

New Inventions.

Machine for Covering the Heads of Nails.

There had never been any machine which could be called automatic for the above purpose, until the one that we are about to notice, invented by W. H. Van Gieson, of Newark, N. J., and on which a patent was granted this week. In this machine, the nails and the shells or caps for covering or plating their heads are conveyed singly from separate hoppers or boxes, to a series of dies in an intermittently rotating table, on which they are carried in rapid succession under a punch, by which the shells or caps are closed upon the nails. They pass, by the rotation of the plate to a plunger by which the finished nails are discharged from the dies, to bring the dies in condition to receive new nails and shells, as they are severally brought by their rotation to the feeding devices from which the nails and shells are supplied. Should any nail get in a die without a cap, the machine will stop, until the accident is remedied, and its perfect automatic action will be appreciated when we mention that all that has to be done by the operator is to fill the two hoppers, one with caps or shells and the other with nails, then apply the power, and carry off the covered tacks as they drop rapidly from the machine.

Sewing Machines in Europe.

At the recent meeting of the Association for the Advancement of Social Science, held at Liverpool, England, Dr. Strang, statistician of the city of Glasgow, read a paper on the above subject, in which he described several kinds of these useful machines, and stated that there were nine hundred of them now in operation in the city to which he belonged. He passed a high encomium on their usefulness, and the benefits which had accrued from their introduction. They had been the means of increasing the production of sewed work, and while they had done this, the most unprofitable kinds of hand-needlework only had been displaced, and they had tended to increase rather than diminish the wages of those engaged in this sphere of labor. These machines, in the city of Glasgow, afforded proof of benefits conferred upon those whose hand-labor they had superseded, because the girls who attended them are able to earn twice the amount of wages they had previously been able to make by hand-sewing.

New Churn and Washing Machine.

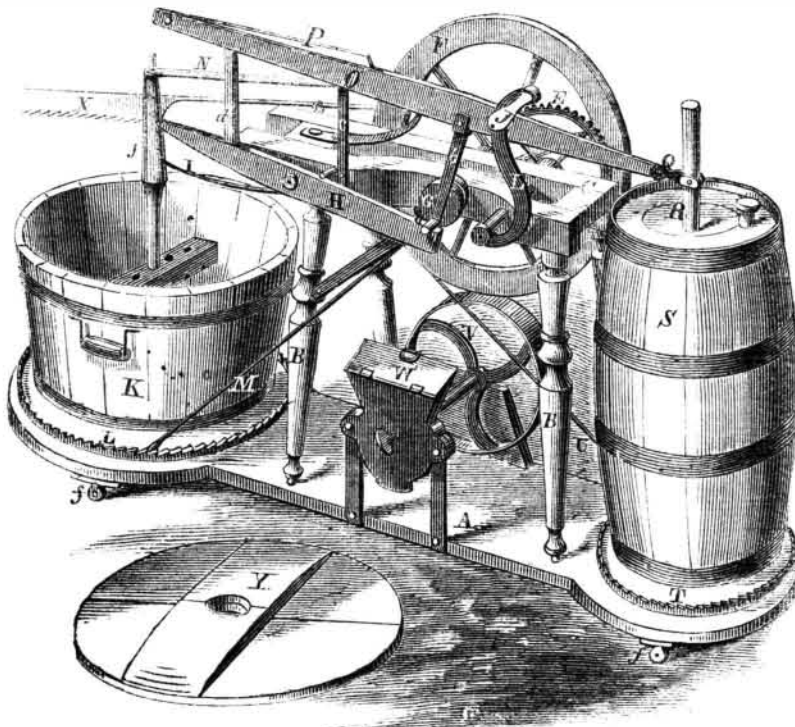
When will wonders cease? We have had combinations of all kinds, and nearly every machine or process has been added to some other by the genius of inventors; so that operations which were once long and tedious, have become easy and quick. Last of all, we have the combination illustrated in our engraving of a churn, washing machine, coffee mill, and saw, so that by turning a single crank, a person may make his butter, wash his clothes, knead his bread, grind his coffee or corn, and saw his wood! If this is not a marvel, we humbly ask "What is?"

