THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

> PUBLISHED SEMI-MONTHLY BY THE WILLIAM WELD COMPANY (LIMITED).

Two Distinct Publications-Eastern and Western.

EASTERN OFFICE:

CARLING STREET, LONDON, ONT. WESTERN OFFICE: McIntyre Block, Main Street, Winnipeg. LONDON (ENGLAND) OFFICE

> London, W. C., England. JOHN WELD, MANAGER.

W. W. CHAPMAN, Agent, Fitzalan House, Strand,

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 ADVERTISING RATES—Single insertion, 20 cents per line, agate. Contract rates furnished on application.
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LETTERS intended for publication should be written on one side of the paper only.

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 ADVOCATE, 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.

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dolls and candy for the children, to most of whom Christmas had been little more than a name, and warm garments and rolls of flannelet for the mothers. Next year the same good cheer, only more of it, poured in, enabling the good women who managed it to have five Christmas trees in as many neighborhoods. The story of the good times and the people's gratitude is too long to give here. The local agent of the Union says: things have kindled a great deal of love and 1e-spect for the W. C. T. U. It is almost impossible to tell you how much the clothing has helped these settlers." In a letter just received Miss Sproule says that she spent eight days at (the settlement above referred to), travelled about through the country, in all sorts of wagons, jumpers, etc, covering 60 miles. The homes were visited and six meetings held, which, despite the wretched weather and almost impassable roads, were splendidly attended. She did not know where all the people came from, or how they managed to get there. They all seemed so thankful for the aid received. Two years ago, they almost prayed her to "depart out of their coasts." Now all this is changed, and they are, moreover, taking earnest measures to prevent the spread of intemperance.

Last year Miss Sproule travelled 3,400 miles, visited the homes in 70 localities, addressing meetings and distributing large quantities of useful literature.

Mr. Leckie's field of work is in the camps themselves, of which there are more than 600 in his district. Last year he travelled about 3,220 miles, nearly all of it by wagon, holding 281 meetings in 161 camps. About 20,000 men were addressed, either in the camps or on the lumber drives. Over 14,000 papers, magazines, etc., and thousands of song sheets and leaflets were distributed, besides 491 comfort bags. In 50 camps Sunday evening song services were established, that go on whether the missionary is there or In Nipissing there is no missionary.

Through all these camps there are thousands of men, young and old, away from the comforts and influences of home, exposed to known and nameless evils, yet all of them some mothers' sons, to whom this self-sacrificing work has been a boon and an encouragement. Another worker is greatly needed in the camps, but for want of funds our hands are tied. If people but realized the need, they would help.

The salaries of these two missionaries and a third, working in the Purity Department, together with the money expended for Testaments

and literature, amount to \$1,200 per annum. As this outlay represents but two of the twenty-seven departments under the care of the Provincial Union, the financial strain has been heavy, and we are falling behind. Anyone disposed to help can forward a contribution to

MRS. ANNIE BRITTON, Treas. Ont. W. C. T. U.,

Gananoque, Ont., stating that they saw the appeal in the "Farmer's Advocate," so that amounts received may be acknowledged in its columns.

HORSES.

Mr. Innes Closes the Horse Judging Controversy.

To the Editor "Farmer's Advocate"

I am sorry to have to spend time replying to the unknown E. J., who persists in writing slang for the public reading, which, I am sure, is neither instructive nor amusing. It is easy for anyone to place misstatements before the public that he dare not own, and try to justify his cowardly actions by claiming that the spirit of his former letter was misapprehended. His sarcastic "I tell you nay, sir," to a suggestion I made, and the further insinuation, "He does not know his business," proves plainly the fallacy of his whole contention. He is piteously playing for public sym-I am not going to spend time following his mysterious conglomeration of excuses, that are abusive but not instructive. I am well aware a judge is a public official, chosen by the commit-It is his duty to perform his functions to the best of his ability, and, let me emphasize this point, to do his work honestly, giving to the stranger his honest rights even though the judge has to forfeit the friendship of one who kicks because thereby he expected to gain unmerited awards. "I tell you nay, sir," that little game is played out so far as I am concerned. Reasons that do not suit his mysterious views he con-He makes insinuations that siders no reasons. are easy for his kind, as his opponent has no recourse. Either he is ashamed of his anonymous squeal or is doing the dirty work for someone else. I suspect the latter. I will give him credit, as evidenced in the latter part of his epistle, for having read and quoted weights of animals that prove my contention to the letter and his ignorance on the subject. He tries to enlighten the breeders of Clyde show horses, but by his own words he shows there are other faddists besides me. E. J. quotes points. Why does he not go further and say if he knows that Hiawatha and Prince Robert have what is required first, my a foundation of grand quality, with enough weight to fill the bill. The Alexis stud and Col. Hollaway were made famous the world over (referred to by him) by this ridiculed fad of minequality; quality first, with fair size added. Holloway is to America what Lawrence Drew was to Scotland-the greatest educator along horse lines the world has ever seen. The fad rule applies to each of them to the full. Nothing else will be tolerated at Alexis. In conclusion, I will say that having been asked on several occasions to write articles on horse matters, I did so, with instructions to the editor to curtail any part or all that did not appear to be in the interest of the horse business, being always willing to take part in any honest discussion and never ashamed of my own signature. If the initials used by my opponent be those of a minor and designed as a scapegoat for the genuine article, and the public is mistaken or accuse someone wrongfully, the fault is not mine. I suppose I made a mistake in not treating this cowardly (what the writer calls honest) criticism with silent contempt, but I suppose he likes to hear the sound of his own squeal. he is smarting under the sting of his own lash. I hope I am mistaken or wrongly informed as to his identity. If innocent, it does not apply; guilty, he has gotten what he asked for or partly so. Good-bye for all, my little man. Be careful how you allow your initials to be used in future. ALEX INNES.

