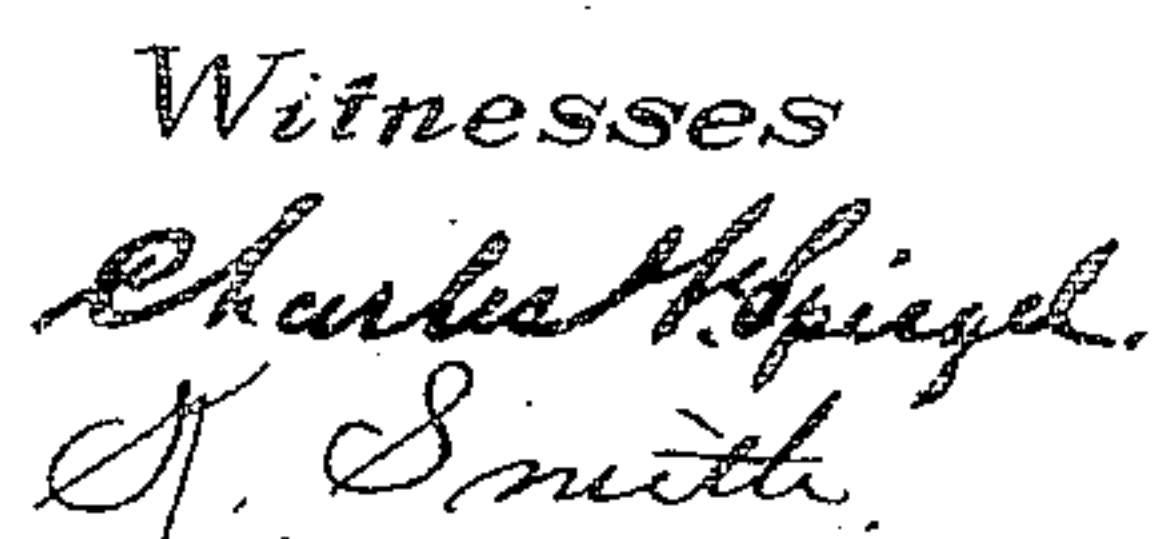



CIGAR PRESS.

953,671.

Patented Mar. 29, 1910.

2 SHEETS—SHEET 1.



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APPLICATION FILED AUG. 5, 1909.

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2 SHEETS—SHEET 2.

Fig. 4.

