

FARM AND DAIRY

AND RURAL HOME
PUBLISHED EVERY THURSDAY

47

SUBSCRIPTION PRICE, \$1.00 a year. Great Britain, \$1.25 a year. For all countries, except Canada and Great Britain, add 50c. for postage.

ADVERTISING RATES. 12 lines a line for 10 days an inch an insertion. One page 48 inches, one column 24 inches. Copy received up to Saturday preceding the following week's issue.

UNITED STATES REPRESENTATIVES
STOCKWELL'S SPECIAL AGENCY
Chicago Office: People's Gas Building.
New York Office: Tribune Building.

CIRCULATION STATEMENT

The paid subscriptions to Farm and Dairy exceed \$1,000. The actual circulation of each issue, including copies of the paper sent subscribers who are not slightly in arrears, and sample copies, varies from 10,000 to 15,000 copies. No subscriptions are accepted at less than the full subscription rate.

Below detailed statements of circulation of the paper, showing its distribution by counties and provinces, will be mailed free on request.

OUR GUARANTEE

We guarantee that every advertiser in this issue is reliable. We are able to do this because the advertising columns of Farm and Dairy are as carefully edited as the reading columns, and because to protect our readers, we turn away all unscrupulous advertisers. Should any advertiser herein deal dishonestly with you as one of our paid-in-advance subscribers, we will make good the amount of your loss, provided such transaction occurs within one month from date of this issue, that it is reported to us within a week of its occurrence, and that we find the facts to be as stated. It is a condition of this contract that in writing to advertisers, you will "I saw your advertisement in Farm and Dairy."

Regrets shall not pay their trade at the expense of our subscribers, who are our friends, through the medium of these columns; but we shall not attempt to do so, at the expense of our subscribers, and honorable business men who advertise, nor pay the debts of honest bankrupts.

The Rural Publishing Company, Ltd.
PETERBORO, ONT.

"Read not to contradict and to confute, nor to believe and take for granted, but to weigh and consider."—Bacon.

Progressive Farming Penalized

THE question was recently raised in the Ontario Legislature, of whether or not a farmer should be penalized for putting a system of tile drainage on his farm. If, instead of placing his money in a bank, which immediately transfers it to the city to build up city industries, he invests it in drains on his farm, thereby adding wealth to his community and increasing the production of food stuffs for the Empire, should he be punished upon by the tax collector and fined for so doing. That is exactly what is being done today. If a farmer installs a tile drainage system, his assessment is increased and his taxes raised.

This is but an instance of the way in which our present system of taxation militates against industry. So long as a man shifts along without putting any improvements on his farm his assessment is left practically untouched. But once let him begin to improve his property, to build a home or drain a field and down comes the assessor and up go his taxes. Our legislators seem to think that the best way to encourage the development of a country is to penalize industry and to put a premium on indolence.

Gasoline From Kerosene

IT is reported, how authoritatively we do not know, that, W. F. Rittman, of the Bureau of Mines at Washington, has perfected a simple and cheap system whereby kerosene may be changed into gasoline. Under the present process of refining crude oil, one gallon of kerosene is produced for each gallon of gasoline. The great increase in the demand for gasoline in the last few years has brought about a demand which calls for more gasoline than can be produced, while at the same time, there is a great surplus of kerosene. This disparity of demand accounts in large measure for the difference in price of the two fuels. As both are hydro carbons, it would seem that conversion from one to the

other is within the realm of possibility, and the perfecting of a system of interchange would be a decided benefit to gasoline users.

If the report be true that Mr. Rittman has perfected such a system, it will be a cause of relief to thousands of Canadian farmers who have installed gasoline engines to help do the hired man's work, and to other thousands who have been investing in "road hogs," otherwise known as automobiles. One of the best features of the reported new invention is that a patent has been taken out on the process under the name of the United States Government, and it will therefore be safe from monopoly control.

Light in a Dark Place

PROBABLY there have been no two problems on which breeders of dairy cattle have been so prone to disagree as the feeding of heifers previous to their first lactative period and the proper age at which to breed them. Our experimental farms and agricultural colleges have disagreed almost as much as practical farmers, and have had little more to offer us than their guesses and opinions. Of late years the fear of liberal feeding for the heifer calf has been disappearing, and still more recently our college live stock experts have been sounding a note of warning against the prevalent practice of early breeding. Prof. Barton, of Macdonald College, in particular, has conducted some valuable work to demonstrate the error of early breeding. Prof. C. S. Eckles, of Missouri, has now come out with the results of investigations that he has been conducting for several years past. So valuable are his results that Farm and Dairy has reviewed his work fully on page three of this issue, and we recommend a careful perusal of this article to all dairy cattle breeders, be their herds pure bred or grade.

