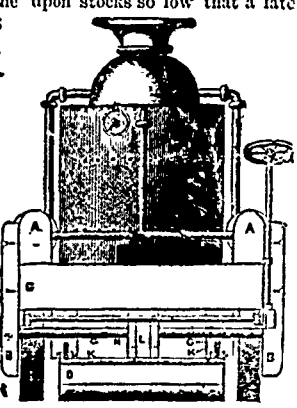


Wheat in Great Britain.

Mr. H. Kains Jackson, in a long report in the English papers on the coming harvest, gives some significant figures and remarks. He says that the seven years' average import of wheat into the United Kingdom was about 8,000,000 quarters, following on the preceding seven years' average of 5,000,000 quarters (A quarter is eight bushels.) Yet in 1872-3 we have had to jump from those 8,000,000 average up to 12,000,000, as the bulk required, and this leap has been accomplished without, so to speak, raising value a single penny. The average price of the seven years ending in 1867 was 5s. 10d., and our the week's average for English wheat in London is only 56s 8d., from which level quotations have fluctuated but slightly since last harvest. Moreover, judging from the past three years, viz., 1870, when we imported of wheat and flour 3,000,000 quarters; 1871, when it was 9,750,000 quarters; and 1872, when it was 10,500,000 quarters, the country annually needs, as a matter of course, about 10,000,000 quarters to supply its normal wants. These figures also lead to the conclusion that even this large requirement may steadily increase with our population, without value advancing to any appreciable extent. This year's large purchases of England have, it may be said, swept clear the barn-stock of farmers and the warehouses of corn merchants, but so also did equally the smaller purchases of 1867-8, when an early harvest came upon stocks so low that a late harvest in 1868 would have been a calamity. In many respects the coming harvest in Europe and America decidedly promises fully an ordinary yield. Algerian wheat, already in Paris, is heralding new harvest supplies, which Egypt, Spain, and Italy will now be making available. In southern Russia, in Germany, in Hungary, the Danubian provinces, and in California a good yield is anticipated, while nearer home, in France, a yield equal at least to French wants is now promised — *N. Y. Times.*

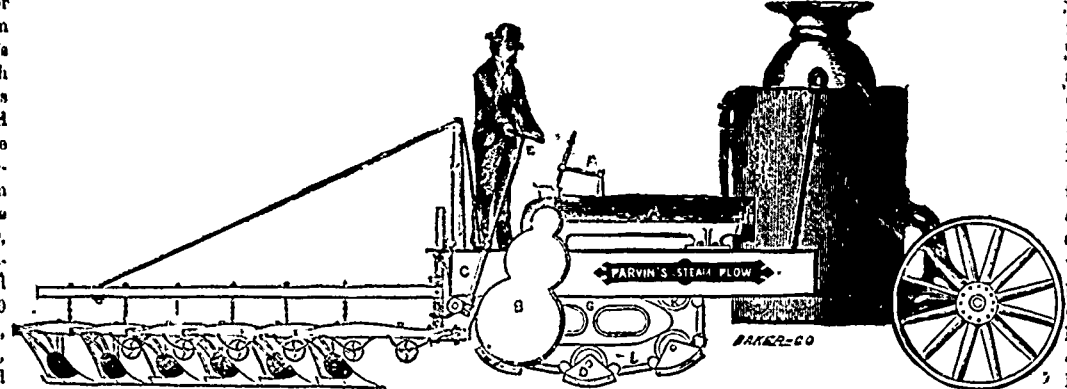
Prof. Johnson recommends for fertilizing purposes to mix one bushel of salt and two bushels of dry lime under cover, and allow the mixture to decompose gradually, thus forming chemical union. For this purpose the mixture should be made nine weeks before use, or still better, two or three months, the heap being turned over occasionally. This salt and lime mixture, when applied at the rate of 20 or 30 bushels per acre, forms an excellent top-dressing for many crops. It acts powerfully on the vegetable matter of soils; 50 bushels applied to turnips have produced as large a crop as barn-yard manure. It is destructive to grubs and insects in the soil. Like salt it attracts moisture from the air, and is useful against drought. Its decomposing power is remarkable, and if three or four bushels of it are mixed with a load of muck, the latter will be thus thoroughly powdered. — *Boston Cultivator.*



Agricultural Implements.

Parvin's Steam Motor.

