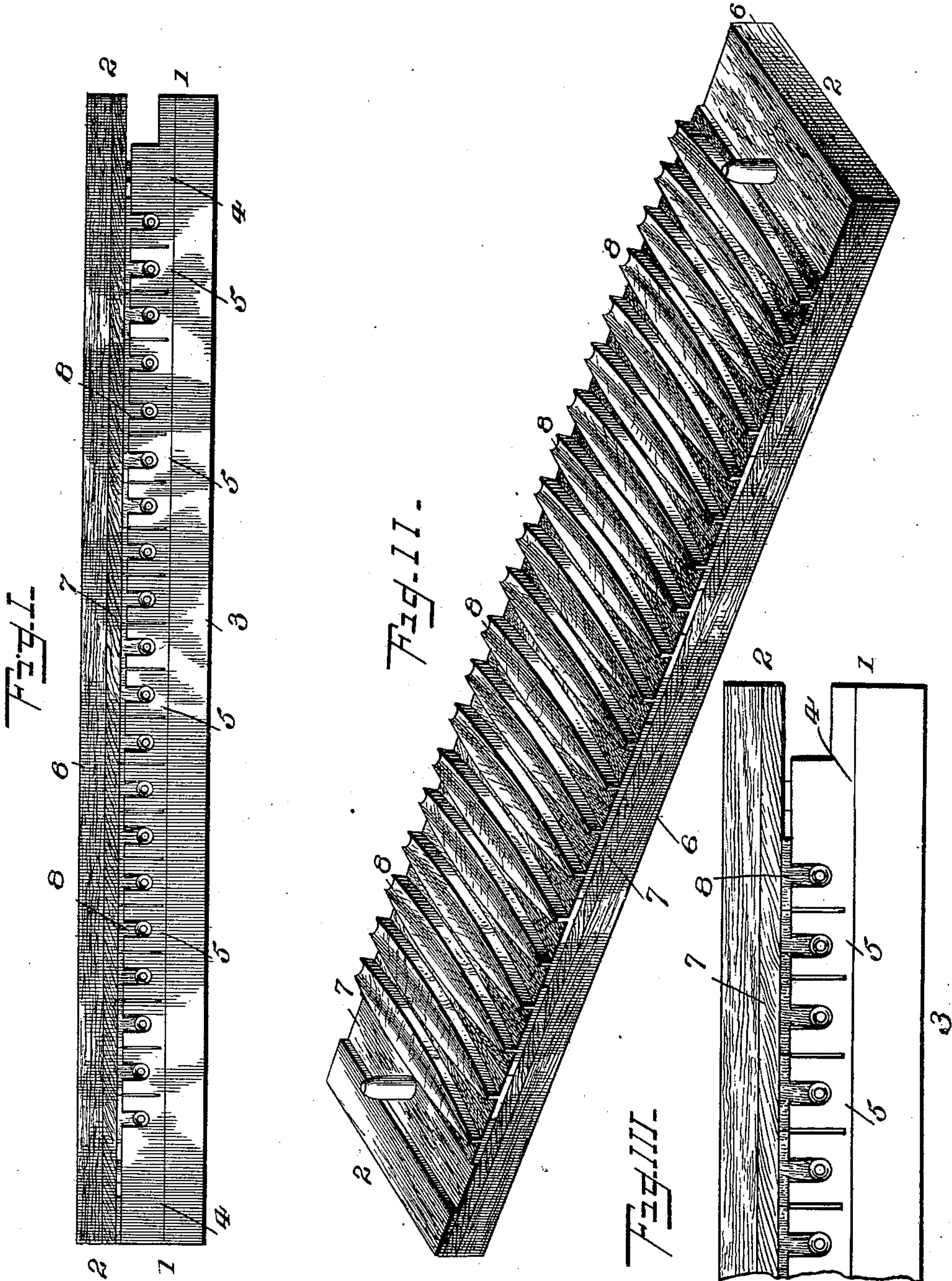


(Model.)

N. DU BRUL.  
CIGAR MOLD.

No. 592,627.

Patented Oct. 26, 1897.



Witnesses  
*John D. Smith*  
*Walter Allen*

Inventor  
*Napoleon DuBrul*  
By *Knight Bros*  
Attorneys



# UNITED STATES PATENT OFFICE.

NAPOLEON DU BRUL, OF CINCINNATI, OHIO.

## CIGAR-MOLD.

SPECIFICATION forming part of Letters Patent No. 592,627, dated October 26, 1897.

Application filed December 22, 1896. Serial No. 616,601. (Model.)

*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 a certain new and useful Improvement in Cigar-Molds, of which the following is a specification.

My invention is an improvement in wooden cigar-molds, and relates particularly to an improved construction of the upper member of a cigar-mold. Cigar-molds are generally made as a series of cavities or matrices in which are fitted cup-plungers having the grain of the wood running vertically, obliquely, or horizontally of the plane of the mold. These cup-plungers are held together by a backing running across the series of cup-plungers which are fastened thereto. I have found that such vertical and oblique cup-plungers swell, together with the backing, lengthwise of the cigar. This is caused by the dampness of the tobacco which is put into the mold and also by the dampness of the surrounding atmosphere. The end of the grain of the wood of such cup-plungers comes in contact with the tobacco, absorbs the moisture, and swells, so that the cup-plungers are considerably longer than the matrices of the mold. Further, not only do the cup-plungers swell, but the backing to which they are glued also swells in the direction of the length of the cigar. In other words, the lid of the mold becomes wider and carries the cup-plungers along with it. This can be readily understood, since wood swells across the grain and practically not lengthwise of the grain when exposed to moisture. Now since the cup-plungers and their backing to which they are attached are made out of very dry wood and since the direction of swelling is the same in both it is natural that these parts should swell together when exposed to dampness, each contributing its share of assistance in this swelling. Then since the cigar is drawn in at one or both ends it follows that with the least swelling of the cup-plungers lengthwise of the cigar the mold will bind and be very hard to open and close. This causes the breaking of the cup-plungers and spoils the original shape of the mold and of the cigar made therein. Furthermore, the backing warps upward or downward and pulls the

