

F. C. MILLER.

Improvement in Machines for Filling Cigar-Molds.

No. 129,674.

Patented July 23, 1872.

Fig. 1

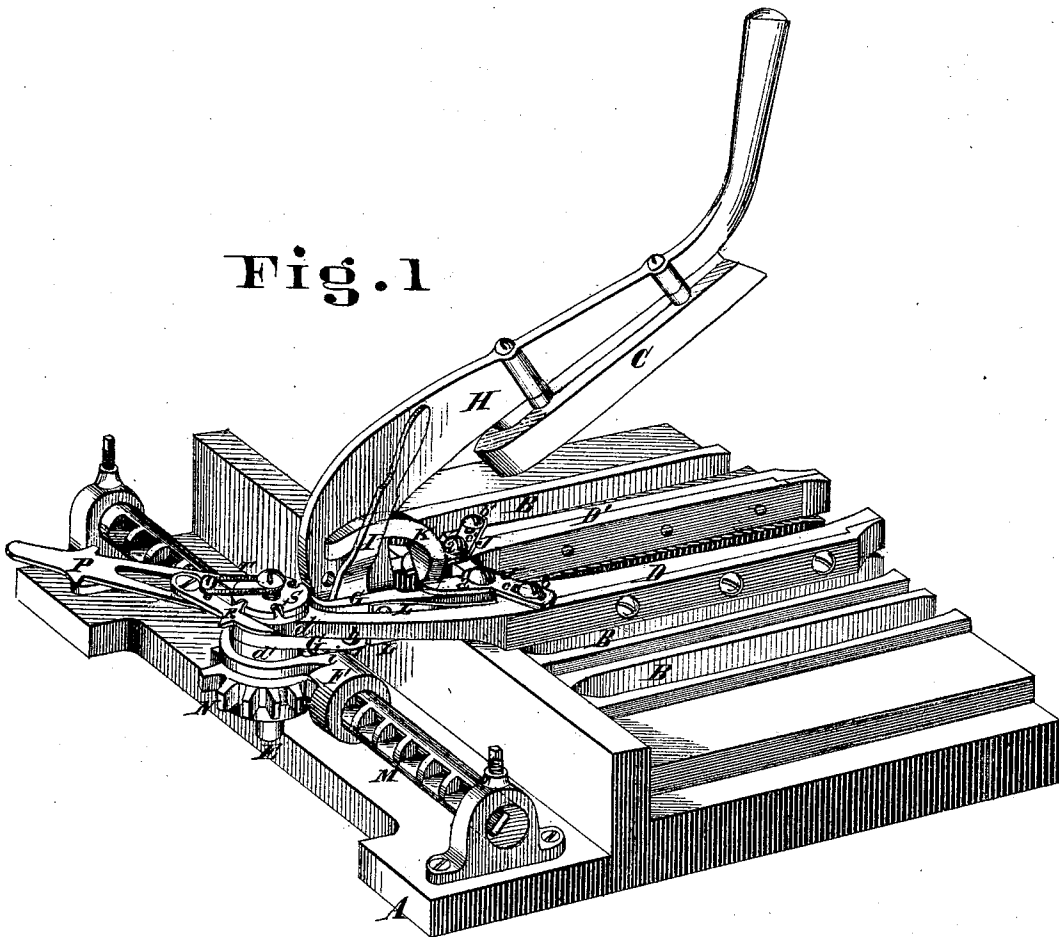
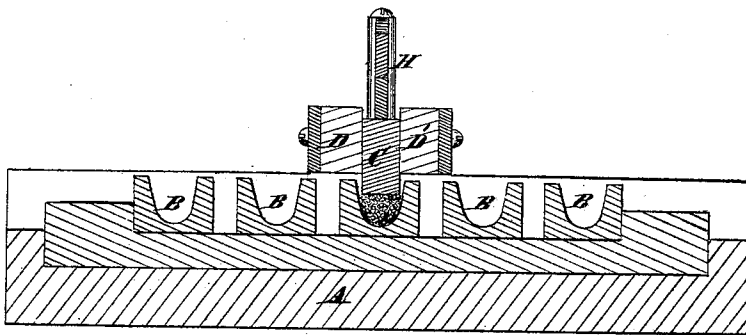


Fig. 2



Attest
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UNITED STATES PATENT OFFICE.

FREDERICK C. MILLER, OF CINCINNATI, OHIO, ASSIGNOR TO HIMSELF AND HENRY C. PETERS, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR FILLING CIGAR-MOLDS.

Specification forming part of Letters Patent No. 129,674, dated July 23, 1872.

I, FREDERICK C. MILLER, of Cincinnati, in Hamilton county, State of Ohio, have invented a certain new and useful Machine for Filling Cigar-Molds with "Bunches" of Tobacco, of which the following is a specification:

Nature and Object of Invention.

