

No. 847,558.

PATENTED MAR. 19, 1907.

N. DU BRUL.  
CIGAR MOLD.

APPLICATION FILED MAY 7, 1906.

FIG. 1.

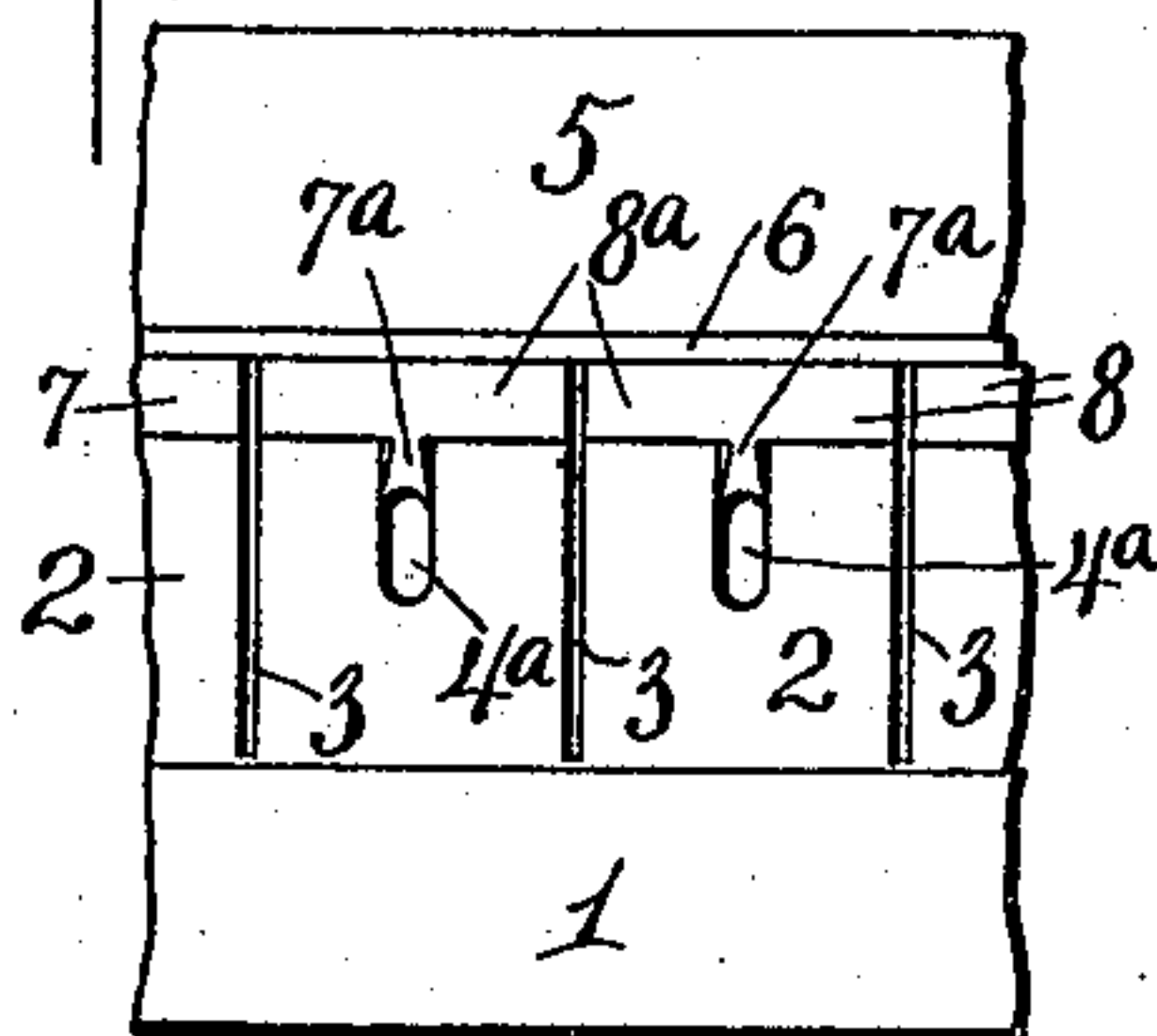


FIG. 2.

