

No. 726,242.

PATENTED APR. 28, 1903.

W. J. BALL.
MOLDER'S FLASK PIN.
APPLICATION FILED JUNE 24, 1902.

NO MODEL.

Fig. 1

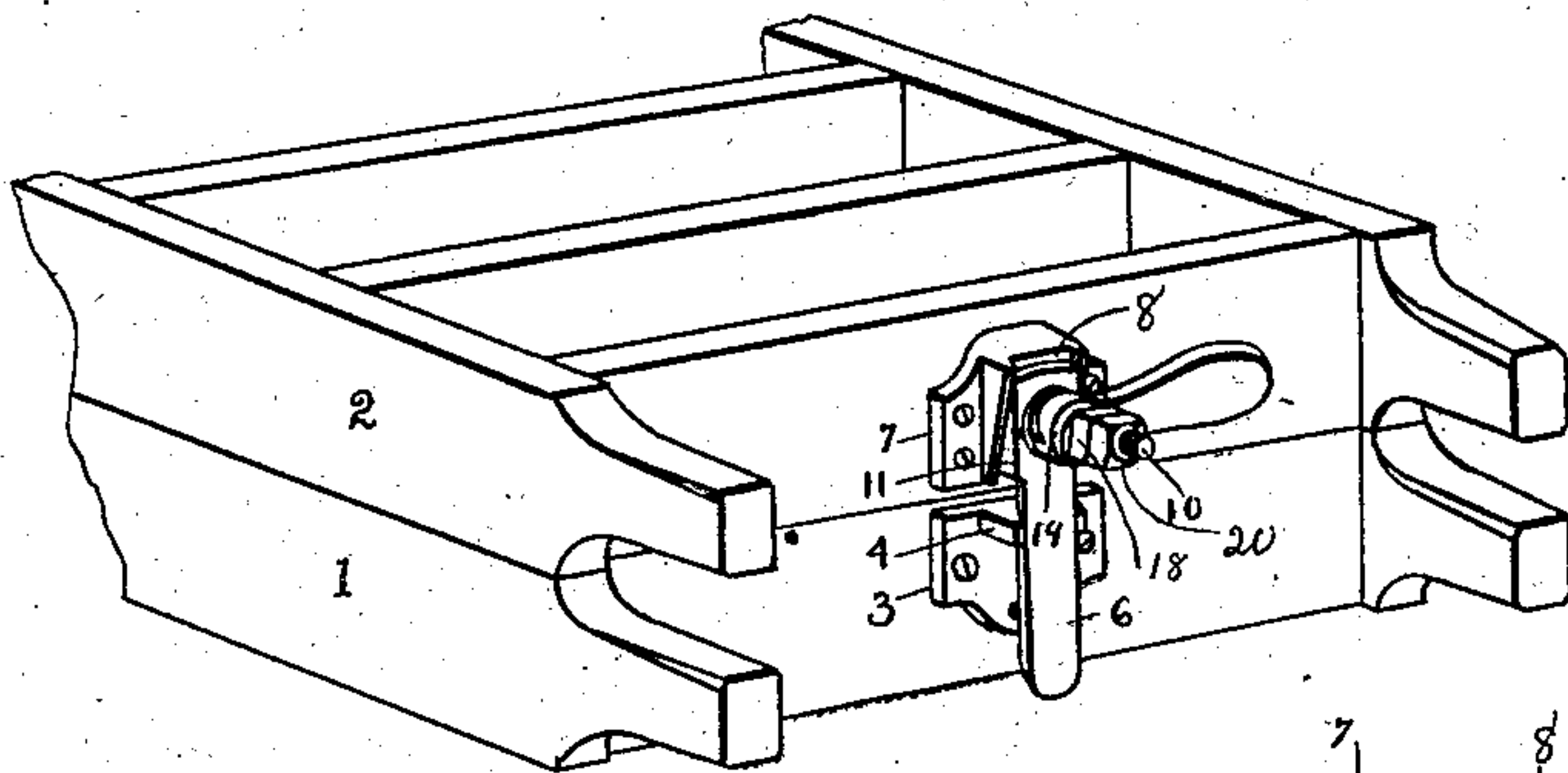


Fig. 2

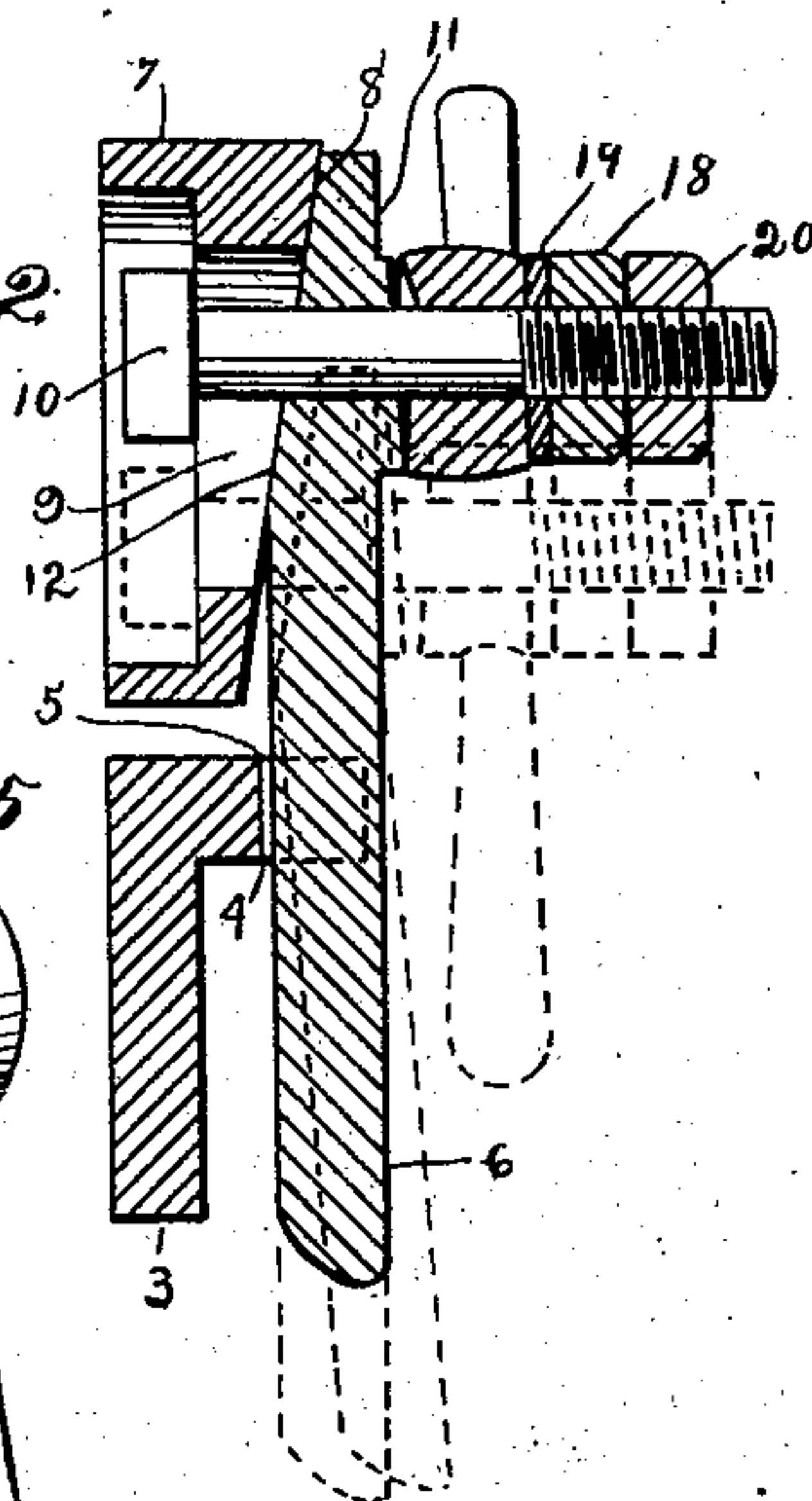