Let us see how all these operations are accomplished. On a piece of board or artificial floor, A, are mounted four legs, B, supporting a frame, C, through which is placed the axle or shaft of the crank, L, and handle, J. This crank turns the cog wheel, E, and fly wheel, F, from which a band can be carried over the band wheel, V, and thus operate the mill, W. The saw, X, is placed on a crank on the wheel, F, so that by its rotation, the saw, P, has a back and forward motion, suitable for sawing, given it. On the shaft of F is a wheel, G, carrying an eccentric pin, a, that operates the lever, H, and so raises the stamper, J', of the washing tub, K. This washing tub is placed on a circular bed provided with ratchet teeth, L, so that the pawl, M, hinged to a crank on the axle of F, continually turns it, as does also the pawl, U, to the platform, T, on which the churn, S, is placed. The cover, Y, is placed over the washing tub,

which can be used for other purposes when anything is to be done in it. The stamper or washing piece, J', is pressed down by the spring, N, and it is kept in position by the piece, I, so that while the tub and its contents turn, J' remains in the same position, so that every part is washed. To the lever, H, is attached by the link, b, the rock shaft, O, con-

nected at Q, to the dasher of the churn at R, so that that is given an up-and-down motion while the churn is made to revolve, and every part of the cream comes under its action, and butter is quickly made. The rock shaft is guided in its movement by a slit in it, through which passes a piece, P, secured by supports, d c, to the frame, C.

SWAN'S CHURN, WASHING MACHINE, &c.

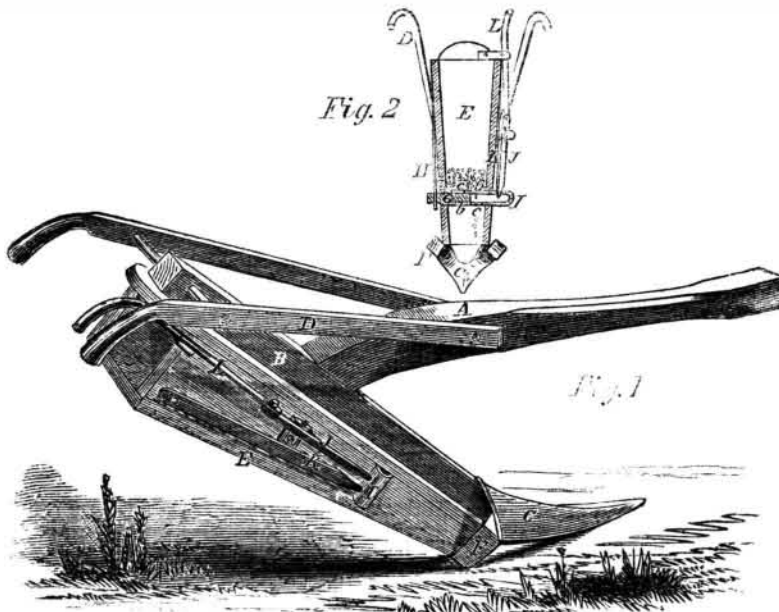


Either of these parts can be disconnected, so that all or one can be used together, and the work of a household performed at once, or at separate times, as may be most convenient. The machine moves on castors, f, so that it can be easily transported from place to place, and on the whole it may be considered as one

of the most convenient household appliances yet devised by the ingenuity of inventors.

The inventor is Moses Swan, of Potter Hill, N. Y., who will be happy to furnish any further information upon being written to at his address. The patent was granted August 17th, 1858.

ROSE'S SEED-PLANTING PLOW.



In the various departments of husbandry, plowing and sowing have generally been considered separate and distinct—two processes involving double labor and trouble, but in the invention which we are about to describe they have been joined, and sowing and plowing are performed at one operation. The invention is a seed-planting plow, and the inventor—J. H. Rose, of Versailles, Ill.—patented it August 17, 1858.

Our engravings fully illustrate its construction, Fig. 1 being a perspective view, and Fig. 2 a section of the plow.