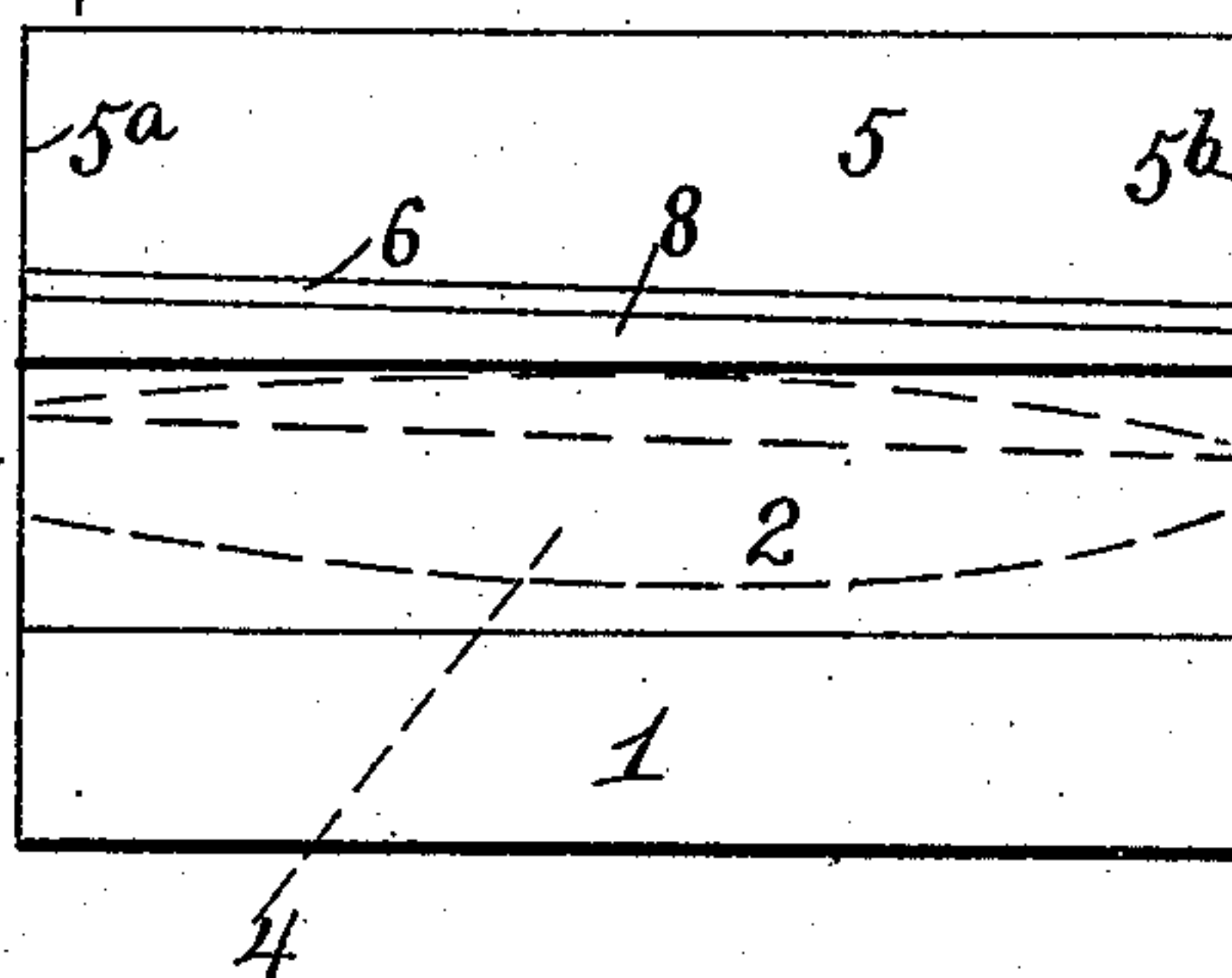


FIG. 3.

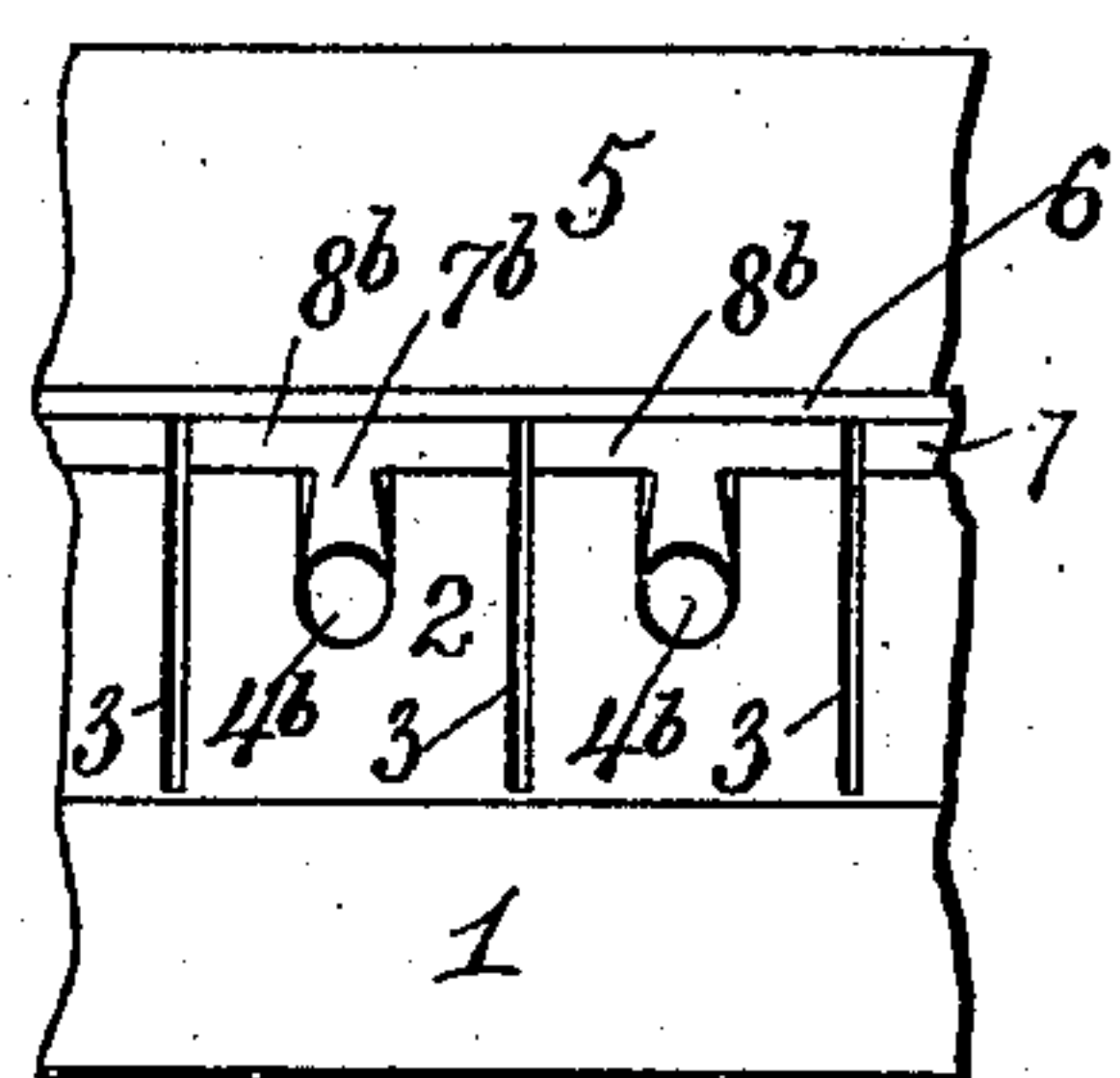


FIG. 4.

