

New Inventions.

Inventions Wanted—Harvesters.

Although much has been done by inventors towards rendering reaping and mowing machines applicable to general use, there yet remains ample field for the further display of inventive skill. Some simple device to prevent side draft is much needed, and an invention to prevent this in the various machines would, no doubt, be of great value both to the inventor and the farmer. We believe that it has been proposed to use two main supporting wheels, each of which to be attached to a separate axle, so that by placing one wheel or axle in advance of the other, and by the use of cone pulleys made fast to the axles, the inner wheel can be driven by a chain or belt passing from the cone pulley, attached to the axle of the outer or inner driving wheel at a greater speed than the outer wheel, and thus the driver would be able at any time to change or shift the belt or chain—the cone pulleys being placed in reverse positions, so as to give the inner side of the machine such a tendency to describe a circle around the outer or main driving wheel as to relieve the horses entirely of side draft.

Another much-needed improvement is some mode by which the driver and raker can both be relieved of the exhausting labor of raising and lowering the finger bar and cutters to avoid obstructions. To effect this it has been proposed to use friction, so that the driver, by merely pressing his foot against a lever or friction pulley, could be made to press against a moving band or wheel, and thus quickly wind up a chain, or raise a rod attached to the finger bar, to elevate or depress the cutters, without the least effort on the driver or raker other than a slight movement of the friction wheel, &c. Owing to many objections urged against the reciprocating knife used in harvesters, it has been proposed to use a cutting apparatus of rather a novel construction, consisting of a series of short shafts, arranged in front, and directly under the finger caps, to which spiral knives are to be attached, so as to cut against each other, or against a fixed knife at each revolution of the shafts, the shafts being arranged to turn at right angles to the line of motion of the machine, the grain would be admitted between the knives at each revolution of the same. In the improvement of machines for gathering and harvesting the staple crops, there is ample scope for the inventive mind.

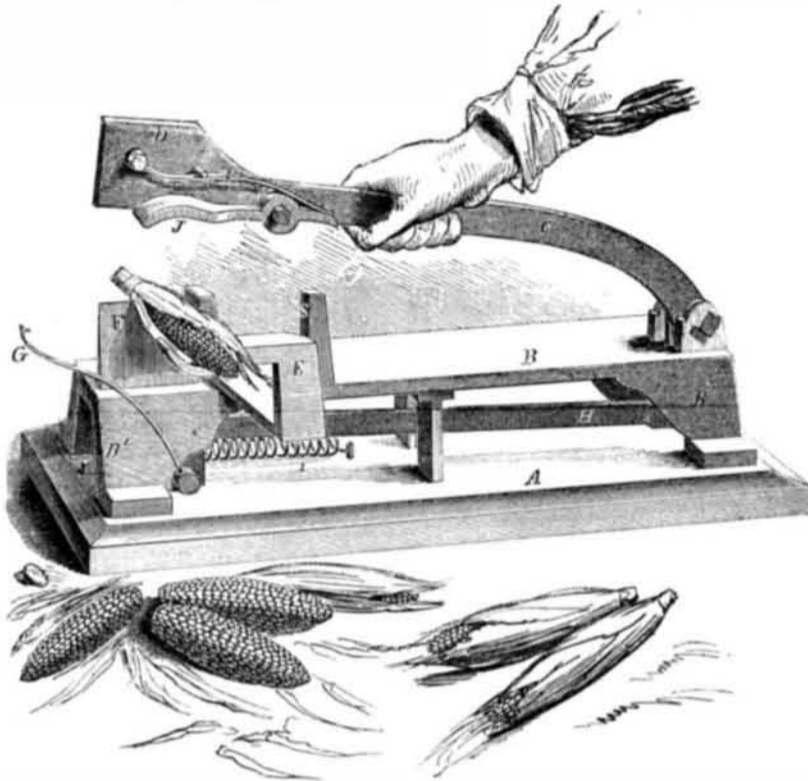
Improvement in Husking Machines.

