F. C. MILLER.

CIGAR-MOLDS.

No. 182,319. Patented Sept. 19, 1876.

Fig. 1.

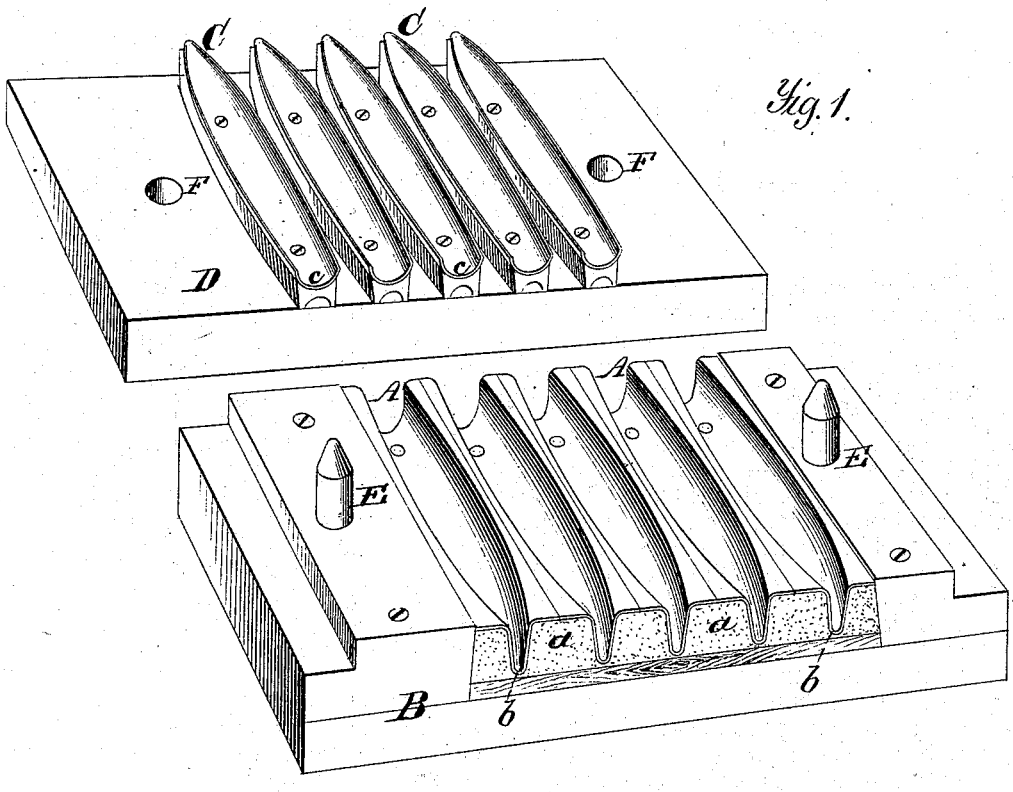
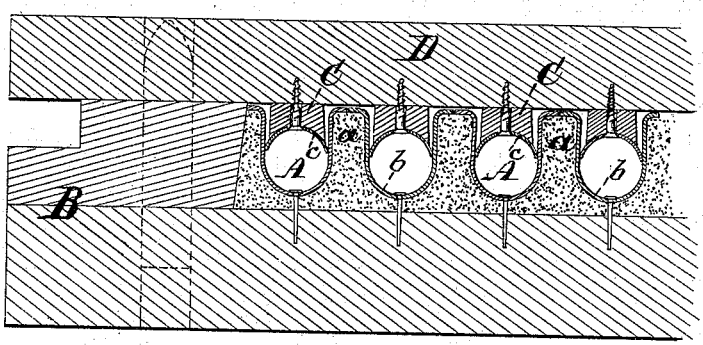


Fig. 2.



Witnesses.
A. Ruppert.
L. Van Riswick.

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Inventor.
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Atty's

UNITED STATES PATENT OFFICE.

FREDRIC C. MILLER, OF CINCINNATI, OHIO.

IMPROVEMENT IN CIGAR-MOLDS.

Specification forming part of Letters Patent No. **182,319**, dated September 19, 1876; application filed July 25, 1876.

To all whom it may concern:

Be it known that I, FREDRIC C. MILLER, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a certain Improvement in Cigar-Molds, of which the following is a specification:

This invention relates to cigar-molds employed for pressing loose bunches of tobacco which are to form the bodies or fillers of cigars into the required compactness and cigar shape, and to that class of these molds, more particularly, at least, in which the half-molds are, respectively, male molds and female molds.