A is the plow beam, B an inclined bar attached to the back end of the beam, and having a shovel share, C, on its lower end. D D are the handles by which the plowman guides the plow. To the back of B a box, E, is attached, nearly equal in length to B, and ex-

tending a short distance below it, between diagonal flanches, F, placed directly behind the share, C, and which act as covering shares to the seed. G is a rectangular slide bar, that passes horizontally into one side of the box, E, and has its outer end attached to a spring, H, whose tendency is to keep the bar, G, within the box, being secured to the outer side of the box, and the position of bar, G, is regulated by a set screw against which the spring bears. I is a bent seed slide, which is formed of a metal plate bent so as to form the parallel strips, b b, between which G is snugly fitted, the strips, b b, being allowed to slide over bar, G. b b have apertures, c, made through them—one through each. These apertures, however, do not register with each other, but are placed sufficiently out of line to allow G to cut off the communication be-

tween them. The outer end of the seed slide, I, is attached to a lever, J, that is pivoted to the outer side of the box, E. A spring, K, connected to the outer side of the box has its lower end fitted in the slide, I, and the upper end of lever, J, is pivoted to a lever, L, the upper end of which is in close proximity to one of the handles; K, having a tendency to keep I within the box, E.

The operation will be readily seen. The box, E, is filled with seed, and as the implement is drawn along, the operator guides it by the handles, D. The share, C, forms the furrows, and seed is dropped at any time, at the will of the operator, by actuating the lever, L, and consequently the slide, I.

The operation of the seed slide is as follows:—When the slide, I, is thrown inward, the opening, c, of the upper strip, b, will be over the bar, G, while the opening, c, of the lower strip, b, will be open. The reverse is the case when the slide, I, is forced outwards; the opening, c, in the upper strip, b, is off from the bar, G, and the lower opening, c, within the side of box, E. It will be seen, therefore, that the space between the two strips, b b, of slide, I, forms a seed receptacle or chamber into which and from which the seed is alternately received and discharged, and it will also be seen that by adjusting the bar, G, by means of a screw, the amount of seed discharged at each movement of the seed slide, I, may be regulated as desired, for the bar, G, may be so adjusted as to expose the whole or a portion only of the openings, c. The seed is dropped into the furrow formed by the share, C, and the seed is covered by F.

The seed-distributing device arranged as above described, and connected with a plow, forms a simple and efficient implement, easily kept in repair, and well adapted to planting all seeds that are deposited in hills, and the quantity deposited may be regulated with facility.

The inventor of this useful contrivance will furnish any further particulars upon being addressed as above.

Honored in the Observance but not in the Breach.

So said not Shakspeare, but so say we in reference to the matter now before us, and this leads us to do an act of justice, namely, to thank our friends—North, South, East, and West—for the generous response which they have made to the appeal we made to them, to organize clubs of subscribers for the SCIENTIFIC AMERICAN. Our subscriptions have come in finely since the new volume; yet we still maintain that we ought to have a much more extended list of names for a journal so generally useful to every branch of industry; and we venture once more to appeal to our friends to aid our circulation still more. If all our readers would only send one single subscriber—a seemingly easy task—our list would soon be doubled. Who will try to form a club? Who will get his neighbor to take our paper? Who will confer a great favor upon us—one we shall highly esteem—by sending in a list of names of those of their acquaintances who may be likely to want our paper, for instance, inventors, manufacturers, mechanics, millers, millwrights, chemists, engineers, architects? If our friends will furnish us with the names, we shall be able to send them specimen copies, and thereby they may be induced to take what is acknowledged to be "the best paper of the kind in the world."

New Appointments at the Patent Office.

We are happy to chronicle the appointment of H. P. K. Peck, of Ohio, to a First-examinership in the Patent Office. Mr. Peck is a lawyer of fine attainments, and will no doubt fill his new situation creditably. His experience in the Office, as assistant to Mr. Baldwin, for two or three years past, renders him conversant with the official routine.

Captain Herbert, formerly connected with the Patent Office, and who knows the duties of the department perfectly, has been re-appointed First Assistant-examiner.