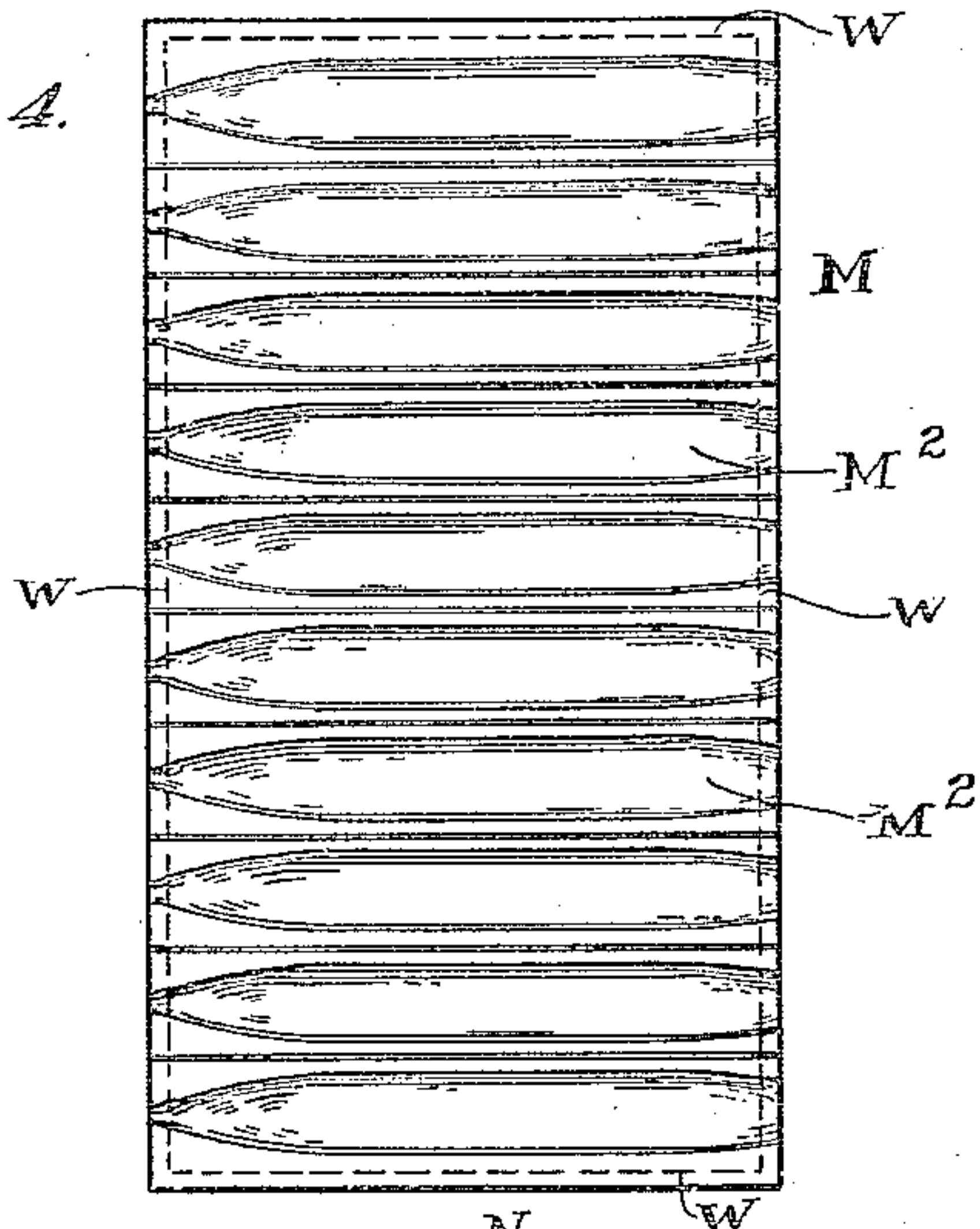


Fig. 6.