My invention consists of a certain attachment to a cigar-mold or series of molds, so constructed that by its operation the bunch is compressed automatically into a size fitted for convenient reception into the mold before it is pressed by the male part of the mold into place, the attachment comprising, in connection with the movable male part of the mold, of two reciprocating jaws, arranged to move in unison with the male part of the mold, the jaws serving to press the bunch together and the male part of the mold to force the tobacco from between the said jaws into the mold. My invention further consists of devices for feeding the attachment from one mold to another when a series of molds are used. My invention further consists of a device for enabling the attachment to be used in connection with a revolving-mold pressing-machine, in which one set of molds is caused to pass in the path of another set which have been previously filled with "bunches;" the attachment being so constructed that it is adapted to be swung out of the way of the swinging molds and secured in place again after its passage.

Description of the Accompanying Drawing.

Figure 1 is a perspective view of a series of molds with my attachment applied thereto. Fig. 2 is a cross-section of the same.

General Description.

A represents the base of a series of cigar-molds, B, arranged in a position parallel to each other and at equal distances apart. The male part C of the mold, which is adapted to move from one to the other of the stationary or female parts B, may, in the use of which I put it, be called a plunger, as it is used to merely force the bunches into the parts B. My attachment consists principally of this reciprocating plunger C and two vibrating jaws, D D', the later being adapted to close

together the "bunch" of tobacco immediately preceding the act of forcing the said bunch into the mold B by plunger C, and thus to avoid the customary rolling of the "bunch" under the pressure of the hand, which has been the method heretofore adopted to reduce the size of the bunch and compress the tobacco into a compact "bunch" capable of entering the mold. In this method of rolling the tobacco by hand it was necessarily twisted and rendered incapable of easy smoking; and it is to avoid this objection and facilitate the operation of filling the molds with "bunches" that my invention is intended. Both of the jaws D D' are hinged to the pin or spindle E, which is fitted to the sliding head F, the jaw D being hinged at *d* and the jaw D' at *d'*. Between the two hinges or joints *d d'* a head, G, is fitted to pin E, to which head the lever H and the lever I are pivoted at *h*. Bell-cranks J are also pivoted to the head G at *a a'*, the outer ends of the bell-cranks being connected to the vibrating jaws D D' by studs or screws *b b'* through slotted holes *c c'*. The inner ends of the bell-cranks are operated upon by the curved projection K, whose wedge-shaped end serves in entering to spread the inner ends of the bell-cranks apart and thus close the jaws D D'. Upon the withdrawal of the projection K, by the act of raising the lever H, the springs L force the jaws D D' apart. In the operation of the jaws and plunger in use, the jaws are placed centrally over the mold and the bunch of tobacco is placed in a proper position between the jaws D D'. The lever H is then depressed, and in the act of this depression the jaws are brought together in such a way that the tobacco is compressed between them. A continuation of the depression of the lever without any further closing of the jaws (the projection K being then parallel-sided after passing the wedge-like end) serves to force the bunch into the mold B. Upon the raising of the lever H the jaws are again expanded by springs L, and they are moved over another mold for a repetition of the same operation. For use in a mold pressing-machine where the sets of molds rotate and stop for the filling, it is necessary for the attachment of jaws D D' and plunger C to swing out of the way to let the molds pass; and to facilitate this I

make the head G loose upon pin E, so as to swivel and secure it in place over the mold firmly by lever I, the end of which fits into notch *i* of the head G. When the end of the lever is engaged in the notch the jaws are held in a position centrally over the molds, and when the end of the lever is disengaged from the notch the jaws and plunger are free to swivel free of the molds. The sliding head F is fitted to move easily upon the bar M, which is secured in the manner shown to the base A. A pinion, N, is attached to the pin E of the head F, and meshes into teeth provided in the bar M. A lever, P, swivels easily upon the pin E, being provided with a reversible pawl, R, which meshes into the notched disk S upon the pin E. The pawl R is retained in place in either position by spring-band T. By the movement of the lever in the direction of the pawl the jaws D D' and plunger C are moved from one mold to the other, the direction being determined by the position of the pawl, and the distance by a suitable stop on

the head F, against which the lever rests at the end of its range.

Claims.

1. In the described connection with a cigar-mold or series of molds, the plunger C and reciprocating jaws D D', combined, connected, and operated substantially in the manner and for the purpose specified.

2. In combination with plunger C, jaws D D', and head F *i*, the swinging head G and fastening-lever I, as and for the purpose specified.

3. The combination of plunger C, jaws D D', pin E S, sliding head F, bar M, pinion N, and pawl-lever P R, connected and operating substantially as and for the purpose described.

In testimony of which invention I hereunto set my hand.

FREDERICK C. MILLER.

Witnesses:

FRANK MILLWARD,
J. L. WARTMANN.