Fig. 3

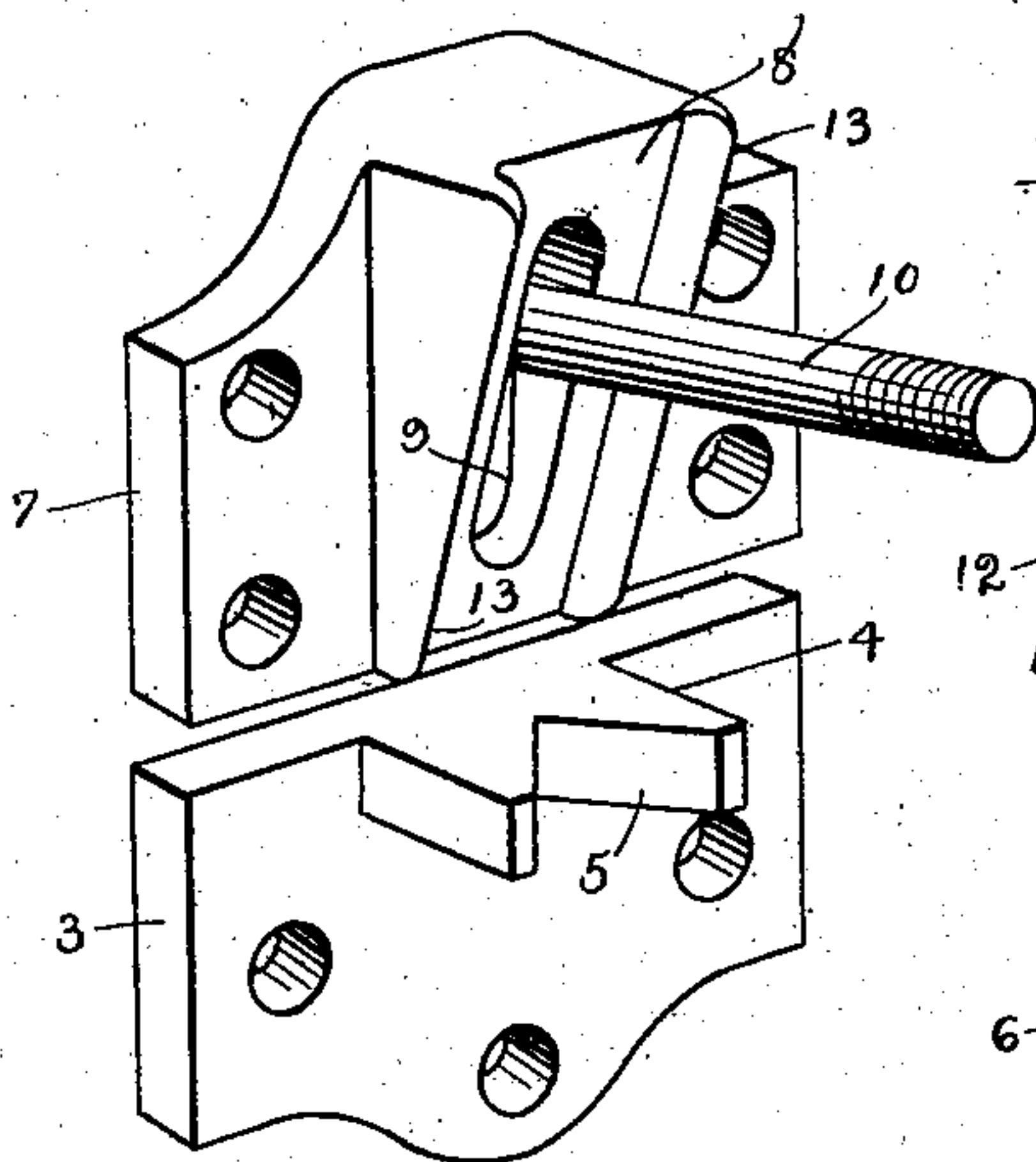


Fig. 4

