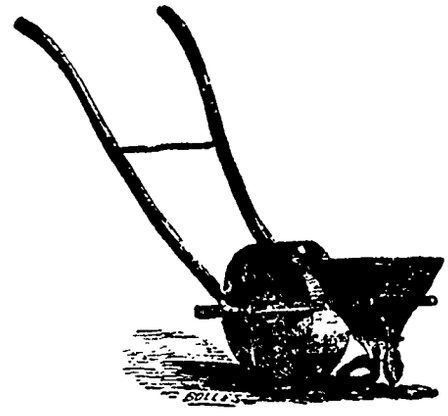
facts have been urged against it. The agricultural journals and leading men in Britain, and on this continent, are canvassing this matter just now with much interest. At a recent meeting of the Royal Agricultural Society, Mr. Lawes read a paper, in which he detailed a series of experiments, extending over a period of sixteen years, the results of which did not encourage the use of salt, but led that eminent agriculturist to conclude that the large amount of money which is expended annually on salt as a manure throughout the British isles, is not returned in produce Mr. Fisher Hobbs is of opinion that in his locality—the east of England - where the climate is dry, the action of salt is decidedly beneficial. Dr. Voelcker thinks that on light soils, salt is often used with great benefit, while on heavy soils it is attended with no advantage whatever, or with decided disadvantage. The chief reason why he considers salt beneficial on light soils, is that it retards growth, prevents too speedy maturity, and by prolonging the growing season, increases the crop. On heavy soils he recommends the use of superphosphate and other fertilizers, tending to quicken growth and hasten maturity. In opposition to these views is the testimony of Mr. J. Hooker, Walton-on-Thames, who found that the use of salt on a stiff clay, largely increased the yield both of wheat and mangolds. A commission, employed by the French government to investigate this subject, has reported that *salt is of no value as a manure*. This result has reference to the application of salt by itself, but has no bearing on its action when applied along with other fertilizing materials. Many experienced farmers on the continent of America entertain a high opinion of the merits of salt as a manure, but how far that opinion is the result of careful experiment, or is borne out by facts, we are unable to say. There is a general impression that salt tends to stiffen and brighten the straw of wheat, and to improve certain other crops, especially mangolds. This was the impression of Mr. Lawes, until actual experiment induced other conclusions It is quite possible, however, that salt might benefit soils of another character, though it produced no good results upon his farm A correspondent of the *Country Gentleman* thus writes to that journal: "Premising that the general soil hereabouts is mica, it may generally be said, as the result of many years' trial, that six bushels of salt per acre at seeding time is a preventive of rust, that it very much increases and strengthens the straw, that it adds to the weight of the grain; and that it matures the crop earlier. Especially is it beneficial in our hot, dry seasons to that crop so difficult to be reasonably successful with, the oat crop." The *Journal of Agriculture* of 1863 states that at a meeting of the Cheadle Agricultural Society, a mixture of salt and lime, in the proportion of one ton of lime to half a ton of salt, well mixed together for some weeks before being used, and then applied to an acre of land, was strongly recommended by several of the members as a preventive of wheat falling down, and also of its being permanently injured by mildew—of increasing the clover crop and of saving it from the attacks of the slug." In the compost heap in combination with lime, salt is generally considered helpful in decomposing muck and other material. On grass land it is thought to check rank vegetation and sweeten herbage.

Such are samples of the varied and conflicting opinions which we find floating about in our exchanges in reference to this matter. When doctors differ so widely, it is not easy to arrive at settled conclusions. On the whole, we are inclined to think the subject needs more thorough investigation and more extensive experimenting, before positive opinions can be ventured. In some soils, there may be chemical affinities with the chloride of soda of which salt consists, which may render it useful in decomposing and combining materials of fertility and ingredients of plant food. In other soils where no such affinities exist, it may be of little or no value. Something may also depend on the nature of the season, and upon the distance from or nearness to the "briny ocean." Salt enters slightly into the composition of most plants,—it also exists in limited proportions in the bodies of animals. The rainfall is known to supply salt to the soil to some extent. It seems reasonable to suppose that the use of salt as a manure would be more needed by a country like ours, mostly removed far from the sea, and less likely to receive without artificial means the supply of saline material demanded by vegetable and animal life. One of our correspondents asks what quantity of salt will do per acre, and whether it will kill Canada thistles? Various quantities are recommended by those who advocate the use of salt. About four hundred pounds per acre is an ordinary application along with other manures—from five to ten hundred weight is however sometimes applied. No moderate dressing of salt would kill Canada thistles. It is doubtless possible to put on enough to kill that inveterate weed, but the effect would be to kill everything else, and render the ground unfit to yield a crop of any kind



Seed Drill.

