J. HILL.
Pill-Machines.

No. 211,733. Patented Jan. 28, 1879.

Fig. 1

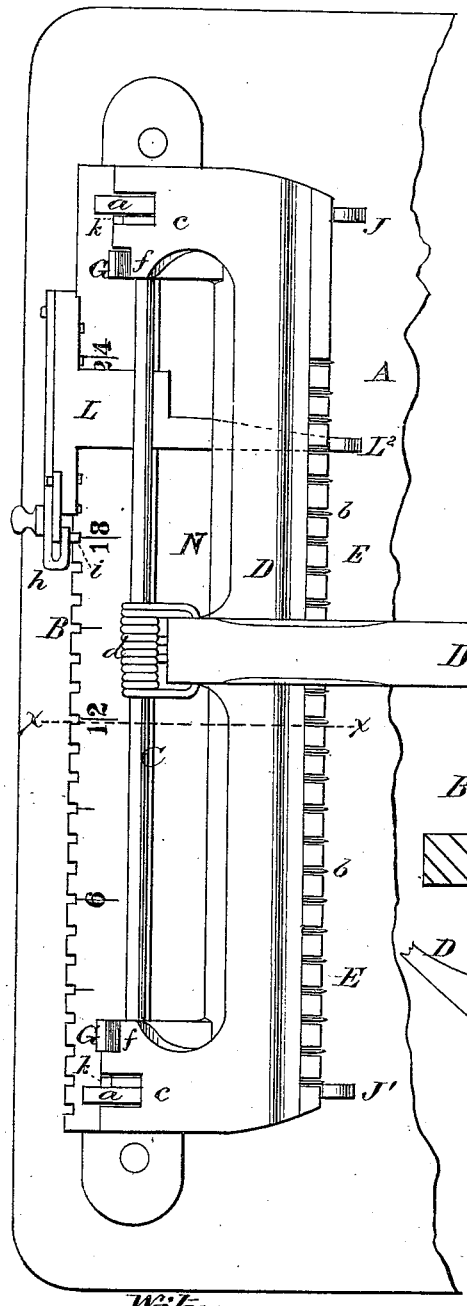


Fig. 2

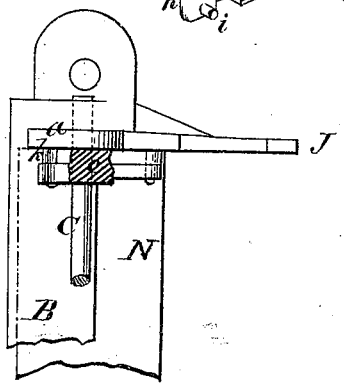


Fig. 5

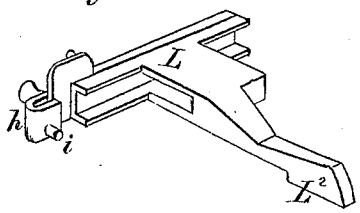


Fig. 3

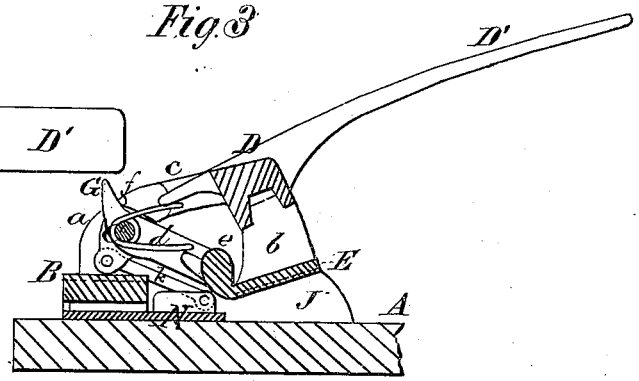
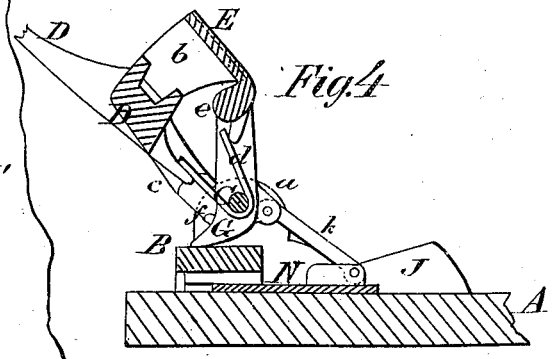


Fig. 4



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UNITED STATES PATENT OFFICE.

JOHN HILL, OF SOUTH NORWALK, CONNECTICUT.

IMPROVEMENT IN PILL-MACHINES.

Specification forming part of Letters Patent No. **211,732**, dated January 28, 1879; application filed June 11, 1878.

