

Correspondence.

Agricultural Exhibitions.

(To the Editor of the CANADA FARMER.)

SIR,—It cannot fail to have struck any one at all conversant with the practical working of Agricultural Exhibitions, that there are several matters in the management (especially in the case of the more extensive Exhibitions,) that require amendment, to ensure that satisfaction and success it is so desirable to attain.

For example, the question of judges and their awards is one that almost invariably leaves a legacy of trouble and unpleasantness after the holding of almost every exhibition. We fully recognize that the proper selection of judges is a matter attended with grave difficulties, and affords many directorates anxious care and thoughtful consideration, to accomplish as satisfactorily as possible to all concerned. And yet when intelligent skilled men, as judges in their respective departments, have really been obtained, how frequently do they mar their own best efforts and entail endless difficulty and unpleasantness upon the officials of the exhibition by acts of unfortunate carelessness, principally confined, however, to a neglect to make the entry in their books (necessarily the only official guide in the distribution of the prize money,) correspond with the name and prize on the card attached to the animal or article respectively. In consequence, litigation, threatened or actual, has not infrequently been the result, besides the unjust charge of mismanagement too frequently attributed to the directors. Identity of fact and intention on the part of judges in reference to their awards might be speedily and effectually ascertained, if the judges, previous to the dismissal of the class they have just adjudicated on, would take the trouble of comparing each entry in their books with the name and number on the ticket they attached to the animal or article; and if a discrepancy could accompany them to see that this was invariably done, an important step towards satisfactory and harmonious action would be attained.

The rule originating, I think, in the Provincial, in several at least of our more important exhibitions, relative to fraud and deception is also justly amenable to amendment. Where fraud is patent and unmistakable, as in the case of grain, good on top and bad below, for instance, there can be no possible objection to the judges summarily rejecting an exhibit, but in some other classes of the exhibition grave reasons present themselves against clothing judges with summary powers of rejection. For example, in ladies' work, in many of the classes it may fairly be declared as next to impossible to determine what has been wrought by the exhibitor and what has not; and instead of mere suspicion—perhaps most undeserved, being allowed to operate, a safer and more just course is for the judges to make their award to the article on exhibition deserving thereof, at the same time calling the attention of the directors to the existence of well-founded suspicions that the article exhibited was not the *bona fide* production of the exhibitor. In such a case the responsibility would be placed where it should properly lie, on the directors, who would then require that the most satisfactory proof be furnished to them of the *bona fides* of the exhibitor before the prize money was paid over. Is it not evident that the most gross injustice may be perpetrated on innocent exhibitors by mere suspicion being allowed sway on the part of judges, and permanent and serious injury thereby inflicted on the best interests of the exhibition. The difficulty of determining who would be the prize takers in such suspected cases could easily be obviated by the judges providing additional awards in each class, corresponding to the number of "suspects".

There are other matters that require ventilation also, meanwhile I desist, but may return to their discussion, time and opportunity permitting.

I am, &c.,
EX-DIRECTOR.

"A correspondent who has of late been travelling a good deal in the counties of Oxford, Brant, Waterloo, and part of Wellington, informs us that "while in some rare instances the fall wheat is badly killed out, and in most cases injured to a greater or less extent "what is good is good," and the crop is likely, on the whole, to be an average one. Hay, he thinks, will be lighter than usual. Spring crops generally look well, and the prospects of a large yield of fruit, especially apples, was never better."

"A Subscriber" writes us, "a valuable mare of mine was recently, after a period of severe and protracted labor, delivered of a large, well formed, and apparently healthy foal, which however died in a few hours after birth. Would you please state your opinion as to what caused the death of the foal, and whether it would be safe to use the mare again for breeding purposes." *Answer*.—In all probability the death was due to the difficulty experienced in delivering the mare. We do not think there is any danger to be apprehended from again using the mare for breeding purposes.

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The Canada Farmer.

TORONTO, CANADA, MAY 31, 1873.

The Coming Crop.

From a large number of exchanges received as we go to press, we glean the gratifying intelligence that the crops throughout the country generally continue to look remarkably well, and that the prospects of an abundant harvest are daily becoming more encouraging.

