

## THE FARMER'S ADVOCATE AND HOME MAGAZINE

THE LEADING AGRICULTURAL JOURNAL  
IN THE DOMINION.

PUBLISHED WEEKLY BY  
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

Agents for "The Farmer's Advocate and Home Journal,"  
Winnipeg, Man.

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all classes and parties, and is published with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
  2. TERMS OF SUBSCRIPTION.—In Canada, England, Ireland, Scotland, Newfoundland and New Zealand, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries 12s. in advance.
  3. ADVERTISING RATES.—Single insertion, 25 cents per line, advance. Contract rates furnished on application.
  4. THE FARMER'S ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrears must be made as required by law.
  5. THE LAW IS, that all subscribers to newspapers are held responsible until all arrears are paid and their paper ordered to be discontinued.
  6. REMITTANCES should be made direct to us, either by Money Order or Registered Letter, which will be at our risk. When made otherwise we will not be responsible.
  7. THE DATE ON YOUR LABEL shows to what time your subscription is paid.
  8. ANONYMOUS communications will receive no attention. In every case the "Full Name and Post-office Address Must be Given."
  9. WHEN A REPLY BY MAIL IS REQUIRED to Urgent Veterinary or Legal Enquiries, \$1.00 must be enclosed.
  10. LETTERS intended for publication should be written on one side of the paper only.
  11. CHANGE OF ADDRESS.—Subscribers when ordering a change of address should give the old as well as the new P.O. address.
  12. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve "The Farmer's Advocate and Home Magazine," Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
  13. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.
- Address—THE FARMER'S ADVOCATE, or  
THE WILLIAM WELD COMPANY (LIMITED),  
LONDON, CANADA.

### Re Independent Opinion of Education and Schools.

Editor "The Farmer's Advocate":

Following up your discussion of my letter on "Education in Ontario," as printed in your issue of October 17th under the heading of "Independent Opinion re Education," I beg leave to reply again. I do this in the first place with the intention of helping to arouse greater interest in the work of our schools, and in the second place to try to show the readers of "The Farmer's Advocate" that in this matter, as in most matters, there are two sides to the question. I regret that as an officer of the Department of Education, and, I presume, one of your so-called "lot of old fossils," I may not have my opinions accepted as "independent;" I will hope, however, that they may be accepted as honest ones.

#### NOBODY YET SATISFIED WITH OUR SCHOOLS.

Before discussing the evidence offered in your issue of October 17th in rebuttal of my testimony, it might be well to note that I did not say in my former reply that Ontario had "the best teachers, the best schools, and the best educational department in the world." Moreover, I think I made it quite plain that our educational authorities were not satisfied with the present state of affairs, but recognizing our deficiencies, were trying—and with some measure of success—to make things better. This state of "dry-rot" producing self satisfaction that has been charged as the cause of all our educational woes, has long been a thing of the past; that bogey has long been laid away in the grave, and is resurrected only occasionally now for newspaper articles. Everybody connected in any direct way with the work of our schools knows that there is a decided movement to "get right." Personally I do not know anyone connected with the Department of Education of Ontario—Inspector, Superintendent or Minister—who is affected with the "dry-rot of self satisfaction." Neither can I conceive of anyone working in the field of education reaching such a state in the present day and generation. As in life, so in education: "the best is yet to be!"

#### VALUE OF INDEPENDENT OPINION.

As evidence regarding the weak position of our schools you quote the opinion of Prof. A. E.

Chamberlain, as reported in his address before the Ontario Corn Growers' Convention in Tilbury last February. No one can object to criticism based on close observation or intimate knowledge of conditions; criticism of such a character must be conducive of good. I was present when Prof. Chamberlain made his address and expressed his opinion regarding the schools of Ontario. I had the opportunity afterwards of addressing the same Convention, and expressing an opinion regarding our educational affairs, based on immediate and personal experience. So far as I could learn, Prof. Chamberlain had made no thorough investigation in the matter on which to rightly form a safe conclusion; he had not been in our country for many years, except occasionally as a visitor, and he did not know in any large way of what Ontario schools were doing. In practising law, his interests were, for many years, of necessity, apart from school matters. For every one of the good things that he told about as being done in schools here and there throughout different States in the United States, it was easily possible to point out similar good work in schools in Ontario. After the meeting several persons told me that they had been glad to learn of the good work that was going on in Ontario schools as an answer to Prof. Chamberlain's opinion. The opinion of casual visitors cannot be accepted as sound evidence. On the other hand, I could tell you of very favorable opinions of our schools held by educationists from the United States, after visiting a number of our country schools.

#### ONE SCHOOL CANNOT BE A CRITERION OF ALL SCHOOLS.

As further independent opinion you quote also from a letter printed in a former issue from Mr. J. O. Duke of Essex County. From personal acquaintance I know Mr. Duke to be a wide awake, progressive and energetic farmer, and would appreciate his opinion on any matter. It should be noted, however, that in this particular matter Mr. Duke's observations were not based on wide observation. His opinion as expressed is made on the observation of local circumstances; it is hardly right, however, to draw conclusions regarding the schools at large from the work done in any single school. It is quite possible that, while the school in one district may have gone behind, the schools in other districts round about may have gone forward, and it is also possible, as I know it to be, that the schools in one county may not represent the progress that has been made in other counties in Ontario.