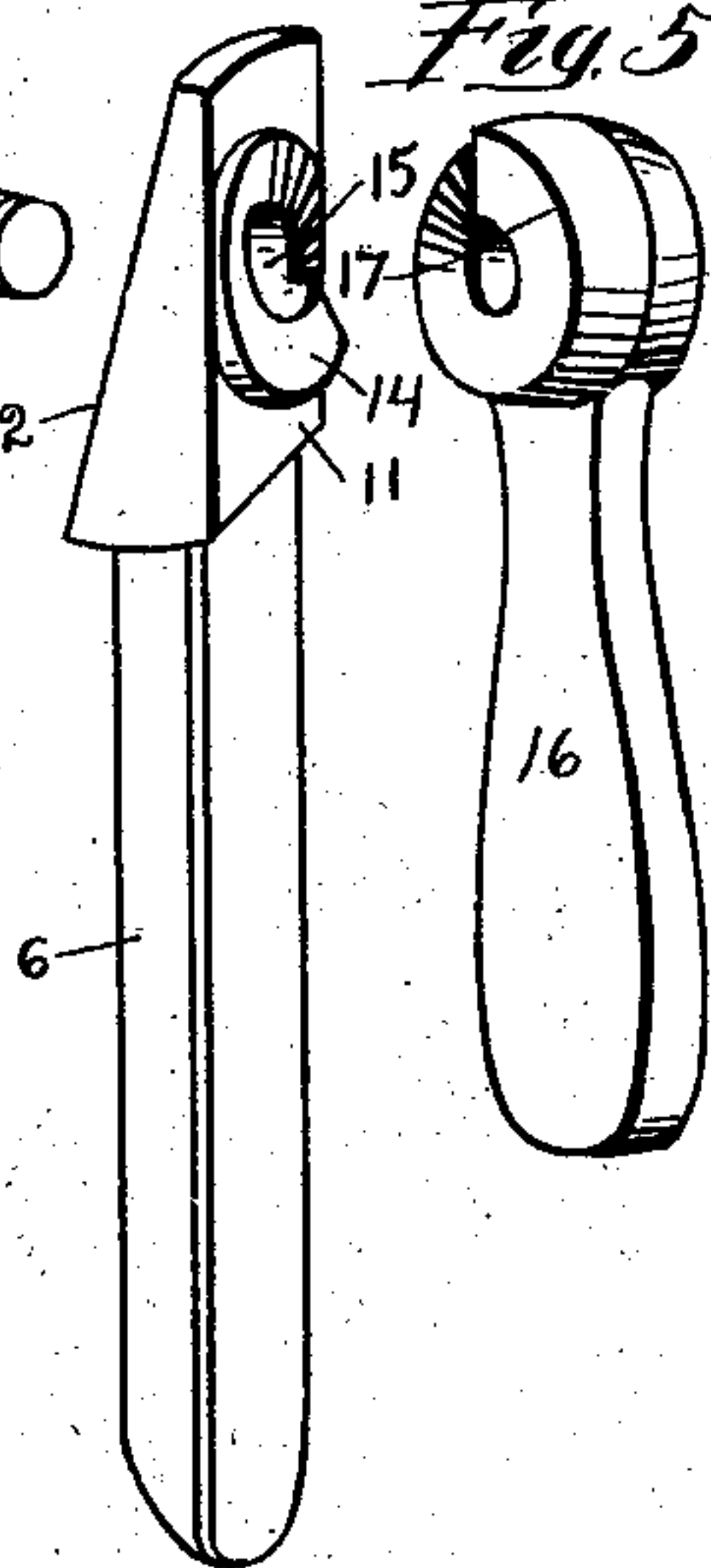
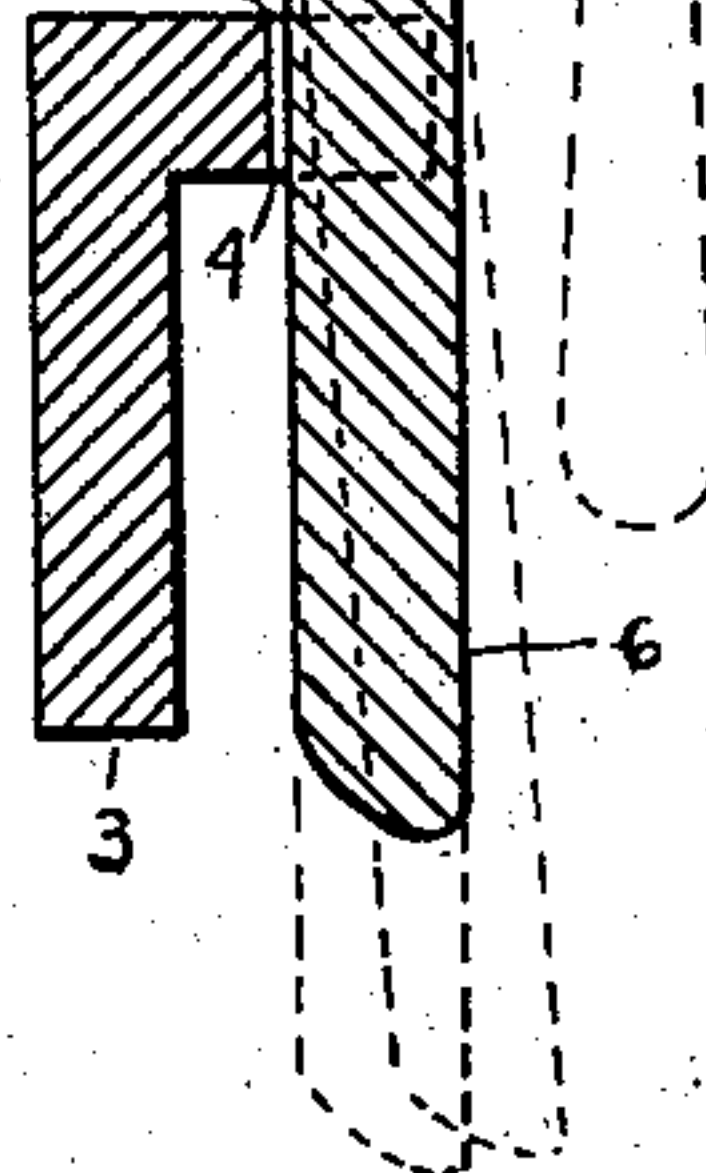