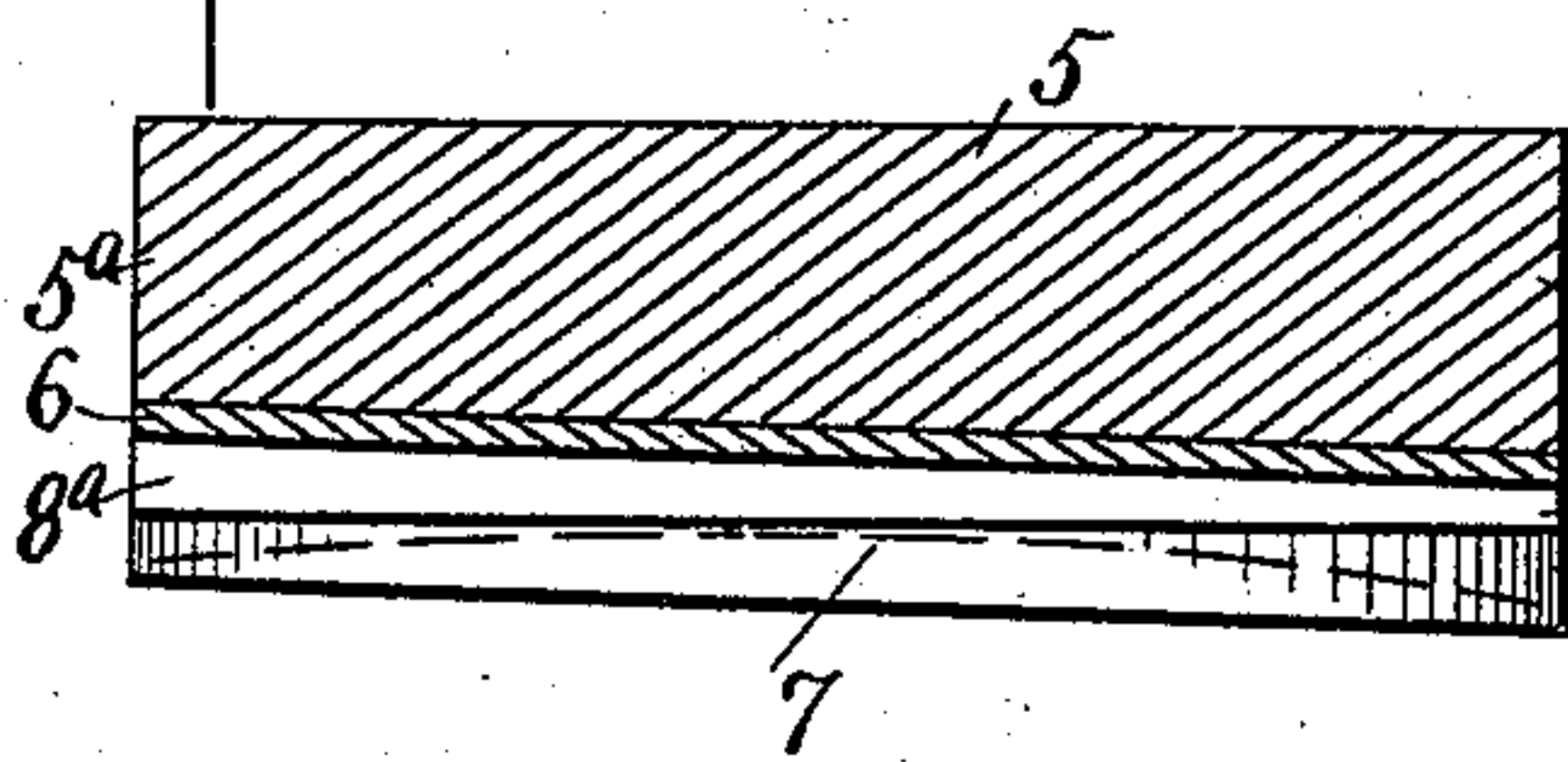


FIG. 5.