cup-plungers out of shape with it. When molds are made with the cup-plungers having the grain of the wood running horizontally of the plane of the mold, the plungers do not swell lengthwise, it is true, but the warping of the backing warps the cups also or pulls away from the ends of the cups. In either case it is a serious defect. I overcome all these defects in all such molds by making the backing of two or more thicknesses or layers glued together. The very fact of their being two or more layers to the backing is an improvement, though there may be a preference of one method over another in applying these layers. I may make the layers of different kinds of wood, thus counteracting the swelling by different porosities and consequently different swelling capacities; but even if the general trend of the grain of these two layers be lengthwise of the mold across the cups, as at present, and even if they be of the same kind of wood there will not be the same exact grain as when the backing is made of only one layer. My preferable method, however, is to run the grain of the wood in different directions. This stops the swelling by opposing resistances, one layer tending to swell in the opposite direction from the other and so each preventing the other from swelling. I have found by experiment that by this construction the cup-plungers are prevented from swelling longer than the lower cavities of the mold, and I have also found that this construction prevents the warping of the backing, and consequently makes a much better working mold and a more durable one.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure I is a front view of my improved wooden cigar-mold. Fig. II is a perspective view of the upper member of the cigar-mold inverted. Fig. III is a detail front view on a much larger scale.

1 is the lower member, and 2 the upper member, of a wooden cigar-mold. The lower member 1 is formed with a base-strip 3 and with a matrix-strip 4, having the usual lower cups 5 secured thereto. The upper member 2 is formed with a top layer 6, having the grain of the wood running lengthwise of the mold,



and with an inner layer 7, having the grain of the wood running crosswise of the top layer, for the purpose already fully explained.

To the inner layer are secured the cup-plungers 8. It will be seen that in the drawings the inner layer 7, to which the cup-plungers are attached, has the grain of the wood running in the same direction as the length of the cigar shape and the two layers of the backing have the grain of the wood crossing each other.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. An upper member for a cigar-mold consisting of a backing having two or more layers of wood intimately united throughout their contacting surfaces to form a solid integral structure so that one layer unites in strengthening the other layer or layers to prevent the swelling of the backing and a series of wooden cup-plungers secured to the inner layer and held in working position and from swelling by the formation of the backing; substantially as described.

2. An upper member for a cigar-mold comprising a backing having two or more layers of wood intimately united throughout their contacting surfaces so that one layer unites in strengthening the other layer or layers to prevent the swelling of the backing and a series of wooden cup-plungers secured to the inner layer with the grain of the wood on end, and held in working position and from swelling by the formation of the backing; substantially as described.

3. An upper member for a cigar-mold comprising a backing having two or more layers of wood intimately united throughout their contacting surfaces, with the grain of each layer at an angle to the grain of the other layer or layers, so that one layer unites in strengthening the other layer or layers to prevent the swelling of the backing, and a series of wooden cup-plungers secured to the inner layer and held in working position and from swelling by the formation of the backing; substantially as described.

4. An upper member for a cigar-mold comprising a backing having two or more layers of wood intimately united throughout their contacting surfaces, with the grain of each layer at an angle to the grain of the other layer or layers, so that one layer unites in strengthening the other layer or layers to prevent the swelling of the backing, and a series of wooden cup-plungers secured to the inner layer, with the grain of the wood on end, and held in working position and from swelling

by the formation of the backing; substantially as described.

5. An upper member for a cigar-mold comprising a backing having two or more layers of wood intimately united throughout their contacting surfaces, with the grain of the outer layer crossing the grain of the inner layer so that one layer unites in strengthening the other layer to prevent the swelling of the backing and a series of wooden cup-plungers secured to the inner layer and held in working position and from swelling by the formation of the backing; substantially as described.

6. An upper member for a cigar-mold comprising a backing having two layers of wood intimately united throughout their contacting surfaces, with the grain of the outer layer crossing the grain of the inner layer so that one layer unites in strengthening the other layer to prevent the swelling of the backing and a series of wooden cup-plungers secured to the inner layer with the grain of the wood on end and held in working position and from swelling by the formation of the backing; substantially as described.

7. An upper member for a cigar-mold comprising a backing having two layers of wood intimately united throughout their contacting surfaces, with the grain of the outer layer extending longitudinally of the mold, and the grain of the inner layer extending transversely of the mold, so that one layer unites in strengthening the other layer to prevent the swelling of the backing and a series of wooden cup-plungers secured to the inner layer with the grain of the wood on end and held in working position and from swelling by the formation of the backing; substantially as described.

8. An upper member for a cigar-mold comprising a backing having two layers of wood intimately united throughout their contacting surfaces by adhesive material with the grain of the outer layer extending longitudinally of the mold, and the grain of the inner layer extending transversely of the mold, so that one layer unites in strengthening the other layer to prevent the swelling of the backing and a series of wooden cup-plungers secured to the inner layer by adhesive material with the grain of the wood on end and held in working position and from swelling by the formation of the backing; substantially as described.

NAPOLEON DU BRUL.

Witnesses:

H. UHYRICH,  
E. F. DU BRUL.