

(No Model.)

F. C. MILLER & H. C. PETERS.

CIGAR MOLD.

No. 244,915.

Patented July 26, 1881.

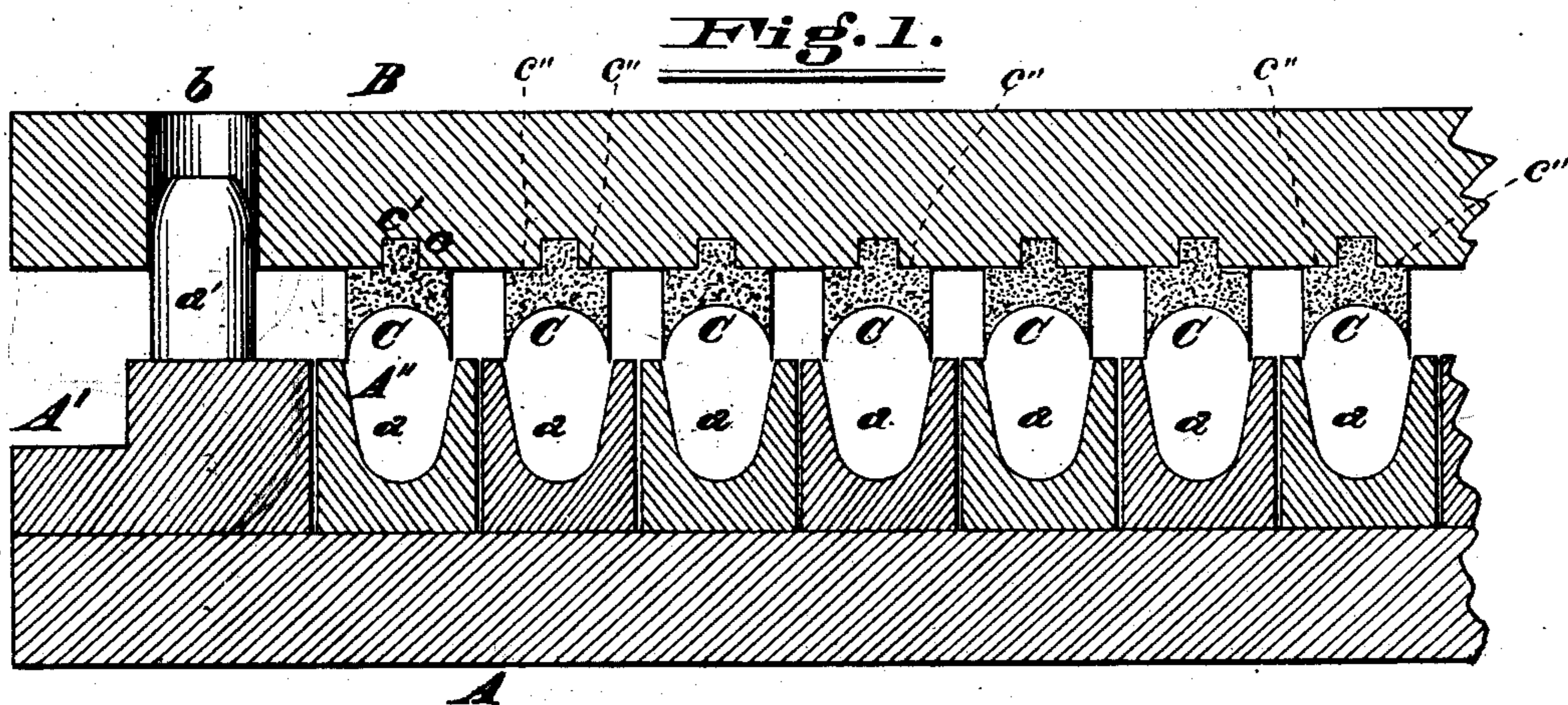


Fig. 3.