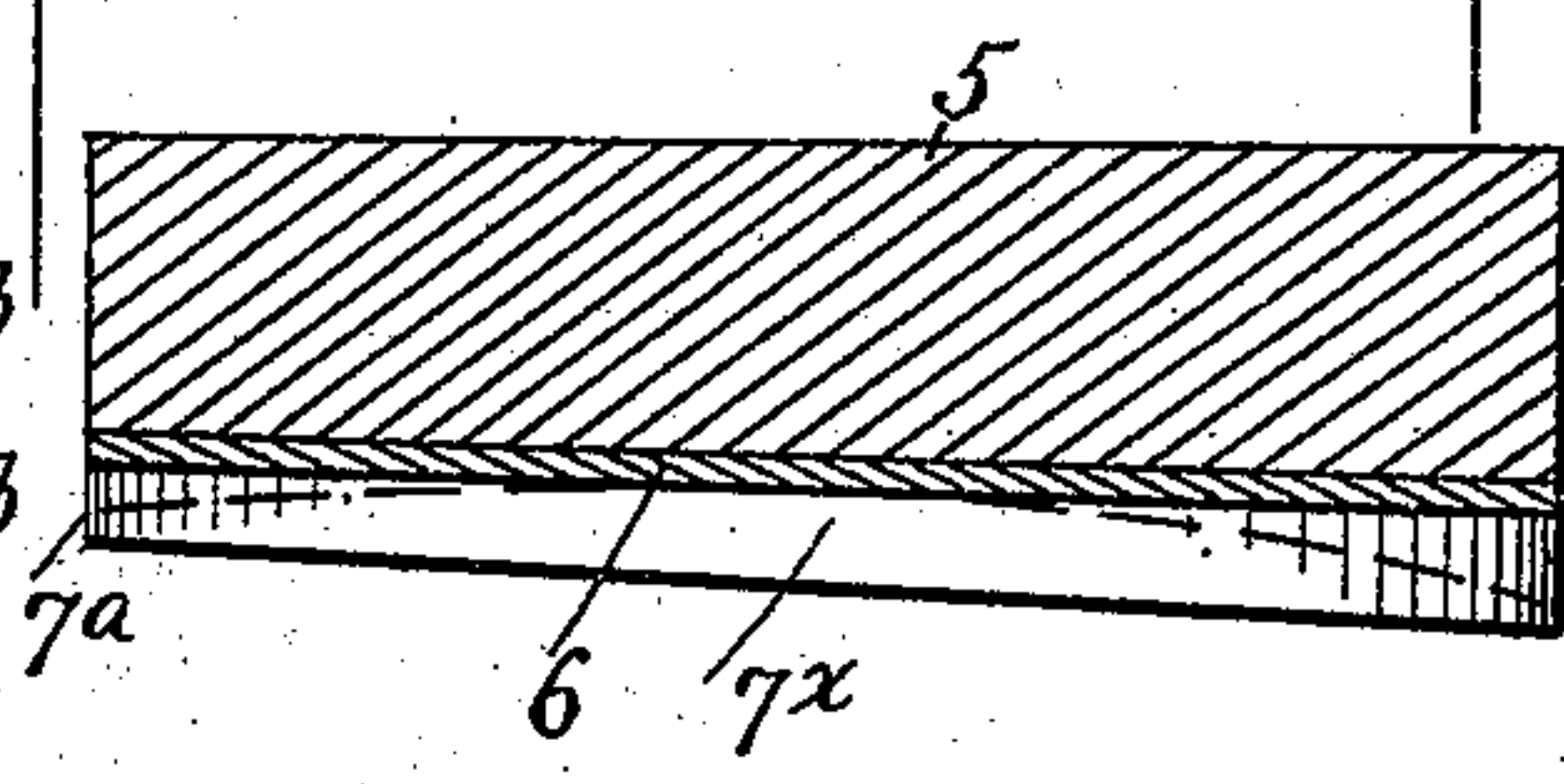


FIG. 6.

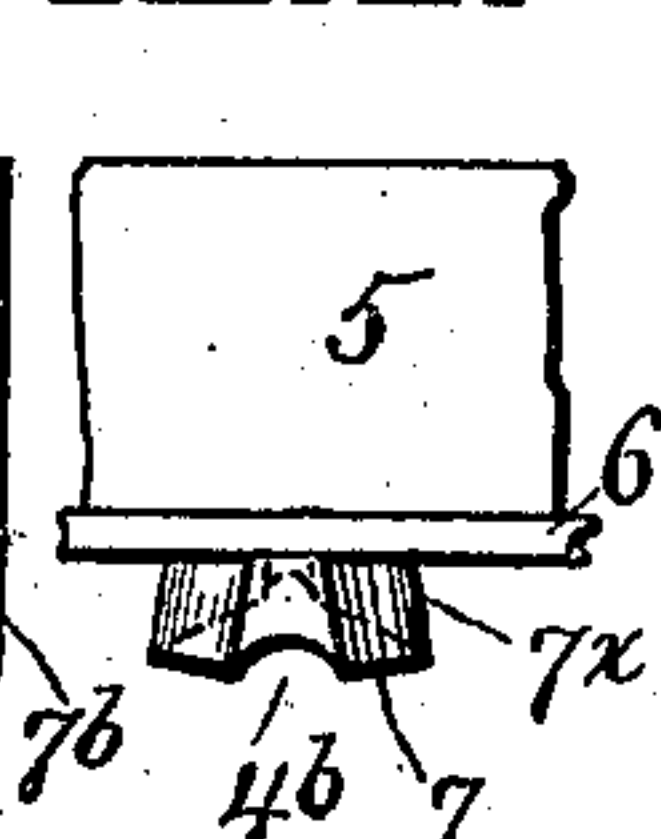


FIG. 7.