The accompanying figure represents a very original Corn Husking Machine, invented by William Lewis, of Seneca Falls, N. Y. An ear of corn is laid in the concave anvil or bench, E, with its butt over the edge of the wedge knife, F, then the hinged hammer, J, with its weighted head, D, is brought down—cutting the butt nearly through—then, when the hammer is raised, a curved arm, G, is impelled forward and clears the husks and butts from the bench, for a succeeding effort—the clean ear falling into a basket, or on the floor, as represented in the figure. A is the bed-plate or table for supporting the working parts. B is a plate with arched ends, B' B'. The hammer lever, C, is secured on an axis-pin at the back end; it is furnished with a weighted head, D, and a hinged hammer J, which has a spring, K, pressing on it to bring it back into position. F is the wedge knife; E, the ear bench or anvil; G is the clearing-arm or rapper, secured on a bent vibrating axis-pin, inside of the front arch, B'. This axis-pin is secured to one end of the coiled spring, I, which throws the clearer, G, towards the ear to clear the husk from the bench; H is a reciprocating bar secured on a link connected with the lever, C, at the back end, inside of the arch; this bar has a crotch in it, under the front arch, B'—which crotch grasps the bent axis-pin of the rapper clearer, G; when the hammer, D, is raised, the bar H pushes G forward in the position represented; when the hammer, J, is brought down, and raps or strikes the butt of the ear and cuts it, and is again raised, the crotch described on the bar, H, passes over the axis of G, and

then the coiled spring, I, attached to the axis pin, draws back the clearer with considerable force, knocking off the husks and discharging them as has been described. When the lever C is brought down for the hammer J to strike, and cut the butt of the ear, its back

end or tail strikes on stop S, which graduates the force of the blow, allowing the nub or butt to be cut almost through—a pellicle only holding the nub and the husk together, the ear generally dropping down by the blow of the hammer, and falling into a basket. The

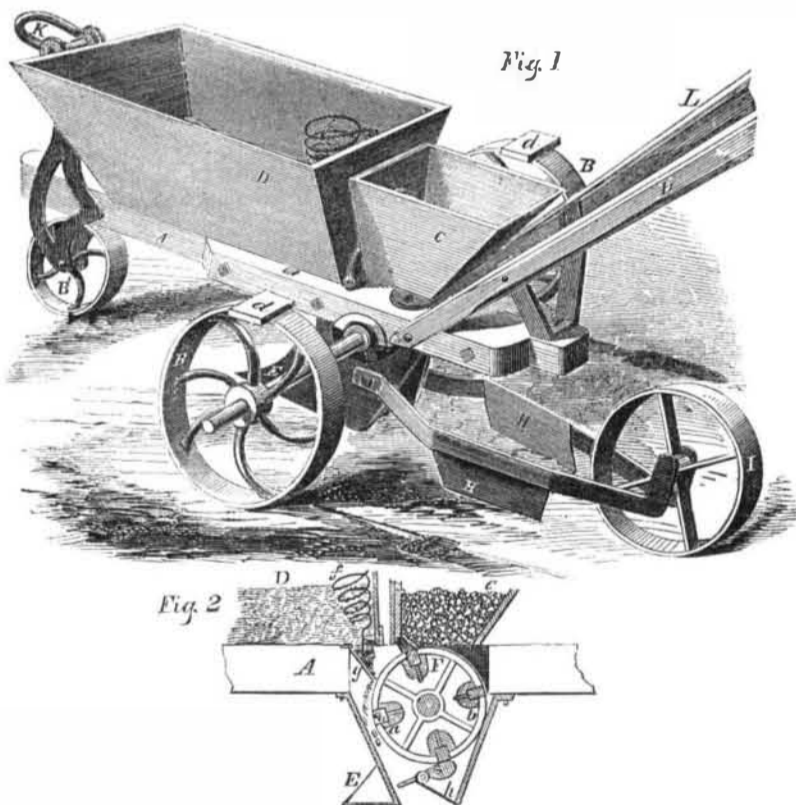
LEWIS' HUSKING MACHINE.



clearer rod, G, removes the husks and butts—clears the track for the next ear. This is a very unique Corn Husker; a regular rapper. It is very simple in its construction; the parts are few, and so far as we can judge, not liable to get out of order. At the Mechanics' Fair held in Syracuse, N. Y., in February last, this Husker—from the original character of the

invention—was a subject of general attention. It was on that occasion awarded a premium and a silver medal, and received the name of "The Magic Corn Husker." More information respecting rights, &c., may be obtained by addressing Mr. Lewis, at Seneca Falls, N. Y., by letter or otherwise. A patent was issued for it on the 3d of last month.

MCGAFFEY'S SEED PLANTER.