Prof. Eckles seems to have proved conclusively that good feeding is necessary to the best dairy development, but that excessively heavy feeding may injure the milking qualities later in life. On the question of early or late breeding, Prof. Eckles' work seems to leave no grounds for the claim that early breeding, if combined with good feeding, does not stunt the animal's growth. Almost without exception the twenty late bred heifers made the largest animals and the heaviest milkers. From an economic standpoint, the conclusion reached by this investigator calls for good feeding of heifers and freshening of heifers around thirty months, the age varying with different breeds. But read the article and get the whole story.

Bacterial Distribution Through Peat

THE interest that was first aroused in scientific circles a few months ago by Prof. Bottemley's experiments with bacterized peat is now finding its way into practical circles as well. Briefly, Prof. Bottemley's discovery is this—that peat in which bacteria do not ordinarily grow, under his treatment is reduced to a soluble humus, an ideal home for nitrifying bacteria. This peat may be used as a fertilizer, or to inoculate the soil with bacterial nitrogen gatherers.

Bacterized peat may be used for soil improvement in three ways. First, directly as a nitrogen fertilizer; second, to inoculate the soil with nitrogen fixing bacteria, which reduces the nitrogen of the air to plant food; and thirdly, to inoculate the soil with those bacteria which, working in conjunction with legumes, increase the nitrogenous content of soils indirectly through plant growth. If the new process fulfills its early promise, it will afford an easy and convenient way of inoculating soils for legumes, replacing the pure culture and dirt treatment now in use, and the peat bogs of Canada, now worthless, may be a source of untold wealth and do away with

the use of the more expensive nitrate of soda, dried tankage and other commercial nitrogenous fertilizers. Practical experiments with Prof. Bottemley's bacterized peat have not so far been universally successful, but further experimental work will be watched with keen interest.

A New Start in Horse Breeding

CANADA is to have the opportunity for a new start in horse breeding. The Dominion Live Stock Commissioner, Mr. John Bright, in a recent address predicted that many more horses would be required for military purposes before the war is over. This demand for army remounts gives us a chance to clear out horses of a type that we do not want. The demand for the military type of horse, however, will be followed later by a demand for horses in an entirely different class. Europe is now calling for war horses. With the return of peace the European demand will be for breeding stock, and here the European is a discriminating buyer, and for him we must produce the best.

This probable future demand should influence horse breeding operations this spring. It may not be wise to breed extensively. Only the best mates should be chosen and great care exercised in the selection of stallions. If ever the scrub stallion should get the go-by it is now, when the best market of the future will be a discriminating one, and without a place for the inferior animal.

A Crime Against Childhood

THE economic problems of agriculture properly receive first consideration on this page. Occasionally, however, the black injustices of society drive us to protest, even when the subject is in no sense agricultural. And if there is one case of injustice on the statute books of the land that should evoke protest more than another it is that setting the age of consent for women at fourteen years. "Women," so the law calls them. Really the statute is one of the blackest crimes against childhood that could disgrace the annals of any land. To-day there is scarcely any protection in law for a girl from a somewhat careless home after she is fourteen years of age. In theory there is, but in practice the effort is made to break down her reputation, to prove her impure, and thus the culprit usually a man (?) of mature years, goes free and the child is disgraced.

This is a crying shame and a fastidious disgrace to the people who allow such legislation to disfigure their statute books and be enforced in their courts. Does it show the relative values that we place on human purity and material wealth? A child cannot sign away his or her title to property till the age of twenty-one is reached. The Juvenile Delinquent Act and the Children's Protective Act both make a person under sixteen irresponsible and call them children. But the Criminal Code is little short of senseless in its cruelty when it assumes that a girl can, unaided, the day after she is fourteen, decide the most momentous question of this life—her virtue and her life-long honor. Examples of the terrible results of this barbarous code can be found in every county of every province of our land. Ordinary humanitarianism would dictate that the age of consent should be raised to the age of eighteen, and the agitation for such a change should receive the support of every one who pretends to be a follower of the Man of Nazareth.

"Why are farm products so high in price?" asks a city friend. We would suggest a comparison of costs of production now and a decade ago. But then, it is always easier to complain than honestly investigate.

As an instance of a day's case of a herd of \$35 each, of milk purchased from Holstein bulls as this calf began grading. When this bull's daughters another bull \$40.

About ten process began. The grade covered the last year averaged \$5.00. Our four-year and a week \$175.

The main point connection with was improved. Three good bulls of these last time of the. These bulls were very common for any man to such a herd by using the

Thrift

THE Dominion starting ing country of thrift and p. The principle of for the individual to be incentive. newspaper article out Canada, the nation as a time to hear the furnish the situation of the a production of land is to be shown the lines, tended to crops and which to do more than furnishing food the benefit of the

A considerable been voted by the advertising to be conducted under of the Department of Finance. The placed with the Canada starting King's Printer, each newspaper. The adopted as a advertising the autumn, and ment in enactment that there will be politics made in while doing rather than this agency.

Our Front

OUR front very close that has few years in the. In order to get that we in bundles until began to fly, and barn and spread layers against it. Thus keeping it, we developed it with a hand pointing the corn with and feeding it. It weren't favored