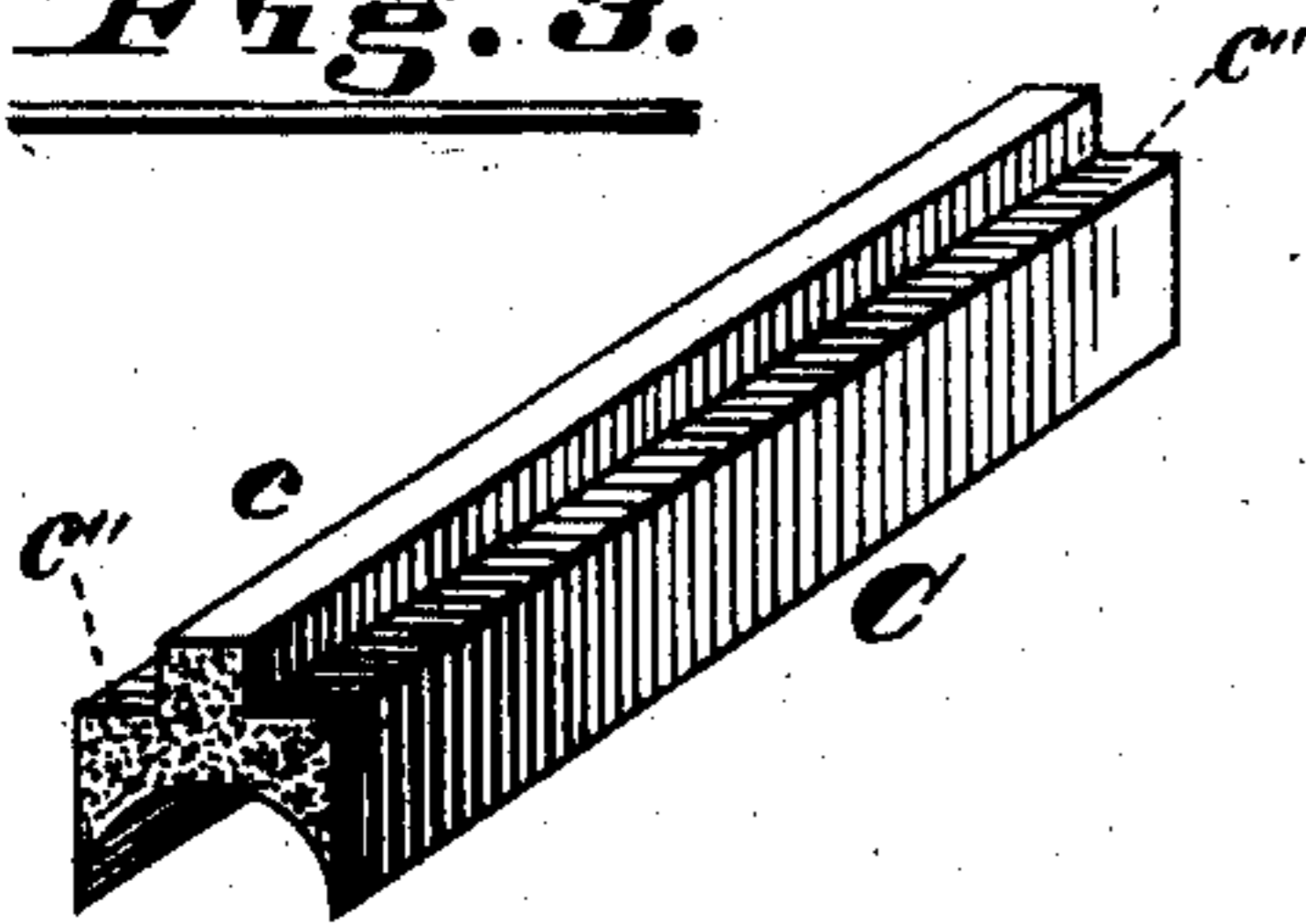


Fig. 2.