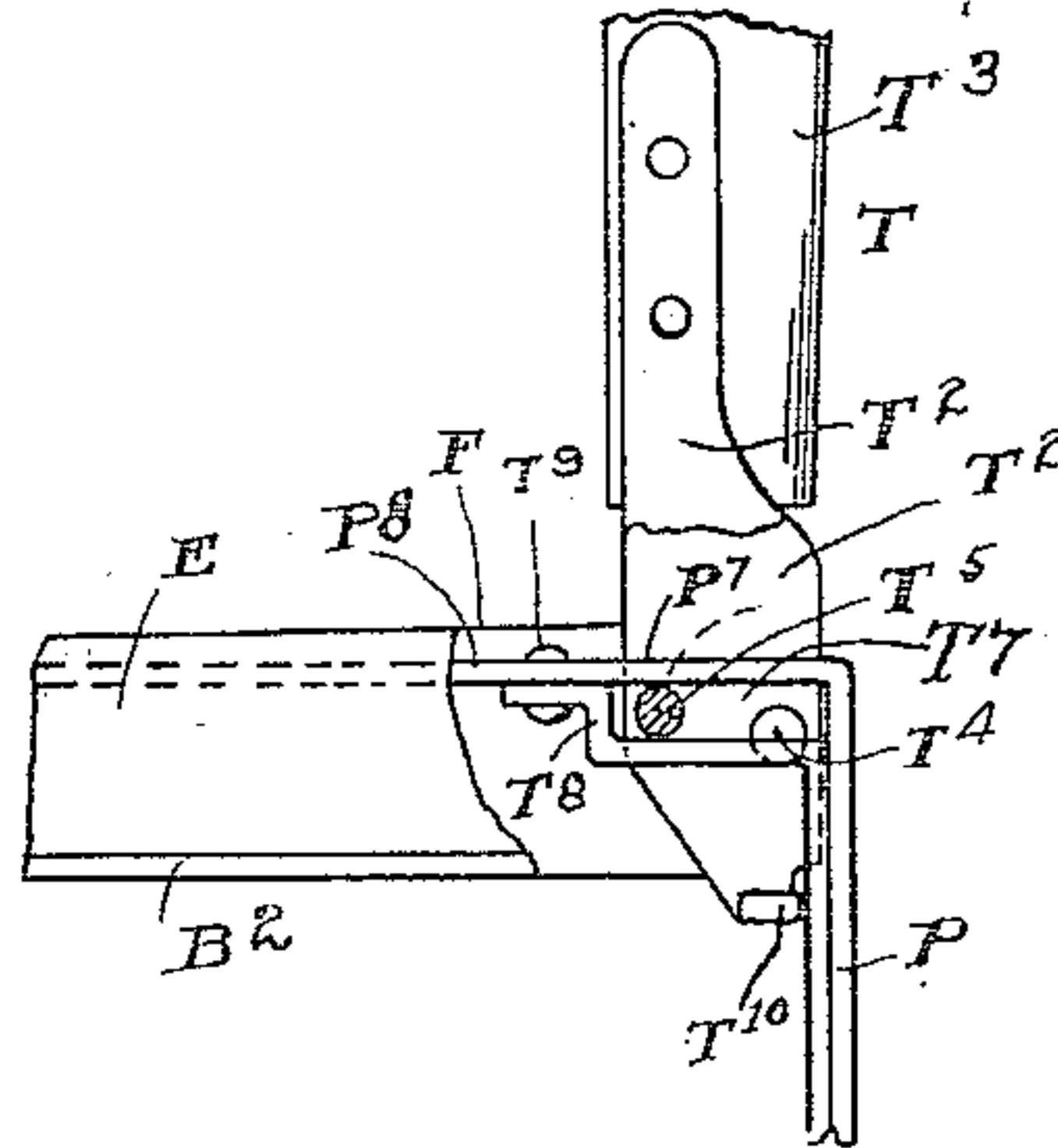


Fig. 3.

