F. C. MILLER.
Cigar Mold and Press.

No. 208,414. Patented Sept. 24, 1878.

Fig. 1

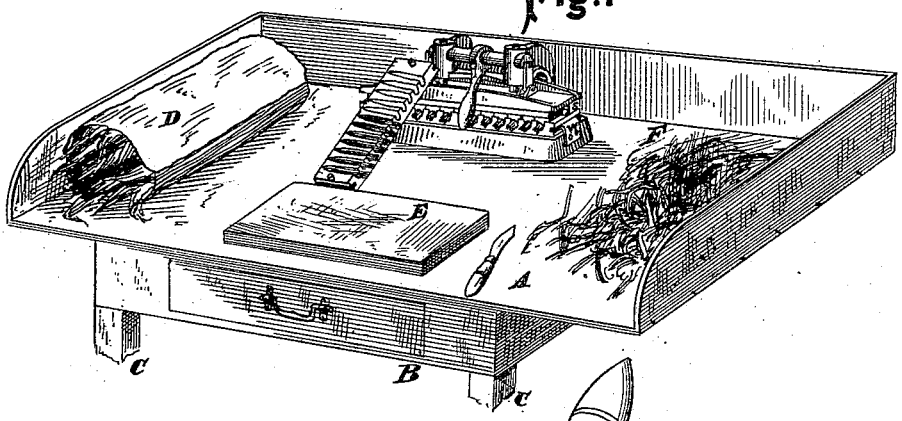
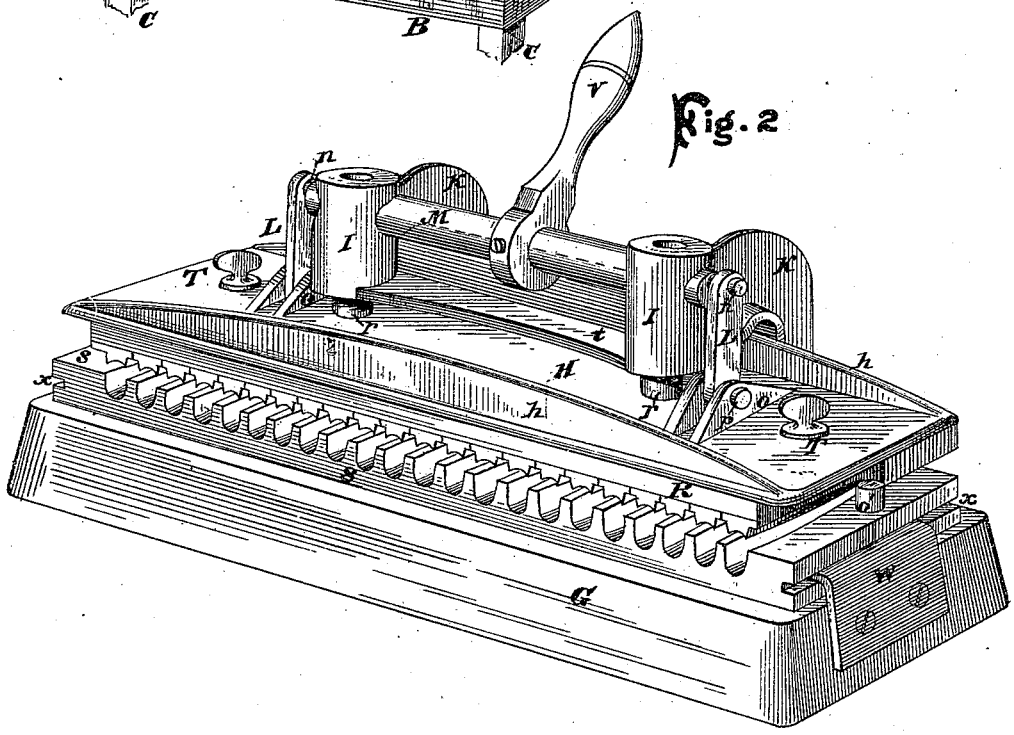


Fig. 2



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UNITED STATES PATENT OFFICE.

FREDRICK C. MILLER, OF NEWPORT, KENTUCKY.

IMPROVEMENT IN CIGAR MOLD AND PRESS.

