(No Model.)

W. C. FRANCISCUS.

MACHINE FOR COATING PILLS WITH GELATINE.

No. 276,385. Patented Apr. 24, 1883.

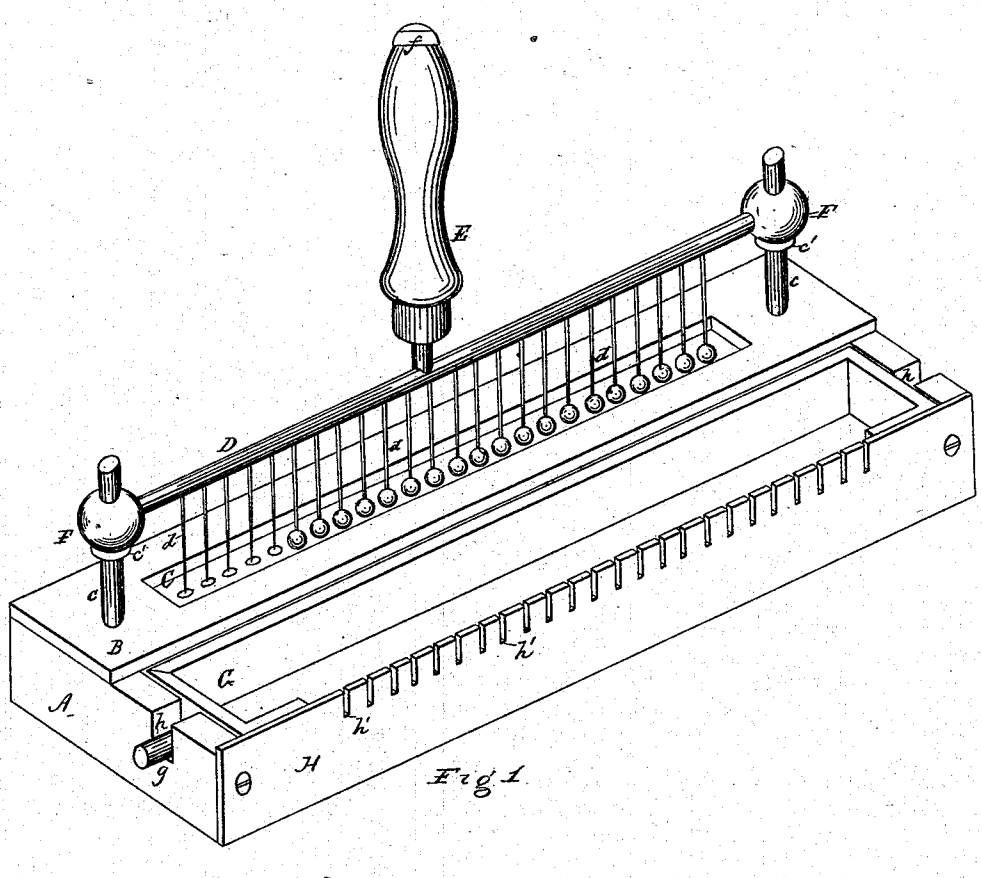


Fig 1.

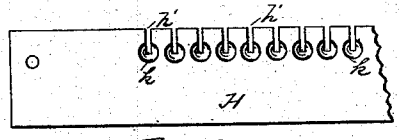


Fig 2

Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM C. FRANCISCUS, OF LOCK HAVEN, PENNSYLVANIA.

MACHINE FOR COATING PILLS WITH GELATINE.

SPECIFICATION forming part of Letters Patent No. 276,385, dated April 24, 1883.

Application filed February 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, WM. C. FRANCISCUS, a citizen of the United States, residing at Lock Haven, in the county of Clinton and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Coating Pills with Gelatine; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a perspective. Fig. 2 is a vertical elevation of portion or detail of stripping-plate.

My invention has relation to machines for coating pills with gelatine or other substances, and has for its object the provision of means for conveniently handling the pills after their formation and during the coating operation, and to accelerate their drying after they have been so coated.

My invention consists in the provision of a suitable trough having cups or pockets for the reception of the pills, a bar provided with needles to pick the pills up out of the trough and dip them into the gelatine bath, a stripping-bar for removing the pills from the needles, and a removable drawer for the reception of the pills after their removal from said needle-bar.

Referring to the accompanying drawings, A represents a block forming the base upon which the various parts of the apparatus are fixed.

B is a plate of metal or other suitable material, fixed upon the top of said block.

C is a trough having a number of concave indentations formed in its bottom, in which the pills rest.

D is a rod having needles *d d*, equal in number to the pockets in the trough C.

Upon an upright, *e*, at the center of the rod D, is a handle, E, secured thereupon by a nut, *f*. The handle fits loosely upon the upright, so that when the handle is held in the hand the needle-rod may be revolved around, the handle acting as the pivotal point.

At each end of the rod D is a ball, F, having a hole through it, and at each end of the trough C is an upright, *e*, provided with a shoulder, *e'*. The needle-rod is placed down upon the uprights *e*. The shoulders on the same will prevent the needles from touching the bottoms of the pockets in the trough C.

Alongside of the plate B the block A has a trough cut in it for the reception of a drawer, G, at either end of which are laterally-projecting handles *g g*, that fit in slots *h h* in the end of the block. One side of the drawer has its edge beveled off, and to the side of the block A is secured a plate, H, having vertical slots *h' h'* along its upper edge, equal in number to the pockets in C and the needles on the rod. The function of plate H is to strip the pills from the needles, and lower ends of the slots *h' h'* are provided with indentations *k k*, which receive the pills and prevent their coatings being cut or injured by contact with the edges of the slot.

The operation of my invention is as follows: The pills, having been formed in the usual manner, are placed in the pockets in the bottom of the trough C. The needle-rod is then placed in position, with the standards *e* projecting through the holes in the ends of the same. The rod is then pressed down and the pills are impaled upon the points of the needles. The rod is then removed and the pills are dipped into a bath of gelatine or other substance with which they are to be coated. The rod is then spun around upon the handle until the coating becomes dry, the drying being greatly facilitated by the rapid movement of the pills through the air. When the pills are dried sufficiently they are removed from the needles by placing the latter in the slots in plate H and drawing them out through said slots, the pills falling down into the drawer, from whence they are removed at pleasure.

The advantages of my invention are that the pills are picked up without injury on the points of the needles, and can be dipped into the coating-bath and removed therefrom without soiling the hands or wasting the fluid in the bath. The needle-rod being adapted to be revolved rapidly, the pills are dried rapidly and effectually, and are subsequently removed from the rod with ease and dispatch, and are received in a convenient receptacle, from which they can be removed at pleasure.

While I have described and shown a needle-rod having a handle at its center, upon which the rod is pivoted, I do not limit myself to

such construction, as the handle may be placed on one end of the rod and a crank formed or attached to the other end, by means of which the rod may be made to revolve, as shown.

What I claim as my invention is as follows:

1. In an apparatus for coating pills, a rod having needles for the reception of the pills, and a loose handle upon which said rod may be revolved, substantially as described.

2. The combination of trough C, having indentations at its bottom, with rods D, having needles *d d*, substantially as and for the purpose described.

3. The combination of trough C, needle-rod D, needles *d d*, and uprights *c*, having shoulders *c'*, substantially as described.

4. The combination, with needle-rod D, having needles *d d*, of slotted stripping-plate H and removable drawer G, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of February, 1883.

WILLIAM C. FRANCISCUS.

Witnesses:
M. D. CONNOLLY,
LISLE STOKES.