### FARMER'S ADVOCATE THE

DAIRY.

## A Home-made Stacker.

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Mr. H. P. Edmunds, of Illinois, has devised a home-made hay-stacker, an illustration of which is given herewith :--

The frame is made of two poles or timbers, about forty feet long. This is long enough to build stacks twenty-five to thirty feet high. Use poles of light wood to avoid unnecessay weight in handling; pop-lar does well. If suitable native timber cannot be obtained use pine spliging two piness together to obtained, use pine, splicing two pieces together to secure the needed length. Use 6 x 6 inch timsecure the needed length. Use  $0 \times 0$  inch tim-bers for the lower section, and  $4 \times 4$  inch material for the upper part. At the top they are bolted together with a single strong bolt. The **cross-bar** near the top is about 4 feet long, and is bolted to the posts.

They are set on top of the ground and supported by long guy ropes, which are attached at the apex and staked at 1, 1. These stakes must be set so the and staked at I, I. These stakes must be set so the straight line connecting them will run lengthwise through the centre of the site for the stack. The load of hay is then driven along the end, as shown in the illustration, and the fork loaded. The rope for drawing up the loaded fork is tied to the cross-beam, passed through the pulley on the fork, through pulley three on the cross-beam, and extend-ing down to the ground on one side of the stack and toward the opposite end of it (to avoid too much of a side draft), passing through pulley 2 as shown. After the fork is set, the load is drawn up by a horse or team hitched to the rope which runs by a horse or team hitched to the rope which runs through the pulley at 2. The poles remain in the position shown at A until the load strikes the cross-beam, when the draft brings them over to the stack, and is dropped upon it. When the load is them back to the position shown at A, or if they are not thus pulled back they will come into posi-tion when the team is started to draw up the next load. This is a very cheap and easily-constructed device for and easily-constructed device for stacking hay, and can be used where hay is hauled on wagons, hay sleds, or by any of the devices for drawing in shocks. The length of stack, which snocks. The length of stack, which will be made at a single setting, can be varied to suit the builder. Quite a common method is to put up a con-venient length, and simply move the stacker on far enough to build another section to the first, and so on, making a long nick. This method also saves a long rick. This method also saves time in moving, as the poles do not have to be taken down, being simply "stepped" along to the new position. The guy ropes must be quite long, varying somewhat with the length of the stack.

# Horticultural Notes for June.

Raspberries should receive constant, shallow cultivation until just before the fruit begins to ripen, after which time all cultivation should cease. All new canes should be cut back as soon as they have reached the height of three feet, as the number of laterals thereby produced will bear double the quantity of fruit the following season

### Dairying in Ontario.

A special bulletin, with the above heading, has been issued by the Department of Agriculture for Ontario. It seems to be especially appropriate just now, when dairying is attracting so much attention from the farming community, and from those interested in developing the agricultural resources of the Province. The information, the facts and the statistics given are well arranged and selected, and furnish conclusive answers to a number of important questions which will naturally arise when one contemplates engaging in dairying, or is considering how the industry may be extended and developed.

In answer to the question, "Have dairy products decreased in price in Ontario as much as grain?" the following table of comparisons is given :--

1883 1884

	Fall Wheat per bush.	Dats per bush.	Factory Cheese per lb.	Creamery Butter per lb.	
	Cents.	Cents.	Cents.	Cents.	
	105.0	38.0	10,45	21.33	
	80.5	33.1	10.46	21.69	
	81.5	31.5	8.12	19.69	
	73.6	32.0	9.25	19.52	
	78.4	34.6	10.54	20.10	
	102.4	40.5	9.24	19.52	
	88.4	30.5	9.35	21.01	
	91 9	41.1	9.06	19.24	
	95.1	36.5	9.35	20.51	
	70.7	30.8	9.55	20.59	



These figures show that hay will remove from the soil 550 times as much fertility as butter, at the same value. It would not, therefore, be advisable same value. It would not, therefore, be advisable for the Province to develop to any great extent the export trade in hay. Wheat and other grains also take a much greater amount of fertility out of the soil than dairy products, while the amount taken out by butter alone is merely nominal. Fat cattle are considerably higher than cheese or butter, yet much lower than the grains mentioned.

much lower than the grains mentioned. The facts here given are, no doubt, borne out by the experiences of many farmers in the Province who have made a specialty of grain-growing and selling the raw products off the farm. They have found that while the prices of these products have been gradually getting lower, the natural fertility of their farms has been decreasing at a much faster rate, making their farms less productive and the business their farms has been decreasing at a much faster rate, making their farms less productive and the business less profitable. The laws of nature are inevitable, and the agriculturist in this Province who imagines that he can farm by selling off these raw products, that he can farm by selling off these raw products, will find, in avery few years, that his business has not been prosperous, and that his lands have been gradually deteriorating in value. The nourishment taken out of the soil by any system of farming must be restored by using fertilizers. These, as a rule, are expensive. The best thing, therefore, to do is to corry on some line of farming that will not do is to carry on some line of farming that will not reduce the fertility of the soil. A system of dairy farming carried on intelligently and practically will not reduce those valuable constituents of the soil. In fact, where this system is carried on properly the

some districts than others. Oxford manufactures the largest quantity of cheese of any county in the Province, it being valued at \$847,643. But in Leeds County the value of cheese made per head of the rural population is \$37.00, while in Oxford it is only \$28.00. The average per head of the rural population is only \$8.00 for the whole Province. If it equalled that of Leeds, the total make would be \$40,000,000.

