

loose, open, so that the air readily circulates through, and soon fits it for the barn. This is a good crop to feed. It will do for horses and cattle, indeed all kinds of stock—less good perhaps for swine, save store hogs. The growth here is somewhat interesting. At once and all along till up to maturity there is a uniform, fine appearance, the grain seems thicker, occupying the ground densely and completely. It is seen there is a heavy crop growing. When the barley heads out, the field seems to be all barley, a good yield. In a week or two a change takes place. The barley disappears and a green immature look possesses the field. It now has an unfavorable appearance. But in a short time there is an oat crop. Not a barley head is to be seen; all is oats now, and a heavy crop, as the barley was heavy before. This convinces you of what is coming. Seeding has caught well with such crops.

But barley and peas may be sown with almost equal advantage. These ripen simultaneously, the barley sustaining the weak haulm of the pea. This is the main point for which barley is sown with peas—to uphold the crop. The same is the case with oats, which are still stronger than the barley, but later. This, however is not a serious objection. The peas thoroughly ripe, as they should be, will not be too early for the oat, which may be cut comparatively green. It used to be our practice to grow oats with our peas, about three quarts of peas to one of oats by measure when sown, the oats would "stool out," have a largest stem, and seeded in the end all a field of oats. Among it, somewhat down but not on the ground, are the peas, all of uniform ripening, "dead ripened," hard and rattling in the pod. This crop must be cut when it is moist, in the morning is the time, or after a rain. If not it will shell the peas badly. Such a crop prepares the land well for a succeeding crop, though not so well as peas alone. It adds to the soil nitrogenous matter, and mellow the ground. In using this crop, some of the oats may be separated by a fanning-mill, the peas fed to hogs in the fall or winter. For this purpose, being heating, they are equal to corn. There are some crops that want to be grown by themselves like wheat and rye, potatoes roots, &c., and of course for general culture, the others also. It is only under some circumstances and for some purposes that crops are mixed to advantage.—*Utica Herald.*

Buckwheat.

Many farmers entertain the opinion that buckwheat is a very exhausting crop. Such is not the case, for it is a well-known fact that buckwheat has been raised on land for thirty years consecutively without manures or fertilizers of any kind, other than the straw upon which the crop grew, returned to the soil, and after such a long-continued growth of buckwheat, the land produced with proper cultivation good crops of wheat, corn, and clover. Buckwheat would be one of the most valuable crops on thin land, if cultivated in a rotation with other crops, and treated with a due portion of manure; but it is considered a mean crop, and other yet crops of much less profit and value get all the manure and good attention.

I dare say more hog and cow feed can be obtained from thin, poor land by raising a crop of buckwheat than from any other grain, that is by fair culture. As much as sixty bushels are known to have been raised from a single peck of seed sown, and on land that would not yield ten bushels of wheat to the acre, or twenty of corn. Buckwheat should be sown very thin on rich land, almost as thin as corn is planted. It is a crop that will branch out very much, the stalks growing in imitation of young trees, the lateral branches producing more abundantly than if sown thick, and the crop grown on top of the stalks. The buckwheat plant is the readiest and cheapest vegetable known to plough under green as a fertilizer and pulverizer of rough land; and it stands unrivalled for subduing noxious weeds, when sown successively for several crops. Timothy seed will make a successful growth among buckwheat if the seed be rolled early in the morning while the earth is damp with dew. If the many farmers who feel a prejudice against buckwheat on account of the reputation of its making

the land poor, would give the crop a fair trial with other farm crops in regular rotation, they would find it a great advantage in the way of having a plentiful supply of nutritious food, well adapted to the fattening of swine and other stock.—*"New York Times" in the Philadelphia Telegraph.*

Decayed Turnips as Manure.

A valued correspondent, furnishes us with some interesting facts relative to growing turnips as manures for grain. It so happened that the owner of the piece of turnips in question was from home at the time the first snow fell, and for some time afterwards, consequently there was no opportunity of harvesting the crop, and it was left in the ground, and as a matter of course all rotted on the land. The following spring oats were sown on the same piece, which contained exactly three-quarters of an acre. At harvest the straw was so heavy the crop could not be cradled, and had to be reaped. After threshing the quantity was carefully measured, and the yield of good clean oats was found to be exactly *seventy-six bushels*, or at the rate of a trifle over *one hundred bushels an acre*. This remarkable crop was again tested by re-measuring the oats, and as further proof, also re-measuring the land. The next year the same piece of land was sown with spring wheat, and again the value of the decayed turnips was verified, by a large crop of wheat being obtained; there being nearly twenty-seven bushels from three-quarters of an acre. For three following years the continued benefit of the decayed turnips was very apparent. The sort sown was the ordinary white variety, and the land was not manured, nor was the crop remarkably heavy; as the turnips were not sown until July, and never hoed or thinned out, the seed was sown broadcast, and very thin, to avoid expense in subsequent cultivations. As we have many times before recommended: the land was harrowed at intervals of about three weeks, commencing the middle of April. This mode of cultivation attacks the weeds when quite young and unable to withstand the constant stirring of the soil. Consequently, at the time the seed was sown, all weed seed had vegetated and were destroyed, and hoeing was unnecessary except to thin the plants, which, in this instance, was not done.

