



"My kingdom for a horse," professed a defeated monarch. But the modern man gets an infinitely better means of transportation—at lowest cost—when he buys a sturdy Ford. The economical Ford has made the horse an extravagance at any price.

Six hundred dollars is the price of the Ford runabout; the touring car is six fifty; the town car nine hundred—f. o. b. Ford, Ont., complete with equipment. Get catalog and particulars from any branch or from Ford Motor Co., Ltd., Ford, Ont., Canada.

## FARM MANAGEMENT

### The Merits of Mixed Fertilizers (Continued from last week)

The purchase of fertilizer materials at general quotations, in small lots to suit individual needs, is not always practicable. But for the sake of explanation, assume that such purchase may be made. Let us suppose that the farmer wants the fertilizer for spring application, the ammonia of which will be progressively available throughout the growing period of the proposed crop. He must figure out his needs in, say, broken lots of organic nitrogenous matter and one or more of the nitrogen containing chemicals. To these the acid phosphate, potash, etc., must be added; for, to enable an even application per acre by means of hand or machine distribution, the mixture must be

commercial fertilizer in accordance with his observed means; he does not use it in excess. With an unequal mixed fertilizer applied, say, at the rate of an ounce per foot of soil, the representative one plant or stool, supplies the nitrogenous fertilizer in the mixture changed to be lumped while the two adjacent plants got nothing. The result would be that only one-third of the plants would be fertilized with nitrogen, and the one which did receive nitrogen fertilizer would probably get so much that its growth (if a tuber or grain crop) would be all top and no seed. This is a more or less extreme case, but is still a very practical one.

Now suppose the above accident occurred to only 10 plants out of 100, the crop loss would be exactly 10 per cent of course; but this 10 per cent loss has been paid for in fertilizer, seed, soil preparation, tillage, rental, etc. That is, the loss of 10 per cent means the loss of all the profits at that particular crop that would have



Educating Consumers to Demand Pure Food Products

Mr. John H. Grimm, of Montreal, was the leading spirit in organizing an expedition of 22 persons to visit a maple sugar camp in Foster, Que., where the students may be here seen. The tourists were given an opportunity to sample the real goods, and then were given talks by Mr. Grimm, Dr. J. P. Small, of the Donald College, and others on the importance of demanding pure maple products. It was pointed out, for instance, that Montreal city produces more so-called maple products than any five townships in the province of Quebec.

made up to definite weights. The drill will apply evenly and accurately, say 200 pounds an acre; therefore, the "home-mixed" fertilizer must be so proportioned as to contain in 200 pounds the amount of plant foods desired to apply per acre.

#### DIFFICULTY OF HOME MIXING

All this detail having been worked out, the mixing on, say, a barn floor or in a mortar bed is apparently simple enough, except that the time lost will cost the farmer many times the cost of the same work in a fertilizer factory. But the mixing is a more difficult matter than it would seem. Fertilizer materials are almost always in a crude state, and the fertilizer manufacturer must mill them before or during mixing in order to secure a homogeneous product. Not only must the ingredients of the mixture be all evenly distributed throughout the mass, but the final product must be dry and granular and must remain so in the machine distributor. Many of the crude fertilizer materials are lumpy and more or less hard. These must be all thoroughly broken up before the mixing begins, and a shovel and plank floor will serve as a very inefficient means to this end. As a result, most "home mixtures" are a pretty crude mixture indeed.

And now comes absolutely the most important part of "home mixtures." When applied to the soil, these mixtures are ineffective, as a rule, unless used in excess. A farmer uses

been received had the fertilizers been properly and intimately compounded. Even with the most painstaking supervision and costly machinery to exact mixing of commercial fertilizer compounds, is difficult enough. How much more difficult the home mixing and manipulation without machine or trained supervision!

#### HAND LABOR TOO COSTLY

The farmer who attempts to mix fertilizers with a shovel on a barn floor during his busy period will pay exorbitantly for his fertilizer, and labor if he would but add this expense to the cost of raw materials is far too costly to do with the labor in a retail manner what should be done wholesale with an automatic machine.

Our agricultural writer, who is an advocate of "home-mixing," in an article in which he recommends "home-mixing" of fertilizer, states that the objection of course is the difficulty and labor of accurate compounding. "That's the whole story. Between the lines of this statement one who runs may read that this cultural writer really recognizes the fact that it is impossible to prepare commercial fertilizers on a barn floor with a spade and a shovel."

After all is said and done "raw" speak louder than words. "Get good brand of factory-mixed fertilizer, and you won't be stampeding into buying 'raw materials' 'home-mixing.'"



## THE BEST FARM LUBRICANTS CAPITOL Cylinder Oil

For steam tractors.  
Gives maximum of

lubrication for minimum of oil used. Thousands of satisfied users testify to its superior lubricating qualities.



## PRAIRIE Harvester Oil

Just the oil needed for harvesters. Reduces friction and wear to a minimum. Stays on the bearings, and is not affected by weather.

## STANDARD Gas Engine Oil

For all types of internal combustion engines—gasoline and kerosene.

#### Eldorado Castor Oil

Thresher Hard Oil

Arctic Cup Grease

#### THE IMPERIAL OIL COMPANY, Limited

Toronto  
Ottawa  
Halifax

Montreal  
Quebec  
St. John

Winnipeg  
Calgary  
Regina

Vancouver  
Edmonton  
Saskatoon



You insist  
Why not?

There is  
your building  
but there is  
tainty that your  
you neglect  
well protection

Protection  
character of  
Some paint peels  
through to the  
decay and soon  
The paint, the  
protection is

Love  
Hi  
LIQUID

It adheres  
tough, durable  
moisture and  
the one paint  
tests have prov  
est protection

Valuable  
the best  
northern  
harvest" and  
most. Write  
Write today

THE B  
to 255 S  
TORONTO



CRUMB'S  
STAN

WALLACE H. CRUMB, JR.  
Canadian  
All correspondence should be  
sent to history if you prefer

Fist  
and  
POLL  
EVIL

For persons, however  
one remedy cure stick  
Fleming's  
Fistula and Pol  
have abandoned. I  
proving, just a little  
day, and your money  
back. I have never  
possible given to  
Fleming's  
Write us for a free  
more than 100  
dinary subjects. I  
do not understand  
FLEMING BROS.  
83 Church Street,