The Hydraulic Ram.

Let no one start. We are not going to offer a learned dissertation upon the marvels of Hydraulics; nor do we at all purpose arraying before our readers a descriptive series of leviathan machines of mighty force and fabulous price. This might be done. It would be an easy matter to show how, by means of hydraulic arrangements, a pound weight may be made to overcome ten thousand or more, and how tons of fodder can be compressed for exportation into masses of small compass only a few feet through. But these facts, interesting and wonderful as they are in themselves, would not prove sufficiently practical or beneficial to the general farmer to warrant us in proceeding with them—so we pass them over. Our task is a simpler one, and we will commence it at once. Have you plenty of water on your farm? If so be thankful, and if it is easily accessible to man and beast, you have indeed cause to rejoice.

We know of nothing so useful, so ornamental, or so valuable on the farm as a constantly rippling stream of pure fresh water. As a rule, our country is well supplied with it. There are comparatively few lots without their creeks, or ponds, or wells, and on all

such the inexpressibly tedious labor of pumping and drawing is not known. But there are cases, also, in which the reverse of this is the fact: no running creek sufficiently large to be made available, and if they exist at all, they may be so located, or they may be so far apart, that their utilization seems utterly impracticable, whilst their capacity appears so trifling that even if they could be rendered available, one thirsty animal could draw them dry at a drink. They are in fact practically useless, and a nuisance on the place—their presence only serving to intensify a desire long ago generated, "O, if I could only utilize these waters; if they were only in any quantity, and near the house or barns, what an immensity of tedious and hard work they would save me. I could keep more stock, and treat them properly, whereas, under present circumstances, I find it almost impossible to supply enough to the few that necessity forces upon me. I could cool my milk house, freshen my orchard, water my garden, and render my water supply both useful and ornamental in a hundred different ways." There are other instances again in which the only approach to surface water is found in the shape of a reedy marsh or fen, which has proved but an eyesore for years, though mayhap only a few steps from the door.

There are a few simple principles connected with water and water power, to know and understand which, almost immediately suggests to an ordinary mind, various methods of their practical application. In the first place, on assuming water to be constituted entirely of particles, which is quite true, its motion and course are directed wholly by pressure. The atmosphere above, weighing down upon the surface particles, causes these in turn to press upon and wedge themselves in between their subordinates, thus producing motion. This motion is transmitted from particle to particle throughout the entire mass, and of course it is continuous so long as there is an atmosphere to press, or a particle to be pressed.

Another principle is this: the deeper the water, the greater is the pressure on the lower particles. Of course this follows from the greater weight and bulk above them. Water running from a side hole near the bottom of a barrel, will do so with much greater force than through an orifice near the top.

But a stranger principle than either of those mentioned is the third, viz.—that the downward pressure of water depends not upon the quantity exerting that pressure, but upon the size of the base being pressed, and the vertical height of the column of water pressing upon it.

For instance, take a perfectly tight barrel closed at both ends, fill it with water, then insert a small quill tube tightly in the tap-hole and fill it also—the chances are that your barrel will burst. The reason is that the water in the small tube, although weighing perhaps not over an ounce *per se*, exerts a pressure upon the contents of the barrel, equal in weight to a column of water as high as the tube and as large around as the barrel. In fact, in this way a mere fractional quantity of water may be made to exert an almost infinite power. This principle is known in scientific works as the "Hydrostatic paradox."

Now, let us see how these can be applied, or rather how they are applied and utilized in the Hydraulic Ram—a simple machine costing from \$9 upwards, and one which, when it can be used to advantage, may be made to carry water from any reasonable distance, to the kitchen, or bedroom, the barn yard, the dairy, any where in fact: or it may be employed for the purposes of ornament to maintain a fish-pond, or disport the sparkling element in jets and fountains all over the garden or orchard, and all this water strange to say, may have been taken from a much lower level of ground than that upon which it is distributed. Such is the use of the Hydraulic Ram. By means of it a small brook or spring may be made to force itself up to a very high point, whence the water may be distributed at pleasure—to return finally to its source.

In our next number we propose to give woodcuts illustrating the action and uses of this most useful machine.