EFFECTS OF SOIL ON CROP.—A farmer and his son when visiting this farm, admired the Tartarian Black Oats, then nearly ready for harvest, and requested to have a quantity for seeding their two farms, distant from each other a few miles in this county. The report, when we next saw them, was in one case a splendid crop as to quality, and about 10 qr. per acre: in the other, a very inferior quality, and only 5 qr. per acre—the farming in both cases good, but the land in one case heavy, and with the inferior crop light. They said that they were astonished, and, but for having divided the quantity between them, should have supposed that they could not have been from the same quality of the seed. The season was dry and hot. We usually buy light Pen Oats, which become black and heavy on our stiff soil. We find these produce a better quality than our own heavier seed.—*J. J. Mechi in Gardeners' Chronicle and Agricultural Gazette.*

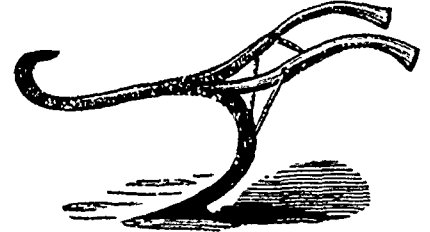
HOP GROWING IN ENGLAND.—Whether the next government return will bring up the acreage to 65,000 it is impossible to say, but any one who journeys in hopland and observes carefully as he proceeds along the road, must come to the conclusion that extra planting is the order of the day. It may be that £6 per cwt., with 10 cwt. to the acre, is very tempting, or it may be that, with an increased consumption of beer, the farmers naturally look out for an increased growth of hops. Whatever is the cause, it is gratifying to chronicle, with an increased acreage, there is also increased care in farming, and we are exceedingly glad to record that a slovenly garden is this season the exception not the rule. The present position of the vine is better than might reasonably have been expected and it appears, despite unequalness and thinness in some places, both healthy and clean.—*Brewer's Journal.*

Mr Shaw, an English settler in St. Louis, has presented a park to the inhabitants of that town. It is a richly wooded and picturesque domain, situated close to the city, covering 300 acres, and worth £100,000.

Implements of Husbandry.

A Simple Subsoiler.

While I am on implements adapted for the use of small farmers, I may refer to a very cheap subsoiler which has recently come under my notice. It is very primitive, certainly, but it is just what would suit small holdings, being very inexpensive. I give a cut of this implement, which could be made by any rustic blacksmith at a very small cost. It is made of $\frac{1}{2} \times 2\frac{1}{2}$ inch bar iron, with a simple shovel-share, 6" inches broad. The handles are fastened with screw-bolts to the beam and braced. The uses for such an implement are many. One horse can draw it when a depth of 5 or 6 inches only is taken, which is sufficient



for a commencement. A field may be subsoiled wholly by taking furrows 1 foot apart, and 2 acres a day may be gone over. If run in the rows in which corn, potatoes, turnips, or beans are to be planted and across in the check rows, great benefit will be derived. Used constantly in these ways, the farm will soon be completely gone over, and the soil loosened to a depth of 12 or 15 inches. In a few years this loosened subsoil will become mellowed, and may gradually be brought to the top and mixed with the surface soil.—*London Gen's Magazine.*

The Mower.

There is, perhaps, no branch of agricultural mechanism which has advanced more rapidly within the past half century than the department of mowing and reaping machines.

From the old reaping-hook or sickle—the monotonous and back-breaking horror of poor females—to the more manly and sweeping scythe, was deemed a great stride in advance.

But it remained for the genius of the past few years, and pre-eminently that of this country, to develop and mature what may indeed be considered one of the mechanical wonders of the age—the mower—which so utterly eclipses all predecessors of its department, alike in its labor-saving qualities and in the perfection of its work, and which is by all odds the most profitable implement on the farm. It is in fact a profit in all respects, not merely from the fact of its work being better in quality and greater in quantity than that of any ten men in the same time, but also from the more important consideration that, owing to its ready and speedy adaptability, no ripening grain crop may now, as formerly, be allowed to suffer from the pressing necessities of the hay-crop.

The mowing or shearing part of a present-day mower consists of a serrated blade, made by rivetting a series of triangular-shaped steel blades tightly and smoothly on an iron slide. The sickle thus formed passes through narrow slits in each of a series of fingers or guards, corresponding in number to the knife sections, the whole constituting the cutter-bar of the machine, as shown to the right in the above engraving.

When the machine is used, the motion of the wheels on which it moves is multiplied by means of cog-wheels imparting rapid vibrations endwise to the sickle, and thus shearing off the grass smoothly as it advances through the meadow—just like a number of scissors in exceedingly quick motion.

The finger-bar, that in which the blade vibrates, was invented as far back as 1822, by Henry Ogle, of Alnwick, England, and his machine was, after much experimenting, put into successful operation by T. & J. Brown, of the same place. But so strong was the prejudice of the working classes at that time against labor-saving machinery, that they threatened to kill the manufacturers if they persevered, and so the enterprise was for a season abandoned, only to be