My invention consists, first, in making such molds of wood, metal, or any other suitable material, in substantially the form required for pressing loose bunches of tobacco into cigar shape, and lining the matrices with rigidly-attached sheet metal, which will secure the required smooth finish without scarcely any dressing; second, in so forming the male molds that the sheet-metal lining projects with its edges that enter the female mold slightly beyond the base, to which it is secured, and which sustains it at all other points. By this means a fine edge is obtained for the male molds, so that they can compress and shape the bunches of tobacco without leaving any perceptible creases thereon.

In the annexed drawing, Figure 1 is a perspective view of the improved cigar-mold, showing the two halves separated. Fig. 2 is a longitudinal section thereof.

The same letters of reference are used in both figures in the designation of identical parts.

I have illustrated a multiple mold adapted to press a number of bunches of tobacco into cigar-fillers at one operation. The female molds A fill a recess in the block B, and the male molds C project from the block D. The female molds consist of cavities or matrices of the required shape, divided by partitions *a*. The lower portion of each matrix is the counterpart of the exterior of one-half of a cigar-filler, sunk by vertical, or nearly vertical, sides, to such a depth that the loose bunch of tobacco, when packed in the matrix preparatory to pressing it, may not protrude from the matrix. These female molds may be made of cast-iron, wood, or any other preferred suitable material, but in every case they must be lined with a sheet-metal lining, *b*, struck up so as to snugly fit the matrix-surface at all points. The lining laps over the upper surface of the partitions, and a separate lining-piece is preferably provided for each matrix for facilitating repairs. These separate lining pieces meet edge to edge along the center-line of the partitions, and they are secured by nails or screws, or in any other manner that may suggest itself to a skilled workman or manufacturer of these molds.

The male molds are plungers adapted to the matrices of the female molds, and they are of such a depth that, when pressed home, their extreme edges will reach the line where the cross-sectional curvature of the matrices of the female molds begins. These plungers or male molds have a concave face corresponding also to the contour of one-half of a cigar-filler. The body of the plungers is not, however, a complete half-mold. Its width is slightly less than the width of the matrices of the female mold, and it is made a complete half-mold only by the sheet-metal lining *c*, which slightly protrudes from the body of the plunger all around. This sheet-metal lining *c* is struck up to the precise form required, and secured to the body of the plunger by suitable means, which may, at the same time, serve to secure the plunger to the block D, if the plungers be separate parts, as shown in the drawing.

The blocks B and D may be of wood or any other suitable material, and the molds A and C may either form constituent parts thereof, or constitute separate pieces, suitably secured to the blocks. The half-molds A and C are so disposed that they will register perfectly when the mold is closed, and they are brought in correct line with one another by causing the dowel-pins E on block B to enter corresponding holes F in the block D in the act of closing the mold.

The lining of the matrices of the half-molds with sheet metal possesses important advantages, some of which may be briefly stated, as follows: It provides a surface sufficiently smooth for practical purposes, which it is impossible to obtain in molds wholly of cast-iron or wood, without very careful and thorough dressing, rendering the mold quite expensive.

It affords facilities for repairing the molds possessed by neither the wooden or cast-iron molds. It combines the strength of the cast-iron or wooden mold with the smoothness of a sheet-metal working-surface.

I am aware that cigar-molds have previously been made of sheet metal without any solid base, giving support to the sheet metal all around the cavity and from end to end thereof. Such a mold is properly a sheet-metal mold, and not a sheet-metal-lined mold. I am also aware that molds are known, each half of which is composed of a solid body, provided with a cigar-shaped trough of sheet metal, so attached to the body that it may expand and contract independently thereof, spaces being left for that purpose between the body of the mold and the sides of the cigar-shaped sheet-metal trough. Such a mold is properly a flexible sheet-metal mold, and not a sheet-metal-lined mold.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A cigar-mold block, the cavity of which is sheathed with a rigidly-attached sheet-metal lining, substantially as and for the purpose specified.

2. The male mold-block, having the rigidly-attached sheet-metal lining protruding slightly from the body of the mold, substantially as and for the purpose specified.

In testimony whereof I have signed my name to the foregoing specification in the presence of two subscribing witnesses.

FREDRIC C. MILLER.

Witnesses:

HENRY O. RAWLINGS,

CHAS. A. BARTCHER.