To all whom it may concern:

Be it known that I, JOHN HILL, M. D., of South Norwalk, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Pill-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a top view of the improved pill-machine with part of the tablet broken away. Fig. 2 is a top sectional detail of the sliding locator-plate and its end attachment. Fig. 3 is a vertical cross-section through the machine, taken in the plane indicated by dotted line *x x*, Fig. 1, showing the knives ready to be depressed upon the pill-mass. Fig. 4 shows the same parts of Fig. 3, with the knives and comb-plate or clearer thrown up, and the locator-plate thrown forward. Fig. 5 is a perspective view of the movable indicator-finger and its latching device.

Similar letters of reference indicate corresponding parts.

This invention relates to certain improvements on the pill-making machine for which Letters Patent No. 197,779 were granted to me on the 4th day of December, 1877.

The improvements consist, mainly, in combining, with the vibrating knives and clearing teeth or comb, a graduated scale-bar and an adjustable indicating-finger, for the purpose of quickly determining the proper length to roll the pill-mass for cutting a given number of pills; also, in combining, with the said vibrating knives and clearing teeth or comb, a self-adjusting locating-plate, which will gage the proper position for locating the rolls of pill-mass under the knives; also, in the employment of stop-arms at the ends of the machine, which will serve as stops or rests for the comb when down, one of which arms will also serve, in combination with the adjustable indicating-finger, as a means of determining the proper lengths for the rolls of pill-mass, as will be hereinafter explained.

In the annexed drawings, A designates a tablet, which may be made of any desired size and of any suitable material. Near one edge of tablet A, I rigidly secure a toothed scale-bar, B, from the ends of which rise two eye-bearings, *a a*, that receive a rod, C, through them, which rod is parallel to the face of the tablet A.

D designates a channeled bar, to which knives *b* are rigidly secured, and arranged in planes parallel to each other and perpendicular to the face of the tablet. This bar D is provided with a handle, D′, and it is pivoted, by means of short arms *c c*, to the rod C, and acted on by a spring, *d*, which raises it to the position shown in Fig. 3.

E designates the clearing-teeth, which receive between them the knives *b*, and separate the pieces of pill-mass from these knives after the cutting stroke is given to them. The teeth E are all formed on a rib, *e*, and when these teeth are down, as shown by Fig. 3, they rest upon the inclined edges of two fingers, J J′, formed on the ends of the graduated scale-bar B. The fingers J J′ are parallel to each other and to the planes of the knives *b*. The back ribbed portion of the comb E is pivoted to the rod C by means of angular arms G, the rear tapered ends of which impinge on the bar B, and serve as stops for the knife-bar and comb when they are thrown up in the positions shown in Fig. 4. Stops *f f* on the short arms *c c* of the bar D are held against the rear ends of arms G G by the spring *d* when the parts are in the position shown in Fig. 3.

The bar B is properly graduated and the scale indicated by figures, as shown by Fig. 1. The rear edge of this scale-bar B is notched, and the notches spaced so as to correspond to the spaces between the knives *b*. A T-shaped slide, L, is applied on the scale-bar B, so that it is movable in a direction with the length of this bar, and by means of a pivoted latch, *h*, slide L can be fixed rigidly to its bar at any desired point. This is done by engaging a pin, *i*, in any one of the notches in the posterior edge of bar B. From the front part of slide L projects a finger, L^2, corresponding in shape and size to the fixed fingers J J′, and resting on the tablet A. The distance between the fingers J′ L^2 can be increased or shortened, according to the number of pills it is desired to cut from a roll of pill-mass.

N designates a flat plate, of suitable width

and thickness, and which extends from one finger, J, to the other, J′, and is free to be moved forward and backward beneath the raised scale-bar B. At the front corners of the plate N, I pivot two short connecting-rods, *k k*, the rear ends of which are pivoted to lugs formed on the arms *c c* of the vibrating bar D. The plate N and its arms or rods *k k* are so adjusted with reference to the movements of the knife-bar D that when this bar is thrown up in the position shown in Fig. 4 the front edge of plate N will mark the place for locating the roll of pill-mass to be cut by the knives when they are depressed upon the tablet. Plate N recedes out of the way during the act of depressing the knives.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The graduated scale-bar B and the indicating-fingers J′ L^2, in combination with the knife-carrying bar D and clearing-comb E, substantially as and for the purposes described.

2. The adjustable locating-plate N, pivoted to the arms *c c* of the knife-carrying bar D, in combination with stops and fingers J, J′, and L^2, substantially as described.

3. The front extended rests or stop-arms J J′, arranged as described, and combined with the comb E and knife-carrying bar D, substantially as described.

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