Ontario is considered to be a large cheese-producing country; yet, according to these figures, we are only mak-ing about one-fifth of what we should make, if the farmers in every district were giving as much attention to the business as they are in one or two of the counties mentioned. It would not be wise to develop the cheese industry to the extent we might be capable of ; but there is room for considerable increase in the make without overstocking the market. The quality of the goods must be kept up, however. Unless we do this, it would be safer not to increase the quantity. But at the present rate of progress, and with our dairy schools and other means of inion, we are in a fair way to still further improve the quality of our cheese, and thus enhance its value and Ontario's climate is also very suitable for dairy-g. During the cheese season the nights are coming. paratively cool, and we have not so much of that hot, muggy weather as our neighbors to the south, which is so unfavorable to successful dairying. Besides, our soil and climate are such that the best of succulent foods for the production of milk can be grown easily. Our winters, though sometimes very severe, have not been found a detriment to successful winter dairying. The experience of those who have engaged in winter buttermaking on the cooperative plan, for a couple of years back, goes to show that this branch of dairying can be carried on with profit to the farmer even during our coldest winters. There is considerable room for the development of the butter trade in this direction. We will have more to say of the butter later on.

as would be grown if the canes were should be cut out and burned as soon as discovered. per bushel during the last decade, or about 32 per make it more in demand in the home market. left untrimmed. Orange or red rust When spraying for Anthracnose do not use Bordeau mixture after the fruit has set, but use ammonical copper carbonate instead.

Blackberry canes should also be cut back at the height of three feet. The rows should be kept as narrow as possible by thorough cultivation. Only one cane should be allowed to grow in each two feet of space in the row; all others should be treated as weeds and hoed off as soon as they appear.

Strawberry plants which have been set out this season should have all blossom buds carefully pinched off, for if the fruit be allowed to ripen it will greatly diminish their vitality. All runners which appear should be cut off up to the first of July, after which time they may be allowed to run in matted rows, if care be taken to prevent them from becoming too much crowded. In cultivating, use a very narrow-toothed cultivator, so as to throw up as little ground as possible.

Asparagus should have the ground kept very loose and mellow. After the first of June one shoot should be left to grow from each crown. All others may be cut up to the first of July, after which time all cutting should stop for the season.

There is still time to plant a patch of water and musk melons. Do not neglect this now, as the nice, luscious melons that will find their way to your table in the fall will more than repay you for the potash removed : small amount of time and labor expended.

ELLIS F. AUGUSTINE, Aughrim, Ont.

At the Wisconsin Experiment Station, recent feeding trials showed that whey was worth from feeding trials showed that whey was worth from seven to eight cents per hundred for mixing with cornneal and shorts for pigs, when hogs bring the prices they now command. It behooves those who wish to come out right in these trying times to be wish to come out right in these trying times to be chiese (0,000 lb.) more considerate in the use of this by-product of Butter (5,000 lb.) the cheese factory.

### THE HOME-MADE STACKER.

cent., cheese has only decreased from 10.45 to 9.55 per pound, or about 81 per cent., and creamery butter, from 21.33 to 20.59 cents per pound, or about 33 per cent. If the season of 1893 were included in the table, there would be a wider variation between wheat and dairy products. Wheat, on an average. brought a much lower price in 1893 than in 1892, while the price of cheese was somewhat higher in 1893 than in 1892. The facts given here are borne out by the actual practice of our successful farmers. In those sections of the Province where dairying has been made a specialty during the past ten years, the farmers are, as a rule, in better circumstances, are making more money out of their farms, and are not experiencing the "hard times" so commonly spoken off in other sections.

IS DAIRYING LESS EXHAUSTIVE UPON THE SOIL THAN OTHER METHODS OF FARMING ?

To answer this a table is given, showing the amount of soil constituents taken from the land by the removal of the different products. The values given are merely for comparison, and show the relative amounts of nitrogen, phosphoric acid and

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\$1,000 Worth of gen 465 592 450 A COMPARISON OF CANADIAN AND AMERICAN EX-PORTS OF DAIRY PRODUCTS.

The following statement shows that Canada's cheese exports have increased regularly since 1872, while her butter exports decreased to \$331,958 in 1889. Since then, however, there has been a gradual increase:

Yaan anding	Cheese.		Butter.	
June 30,	Amount.	Value.	Amount.	Value.
1572	$\begin{array}{c} 15\\ 16,424,025\\ 37,700,921\\ 50,807,049\\ 73,601,448\\ 84,173,267\\ 88,534,837\\ 94,260,187\\ 106,202,140\\ 118,270,052\\ 133,946,365\end{array}$	\$ 1,840,284 3,897,968 5,500,869 7,108,978 8,928,242 8,915,684 9,372,212 9,508,800 11,652,412 13,407,470	$\begin{array}{c} 16\\ 19,068,448\\ 15,479,550\\ 15,161,839\\ 5,485,509\\ 4,415,381\\ 1,780,765\\ 1,951,585\\ 3,768,101\\ 5,736,696\\ 7,036,013\end{array}$	$\begin{array}{c} \$\\ 3,612,679\\ 3,224,981\\ 2,963,156\\ 979,126\\ 798,673\\ 331,958\\ 340,133\\ 602,17\\ 1,056,058\\ 1,296,814\end{array}$

The cheese exports from the United States have fallen off 65,000,000 pounds from 1881 to 1892, and he butter exports by one-half.