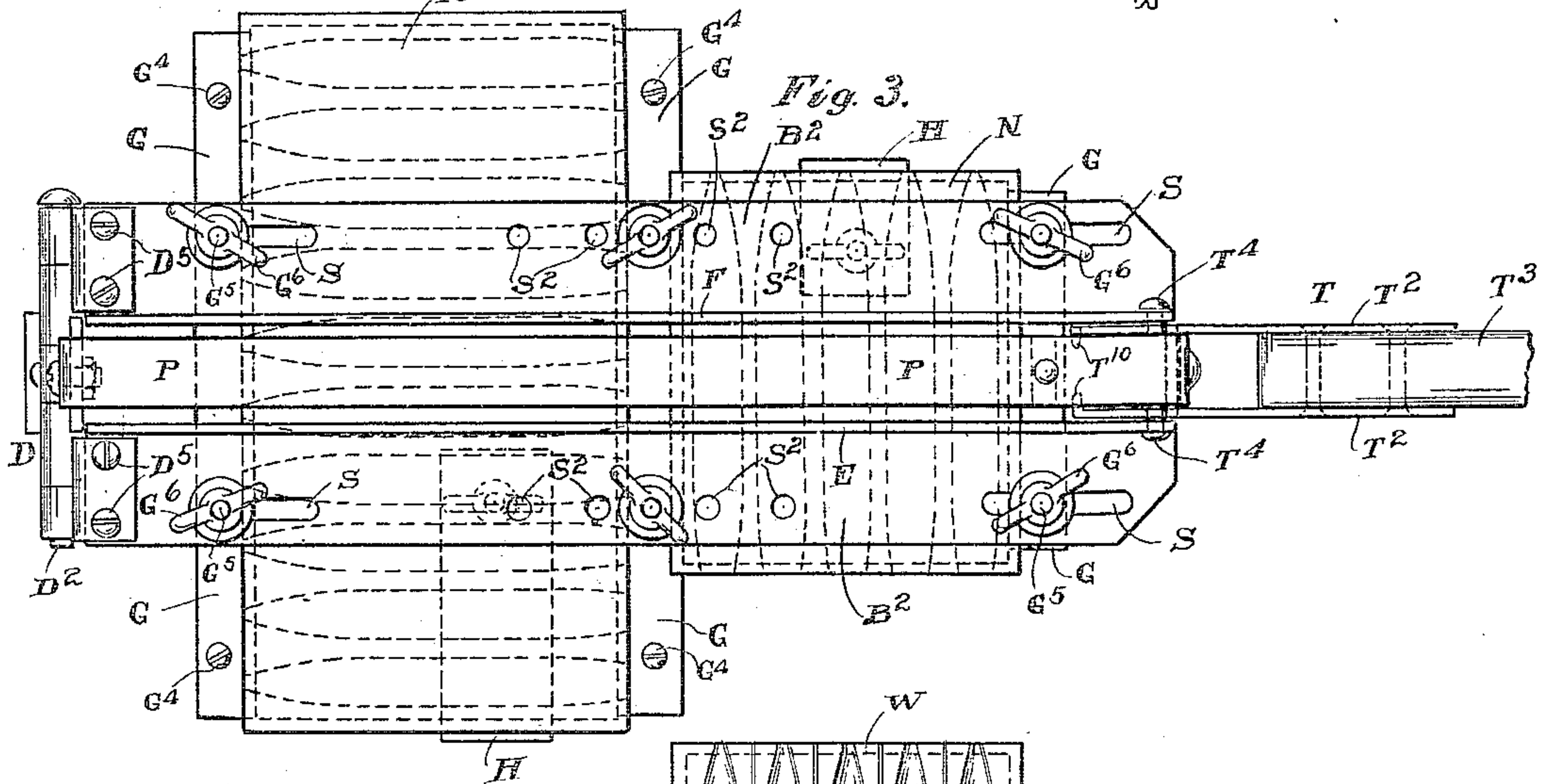
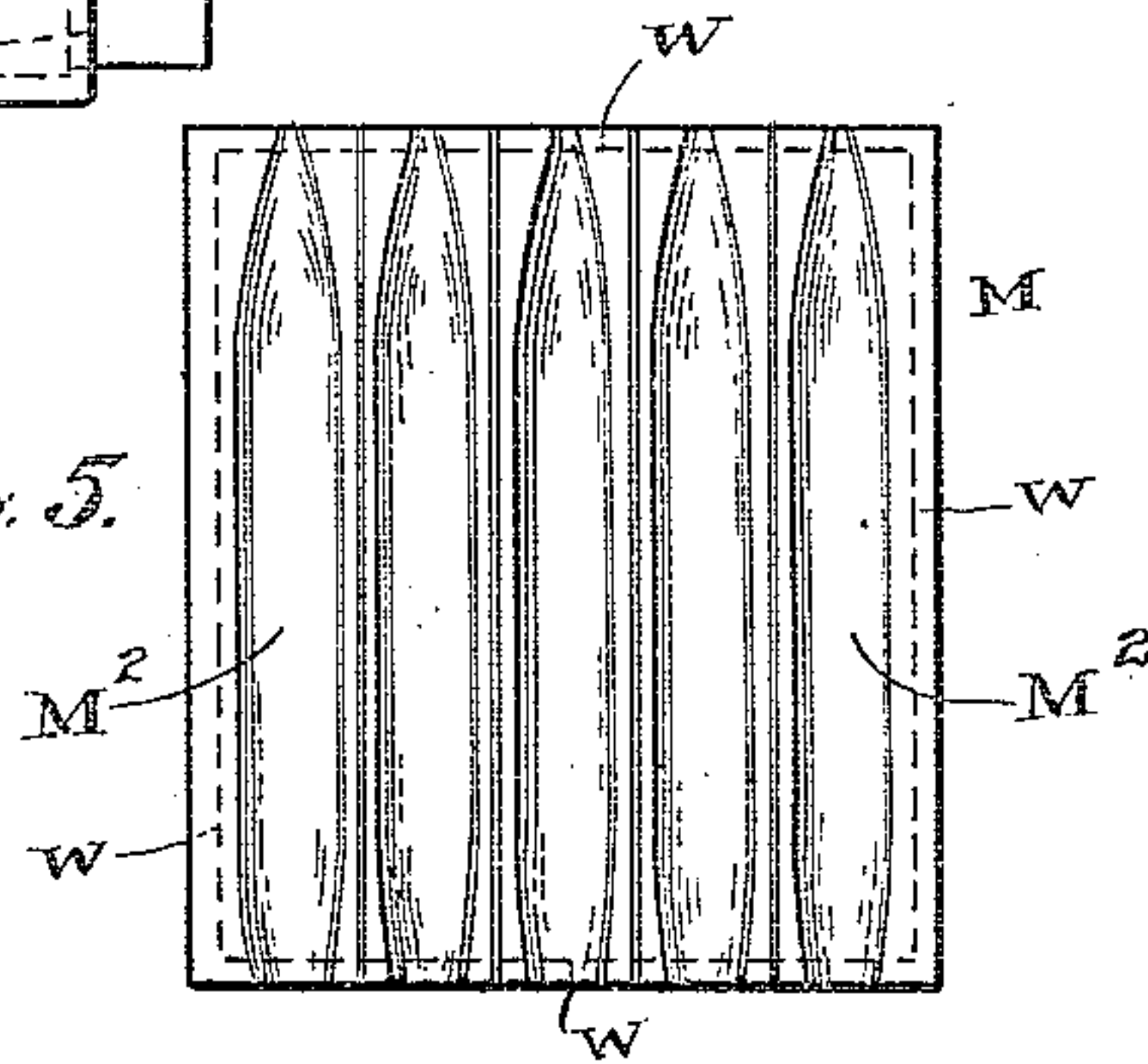


Fig. 5.



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UNITED STATES PATENT OFFICE.

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CIGAR-PRESS.

953,671.

Specification of Letters Patent. Patented Mar. 29, 1910.

Application filed August 5, 1909. Serial No. 511,361.

To all whom it may concern:

Be it known that I, JOSEPH KING, Sr., a citizen of the United States, and a resident of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Cigar-Presses, of which the following is a specification.

The several features of my invention and the various advantages resulting from their use conjointly or otherwise will be apparent from the following description and claims.

