(10)



### ATENTS IN ALL COUNTRIES

BABCOCK & SONS dy Patent Office Examiner. Esta 99 ST. JAMES ST., MONTREAL Branches: Ottawa and Washington

## Peck. Kerr & McElderry

415 Water St., Peterboroug E. A. Peck F. D. Kerr V. J. McElderry

#### IF YOU DON'T FIND IT, WRITE HS

Occasionally readers of Farm and Dairy wish to secure the ad-ing Dairy wish to secure the ad-respondent of the property of the con-traction of the property of the con-traction of the contraction of the con-traction of the contraction of the con-graph of the contraction of the con-traction of the contraction of the contraction of the con-traction of the contraction of the con-traction of the contraction of the contraction of the con-traction of the contraction of the con-traction of the contraction of the contraction of the con-traction of the c

ADVERTISING DEPT FARM & DAIRY PETERBORO, ONT.

#### BOOKS Send for our Catalogue of Books. Sent Free on Request, was a new thing. The whole matter

Commissioner Ruddick on "Pasty" Cheese

DITOR, Farm and Dairy: There were one or two points raised in the discussion on the Dairy Standards Act, at the Convention at Standards Act, at the Convention at Napanee, which were never properly cleared up and I fear that a very wrong impression was left on the minds of many dairymen present I understood Mr. Ayer correctly he contended: (1) that to pay "by tast" at cheese factories would have the effat in milk in a very marked degree; and, (2) that rich milk made cheese which contained a larger percentage of fat and were, therefore, too soft and pasty. He used a sample of pasty cheese to illustrate his contention.

Now, when Mr. Ayer offers his opin ion on any matter connected with the trading in cheese or butter, the export thereof, or the demands of the British market, I am ready to listen to him market, I am ready to listen to him with the greatest respect, because his judgment in such matters cannot be questioned, but when he undertakes to discuss a highly technical question relating to the manufacture of cheese I am prepared to take issue with him In the first place then, let me say that there are plenty of data and records of experiments to show that payment by test does not increase the percentage of fat in the milk to any appreciable extent. Milk has been paid for according to the fat content in Denmark for many years, even be-fore the introduction of the Baheack There has been a determined effort in Denmark to increase the per centage of fat in the milk and yet the average increase during many years is small indeed. The same is true The cheese factories in in Holland. New Zealand have universally and voluntarily paid by test—that is acover 20 years, and the percentage of fat has not increased but very little if any in that time. The effect of paying by test is to produce more unifor ity in the percentage of fat in the milk of different herds

One would think in listening to the discussion at Napanee that this matwas threshed out 25 years ago and there are many factories in Canada which have been paying by test ever since, and it cannot be shown that the percentage of fat in the milk at these factories is very much higher than it was before the test system was

With Mr. Aver's other contention. With Mr. Ayer's other contention, that milk rich in fat makes cheese rich in fat, and therefore, soft and pasty, I am obliged to disagree most emphatically. If it were so, then the not be a fair basis for estimating its age of fat in the milk bears a close relation to the other constituents so that milk which is rich in fat is rich in casein or vice versa The rich milk makes more cheese, not nece ily fatter cheese. Of course when the milk is rich in fat certain modifications in the process of manufacture cessary, but any cheesemaker with the most elementary knowledge his art understands that.

In 1891 and 1892 the writer, under the direction of Professor Robertson. conducted a series of experiments at a cheese factory at Perth. Ont., using milk containing different percentages of fat to determine the yield from of different qualities treme range possible was 3.2 to 3.9 per cent. of fat. Hundreds of cheese were out two seasons and when they were out two seasons and when they were submitted for examination and sale it was universally agreed that the cheese made from the richer mik were the best in quality. So much so that although the yield of cheese did not increase in exactly the same proportion as the percentage of fat in the milk, it was felt that the gain in qualmist, it was tert that me gain in quantity from the richer milk entitled that milk to a premium. All these particulars will be found in the report of the Dairy Commissioner for 1892-93.

The matter of "pasty" cheese does not bear any practical relation to the question of paying by test, and rected into the discussion.—J. A. Ruddiek

Ottawa, Jan. 8, 1917.

#### Wet or Dry Mashes, Which Shall We Feed ? By E. L. McCaskey

HERE now, have a good fill up, my darlings."