The accompanying illustrations represent the Seed Planter of Ives W. McGaffey. Patented April 3, 1855. Its seed cups are secured on a rotary wheel, and their capacity or size can be regulated to plant different quantities. It deposits guano, or other suitable manure, with the seed, which latter it covers, and then presses down with a roller.

Fig. 1 is a perspective view, and fig. 2 is a vertical section through the hoppers, the seed wheel, and conveying tube.

A represents the frame of the planter. B B B' are three wheels, on which it is supported and runs. C is the seed hopper, and D the manure hopper. F is the distributing or planting seed wheel on the axle of wheels B B, and it is revolved as they move along. Fig. 2 shows how this wheel is formed. It has a

thick periphery, in which are a series of cups a b, to receive the seed from the hopper as it rotates; it also has a series of projections, alternating with the cups; these are for striking and opening the spring valve or trap door, g, of the guano or manure hopper.

When a projection, has passed the valve, g, the coiled spring, f, closes the opening, by drawing the valve back. E is the shoe for making the furrow. The seed and manure, as shown in fig. 2, pass down through the conducting spout into the soil. The conducting spout is closed by a flap, h, when the machine is drawn backwards; i is a balance weight on the back of this flap. H H are angular set scrapers, for covering up the seed and I is a following roller for pressing down the soil.

In the seed hopper there is a brush, J, which sweeps the periphery of the wheel, allowing only the cups full of seed to be carried down the spout. The size or capacity of the seed cups are regulated by the screws shown passing into them from the inside of toe wheel.

K is the draught shackle to which the horse is attached. L L are the arms or stilts—like those of a plow—by which the machine is held. On the wheels, B B, are markers, d d, which make an indent on each side of the drill at the moment the seed is deposited, so that each row may be commenced correctly, and whereby the seed may be dropped in line, to allow of the field being afterwards plowed crossways between the hills, if desired. The covering roller, I, can be raised off the ground when necessary. One or more seed cups may be used at once, as shown, so as to deposit the seed at different distances apart.

This machine is adapted for planting in hills, or rows; it is convenient, simple, and durable; and the depositing of the fertilizer with the seed is undoubtedly the best method of planting.

Address J. Hanford, assignee, No. 113 Nassau street, this city, for information respecting rights for a portion of territory.

Stone Cutting by Steam.

During a recent sojourn in Washington we visited the Capitol grounds, and witnessed with much interest, the various operations connected with the work of enlarging the Capitol building. Both wings are roofed over and well advanced towards completion. The great central dome is beginning to rise.

The marble columns, of which large numbers are required for the porticos, are being turned in huge lathes by steam power. Under a shed we saw one of the machines in operation. A block of marble 27 feet long, and over 3 feet diameter, was slowly revolving between the centers; the cutting was done by a pair of chisels carried on a slide rest in the usual manner. A stream of snow-white chips issuing from between the cutters, marked their progress.

The lathe is from the manufactory of Gage, Warner & Co., Nashua, N. H. It is capable of turning a column 30 feet in length by 4 feet or more diameter. Cost, \$2,500. Driving power required, 5 horses.

The use of lathes for turning stone columns is not new; but we believe they have not heretofore been employed in this country to any extent. In Europe—Prussia particularly—lathes for turning stone columns have been in use for years. In New Hampshire, we are told, they are turning granite columns in lathes of similar construction.

The Commissioner of Patents.

"There has been a strenuous attempt made to obtain the removal of Commissioner Mason, the present faithful and excellent head of the Patent Office, but the President has decided that Mr. Mason shall remain as long as he chooses."

We have reason for believing that the first clause of the above paragraph, copied from the *Evening Post*, is not correct. There have been no "strenuous attempts" made to oust Judge Mason, strange as it may seem; and the President has exhibited a convincing proof of his interest in the prosperity of the Patent Office, as a proud monument of the ever-growing genius of our countrymen, by the re-appointment of Judge Mason to the post he has so ably filled for the past four years.

Purifying Gas.

Charcoal which has been saturated at a red heat with lime water, is now employed in some parts of England for purifying gas, instead of the simple milk of lime. The charcoal thus prepared is used in a vessel (the purifier) as a substitute for the lime purifier, and is said to produce a purer gas, by a more perfect removal of the sulphur and ammonia.

Mexico supplies us with a great deal of Mahogany, which is sold by the weight, averaging about \$12 per ton. Under the revised Tariff it has been placed on the free list. Last year 6,804 tons were exported from a single Mexican port, two-thirds of which came to the United States.