In the accompanying drawings making a part of this specification, and in which similar letters of reference indicate corresponding parts,—Figure 1 is a view, in perspective, of a cigar press embodying my invention. In this view, the press is shown as it is when open. Fig. 2 is a side elevation of the same press, when closed and in the operation of pressing the cigars into shape to respectively receive their wrappers. Fig. 3 is a top view of the machine shown in Figs. 1 and 2. Fig. 4 is a top view of the lower half of a cigar mold of a given size. Fig. 5 is a top view of the lower half of a cigar mold of another size. These molds are illustrative of the capacity of the machine. Fig. 6 is an elevation showing adjacent parts, namely: of the link, lever, angle iron, and the upper frame, a portion of the upper frame being broken away to disclose the construction beyond.

I will now describe my invention in detail.

The machine has a foundation or bed A. This bed A carries the supporting plates B and C. Plate B is fixed to one side A² of this bed A, and plate C is fixed to the other side A³ of this bed A. Each of these plates B and C has at their upper edge respectively a horizontal flange, respectively indicated by the character B². The plate C, B² is only partially shown in the perspective view, Fig. 1, but as it is the counterpart of the flanged slotted plate B, B², its formation will be readily understood. Reference, in this connection, is also directed to Fig. 3.

At the rear of the machine is a hinge D, having a suitable joint provided with a pin-
50 tle D², which latter unites the two limbs D³ and D⁴ of this hinge, each preferably angulated as shown. The plate B, B² and the plate C, B², each extend to the rear of the machine, and are there suitably connected
55 with the limb D³ of the hinge D, preferably by means such as bolts D⁵. At the upper

portion of the machine are the plates E and F. The plate E has a flange B² and the plate F has a flange B². Each of these plates E and F is preferably constructed
60 like the plates B and C aforementioned. These plates E, B² and F, B² extend rearwardly and are suitably secured to the limb D⁴ of the hinge preferably by bolts D⁵. When the construction requires it, the junction
65 of each of the said plates above and below may be reinforced by an angle iron D⁶ secured to its adjacent plate by bolt D⁵ and to the adjacent limb of the hinge by a bolt D⁷. Where the limbs D³ and D⁴ of the
70 hinge D are each angulated, the securing bolt D⁵ may connect the adjacent plate, and an angle iron D⁶ and the adjacent limb of the hinge, and I have so illustrated such reinforcement in the drawings, see particu-
75 larly Fig. 2.

The office of the lower plates B, B² and C, B² is to support cigar molds. In adapting these said plates to support these molds, I have also adapted them and the cigar mold
80 guides and holders, to be hereinafter described, so that molds of various sizes can at will be located on said plates, and the devices for guiding them to place and for holding them there be adjusted so as to properly
85 guide and hold them. To this end I provide slots S in the flange B² of the plate B, and similar slots in the flange B². These last named slots are located similarly to those in flange B². One of these slots S is
90 near the front of the machine, and the other slot S is near the rear end of the machine. There may also be a slot S near the mid-length of each of the flanges B², but as the adjustments are not necessarily so minute in
95 degree as at the front and rear of the machine, a series of holes S², S², S², S² will be sufficient, and this is true of the openings through the flange C² as well as of those
100 through flange B².

I provide guides for enabling the cigar molds to be readily introduced into the machine, and to be held there. A preferred kind of such guide consists as shown, as follows: The guide may be of any strong ma-
105 terial, and all parts thereof may be integral, or it may consist of parts and be secured together by screws. Thus, in the drawings, the guide G is made of a basal bar G² and a superimposed plate G³, secured to the bar G²
110 by screws G⁴. This plate G³ extends out beyond the basal bar G² and toward the cigar

5 mold it is to guide and hold. Where two cigar molds are present, the plate G^3 of the middle guide extends beyond the guide G , both forward and rearward in order to perform its functions for both adjacent cigar molds. Each guide may consist of any strong and serviceable material, but the upper plate G^3 is preferably always of metal. A preferred means of setting each guide G consists of screws G^5 , which extend through the slot S of the adjacent plate and thumb nuts G^6 , respectively screwed on said screws. By tightening the nut G^6 against the plate, the guide G is set at the desired position.

15 I provide the machine with stops H , one for each plate where a cigar mold is to be put into the press. These stops H are secured to the base of the machine, preferably to the flanges B^2 of the respective plates B and C . A portion of each stop extends upward and prevents the travel of the cigar mold beyond the position which it should occupy when in the machine. The lower part H^2 of each stop has an opening and a set screw H^3 from the adjacent stationary frame plate passes through this opening. A thumb nut H^4 on this screw H^3 enables the stop to be set fast. Where the said opening is elongated, as it preferably is, the stop H has a range of adjustment, which will be readily understood without further explanation.