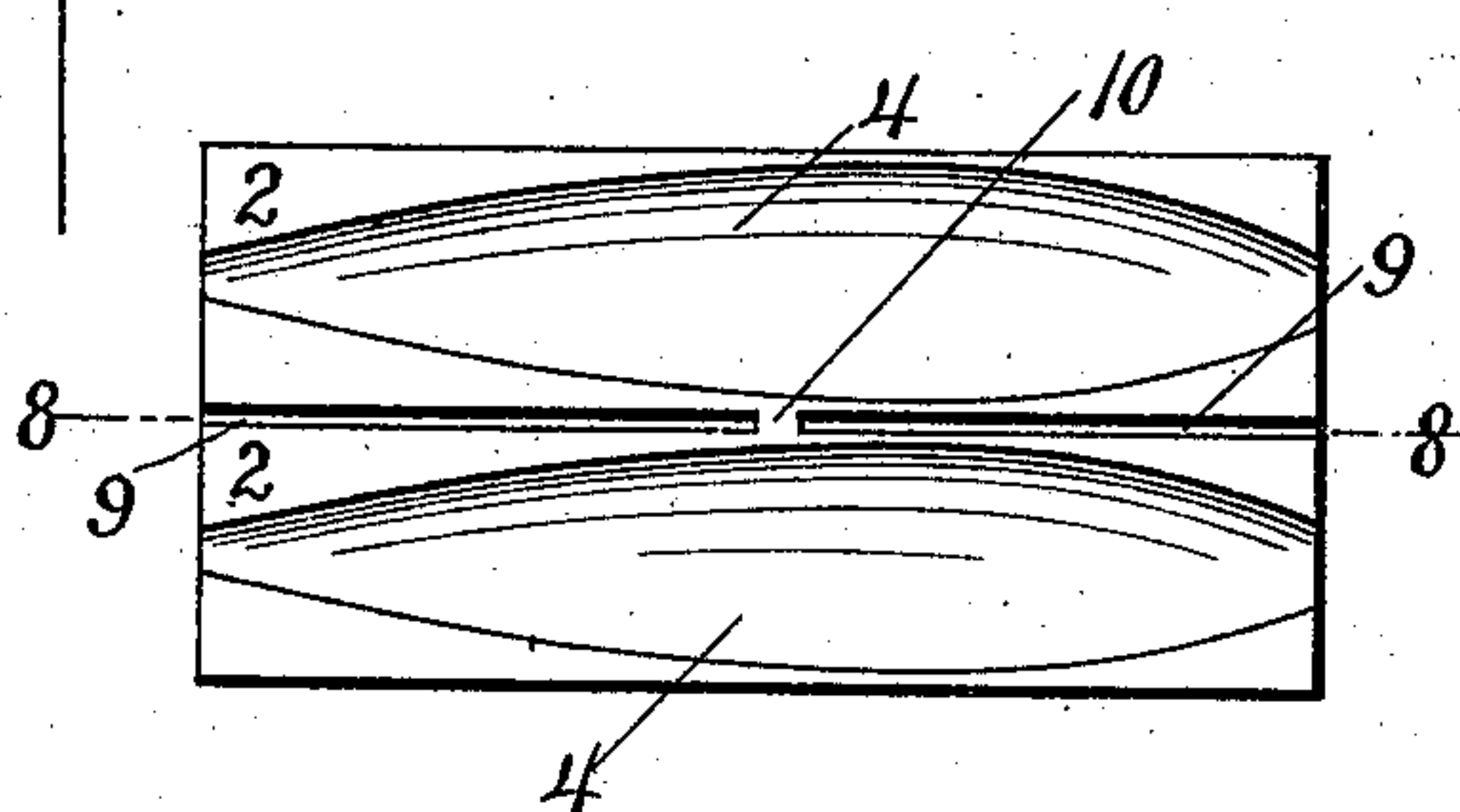


FIG. 8.