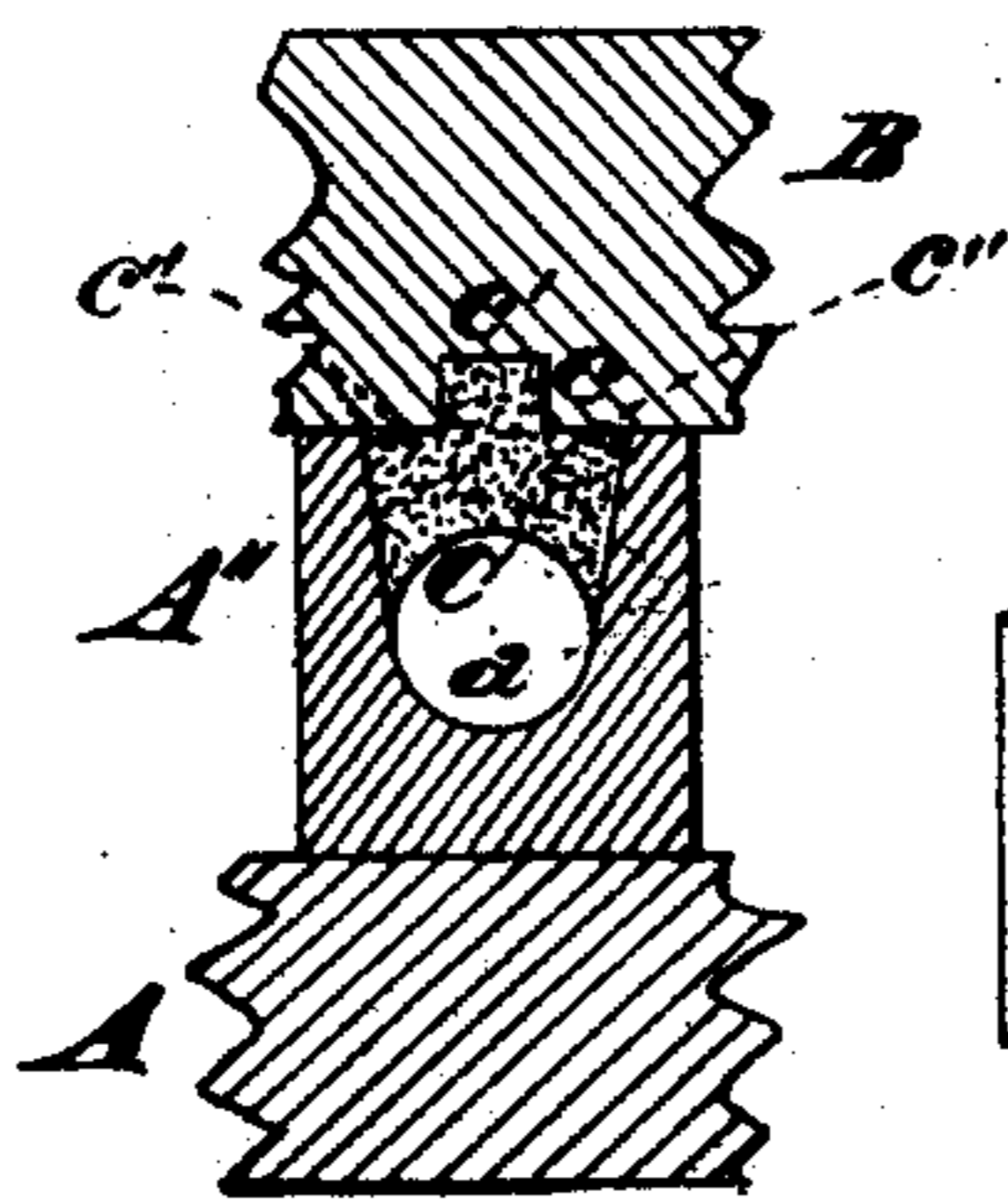
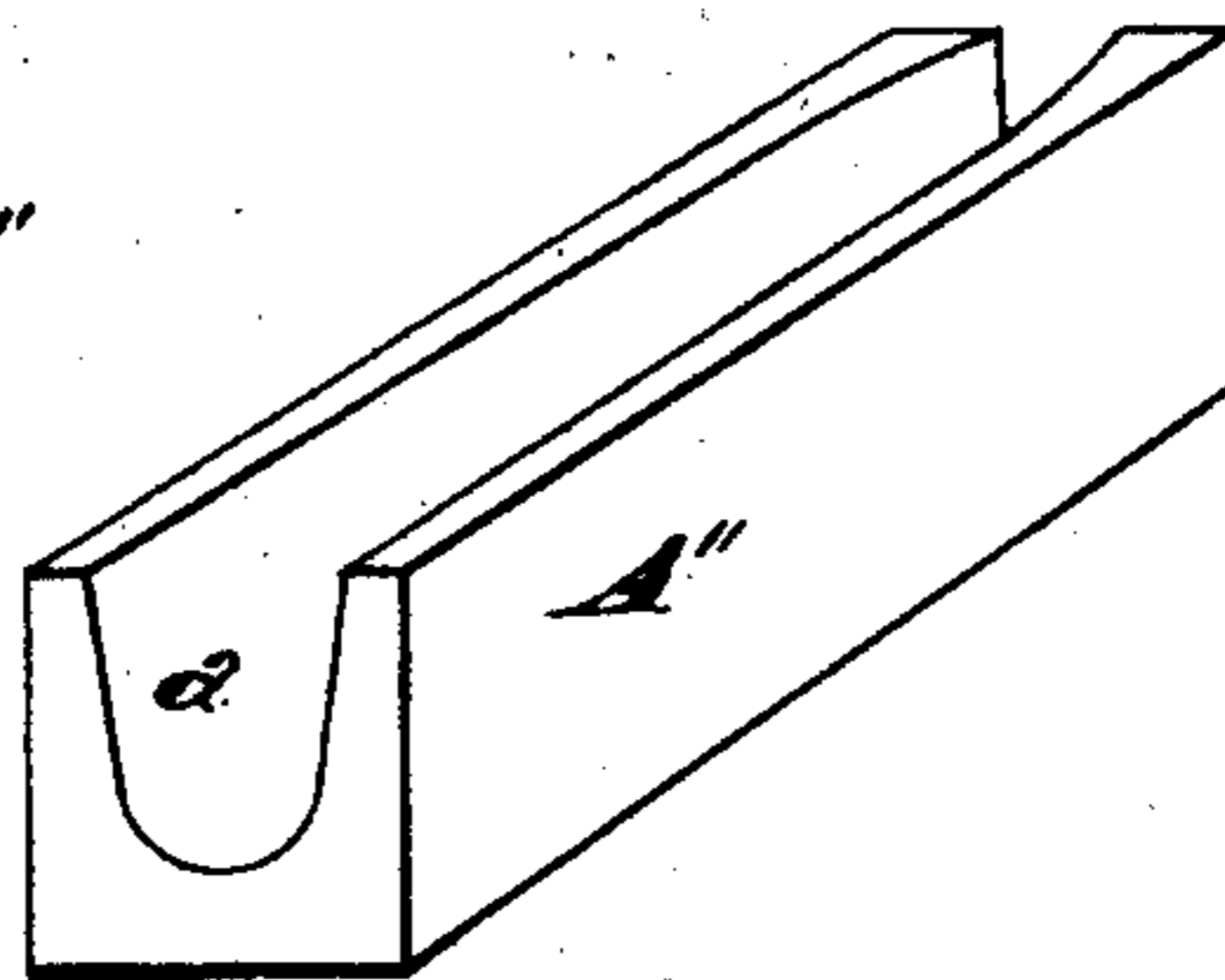