Fig. 5



Witnesses
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UNITED STATES PATENT OFFICE.

WARREN J. BALL, OF LEETONIA, OHIO.

MOLDER'S FLASK-PIN.

SPECIFICATION forming part of Letters Patent No. 726,242, dated April 28, 1903.

Application filed June 24, 1902. Serial No. 112,990. (No model.)

To all whom it may concern:

Be it known that I, WARREN J. BALL, a citizen of the United States, residing at Leetonia, in the county of Columbiana and State of Ohio, have invented certain new and useful Improvements in Molders' Flask-Pins; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the figures of reference marked thereon, in which—

Figure 1 is a perspective view showing a portion of a molder's flask and the pin properly connected thereto. Fig. 2 is a vertical section of the pin. Fig. 3 is a detached perspective view of the clamp, also showing the position of the cross-bolt. Fig. 4 is a detached perspective view of the pin. Fig. 5 is a detached perspective view of the clamp-lever.

The present invention has relation to molders' flask-pins; and it consists in the novel construction hereinafter described, and particularly pointed out in the claims.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, 1 represents the lower flask-section, and 2 the upper flask-section, said sections being formed in the ordinary manner and within themselves form no particular part of the present invention.

The object of the present invention is to provide a means for securing the sections together in such a manner that the sections will not shift or move with reference to each other at the time the upper flask-section is being rammed or filled.

Another object is to provide a means for easily removing the upper section after it has been rammed or filled and afterward hold the sections together at the time a casting is made.

To the lower flask 1 and at the ends thereof are connected two flanges, such as 3, which flanges are provided with the right-angled portions 4, which right-angled portions are provided with notches or openings 5 to receive the pin 6. To the upper flask 2 is attached the flange 7, which flange is provided with the inclined face 8 and the elongated slot 9, the elongated slot being for the pur-

pose of receiving the headed bolt 10, which headed bolt is located substantially as shown in Figs. 2 and 3; also illustrated in Fig. 1. The pin 6 is provided with the head 11, the inner face of said head being provided with an inclined face 12, which inclined face is located adjacent and against the inclined face 8 of the flange 7, and for the purpose of assisting in holding the head 11 in proper relative position to the flange 7 and its inclined face the guide-flanges 13 are provided, said flanges being for the purpose of preventing the swinging of the pin upon the bolt 10. The head 11 is provided with the inclined-faced disk 14, which inclined-faced disk is located around the aperture 15. The clamping-lever 6 is provided with an inclined face 17, which inclined face is substantially the same as that of the inclined face 14, said faces being for the purpose hereinafter described. Upon the bolt 10 is located a nut 18, and, if desired, a washer 19 may be located upon the bolt between the head of the lever 16 and the nut 18; but this is not absolutely necessary, as it will be understood that the nut 18 may be brought into operative contact with the head of the lever 16, and, if desired, a second nut 20 may be located upon the bolt 10; but this is simply a question of judgment.

In use the flasks or sections 1 and 2 are placed together in the usual manner, reference being had to the filling and ramming of the sections and the pin 6 (one at each end of the flask) is slipped in the notch or opening 5 and its head slid down the incline of the flange 8 until the pin is seated against the face of the notch 5, after which the lever 16 is turned in the direction to bring the pin 6 in proper position with reference to the notch or opening 5 to securely hold the flask-sections 1 and 2 together and in such a manner that there is no movement of one flask-independent of the other. At the time the casting is made the pins are seated into the notches or openings, so that there is no danger of any springing of the flask-sections one upon the other.

It will be understood that by my peculiar arrangement at the time the upper flask is being treated, before the casting is made, there can be no relative movement between the two flask-sections. It will also be un-

derstood that by my peculiar arrangement when the lever 16 is turned so as to release the pin 6 the pin will be free to swing in a limited sense, so that there is no danger of breaking the pin if in the event the flasks 2 and 3 are not parted uniformly throughout their entire length, or, in other words, one end of the upper flask can be elevated regardless of the opposite end without danger of breaking the flask-pins.

It will be understood that by providing the elongated slot 9 the bolt 10, together with the pin 6 and the different parts located upon the bolt, can be moved up and down, and when moved upward the pin 6 will be carried away from the right-angled flange having the openings, and when moved down the pin 6 will be brought toward the flange 3 and into the opening 5.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device for securing the sections of a molder's flask together, a flange provided with an inclined face, said flange secured to one of the flask-sections, a flange provided with an angled portion having a recess or opening, said flange secured to the other flask-

section, a pin provided with a head having an inclined face and an inclined disk, a clamp-lever having an inclined-faced head and a bolt adjustably secured to the flange having the inclined face, substantially as and for the purpose specified.

2. The combination of upper and lower flask-sections, the upper one provided with flanges having inclined ways, pins provided with heads having inclined faces corresponding with the angle of the inclined ways, flanges located upon the lower flask-section and provided with right-angled portions having notches or openings, and said pins provided with curved inclined faces, and levers provided with correspondingly-curved inclined faces, and clamping-bolts located through the flanges having the inclined ways, the pins and the clamping-levers, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WARREN J. BALL.

Witnesses:

ALEX. RANKIN,
JOHN B. MORGAN.