#### ACCEPTABLE EVIDENCE.

It may be asked then how can one fairly find out regarding the schools of the province as to whether they are going forward or backward. A fair answer can be given only by those who know the schools intimately. The casual visitor cannot give the right answer; the editor who does not go amongst the schools cannot give the answer; the ratepayer located in a district where the school had not made advances cannot answer it; it is only from such persons as our school inspectors that fair answers can be forthcoming. These men know the schools well; they are capable men, have the best interests of the school at heart, and are working for their advancement. And I have yet to find an Ontario School Inspector who reports his schools as not making advances!

#### OPTIMISM VERSUS PESSIMISM.

I realize quite well that there are many schools and many matters pertaining to schools that are far from right. The pessimist may easily find food for his sentiments. I realize, moreover, that one can always find what he sets out to seek. But I am convinced that one can find sufficient good things pertaining to our schools to warrant an optimistic outlook. And I believe we will get more done by seeing and following the best (i.e., boosting) than by seeing and lamenting the worst (i.e., knocking.) And if desired, I will be pleased to furnish the readers of "The Farmer's Advocate" from time to time, with brief accounts of good work being done in our schools all over the province.

Yours for Better Country Schools in Ontario,  
S. B. McCready,  
Director of Elementary Agricultural Education.

The County of Pontiac Agricultural Society, No. 1, at a recent directors' meeting held in Shawville, Que., passed unanimously a resolution in favor of having ditching machines placed on the free list. The resolution pointed out that every year the greater portion of farm lands in Eastern Canada suffer for lack of drainage, the loss this year being unusually great, and that scarcity of labor renders it impossible for the average farmer to secure the necessary manual labor at the proper season for ditching by hand. Quite true. Let every agricultural organization speak up and ditching machines will soon be placed on the free list.

## HORSES.

Horses cannot live without roughage. Even palatable and nutritious oats with their fibrous hulls will not maintain life for any great length of time without some coarser feed.

First-class clover hay, or clover mixed with a little timothy, seems to fill the horses out better during winter feeding than timothy alone. Draft horses fed on clover seem to have better appetites, feed a little better, fatten in shorter time, and round out into that form which fills the eye best more quickly than when the entire roughage ration is composed of timothy.

We are inclined to agree with a writer in an Old Country contemporary when he says that a well-bred, well-fed, and well-driven horse does not require a bearing rein to hold up his head, nor is the appearance and action of such animals improved by tight reining. That a bearing rein should be used at all on a horse of this class points to some defect in the condition of the horse, the efficiency of the coachman, or in the common sense and humanity of the owner.

Old Country writers believe superfluous fat to be the great danger to guard against in yearlings and two-year-olds. Very few colts in this country, outside of those over-fitted for showing purposes, get so much feed and so good care as to be very badly injured by being over-fat. Too often the loss results from the opposite condition of too little feed and too little care, and the young colt's size and substance are impaired from these causes for life. True, colts should not be made over-fat, but with plenty of exercise and judicious feeding there is little danger. Judicious feeding does not mean "stuffing," but a liberal supply of good hay and oats.

### Is Trotting Speed an Acquired Character?

There are several arguments which have been brought forward from time to time to prove that acquired characters may be transmitted, and among them the case of the improvement of the trotting horse has been one of the strongest. Shaw says that the speed character has been developed through long years of training until it has come to be transmitted with much regularity. Thomson discussed it in his "Heredity" thus: "Over a hundred years ago (1796) the utmost speed of the English trotter was stated at a mile in 2 min. 37 sec. Since 1818 accurate records have been kept, which show a gradual increase decade after decade in the speed and in the percentage of swift trotters. The standard has risen and the breed has improved. The mile can now be run in 2 minutes and 10 seconds or less (less than 2 minutes in America). It is claimed by Cope and others that we have here direct evidence of the transmission of the structural results of exercise.

"Brewer relates that about 1818 the record speed of the trotting horse was three minutes to the mile; in 1824 it was reduced to 2 minutes 34 seconds; in 1848 to 2 minutes 30 seconds; in 1868 to 2 minutes 20 seconds; in 1878 to 2 minutes 16 seconds; in 1888 to 2 minutes 11½ seconds; and finally to 2 minutes 10 seconds (and down to present-day records)."

The gain in speed has been cumulative. It has gone on along with systematic exercise of special function in successive generations; there is nothing that would lead us to even suspect that the changes due to exercise of function had not been a factor in the evolution; there is every appearance and indication that the changes acquired by individuals through the exercise of function have been to some degree transmitted and have been cumulative and that this has been one factor in the evolution of speed.

"It is impossible to prove the negative above suggested—namely, that function has not been a factor; but the affirmative is robbed of all cogency by the admitted occurrence of vigorous artificial selection. The improvement supposed to be entailed may not have been a modification at all; but, supposing it was, the interpretation of the result simply by the hypothesis of use-inheritance gives a false simplicity to the case. It overlooks the selective breeding which increases the constitutional swiftness and the process of elimination which persistently weeds out the less swift from the stud. And even apart from artificial selection and elimination, there may be a progressively cumulative succession of variations making for greater and greater swiftness."

Such are the arguments of a man who has made a study of the laws of breeding, and especially of heredity. Had the speed increased so markedly as a result of cultivation and use with natural selection in operation there could be lit-