We are in receipt of the accompanying displayed cuts of a so-called "Steam Motor," lately invented and patented by P. C. Parvin, of Farmington, Ill., who has obligingly sent them to us for publication. At first sight it is somewhat difficult for a casual observer to understand the peculiarities of this most novel mode of producing great traction force. By carefully studying the annexed illustrations it will be observed that the propelling parts of the Motor are somewhat



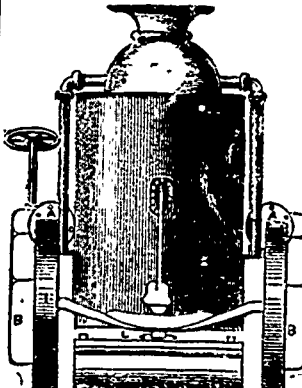
similar to large, flat feet or boards, which extend the entire width of the locomotive. There are large wheels working within these feet, and the entire weight of the back part of the machine is thus brought to bear on these feet or boards. Into these large wheels very much smaller ones are geared, and these latter are attached to the engine shaft, so arranged that they can be driven backwards or forwards, or thrown out of gear altogether when from any cause the engine is required to work and the carriage remains stationary, and without moving these feet. When employed in full work, as the engine revolves, the surface of these feet being very large, prevents the possibility of slipping, thus ensuring the movement of the machine forward. There is also another great advantage in the large surface so exposed to the tractive force, which effectually prevents the Motor sinking in soft places. One of our staff has seen and inspected this machine, and feels satisfied that it has at last been made in the right direction, and that we shall soon see the farm locomotive travelling over our Canadian fields drawing half a dozen ploughs after it, and the whole arrangement divested of the mass of ropes, anchors, pulleys and engines (one at each end), now generally used in ploughing by steam. Mr. Parvin well deserves the thanks of the agricultural community, and we trust he will find his invention a success, and be handsomely remunerated for all his outlay. It is claimed for the "Steam Motor" that it will "break prairie" as well as do ordinary ploughing, and that the cost of so doing will not exceed one-half that of ordinary horse or ox-power now in use. We hope some enterprising manufacturer will place himself in communication with the present proprietor and endeavor to supply our farmers with a Canadian manufactured article. Some observations on the general subject of steam-ploughing and the use of the locomotive on the farm, will be found in our Editorial Department.

We have submitted the accompanying cuts and description to our mechanical engineer, who has been requested to comment thereon, and as he has given some years' attention to the subject of steam ploughing, and been in communication with most of the

leading manufacturers in England, we have no doubt his views, as expressed in another column, will meet with the attention the subject deserves. Whilst doing all in our power to promote the publicity of this important invention, we must at the same time remind Mr. Parvin that his implement is thus exposed to severe criticism, and that our Canadian manufacturers will do all that active hands and energetic minds can do, to improve on it or construct a better. Fair competition is no doubt all he deserves, and such he certainly will have under the existing patent law. In all such cases, the best machine ever made is capable of great improvements, and the high price of labor, and cost of maintaining horse-powers (with hay worth from 20 to 25 dollars a ton,) will be a most active spur to our Canadians to compete with American manufacturers. We have always thought that the *sine qua non* in steam cultivation would be an implement that will draw our ploughs like horses; be at once powerful and light, and furnish at a price within the reach of the ordinary farmer.

Smith & Dixon's Harvester Guards.

These guards or fingers, for mowing and reaping machines, are made by stamping in dies from steel plates of uniform thickness, thus making them half hollow, so that great strength is obtained by the use of a small weight of metal. We have given these guards a trial this season in cutting many acres of grass, and find them work well. Attached to one of the newly constructed Cayuga Chief mowers, they moved through dense and wet grass in a very satisfactory manner, and never saw better work in a meadow. The edges of the guards cannot become rounded down by wearing as in those made solid, but must continue to constitute a pair of close-cutting shears with the knives. These guards are manufactured by Smith & Dixon, of Port Byron, N. Y., and, judging from one season's trial, we think they must supersede the solid guards. — *Country Gentleman.*



To Clean a Rusty Plough.

Take a quart of water and pour slowly into half a pint of sulphuric acid. The mixture will become quite warm from chemical action, and this is the reason why the acid should be poured slowly into the water rather than the water into the acid, and let it remain on the iron until it evaporates. Then wash it again. The object is to give the acid time to dissolve the rust. Then wash with water and you will see where the worst spots are. Apply some more acid and rub on those spots with a brick. The acid and the scouring will remove most of the rust. Then wash the mold-board thoroughly with water to remove all the acid, and rub it dry. Brush it over with petroleum or other oil and let it be till spring. — *Ex.*