system of thorough organization seen in its management. The most prominent point to which I wish to call attention in this article is the catalogue of exhibits which is always presented for sale to the visitor on entering the ground. This catalogue, unlike some which I have seen in this country, contains a *complete record* of the exhibits. It contains as well a *complete plan of the grounds*, so that on entering you can, by reference to the plan, direct your steps to any department which you may wish to examine without troubling every third person you meet asking where this or that department is to be found.

I have long been of the opinion that such a catalogue as is found at any of the English shows would be of great advantage if adopted in this country. When I have suggested this I have sometimes been met with the reply, "Oh, this has been tried in the past and has proved an utter failure." This statement, I am bound to say, is strictly correct. I think I have seen every catalogue which has been produced, and I am bold to say that I have never yet seen one that was of any service whatever. Complaint is made that visitors do not purchase the catalogues in sufficient numbers to warrant their production, to which I reply that any person who did purchase only threw away his money, and his neighbor standing by witnessing his folly would be very foolish to imitate his example. The reason of failure is that the record of exhibits was so incomplete, and there was such an utter lack of organization as to carrying out the details, that *no definite information* could be obtained from their use. The proper use of such a catalogue requires the adoption of a few *definite rules*. First, the reception of entries by the Secretary a suffcient length of time before the exhibition to afford an opportunity to prepare a catalogue. Second, that no entries shall be received beyond the date fixed. Third, that every exhibitor of animals shall receive two numbers corresponding to the number found in the catalogue; one of these to be placed conspicuously in the stall where the animal is stabled, the other to be worn around the neck or the head of the animal when on exhibition in the ring. The advantage will at once be apparent. Suppose me, a stranger, visiting your London exhibition for the first time. I am not personally acquainted with any of the exhibitors, but am anxious to inspect the animals and learn their owners. If such a catalogue be prepared my *first need* would be to possess one. From it I would learn where the department which I desired especially to examine is situated. On reaching that point I observe over the animal in the stall the number suggested previously. I at once open my catalogue and find opposite that number the name of the owner, his place of residence, also the name of the animal, date of birth, with sufficient of the breeding to give information as to its value. I need not spend time in a fruitless hunt for the herdsman; I need not tease him, as the public generally does, with silly questions; I can learn everything I need to know from the use of my catalogue.

The same thing is true when the animals are exhibited in the ring. I do not need to stand gazing with wonder, desiring to ascertain to what class these horses belong, or perhaps asking those who are standing near me a dozen questions, which only tend to make both them and me uncomfortable without the certainty of my getting any definite knowledge. Every animal in the ring carries a number which is sufficiently large to be easily seen from the outside. Again I use my catalogue. Turning up this number I easily see to what class it belongs, who is its owner, where his residence is, and so forth. Then, when the prizes are awarded, a very simple contrivance proclaims to the onlookers which animals are successful. It consists of an upright pole with three cross bars marked first, second and third, upon which are either hung or slidden in a groove the numbers of the animals taking the prizes respectively. A catalogue containing such information, with all the details thus carried out, will be found to be something which the majority of the visitors cannot afford to be without. Now, it may contain the entries with no means of connecting them with the animals on exhibition, and if so it is but a *delusion* and a *humbug*, and is not worth the paper on which it is printed No one will buy it, and no one ought to buy it. Such a catalogue as I have described will certainly be carried home by the visitor purchasing it, filled with his notes appended while examining the articles on exhibition. It will be retained for future reference, and because of this it affords an excellent medium for advertising. If properly undertaken, I am sure it would yield a profit to the Association. Those who take this advance step will find they have added *an attraction* to their exhibition which will be appreciated much more than a donkey race or even a skilled lady rider.

Take Care of the Tools.

It is not an uncommon spectacle when driving along the roads late in fall, or early in winter, to see some implements or machinery having that freedom which gladdens the hearts of young folks during the summer months, if allowed to enjoy the same privilege of "camping out." But its effect on the inanimate objects is quite different from those on the gay little company of human beings; while strengthening and brightening the latter it weakens and rusts the former.