35 The sides of each cigar mold are provided with a groove or channel W . When the cigar mold is introduced into the machine, the edge of the plate G^3 of the guide enters the adjacent groove W of the mold. Thereby the mold is readily and accurately slid to its proper place in the machine. As the lower molds M , M are to be continually and successively put into the machine, and withdrawn therefrom, and then again put therein, the stop H limits the forward movement of the mold, and puts it in position under the upper mold which is directly above it. The guides G prevent its elevation. The upper molds N , N are introduced by their guides G similarly formed to the guides below, and are upheld thereby. The function of the slots S and screws G^5 , G^6 of the plates E , B^2 and F , B^2 is similar to that of the slots and set screws G^5 , G^6 of the lower plates B , B^2 , C , B^2 . Inasmuch as these upper molds N when once set in position in the machine, are not moved out of the machine, but remain in place and stationary, so long as molds M of the corresponding size are used below, a stop as H is unnecessary. These molds N can be set in position by means of the said set screws G^5 , G^6 , which by a proper relative thickness of the bar G^2 of the guide and of the depth of the edge G^7 , can cause the plate G^3 to bind upon the said edge G^7 and thus prevent the mold N from sliding laterally. In each

lower mold M , the shapes of the receptacles M^2 may not vary from the well known forms employed for such molds, and in each upper mold N , the forms of the bars N^2 which are adapted to enter the respective receptacles M^2 may not differ from any of those customarily employed in the manufacture of cigars.

70 Preferably in my machine, I locate a long mold M in the rear part, and a short mold M in the front part of the machine. The molds N and N above these lower molds, each corresponds in size with the mold M directly below it. The mode in which this part of my machine operates is as follows:—I provide a number of the lower molds M , M , some of the large and some of the small sized molds. I fill two of these, one large and one small mold with cigars, and then introduce them into the machine and bring down the upper molds N , N , and thereby press the cigars. I keep the pressure of the upper molds upon the lower ones for a proper time, so that the cigars shall be suitably pressed and formed in readiness to receive their respective wrappers. In the meantime, another set of lower molds, like those already described are being filled, and when the cigars under pressure have been duly shaped, the upper molds are lifted up. Then the lower molds containing the pressed cigars are withdrawn, and the lower molds with fresh cigars to be duly pressed and shaped are introduced into the machine, and the upper molds are pressed down upon the cigars in the lower molds. These successive operations are repeated until all of the cigars to be pressed have been so pressed. Thus these operations are carried on very rapidly and without loss of time on the part of the operators. Because while one man is filling the large lower mold, another is filling the small lower mold, and the machine is pressing cigars of a previous set of molds.

I will now proceed to describe those features of my invention that relate to the means employed to elevate and set the upper molds up and out of the way of the moving of the lower molds, and to the means for lowering the upper molds and forcibly bringing them into contact with the cigars in the lower molds. I provide a link P , which at its lower end has the side flanges P^2 , P^2 . Each of these flanges has at its lower end a slot P^3 open toward the rear of the machine. Higher up each flange has a second slot P^4 . The rear edge P^5 of each flange inclines forward and upward to the slot P^4 . The upper edge of the slot P^4 extends rearwardly beyond the plane of the edge P^5 , forming a projection P^6 . Of course one solid piece might take the place of the flanges P^2 , P^2 , and receive the slots or recesses P^3 , P^4 , but such construction is obviously not the preferable one. In the plates B and C is fixed a cross bar R adapted to