Specification forming part of Letters Patent No. **208,414**, dated September 24, 1878; application filed May 28, 1878.

To all whom it may concern:

Be it known that I, F. C. MILLER, of Newport, in the county of Campbell and State of Kentucky, have invented certain new and useful Improvements in Cigar Mold and Press, of which the following is a specification:

Figure 1 is a perspective view of my improvement, showing the method of using the same. Fig. 2 is an enlarged perspective of the mold in the press, with the presser elevated and the mold open.

The cigar-trade regards hand-made cigars of superior value as compared with mold-cigars, as heretofore made.

The two processes, as commonly practiced, may be briefly described as follows: In manufacturing by hand the core of the cigar, technically termed the "filler," is placed in one or more dampened or moist leaves, termed the "binder," and rolled up in such binder, the rolling being done on a table, and continued until the desired shape and tightness have been given to the "bunch," as it is now termed. The cigar is then at once completed by rolling the still damp bunch up in a dampened wrapper.

In molding cigars the filler is loosely rolled up in a dampened or moist binder, but not shaped. The loose bunch thus formed is placed in the mold, pressed to shape, and kept either under pressure or in a closely-fitting retainer until the shaped bunch has become dry, or comparatively so, and has lost its springiness or elasticity. After that the bunch is rolled up in the wrapper, to complete the cigar. The fact of letting the bunches of mold-cigars remain unwrapped for such a length of time not only affects the flavor of the cigar detrimentally, but it is also found that the wrapper will not as perfectly attach itself to a comparatively dry and inelastic bunch as it will when wrapped around a damp and elastic bunch, as is done in hand-made cigars.

One of the objects of my invention is to provide convenient means for practicing a process for making mold-cigars whereby results of hand-work may be very closely approached. To this end I provide a cigar-mold press which operates, in connection with a single fixed and two or more interchangeable removable members of a multicavous mold, in such a way that the bunches may remain under pressure long enough to become sufficiently set in shape for wrapping without interrupting the work of the cigar-maker, who, in practicing my process, removes the previously-pressed bunches from one of the interchangeable members of the mold, and fills the matrices thereof with fresh bunches while the companion interchangeable member is in the press.

In the particulars above set forth my invention is essentially different in principle from the art of making cigar-bunches by means of a press which operates with a unicavous mold, where the pressure is, in practice, exerted only for a few moments, (and that occasions a loss of the workman's time,) so that the bunch does not become set in the press, but is merely shaped, and is then placed in a separate mold or "retainer," as the device is termed, which is used as an auxiliary to this kind of press to hold the shaped bunches until they become set.

It is obvious that my method cannot be practiced with this old style of press, even if two interchangeable female half-molds were used with it, which has never been done, so far as I know; for to let each bunch remain in the press long enough to become set would result in such slow work and in such a waste of the workman's time that to merely mention this mode of working the press is enough to show its utter impracticability and absurdity.

My invention entirely obviates the use of separate retainers, and enables a workman to do more work in a better manner with a single fixed half and two interchangeable halves of a multicavous mold than he could do heretofore with two complete multicavous molds.

The several novel features of my invention are specifically set forth in the claims at the close of this specification, and will be clearly understood from what has already been said, and what follows.

A B C represent an ordinary cigar-maker's table; D, a bunch of cigars, wrappers, and binders; E, a cutting-board and knife, and G the base of the press. H represents a platen or follower.

The following are the parts preferably used for operating the press: I I represent sleeves, cast on and forming a part of goose-neck standards K, brace *t*, and base G. *r r* represent short shafts, rigidly attached to the platen H. These shafts *r* work in the sleeves I, and serve as guides to support and keep platen H in exact parallelism with the bed as the parts are raised or lowered. M represents a shaft working in bearings pierced through sleeves I. At either end are crank-pins *n*. The eccentricity of pins *n* to shaft M determines the distance the platen or press H is raised and lowered. O O represent ears; L L, pitmen, pivoted at one end to crank-pins *n*, and at the other end to ears O O by pin P; V, a handle, for oscillating shaft M, and, by means of the cranks *n*, pitman L, and pivots P, the platen H is raised or lowered as the handle V is turned forward or backward by the operator.