Fig. 4.



Attest

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UNITED STATES PATENT OFFICE.

FREDRICK C. MILLER AND HENRY C. PETERS, OF NEW YORK, N. Y.

CIGAR-MOLD.

SPECIFICATION forming part of Letters Patent No. 244,915, dated July 26, 1881.

Application filed October 12, 1880. (No model.)

To all whom it may concern:

Be it known that we, FREDRICK C. MILLER and HENRY C. PETERS, citizens of the United States, and residents of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Cigar-Molds, of which the following is a specification.

The object of this invention is to obtain the exact register between a series of cup-shaped plungers and a corresponding series of matrices in a cigar-mold; also, to secure the cup-shaped plungers and the matrices to their respective backings in a simple, better, and more effective manner than heretofore, and also to adapt the edges of the cup-shaped plungers to be compressed laterally toward the axes of the plungers as the latter enter the matrices, in order to prevent creasing the bunches of tobacco as the diameter of the latter is diminished by the compression of the bunches.

To such end the invention consists, first, in the combination, in a cigar-mold, of the lid having a series of parallel grooves formed therein, and a series of plungers having tongues fitted and held within the said grooves of the lid, with the series of sectional matrix-blocks united to form the lower portion of the mold and made to register over the cups of the plungers; second, in the combination, in a cigar-mold, of a backing-board with plungers formed of blocks of elastic material having longitudinal tongues, which are secured in grooves in said backing-board, while the shoulders on each side of said tongues rest loosely against the board, and a backing-board provided with matrices registered with said plungers and having the side walls of their cavities made flaring outwardly, whereby the sides of the plungers will be pressed toward the axes of the latter by the action of the matrices without danger of tearing said plungers from their backing-board, all as hereinafter fully described, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a longitudinal section of a cigar-mold illustrating our present invention, a portion of the mold being broken away. Fig. 2 is a longitudinal section taken in a vertical plane, and illustrating a cup fitted into and compressed within its matrix. Fig. 3 is a perspective view

of one of the cups, and Fig. 4 is a perspective view of one of the matrices.