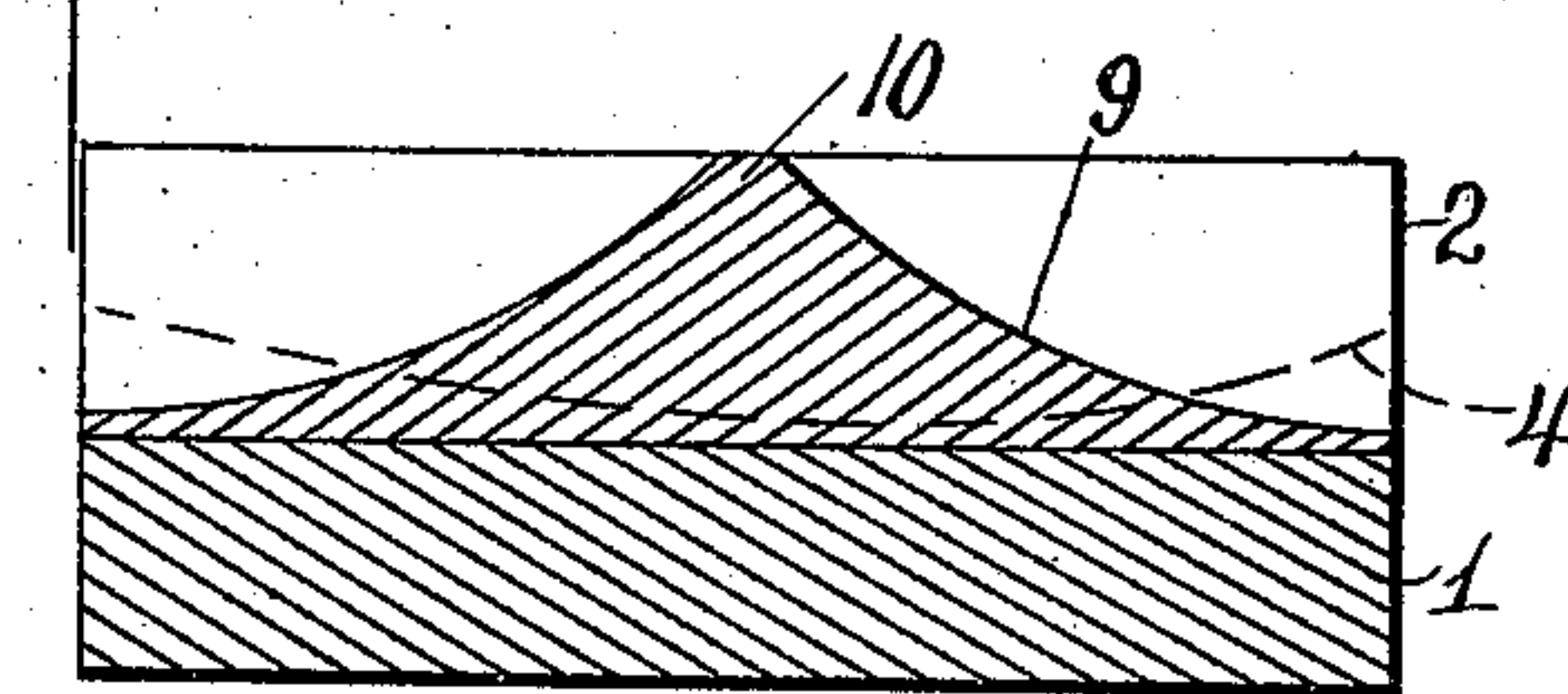
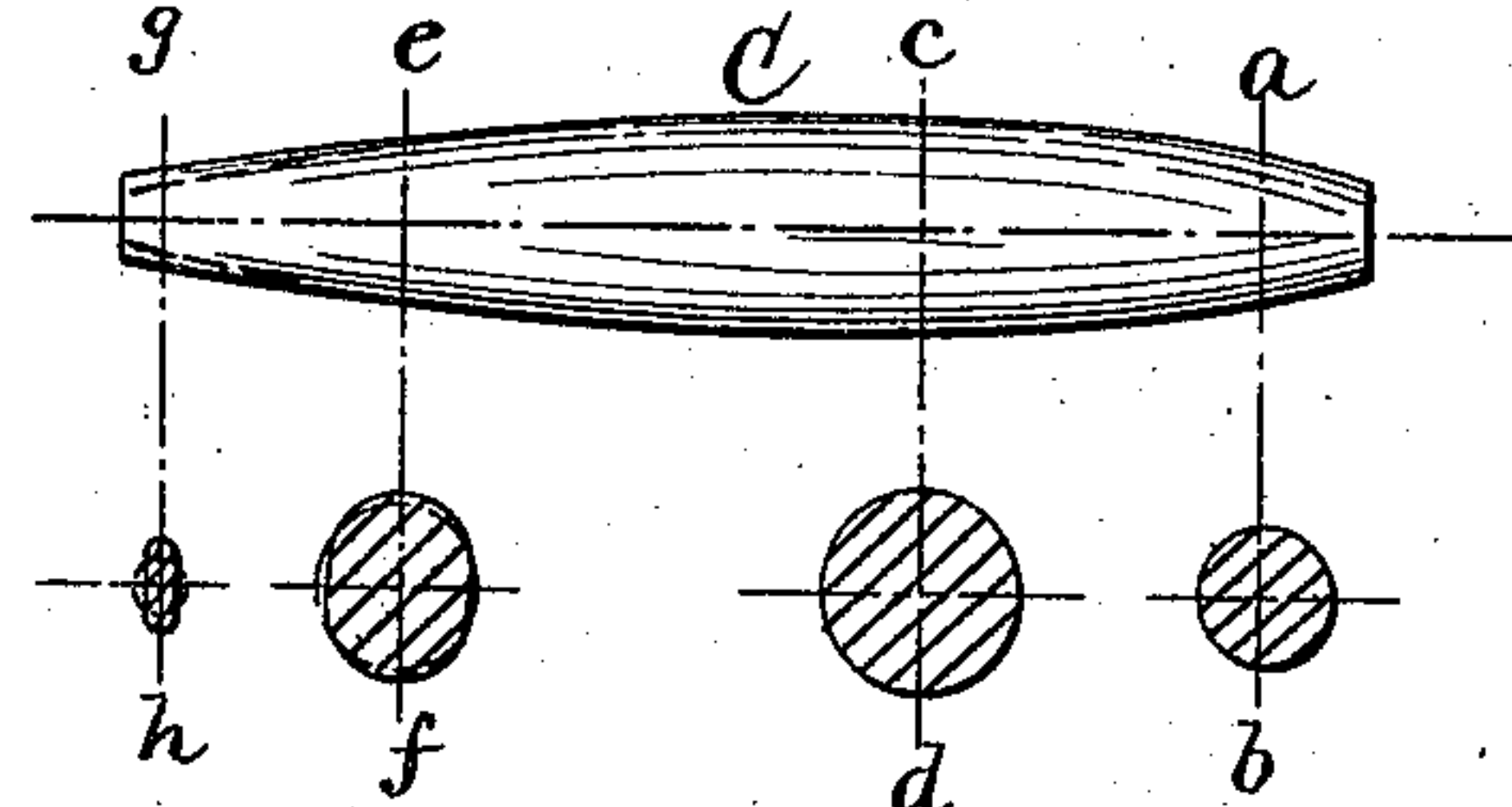


FIG. 9.



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# UNITED STATES PATENT OFFICE.

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## CIGAR-MOLD.

No. 847,558.

Specification of Letters Patent.

Patented March 19, 1907.

Application filed May 7, 1906. Serial No. 315,585.

*To all whom it may concern:*

Be it known that I, NAPOLEON DU BRUL, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Cigar-Molds and Methods of Manufacturing Cigars, of which the following is a specification.