I can see my mother yet as she stood there in that cold hen h arms akimbo, watching a flock of 20 or 30 hens fighting to get at a panful of a steaming mixture of boiled potatoes, middlings and skim milk. How beamed with satisfaction to see her poultry enjoy that hot mixture. She thought she was treating them as well as anyone could possibly treat

How shocked she would be were she to come into my hen house to-day! Instead of a steaming hot mixture on a cold morning she would find my poultry eating dry mash from a hoppountry eating ary mash from a hop-per and scratching through the litter for grain. We feed dry mash almost altogether. Wet mashes were univer-sal in my mother's day. Dry mashes have now become common all over America. In Australia the wet mash is still the popular one, as it is also in the Old Land. This brings up the whole subject of the relative merits of wet and dry mashes

For the Dry Mash For my dry mash system of feeding I would advance the argument that the hens never gormandize. They do not fly off the roosts in the morning, fill themselves up on a hot palatable mash and then mope around all day. Neither do they have an opportunity of filling up before going on the roosts at night and running chances of the mash cooling and perhaps freezing in the crop. These evils of the wet mash system are avoided in the dry. There

may be an advantage, however, in feeding the wet mash if the wet mash is not abused. There must be advantages or the Australians would not practice wet mach feeding. In the Canadian Poultry Review, Prof. M. A. Juli, of the Macdonald College, has sane and sensible summary of the of the whole controversy of wet mashes Prof Juli save

"Owing to so many vastly different opinions in regard to wet and dry ods are being used successfully in different places and by different people. it would seem the method of feeding the wet or the dry mash has much to do in determining its value. The compends greatly upon the method which each is fed.

Combine the Two

"Personally, I am of the opinion that the majority of experienced feeders would do bent by a combination of ers would do bect by a combination of the two methods—that is, feeding both wet and dry. I believe the greatesa curse in wet mash feeding has been the tendency to feed too much. Never to feed more wet mash than about the size of a walnut per bird a day is a ing goes, about all we can do is to make sure that the dry mash is palatable and wholesome. Ordinarily and dry mashes may be compounded

"In regard to the proper time for feeding wet mash the best results have been obtained by feeding about mid-day. Between the hours of 11 a.m. and 3.30 p.m. is preferable. Dry mash hoppers are frequently kept closed in the mornings and opened in the afternoons. From experience I believe that laying fowls may be kept in better laying condition by feeding a little taste of moist mash each day along with the dry mash. This adds along with the dry mash. This adding labor, but the poultryman who is anxious to shirk work in sacrificing maximum results should be satisfied with a lower egg yield. The farmer and small poultry keeper can well af ford the time to feed wet mash, and as for the commercial poultryman the wage item must be considered."

would not like to add any additional opinions of my own. After all, both systems are right, if you use them

#### Coming Events

AMBTON County Corn Exhibi-tion, Petrolia, Jan. 24-26.

Western Fairs Association, Annual Meeting, Brandon, Man., Jan. 22. Canadian Jersey Cattle Club, Annual Meeting, Toronto, Feb. 6.
Annual Convention, Association of

Fairs and Exhibitions, Canadian Foresters' Hall, Toronto, Feb. 6-7.

Annual Meeting, Ontario Vegetable Growers' Association, Parliament Bldgs., Toronto, Feb. 8. Social Service Congress, Toronto,

Jan. 31-Feb. 2. Annual Meeting of Holstein Friesian Association, Canadian Foresters' Hall, 22 College Street, Toronto, 9 a.m., Feb. 8.

Ontario Plowmen's Assoication, Annual Meeting, Canadian Foresters' Hall, Toronto, Feb. 8.

Annual Meeting, Canadian Ayr-hire Breeders' Association, Montreal, Feb. 14.

Ontario Corn Show, Kingsville, Feb.

A hen that is laying should never be so fat as to prevent the gizzard from being felt. When food is given in excess of what is needed to sustain life, it is generally disposed of in one of three ways: it will either produce flesh, put on fat, or manufacture eggs. The flesh can be found in the breast, wings and thighs; the fat in the stern and abdomen; and the eggs in the

# GASOLINE ENGINES! TANKS!! GRINDERS!!

NEW AND USED

To Be Cleared at Startling Prices

Hereafter, we confine our efforts solely to the Toronto Engine. Having made the decision, we will take no half measures, but dispose of the Chapman and other gasoline engines on hand, new and used, at prices that will insure quick action.

Every item listed here is in Al condition, thoroughly overhauled and a splendid investment.

Write to-day for the prices

ENGINES:

GRINDERS.

1 10-in. Martin Grinder...... 2 No. 2 I.X.L. Grinders...... 1 Martin Junior Grinder.....

1	2x2x5	Steel	Tank	Good	Condition
1	6x6-2	Wood	TankGood f Tank—Good	Condi	tion Titl

NTARIO WIND ENGINE & PUMP CO

82 Atlantic Avenue, TORONTO