European Agriculture.

In an address delivered by Charles Seymous before the Wisconsin State Board of Agriculture, recently, we find the following remarks :

"British agriculture is almost perfection. Taking the farmers of Great Britain as our instructors, we may derive some valuable hints from their experience. Of the fifty millions of acres under cultivation in the United Kingdom of Great Britan, less than twelve millions of acres are devoted to 'white crops,' or cereals, while over twenty-six millions of acres are kept in permanent pasturage ; six millions of acres under clover and rotation grasses, and six millions of acres devoted to turnips and other vegetables. England, Wales, Scotland and Ireland have about two and three-fourths millions of horses, ten millions of cattle, and over thirty millions of sheep. Repetition of white or grain crops is not permitted. Instead of the old process of restoring or resting land by keeping it fallow every fourth year, which was equivalent to the permanent withdrawal of one quarter of the tillable land from cultivation, the turnip crop with its broad leaves that shield the soil from the rays of the sun, and with its nutritious roots that are fed, before ripening, to cattle and sheep, is resorted to as the most effectual method of benefitting both land and stock, as biennial plants derive their chief nourishment from the air, and do not exhaust the soil if used before they ripen.

"Forty-two in every one hundred acres in England, and sixty-four in every one hundred acres in Ireland, are pastures. England imports only five per cent. of meats consumed. The capacity of land when kept to its utmost productiveness in densely populated countries of Europe is demonstrated in the ability of many tillers of English soil, besides paying heavy rents, to support a large family on the products of six acres of land ; and in Germany two acres of land have yielded a similar amount of subsistence; while in France, where the long and narrow ribbon-like farms are cultivated almost like gardens, the capacity of land has reached western credulity. The French farmers seem to enjoy great benefits from the culture of the sugar beet and one farm that is owned by Monsieur de Candaine, located on the Touraine, valued at 2,000,000 of francs, or about four hundred thousand dollars, with sugar, linen and woolen factories thereon, seems to market annually one thousand head of fat cattle. The annual income of this farm is five hundred thousand francs, or about one hundred thousand dollars. Doubtless, upon investigation, it would be found that beets and oil cake contributed largely to the production of the marketable cattle, while the cattle and sheep contributed to the production of the materials used in the factories, and that grass instead of grain was the commanding crop of that valuable farm.

Twitch Grass.

I have a grass upon my farm that I believe is common everywhere ; and the more common, the more dislike. It is not a native of the country. It is said we owe it among us to the well intended agricultural forethought of the government.

The larger growth is in the ground. The long, large, creeping roots freely branching are much jointed; and every joint, or I may say, every inch of the branches may send out a shoot. It is from these joints the bud that is to give leaf and seed starts. Carry the hoe to the garden, and cut up the roots by surface culture, and a multitude of individuals are given an independent existence. If I cut away a thousand plants and leave a hundred, these will soon become a thousand. It is something to know this, and it is more to act upon it.

I find the best way to be rid of this grass is the most thorough way, where it pays to fight it vigorously, as in a garden—upon the farm, where it competes with farm crops, a more prolonged fighting may be allowable. But wherever there is much of hand labor, we must rid ourselves speedily of this grass, and the thorough and efficient course to this is to make the land abundantly mellow, as deep as the roots extend, using such implements as will not break the roots, and then to fork out the plant, root and blade, or pull them out by hand. Never break a twitch grass from the stem. Let the whole plant come out together, so that no fragment may be left to grow and again fill the soil. Go over the land a few times, and wherever a blade shows itself, extract the whole plant, and you conquer, or at least let me say I conquer when I will, and in no other way so cheaply. The time is best when the soil is dry, for then it is most light and mellow; and when the sun shines hot, so that the spread out plants quickly whither and lose their life. Then they need not be raked up and taken off at once, for their life is gone from them, and neither the damp day or a summer shower succeeding will set them to growing. But cheapness there is none where twitch grass is. It is an expensive enemy to battle with, at best. I will note, however, a very cheap way of getting the grass distributed over the farm, and it is a way other kinds of grass, not desirable, can be increased. To save the purchase of seed to put upon bare spots, where the grass seems winter killed, sweep the barn floor until enough of seed is collected for the purpose. I have not done this ; but from the distribution of the grass upon my farm at the time I came to it, I can but believe this economy had been practiced. Now I think of it, there are many things I have not done, but they are not always such happy escapes from blunders.

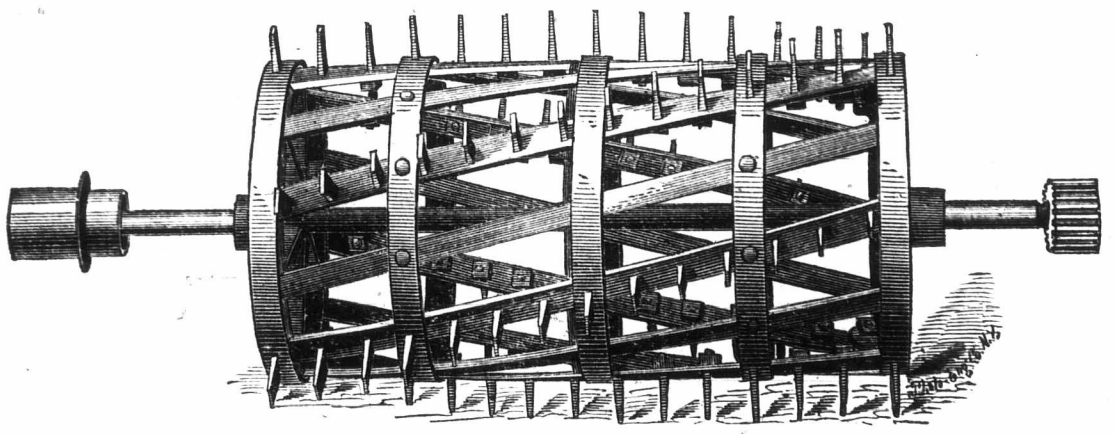
Wood Ashes as a Potash Fertilizer.