In the manufacture of hand-made cigars the lower cavity of the mold is generally used as a gage or measure of the quantity of tobacco to be used for the filler. Cigar-molds have heretofore been so made that when the mold members are closed together the mold-chamber is of substantially circular cross-section throughout its length, and with this construction of mold it has been found practically impossible to insure a uniform grade of work, because the cigar-maker by lack of care or skill will frequently introduce such an amount of tobacco at the point end of the filler as to render that end too tight under the pressure of the mold and make the finished cigar hard to draw. To obviate this difficulty, I so construct the mold as to produce a bunch that will insure a loose or easy drawing-point end in the ultimate cigar even though the work of the cigar-maker in forming the bunch may not be up to the highest standard—that is to say, I so construct the mold that while the chamber of the closed mold will be of circular or approximately circular cross-section throughout the greater part of its length it will have one of its transverse dimensions gradually increased at the point end, so that the molded bunch will be substantially circular in cross-section throughout the greater part of its length and correspond accurately to the shape of cigar which it is desired to produce, while the point end of the bunch will be elliptical in cross-section, and even though embodying an excess of tobacco when the molded bunch has the wrapper rolled around it the elliptical point end will be changed to circular section by the act of rolling before finishing the point, and the pressure thus brought to bear in the direction of the greater axis of the point end will necessarily loosen up the point and cause the cigar to draw freely as desired.

One part of my invention, therefore, consists in molding a cigar-bunch with a circular or substantially circular section throughout the greater part of its length, but with one of its transverse dimensions greater than the other at or near the point end of the bunch,

and thereafter rolling the elliptical point end or otherwise reducing its said greater dimension (preferably bringing it into substantially circular section) to insure the production of a loose or freely-drawing point end in the finished cigar, this rolling or loosening effect being preferably produced by the act of applying the wrapper to the cigar.

Another part of my present invention consists in a cigar-mold constructed with molding-chambers circular or substantially circular throughout the greater part of their length, but with one of their transverse dimensions (preferably that one which lies in the direction of molding pressure) greater than the other, whereby the mold is made to produce a cigar-bunch of the shape already described.

It is also found in practice that in molds as heretofore constructed with saw-kerfs running completely through from side to side of the block of molds between each two cavities the walls of these cavities are left very weak and when bunches are compressed into the cavities they force the walls outward and cause them to deviate from the original size of the mold.

A further object of my invention is to retain the original effect and advantages of saw-kerfs between the cavities, but to avoid the disadvantages referred to.

A further feature of my invention, therefore, consists in providing ties or spacing portions between the cavities, preferably along the middle line of the block of molds. In carrying out this feature of my invention I form the saw-kerfs from the sides of the block inward toward, but not entirely to, the center in the lower member, so as to leave a portion of the wood remaining as a tie or spacing means between the walls of the cavities at their middle points, while the remaining portions of the walls are separated by kerfs to prevent the wood from swelling or cracking under atmospheric changes.

Further features of my invention relate to certain details of construction of the several parts whereby the above-mentioned objects are attained, as will be hereinafter more fully described.

For convenience in describing my invention I shall use the word "cigar-mold" as referring to a block of cavities or lower members, with their cooperating cups or upper members.

In the accompanying drawings, Figure 1



shows in elevation a portion of that side of the mold which presents the smaller or point ends of the cavities to view. Fig. 2 is an end view of the mold. Fig. 3 shows in elevation a portion of the side of the mold opposite to that shown in Fig. 1, presenting to view the ends of the cavities corresponding to the large or tuck ends of the cigar bunches. Fig. 4 is a detached side view of one of the upper or cup members constructed with an attaching-flange. Figs. 5 and 6 are a side and an end view of an upper or cup member constructed without the attaching-flange. Fig. 7 is a plan view of a portion of the lower member of the mold, showing separating-kerfs extending from the sides toward the center. Fig. 8 is a transverse section taken in the plane of one of the kerfs in the lower member; and Fig. 9 shows by side and sectional views the shape of a cigar-bunch as it comes from the mold; also the change in the section of the point end which results from rolling the wrapper upon it.

1 represents the lower base member of a mold carrying matrix-blocks 2, separated by saw-kerfs 3 and formed with mold-cavities 4, and 5 is a top of the mold or backing of the upper member, which is preferably constructed with an inner layer 6, having the grain of its wood extending at right angles to the grain of the part 5 and having attached thereto upper cup members 7, which fit within the lower cavities 4 and form therewith the complete molding cavities of the mold. The cups 7 are preferably formed with the grain of the wood running perpendicular to the horizontal top of the mold and are preferably provided with attaching-flanges 8, by which to glue or otherwise secure them to the top or backing.

In order to produce a cigar-bunch of substantially circular section throughout the greater portion of its length, but with one of its transverse dimensions elongated at the point end for the purposes already described, I prefer to form the elongation in the direction of molding pressure, and for that reason limit the penetration of the cup member into the lower matrix at the point end of the cavity, as shown at 4<sup>a</sup> in Fig. 1, while the opposite large or tuck end, as shown at 4<sup>b</sup> in Fig. 3, has the cup member introduced to the full depth or until its concavity, coöperating with the concavity of the lower matrix, forms a molding-chamber of substantially circular section. In order to control the penetration of the cup member as described, I make the projection of the cup tapering from the large or tuck end to the smaller or point end, as indicated in Fig. 4, and this may be accomplished in either of two ways. In the form of cup employing an attaching-flange 8 the end 8<sup>a</sup>, corresponding to the point end of the cavity, is made thicker than the end 8<sup>b</sup>, which corresponds to the tuck end of the

cavity. In this construction the blocks from which the cup is made as they rest upon the lower member of the mold will have their upper faces inclined upwardly, whereas it is very desirable to have the top surface of the entire mold horizontal in order that molds may be conveniently stacked in presses. To counteract the inclination that would be given to the backing or top by the taper in the flange of the cups, I form one of the upper portions (preferably the backing member 5) with a suitable taper opposite to the taper in the cups, which renders the upper surface of the mold parallel with the lowermost surface of the member 1. (Compare the sides 5<sup>a</sup> and 5<sup>b</sup>, Figs. 2 and 4.)