enter either of the slots P^3 or P^4 which may be opposite it. The link P is carried up and bent over at P^7 . A lever T is present and it is pivoted on a pivot rod T^4 fixed to the plates E and F . This lever carries a round cross bar T^5 . This cross bar T^5 is adapted to work in a slot T^7 located at the top of the link piece P . This slot is preferably formed by the front and adjacent top portion of the link P . An angle iron T^8 is secured at front to the vertical portion of the link, and at its rear it is secured to the horizontal portion of the link by the rivet T^9 . The main portion of this angle iron T^8 is parallel to the upper (horizontal) portion of the link and thus forms the said slot T^7 . By the said construction, it is obvious that when the lever T stands vertically, as in Fig. 1, the bar T^5 is in the left hand (rear) end of the slot, and the link P is depressed relatively to the plates E and F . On the other hand, when the lever is lowered into the horizontal position, the link P is thereby raised. At the inner end of the lever T , the latter is provided with a cross bar or projection T^{10} . The mode in which this portion of my invention operates is as follows: The handle is elevated, and the link P is in engagement with the cross bar R , the latter being in the slot P^3 . The upper molds, fast to the plates E and F are in an elevated position above the lower molds and at a distance from the latter. The empty lower molds are removed from the machine, and the lower molds filled with cigars are placed in position in the machine, as indicated. The operator then grasps the handle T^3 of the lever T and moves the said handle in the direction of the arrow X . By this movement he throws the lower end portion of the link out of engagement with the bar R . The upper plates E , F , and their molds are now free to fall and the operator keeping hold of the handle allows them to move down until the upper molds press upon the cigars. At this time, the mouth of the slot P^4 is opposite the bar R and the further descent of the link P is automatically prevented by the projection P^6 striking and resting on the said bar R . The operator now moves the lever by moving the handle T^3 in the direction of the arrow Y , and continues to move the lever until it assumes the position shown in Fig. 2. At the beginning of this said movement, the lower portion of the link P is moved rearwardly, and the said stationary bar R is received in the slot P^4 . As the said movement of the lever is continued, as the link P cannot rise, the upper plates E and F and the upper molds are forced down, and these molds press hard upon the cigars in the lower molds. When the shoulders N^3 of the upper molds bear upon the faces M^3 of the lower molds, further movement of the upper part of the

machine toward the lower one is stopped, and the cigars in the lower molds are in the condition of subjection to a proper pressure. The parts of the machine are left in this position until the operation of pressing the cigars is completed. While the machine is thus left pressing the cigars, other lower molds are being filled with cigars. Thus two men can be busy filling the fresh molds while the machine is, by itself, pressing the cigars in the press.

The cigars in the machine having been pressed, and the fresh molds having been filled with cigars, the operator now moves the handle T^3 of the lever T upward. Thus he elevates the plates E and F and the upper molds a slight distance and releases the tension of the link P upon the bar R . He continues to move the lever T , T^3 in the same direction, until the projection T^{10} strikes against the vertical part of the link P . This impingement of projection T^{10} against the link P and the continued pressure thereon move the lower part of the link forward and cause the lower portion of it to go out of engagement with the bar R . Then the operator by the handle T^3 lifts the plates E and F and the upper molds upward, until the bar R comes opposite the slot P^3 . A slight movement of the handle T^3 in the direction of the arrow Y causes the bar R to enter the slot P^3 . Thus the machine has been brought into the position shown in Fig. 1. The lower molds containing the cigars are now removed from the machine, and the fresh molds containing cigars to be pressed are inserted in their place. The same operations of the machine as aforescribed are repeated. Thus successive molds with cigars are successively introduced into the machine and are duly and rapidly pressed, and much time is economized. The mechanism is simple, economic of cost, and easily manipulated.

The preferred means of holding the link P and its part P^7 from moving forward or backward out of proper position relative to the lever T and to the frame E , F , is the bar P^8 , made integral with the link P^7 , P , and composed of spring metal. The rear end of this bar P^8 should be connected to a portion of the machine that oscillates with the upper frame, and it had best be attached, as shown, to the upper plate D^4 of the hinge D . This bar P^8 not only limits the forward and back movement of the said link, but it continually causes the lower portion P^2 of the link P to continually and elastically press toward the bar R . Therefore when the bar is thrown out of engagement with the lower notch P^3 , and the link P is being lowered, the edge of the link P , P^2 will elastically press against the bar R and this bar R will of certainty press against the link and certainly enter the notch P^4 and hold the link

in that position. Also when the link is there disengaged from the bar R and the link is elevated as aforementioned, the link P, P² will again elastically press against the bar R, and the latter will certainly enter the notch P³ and there engage with the link. Thus the elasticity of the bar P³ increases the certainty of the link, whether elevated or depressed, engaging with the bar R and it relieves the operator of especially attending to this engagement.

The most approved construction of the molds as to the grooves is to provide each mold with four grooves W, one groove on each side. Thereby each mold can be put in, in either direction, viz.: so that the length of the cigar receptacles is parallel to the length of the machine or is in a position transverse to the said length.

By a proper adjustment of a stop H of the proper length, long molds like the ones shown in the rear of the machine can be placed at the front in place of the short molds there seen, and when desired short molds can be placed in the rear part of the machine instead of the long ones there shown. Again, the front short molds can be removed, and the long rear molds be located so that their length runs lengthwise with the machine, and they can occupy the entire machine.

I have by these examples illustrated sufficiently the great capacity of my machine for utilizing various sized molds and for using them in different positions.