From a very elaborate and thorough investigation of the composition of wood ashes from household fire, by Prof. Storer, it appears that these contain, unleached and dry, about eight and one-half per cent. of potash, somewhat more than the lowest grades of German potash salts. Either leached or unleached, the dry ashes contain about two per cent. of phosphoric acid, of which none occurs in the German salts. In Storer's field experiments, wood ashes (unleached), applied in large quantities, brought larger yields of barley, beans and rutabagas than farm-yard manure, city stable manure, or any single potash salt, or sulphate, carbonate, or even nitrate.

In commenting upon these results, Storer says: Wood ashes are more serviceable than any single potash salt, not only because they contain some phosphoric acid, lime, magnesia, and the less valuable elements of plant food, but because, considering them merely as a potassic manure, they contain a mixture of potash salts. It may be regarded as well nigh certain that a given amount of potash, applied in the form of appropriate mixtures of sulphate, carbonate, silicate and chloride of potassium, will, generally speaking, do more good than when applied in the form of either one of these compounds. But in wood ashes we find a mixture of these salts ready at hand; not the best mixtures, perhaps, but one ready formed, and in this country, at least, very easily obtained.

Patent Threshing Machine Cylinder.

We give the accompanying cut of a new patent cylinder. Messrs Brown & Muir, of Woodbridge, have a list of certificates from parties using the cylinder, claiming its superiority over all other cylinders. They claim that feeding it done much more evenly, consequently better work, and that straw will never wind round the cylinder. The spiral or screw form of placing the teeth appears to us to have an advantage over the old plan of placing them straight across. Mechanics will be best able to judge of this plan.



NEW PATENT THRESHING MACHINE CYLINDER.

The Horse.

The General Purpose Horse.

A great deal has been said and written about breeding the general-purpose horse; but, in the discussion of the question as to the course of breeding required to produce such a class of horses, it occurs to us that one very important point is overlooked; and that is, the fact that the prevailing, ruling type of all our trotting, running and common stock, is too small for the general-puropose horse, at least it is far below the standard which is generally accepted as desirable in that particular. It is true that an occasional trotting stallion has been produced, like Geo. M. Patchen, or Rhode Island, that possessed the requisite size; but such products from the ordinary trotting crosses are the exception and not the rule, and as the prevailing type—the preponderance of blood—is that of a horse very much smaller, it inevitably follows that such horses cannot be depended upon to transmit their accidentally-acquired proportions and weight with any degree ef certainty.

There are several families of trotters, notably the Patchens and the Mambrino Chiefs, and many thoroughbreds that, judged solely by their height, are big enough to come up to the generally accepted standard; but the prevailing tendency in the conformation of these horses from sixteen to seventeen hands in height, is not just what is generally regarded as desirable in the general-purpose horse. They are too high for their weight; there is too much daylight under them; they are not "blocky" and compact and solid enough for the general purpose horse, as ordinarily defined. The popular idea seems to require, in the general-purpose horse, the general characteristics of the Morgan, increased in weight by about fifty per cent., with its present proportion of height to weight unchanged. Few of the sixteen or seventeen hand thoroughbreds or trotters that we have seen approximate this conformation. They come more nearly up to the accepted standard of the carriage and coach horse; they are tall, high-headed, rangy and stylish enough, but they are deficient in that form which is well expressed in that form which is well expressed in the use of the term "blocky," and which, more than any other, is desired in the general-purpose house.

This conformation prevails so generally among our "big" thoroughbreds and trotters, that it appears to us an uncertain business to attempt to produce the general-purpose horse from sires chosen from among them and the common mares of our country. In the hands of a careful, intelligent breeder, by judicious selection of both sire and dam, good results may be obtained and ultimately, by selection, the desired form and size may be produced with some degree of uniformity; but, in a large majority of cases, experience has shown that the produce from such sires and dams falls very much below the desired weight and form.

It is evident, therefore, that the breeding of the general purpose horse by this process must, for a long time to come, be an uncertain business, if the size and form heretofore alluded to be accepted as the true standard. The important object to be gained appears to be an increase of weight. As before remarked, many of our thoroughbreds and trotters are high enough, but to say that a horse is 16½ hands, and a man is six feet, gives but a very imperfect idea of his actual size. It is out of this general feeling that an increase mainly in weight is desired, that has grown the practice of publishing the weight of stallions advertised for sale—a practice that has been ridiculed by professional horsemen, but which, in spite of the ridicule, is constantly growing in favor, because it gives a much better idea of the size of the horse than the simple statement that he is so many hands high; and the general compliance with this custom is proof that the desire for general increased weight in our horses is widespread.

We look hopefully to the influx of foreign blood which has taken place within the last ten years.