It is obvious that a screw, cam, or other means may be employed to raise and lower the presser. Such changes in this mechanism of the press would not affect other features thereof.

h h represent ribs on the top of platen H, to strengthen it. S represents the bottom half of an ordinary cigar-mold, having a series of matrices, in which the bunches are placed for shaping. At either end a groove, *x*, is made in the end of the matrix-block, into which catches *w* engage, the object of which is simply to hold the matrix-block from rising when the lid is withdrawn.

Any other means for holding down the matrix-block may be employed; but this I deem to be the best mode.

R represents the upper half of a series of plungers attached to a suitable backing, and may be of the ordinary style of manufacture. This backing, with its series of plungers, is firmly secured to platen H, preferably by thumb-screws T, so that the plunger-block may be changed at will, and yet firmly secured in place.

Two or more removable and interchangeable matrix-blocks are used in connection with the fixed plunger-block, and it is important to have the matrix-block always brought to the same exact point, so that when the lid or plunger-block is carried down by the press, the plungers will enter freely, yet fit the matrices nicely at either edge. This may be accomplished in several ways—first, a series of stops placed on the back and end of the press or lid may be employed; but I prefer to use the ordinary dowel-pin *o'* at each end of the molds, to act as guides and stops to bring the lower part of the mold into position. This is done by cutting away the wood of the plunger-block from the pin-hole outward to the front edge of the lid, as shown in Fig. 2.

It is obvious, also, that the dowel-pin might project from the top part of the mold, and the notch for the pin to fit so as to act as guide and stop, might be cut in the lower part of the mold, without effecting the result.

By the method here shown of making the molds and attaching them to the press, I have improved the process of making cigar-bunches, and at the same time cheapened the cost of construction.

Cigar-makers have hitherto used the molds to shape their bunches in the following manner: Each cigar-maker has from five to fifteen molds. Each mold is taken and the lid removed, the bunches made and placed in the matrices, the lid or plunger-block placed in position, and a number of molds thus filled are placed in a large press on the floor, and after shaping by pressing they are left long enough to set. When set they are removed from the press, the lid taken off by hand, and the bunches wrapped. The renewing and handling of the lids rapidly wears off the edges of the plungers, which cause creases in the bunches, and this frequent handling soon wears out the mold.

Another objection to this method is the difficulty of removing the lid from the matrices when the parts of the molds are fitted snugly enough to do fine work. This close fitting renders it extremely difficult to remove the lid by hand. One end of the lid will generally be raised quicker than the other. This causes the plungers to be broken or torn off from the backing.

By my method each workman has a small press on the table, as shown in Fig. 1, and two matrix-blocks, interchangeably used with the plunger-block or lid, securely attached to the press. The workman fills a matrix-block with bunches and slides it into position in the press, and, by turning handle V toward him, brings the plungers evenly and truly into position, thus putting on the lid and shaping the bunches with one motion. He then fills the second matrix-block, by which time the bunches in the first block have set, and he throws back the handle of the press, which raises the lid, and the matrix-block is removed and the other introduced. The workman then wraps the set of bunches removed from the press and refills the matrix-block with bunches, and repeats the operation before described.

Another mode is as follows: One workman, with a press having the lid secured as described, may, with several sets of matrix-blocks, make bunches for other workmen to wrap.

It will be seen that, instead of having the lid raised and lowered into the matrices, the lid and top part of the press may be made stationary, and the lower part of the press and the matrix-block may be raised to come into contact with the lid; but I prefer the former method.

I claim—

1. The combination, substantially as specified, of a press, a fixed member of a multicavous mold, and interchangeable corresponding movable members having matrices for receiving the bunches to be shaped, whereby the art of making cigar-bunches that become set suffi-

ciently for wrapping by sustained pressure in the press itself may be practiced in a continuous manner.

2. The combination, substantially as specified, with the bed and platen of a press, of a cigar-mold, one member of which is permanently secured in the press, while the other member can be slid in and out, and means which stop the movable member on inserting it in the press in exact juxtaposition to the fixed member.

3. A cigar-mold press the platen of which is operated by means of crank-shaft M, pitman L, guide-rods *r*, sleeves I, and handle V, substantially as set forth.

In testimony whereof I have hereunto set my hand this 22d day of May, 1878.

FREDRICK C. MILLER.

Witnesses:
E. E. WOOD,
C. M. GALOGHER.