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

1. In a cigar press, a lower frame having the vertical plates B and C, each provided with the sidewise extending flanges B², and the upper frame having the vertical plates E and F, and provided with the sidewise extending flanges B², B², these side flanges B² being respectively provided with openings, the said flanges adapted to receive the guides for the molds, and to secure these guides to the frame, and securing means extended through these openings and engaging the said guides.

2. In a cigar press, a lower member and an upper member hinged together, a link having notches for engaging a bar of the lower member, one of said notches adapted to engage the bar when the upper member is elevated, and the other notch to engage said bar when the upper member is lowered, a chamber at the upper end of the link, and fixed thereto, a lever pivoted near the upper end of the link and near the front lower end of the chamber, a rod fixed to the lever and located in the said chamber and which when the lever is elevated is near the rear end thereof, the said lever and its rod being thus adapted, when the upper member is lowered and the molds brought together and the up-

per notch of the link has engaged with the rod of the lower member, and the lever is depressed to draw the molds forcibly together.

3. In a cigar press, a lower member and an upper member hinged together, a link having notches for engaging a bar of the lower member, one of said notches adapted to engage the bar when the upper member is elevated, and the other notch to engage said bar when the upper member is lowered, a chamber at the upper end of the link, and fixed thereto, a lever pivoted near the upper end of the link and near the front lower end of the chamber, a rod fixed to the lever and located in the said chamber and which when the lever is elevated is near the rear end thereof, the said lever provided with a projection T¹⁰ on the other side of its pivot, for enabling a depression of the lever, when the upper and lower molds are brought together and the upper notch of the link has engaged the rod in the lower frame member, to draw the molds forcibly together, and for enabling a reverse movement of the lever to relieve such pressure and to throw the link out of engagement with the said rod of the lower frame, and permitting said upper frame and link to be lifted, and with a short movement of the lever in the direction of depressing it to cause the lower notch of the link to engage the said bar of the lower frame.

4. In a cigar press, a lower member and an upper member hinged together, a link having notches for engaging a bar of the lower member, one of said notches adapted to engage the bar when the upper member is elevated, and the other notch to engage said bar when the upper member is lowered, a lever pivoted to the link near its upper end, means for enabling the movement of the lever, when the upper notch of the link has engaged the bar of the lower frame to forcibly draw the upper and lower molds together, and a reverse movement of the lever to remove said pressure, the lever being provided with a projection T¹⁰ on the other side of its pivot, adapted when the lever is moved in the direction for removing pressure on the molds to disengage the link from the lower frame, and a slight reverse movement of the lever after the link and the upper member is lifted to enable the lower notch of the link to engage the lower frame and hold the upper frame elevated while the molds are being changed.

5. In a cigar press, a lower member and an upper member hinged together, a link having notches for engaging a bar of the lower member, one of said notches adapted to engage the bar when the upper member is elevated, and the other notch to engage said bar when the upper member is lowered, a lever pivoted to the link near its upper end, means for enabling the movement of

the lever, when the upper notch of the link has engaged the bar of the lower frame to forcibly draw the upper and lower molds together, and a reverse movement of the lever to remove said pressure, the lever being provided with a projection T¹⁰ on the other side of its pivot, adapted when the lever is moved in the direction for removing pressure on the molds to disengage the link from the lower frame, and a slight reverse movement of the lever after the link and the upper member is lifted to enable the lower notch of the link to engage the lower frame and hold the upper frame elevated while the molds are being changed, and a brace connected to the upper end of the link and extended along the top of the upper frame and at its other end connected to the hinge of the frames.

6. In a cigar press, the upper and lower frames united at rear by a hinge, the front end portion of the lower frame carrying a bar, a link connected to the upper frame, and having the lower portion enlarged and provided with a lower notch and an upper notch and above the upper notch an overhanging or projecting detent, so that when the lower notch of the link is moved away from the said bar, and the link with the upper frame is lowered, this detent shall hold the link from further descent and op-

posite the said bar, and means for bringing the frames forcibly together when approximated and for moving the said link forward so that its upper notch shall engage with the said bar when the frames are separated.

7. In a cigar press, a lower member and an upper member hinged together at the rear, a bar fixed at the front to the lower member, a link at the front of said members, and having notches, the one to engage with the bar when the upper member is elevated, and another to engage with the bar when the upper member is lowered, a hand lever connected to said upper frame, and means adapted to enable the lever to lift or lower said link, and to cause said link to engage with either of the said members, and to forcibly approximate the upper and lower members when approximated, and an elastic spring bar connected at its rear end to a part of the frame moving with the upper member, this said spring bar being at front integral with the upper portion of the link, for causing the link to continually press against the said bar, to insure automatic certainty of engagement therewith.

JOSEPH KING, Sr.

Attest:

K. SMITH,
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