A indicates the base or backing for the matrix-blocks in the lower portion of the mold, said base or backing being composed of a piece of rigid material.

A' indicates one of the end sections of the lower part of the mold, said end sections consisting of a block provided with a dowel-pin, *a'*, adapted to enter a mortise in the lid B, in order to guide the latter as it is closed upon the lower portion of the mold. The said base will also be provided at its opposite end, which is not herein shown, with a similar block or end section having a dowel for a like purpose. The lower portion of the mold between these end sections is composed of a series of independent sections, each section consisting of a matrix-block, A'', secured to the base or backing A by means of glue or cement, in the manner hereinafter described.

B indicates the rigid backing or lid to which the plungers are attached. This lid or backing has a series of grooves, C', corresponding to the number of plungers employed, cut in its under side and arranged parallel with each other. The plungers C, which are attached to the lid or backing, consist each of an elastic cup provided with a tongue, *c*, of the proper size and shape to fit into the grooves of the lid or backing. The tongues of the plungers are fitted in the grooves of the lid or backing, and secured therein by means of glue in order to hold the said members in rigid connection. The shoulders *c''* of the plungers, however, are not glued or secured to the lid or backing, but fit loosely against the same. Were the entire top surfaces of the plungers glued to the lid or backing, it is obvious that lateral compression of the elastic flexible plunger would have a tendency to tear the plunger from the lid or backing; but by forming the elastic plungers with tongues which are secured within grooves of the lid or backing and arranging the shoulders at the sides of the tongues to fit loosely against the said lid or backing, said shoulders will slip upon the backing as the sides of the plunger are forced together, and resume their normal positions as soon as the pressure is released.

Experience has shown that in the use of or-

dinary material, such as wood or metal, for making the plunger-cups, the matrices having tapering sides cannot be employed, as the plunger-cup will not fill the matrix during the operation of pressing, and the bunch of tobacco of which the cigar is formed will be creased. In the present instance the matrices *a* have their sides flaring outwardly, and the plungers are composed of solid and elastic cups, the cups during operation filling the top or wider part of the matrices in entering the same, and as the plungers are further depressed the sides of the cups will be compressed laterally toward the axis of the plunger, so that the edges of the cup will gradually approach each other as the diameter of the bunch is diminished, and all creasing of the same be thereby avoided.

In attaching the plungers and matrices to their respective backings we first glue the tongues of the plungers in the grooves in the lid or upper backing; then we invert the lid and place upon each plunger a matrix with its bottom side up. We next coat the backs or under sides of the matrix-blocks with glue and lay the base or backing *A* upon them, after which we subject the whole to suitable pressure until the glue has dried and secured the contiguous surfaces together. The matrices will thus be secured in exact coincidence with the plungers, so as to register properly therewith when the mold is used for compressing the bunches of tobacco. It will be seen that each matrix exactly registers with its plunger, and that all of the matrix-blocks are rigidly attached to a common backing.

The construction imparted to the cups to enable compressibility of the same when inserted into the matrices is shown and described here-

in, but not claimed, as we intend to make the same the subject-matter of a separate application for Letters Patent.

Having thus described our invention, what we claim is—

1. The combination, in a cigar-mold, of the upper portion of the mold, composed of the lid *B*, having a series of parallel grooves, and the plunger-cups *C*, having tongues *c* fitted and secured in said grooves, with the lower portion of the mold, composed of the base *A*, the end blocks, *A'*, and the independent matrix-blocks *A''* secured to the said base and arranged to register with the plunger-cups, substantially as described.

2. The combination, in a cigar-mold, of the backing-board *B*, provided with the plungers, formed of blocks of elastic material provided with longitudinal tongues *c*, which are secured in grooves in said board, while the shoulders on each side of said tongues rest loosely against the board, and the backing-board *A*, provided with the matrices registered with said plungers and having the side walls of their cavities flaring outwardly, substantially as described, whereby the sides of said plungers respectively may be pressed toward each other by the action of the matrices without danger of tearing said plungers from their backing-board.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

FREDRICK C. MILLER.
HENRY C. PETERS.

Witnesses:

JAS. S. HARVEY,
P. W. OSTRANDER.