The "Farmer's Advocate 22 as a Money Saver.

I commenced taking your paper last fall. As to its value to the farmer in every department. the following will show, at least re the hog industry. I had a bunch of hogs (five), averaging over 160 pounds, two weeks previous to the time I received the first issue; in it you said you had predicted in the previous issue a great decline in hogs. Had I received that paper and teen governed by it. I would have shipped the lot at 160 pounds and received as much for them as I did when I fed them up to 210 pounds. In other words, I produced 250 pounds of pork at a total loss, waited longer on my money, and have been sorry ever since that I did not take your paper long before. Wishing you every success and constantly increasing circulation. E. C. BOYD.

Perth, Co., Ont., April 4th. 1902.

Judging a Horse's Age by His Teeth.

Dentition in the horse is more regular than in other animals. Still, it is liable to variations; and while deviations from certain rules are not common, we must recognize the fact that they occur, and even in a young horse the age cannot always be positively determined by the appearance of his teeth. In order that a person may become tolerably expert in judging the age of horses, it is necessary for him to pay particular attention to the appearances of the mouth at different ages. He should carefully examine the teeth of animals whose age he knows, and observe the general and special appearances and compare mouths of different ages. He must also note the differences that frequently exist in mouths of the same age: for while, as already stated, dentition is tolerably regular, it is not at all uncommon to observe several months' difference in dentition, especially in horses under five years. The student must not depend upon charts or lectures-he must have actual experience, and be able to recognize in the actual mouth what he has read, or been taught to expect. Some people profess to be able to tell definitely a horse's age until he is thirty or over, but experience teaches us that such is not possible, and that the most expert can only arrive at an approximate idea after the animal is well up in the teens, and to a certain extent it is guesswork after nine years. After that age the differences looked for year after year become harder to distinguish, and are not as regularly present as in younger animals. Still, the changes appear with sufficient regularity to enable a person who has given the subject considerable study to avoid grave mistakes.

The horse has two sets of teeth, viz., the temporary or milk teeth and the permanent or horse teeth. The temporary teeth differ from the permanent in being much whiter in color, much more constricted at the neck, and smoother from side to side, there being an absence of that depression or furrow noticed extending the whole length of the visible tooth in the permanent. The adult male animal has 40 teeth, classified as follows: 12 incisors, 4 canine or bridle teeth, and 24 molars. The female, with rare exceptions, has only 36, the canine teeth usually being absent. The incisors number six in each jaw; the pair in the center is called the central; the pair, one on each side of these, is called the lateral; and the pair, one on each side of these, is called the corner teeth. In male animals the canine teeth are seen in the interdental space (the space between the corner incisor and the first molar in each row); a small space exists between the corner and canine teeth. The molars are arranged in four rows, one on each side of each jaw, and are numbered 1st, 2nd, 3rd, 4th, 5th and 6th from before backwards. At birth the colt sometimes has four temporary incisors, the central pair in each jaw, but usually these do not appear for about 14 days, the laterals at about 9 weeks, and the corners at about 9 months. He always has 12 molars at birth, Nos. 1, 2 and 3 in each row, and he never gets any more temporary molars. At one year old the first permanent molar (which is No. 4) should be well up and in wear. At two years the second (No. 5) should be present. three years Nos. 1 and 2 (temporary) should be shed and replaced by permanent ones, which should be well up; and at four years, No. 3 (temporary) should be shed and replaced by a permanent one, and No. 6 should be seen well up and in wear. Hence, at four years old a colt should have a full set of permanent molars, and until this age is reached the appearance of these teeth will aid in determining age when any doubt exists. After about nine months old, at which time he has a full mouth of temporary incisors, no change takes place in these teeth, except that they become larger and the wearing surface gradually wears down and the hollows become less marked, until he reaches about 2½ years; between this age and three years the central temporary teeth are shed and replaced by permanent ones; between 31 and 4 years the laterals are shed and replaced by permanent ones; and between $4\frac{1}{2}$ and 5 years the corner teeth are shed and replaced by permanent ones, and the canine teeth appear in males. Hence, a horse should have a full mouth at five years.

The permanent incisors are wide from side to side and shallow from before backwards, and the external surface of each presents a groove running the whole length of the tooth, the bearing surface shows a thin rim of a hard white substance called enamel, outside; internal to this is a portion of a darker substance called dentine, internal to which is a second ring of enamel, and within this is a hollow which shows a substance which becomes dark and is known as the mark. At six years the marks should be worn out of the central lower incisors and the bearing surface of the teeth almost level. At seven years the marks have disappeared in the laterals; and at eight years in the corners. At nine years the table or wearing surfaces of all the lower incisors should be level, and usually, if a side view be taken, with the teeth shut, a hollow will be noticed near the outer edges of the upper corner incisors, forming