Among implements that save time and labour on the farm, a good Seed Drill deservedly takes high rank, especially now that the cultivation of roots is so generally practised. As the time for sowing is just at hand, we present our readers with an engraving of a new and improved machine known as the Wethersfield Seed Sower, which after careful inspection and trial, we cannot help regarding as most effective and complete in its arrangements for dropping seed of all kinds with regularity and certainty. Instead of the usual wheel-shaped brush, this drill has a strong spring operated by means of pins placed at intervals on the side of the wheel. This spring acts upon the reed through which the seed drops into the ground, causing the reed to slide backwards and forwards with such force that it is quite impossible for the seed to miss. All clogging or failing to act is out of the question. The inventor claims for this implement that it is the "*ne plus ultra*" of seed drills, and we must own that we have seen nothing that surpasses or even equals it. It adapts itself to every form and size of seed, makes its own drill, distributes with perfect evenness, can be regulated to sow any quantity of seed per acre, protects the seed from wind and rain covers thoroughly and gently presses down the soil, thereby securing the close contact which is necessary in order to quick germination. Eight reeds go with each machine, guaged for seeds varying in size from the minute celery, to corn and beans. The soil must be well prepared, level, pulverized, and dry enough not to pack upon the wheel,—conditions necessary in the case of every similar implement.

This Drill is for sale by, J. Fleming & Co., of this City; Price Six Dollars.

Vetches.

Vetches or tares, are much cultivated as a green forage crop in Great Britain, and might we have no doubt be grown to good advantage in this country. There are two varieties of them; winter vetches which, like winter wheat, are sown in the fall and make the earliest of green feed for summer, selling purposes; and spring vetches, sown in the early spring which of course come forward later in the season. This crop is much esteemed by British agriculturists for its valuable feeding qualities; the excellent condition in which it leaves the land, its dense growth effectually smothering down weeds of every kind; and the addition it makes to the manure heap when fed in summer and autumn to stabled or yarded stock. A rich well-manured soil is needful to grow vetches in full luxuriance and abundance. In a poor soil, the crop is apt to be thin, and the land becomes foul. When they are stout and rank there is danger of their spoiling by becoming lodged, but this may be very considerably obviated by sowing oats with them. Two bushels of vetches, with one of oats is a very suitable proportion. They may be sown either broadcast or in rows. The latter is considered in Britain the better plan, the rows or drills being from 12 to 15 inches wide, to afford room for hoeing. Even where hoeing cannot be afforded as is the case in this country, there are some advantages connected with drilling this and other grain seeds. But vetches do very well sown broadcast provided the land be in good condition and properly prepared. Vetches are excellent feed for sheep, and they may be folded upon them by the use of moveable hurdles, as suggested in our last issue, to advantage. A correspondent of the *Scottish Farmer* suggests the following mode of feeding vetches to sheep. In this case, a space is first mown across the field, sufficiently large to afford room for the sheep, and hurdles, having upright instead of horizontal bars, are put up close to the growing crop. A swathe is then mown and put close to the hurdles, to allow the sheep to get at the food; and as this is consumed the hurdles are shifted forward over the cleared space, another swathe mown, and so on until the field is gone over, allowing the sheep liberty to go back over the cleared space. Artificial food may be given along with the vetches, with advantage both to the sheep and to the land, and it will be as well that they have a command of water. The result is that a piece of poor land, which in ordinary cases would maintain a very small number of sheep if laid down in grass, will be raised to an equality with, if not rendered superior to, the best pastures in point of its capability for feeding stock. Vetches are sometimes grown for winter fodder and used instead of hay for horses. When grown for this purpose they must be allowed to become nearly ripe, then mown, and turned in the swathe once or twice to dry them thoroughly. In stacking them, it is recommended to lay them in alternate layers with hay or straw. Horses are very fond of this description of fodder, and may be kept in working condition on a less allowance of oats, than when fed on hay, in consequence of the seeds preserved in their pods, and which are somewhat of the nature of peas.

Failure of Turnips, &c.

The importance of pure, fresh and sound seed cannot be over-estimated. But it often happens that the want of success in raising turnips, mangolds, carrots, &c., is more the fault of the cultivator, or the unfavourable character of the season, than the inferior quality of the seed. These small seeds especially require a deep, well-prepared and manured seed-bed, to ensure healthy germination, and a genial growing season to ensure a good crop. In Ireland, of late years, root crops have declined in productiveness from various, and to a great extent unknown, causes; but the farmers seem to attribute the want of success to the growers and dealers in seeds, and cases of expensive litigation have in consequence become somewhat common. The *Mark Lane Express* makes the following suitable remarks in reference to this matter, which will be found applicable to this side of the Atlantic also:—

"We cannot dismiss this subject without drawing a comparison between the conduct of the farmers in England and those in Ireland under similar circumstances. By the latter the loss of the turnip crop is at once ascribed to the badness of the seed, and the seedsmen are involved in a series of actions at law, or of compromises, which, if suffered to go on, or be repeated, must inevitably end in their abandoning