All are aware that "camping out" is injurious to the tools; but, perhaps, few of those that follow this cheap way of storing their tools realize that by this method they lighten their pockets by one-third to two-thirds of the price of the goods they allow to shift for themselves. But the larger percent of the implements found scattered here and there through the fields have been left there by carelessness, and not from the want of a more appropriate place. This carelessness and want of energy and system are, however, in most cases, greater enemies to successful farming than the want of capital, which is so frequently given as an excuse for poor farming. What is the reason that many well-to-do farmers become poor, and others starting almost penniless take their place? "Luck of course," but this luck will be found to be in nine cases out of ten in direct relation to the ability and character of the men. Commence at once, put away your tools directly you are done using them, and before putting them away clean and oil them. This will save much annoyance and time spent in looking for things; save labor, for, as you know, it is much easier and pleasanter to work with a clean bright tool than with a rusty one; and will make the tools last two to three times as long. Do not spare the paint brush or the oil can; the more they serve you the better friends they become. A good plan when storing away tools is to paint the parts which are liable to rust, and the handles with hot linseed oil. A mixture of one part of resin to three of lard is also a very good application to prevent rusting.

Fertilizers.

NO. III.

SUPERPHOSPHATE.

Superphosphate, like bone dust, is of special value in the cultivation of root crops and cereals. It is a special fertilizer for turnips, beets, and mangels, and in all cases its effects are greatly increased by the addition of some nitrogenous fertilizers (except, of course, when the soil has already an excess of this constituent). Guano, Chili saltpetre, and sulphate of ammonia are specially adapted for this purpose. The relation of one part of nitrogen to two parts of soluble phosphoric acid has been found to be the best for ordinarily productive loams. The application of only phosphoric acid has been found remunerative only on soils which have previously received large dressings of farm yard manure, or on such soils which are naturally rich in nitrogen and on which the grain is inclined to lodge. On soils containing an abundance of humus some potash fertilizer, *e.g.*, sulphate of potash, muriate of potash, or kanit, should be applied in connection with the superphosphate. On light, sandy, vegetable, or calcareous soil, bone dust or apatite should be preferred to superphosphate, for if sown on soils containing a large percentage of lime, the superphosphate will become insoluble, and therefore the expense of making it soluble will be lost; while on the vegetable or light sandy soils its effects will be largely lost, owing to the lack of absorption these soils possess; but if from some cause or another it should be deemed advisable to apply superphosphate to these soils, it should be applied in small quantities and in a somewhat coarser form.

On all other soils a finely powdered sample should be sown; for, like all other fertilizers, the more intimately it is mixed with the soil the better the results. To accomplish this even distribution, it is advisable to mix earth or sawdust with it, sow it broadcast over the field, and then use the cultivator or harrow freely. Lime, ashes, or any other substance largely containing lime, in either its burnt or unburnt condition, should not be mixed with superphosphate, as it would cause it to become insoluble. Small dressings of superphosphate do not give proportionally as good results as larger ones. From 30 to 50 lbs. of soluble phosphoric acid per acre is an average dressing, but more than twice this amount has been profitably used on root crops.

The essential difference between superphosphate and other phosphate fertilizers is that the former acts much more rapidly, and that its effects are not noticed so long, having usually disappeared in one or two years. It is frequently applied immediately before the crop is sown, but better results are generally realized if applied a few weeks previous to this time. Sowing it the previous fall answers very well on heavy soils; but on lighter soils, especially with an open winter, not as good results have been obtained by this method.

The profit realized by an application of this manure is not confined to the larger crops that are obtained, but is also extended to a better quality of the produce. It causes a better development of the grain; improves the barley for malting purposes; often increases the quality of the coarse fodders by causing them to contain a greater percentage of albumen; diminishes the quantity of water in all crops, but especially in the roots; tends to prevent the