. This plant makes its appearance in May and continues to grow until autumn. It blossoms and matures seed in July, August and September. It will grow in any kind of soil, but is most at home in rich, moist loams, and it gives the least trouble in stiff clays. It is propagated by means of the seeds, which float about in the air, owing to the downy attachment which they possess, and as these are very numerous the plants increase very fast when allowed to mature. This plant also propagates rapidly by means of its numerous rootstocks, which contain a very large number of buds.

The following are the modes of dealing with this intruder:

1. Drop out of the rotation so far as practicable all such crops as allow the thistle seeds to ripen before these are cut, until infested fields have been dealt with.

2. Plow the land immediately after harvest, shallow enough and narrow enough to cut the thistles off clean without breaking off the creeping rootstocks. Keep the thistles from breathing above ground until the late autumn plowing, which should be deep for the sake of the crop which is to come after. In the spring keep the thistles under by the use of a suitable cultivator until the time of planting a crop of corn, roots or rape. Give the crop thus planted sufficient hoeing to keep down all weed growth, and also keep the thistles cut out of the line of the rows by hand-hoeing. Go over the crop once or twice after the horse cultivation ceases, and the thistles will be pretty well subdued; but it will be necessary to keep a close watch on the next crop or two, using the spud or hand pulling whenever they appear.

The writer has succeeded in entirely cleaning a field that had several patches, which were spreading rapidly, by summer-fallowing as follows:

The land was plowed in the fore part of June, after which buckwheat was sown at the rate of five pecks to the acre; this was plowed under as soon as it came into flower. The field was then harrowed and rolled, and after decomposition had done its work sufficiently, was plowed again and left till the following spring, when a light coat of manure was given. The land thus treated was sown to turnips and well cultivated. Since that time, which was two years ago, not a single sow thistle has made its appearance.

The November number of FARMER'S ADVOCATE, 1892, page 331, gives a pretty full description of this weed.