It is not necessary that the cups be attached through the medium of flanges 8. They may have their entire vertical sides shaped to conform to the lower cavities in which they enter, and when so constructed the penetration of the point ends of the cup is restricted by tapering the vertical dimension of the entire block which forms the cup, as shown in Fig. 5. With this construction it is not necessary to taper the backing 5, since it rests directly through the medium of its inner layer 6 upon the lower member 1 of the mold.

In order to properly space apart the side walls of the lower cavities 5 while separating them sufficiently to prevent swelling and splitting under changes of temperature, I form the saw-kerfs 9 from the sides of the mold inward toward, but not reaching, the middle longitudinal line of the lower member of the mold, so as to leave a spacing and tying portion 10, as shown in Figs. 7 and 8. These kerfs are conveniently formed by dipping a rotary saw to the proper extent to make a kerf substantially as shown in Fig. 8; but the depth of these kerfs and the manner of making them, as well as the manner of providing a spacing and tying portion 10 between the walls, may be varied at will so long as the walls are left separate throughout a portion of their area and spaced at the proper distance by positive means for a portion of their area, preferably a restricted portion at or near the middle.

A cigar-bunch formed in a mold as disclosed by Figs. 1 to 6 will be given the shape indicated in Fig. 9, the greater portion with a circular section for nearly the entire length of the bunch, but with an elliptical or elongated section at or near the point end. The section can obviously be controlled at will by proper selection of the shape of the upper and lower cavities—that is to say, while the penetrating portion of the cup tapers from end to end the cavity can be so shaped in connection with this taper as to restrict the oval or elongated portion as much as desired to the point end of the bunch.

Having thus described my invention, what



I claim as new therein, and desire to secure by Letters Patent, is—

1. A cigar-mold having its upper and lower members formed to produce a molding-chamber of substantially circular section throughout the greater portion of the length but gradually elongated in the direction in which pressure is exerted by the mold.

2. A cigar-mold in which the penetrating portion of the upper or cup member is of less vertical dimension at the end which corresponds to the point end of the cigar-bunch than the remaining portion of said member.

3. A cigar-mold having the portion of its upper member or cup which enters the lower cavity or matrix tapered in depth or vertical dimension from the large end of the molding cavity to the point end thereof.

4. A cigar-mold comprising the lower member having a suitable number of cavities or matrices and an upper member resting upon said lower member and having cups projecting within the cavities or matrices; said projecting parts being tapered in the depth of their projection below the surface of the upper member which rests upon the lower member.

5. A cigar-mold comprising a lower member with one or more cavities or matrices, and an upper member carrying a corresponding number of cups projecting into said cavities or matrices; said cups being formed with flanges through which they are attached to the upper member and said flanges being tapered in thickness to cause the cup or cups to project into the lower cavities or matrices to a lesser extent at one end than at the other.

6. A cigar-mold comprising a lower member with one or more cavities or matrices, and an upper member carrying a corresponding number of cups projecting into said cavities or matrices; said cups being formed with flanges through which they are attached to the upper member and said flanges being tapered in thickness to cause the cup or cups to project into the lower cavities or matrices to a lesser extent at one end than at the other; the end of greater thickness and consequently the end of less penetration corresponding to the point end of the bunch to be formed.

7. A cigar-mold comprising a lower member with one or more cavities or matrices, and an upper member carrying a corresponding number of cups projecting into said cavities or matrices; said cups being formed with flanges through which they are attached to

the upper member and said flanges being tapered in thickness to cause the cup or cups to project into the lower cavities or matrices to a lesser extent at one end than at the other; said upper member being constructed with a base or backing which tapers in vertical dimension inversely to the taper in the attaching-flanges of the cups whereby the upper surface of the mold is made parallel to its lower surface.

8. A cigar-mold comprising a lower member constructed with cavities or matrices, an upper member comprising a backing or top portion, an inner facing layer, and cups formed with attaching-flanges; said attaching-flanges being tapered in vertical dimension from one end to the other and said backing or top portion being tapered inversely as the attaching-flanges, for the purposes set forth.

9. In a cigar-mold, the combination of the lower member provided with cavities or matrices having separated walls, the upper member provided with cups cooperating with said matrices to form molding-cavities, and means between the walls of the lower cavities or matrices for maintaining their positions and preventing permanent spreading thereof.

10. In a cigar-mold, a lower member constructed with cavities or matrices with their side walls separated for a greater portion of their transverse dimension but having spacing portions between them at suitable points to retain the walls against permanent spreading.

11. A cigar-mold having the walls of its lower cavities or matrices divided by kerfs or spaces extending from the sides inward but not entirely across the mold.

12. In a cigar-mold of substantially the character described, a lower member formed with cavities or matrices divided by saw-kerfs extending inward from the sides toward but not reaching the center thereby forming walls for the cavities or matrices separated throughout a portion of their area but united along the middle line of the mold by integral tying and spacing portions of the material of which the mold is constructed.

The foregoing specification signed at Cincinnati, Ohio, this 26th day of April, 1906.

NAPOLEON DU BRUL.

In presence of—

F. BOJERMAN,  
H. WHYRICH.