

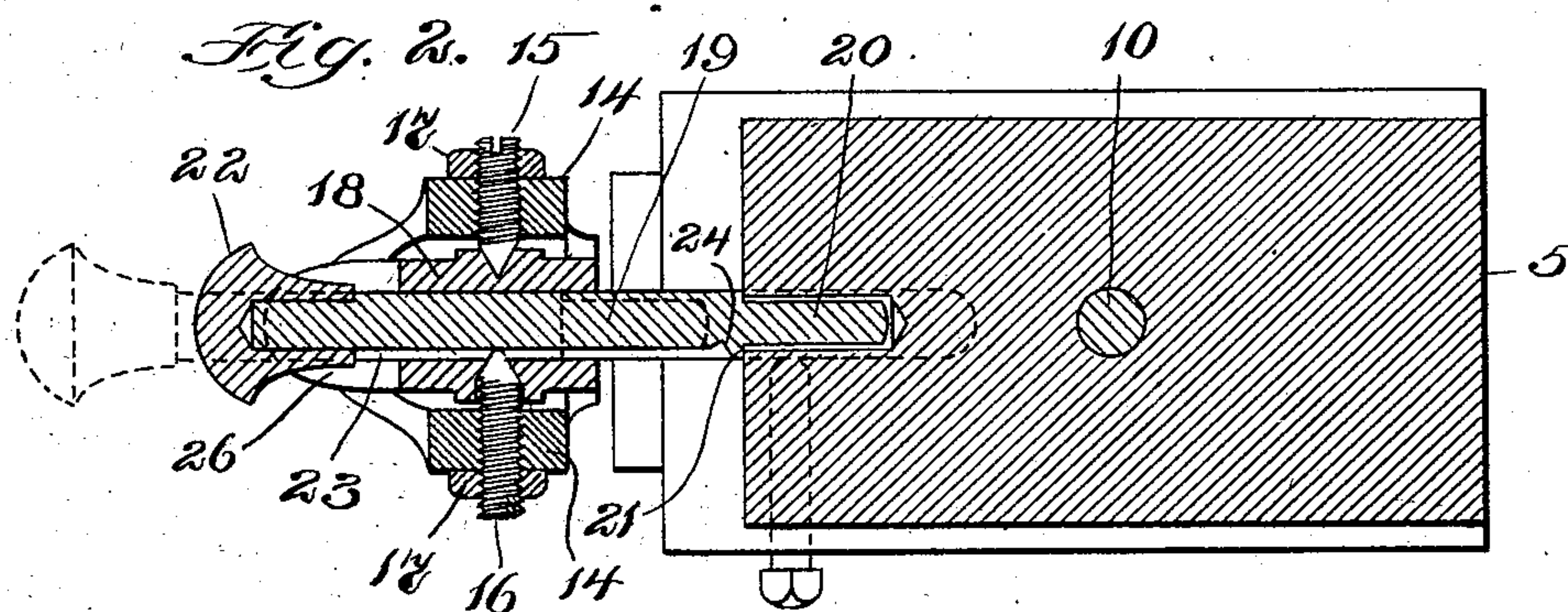
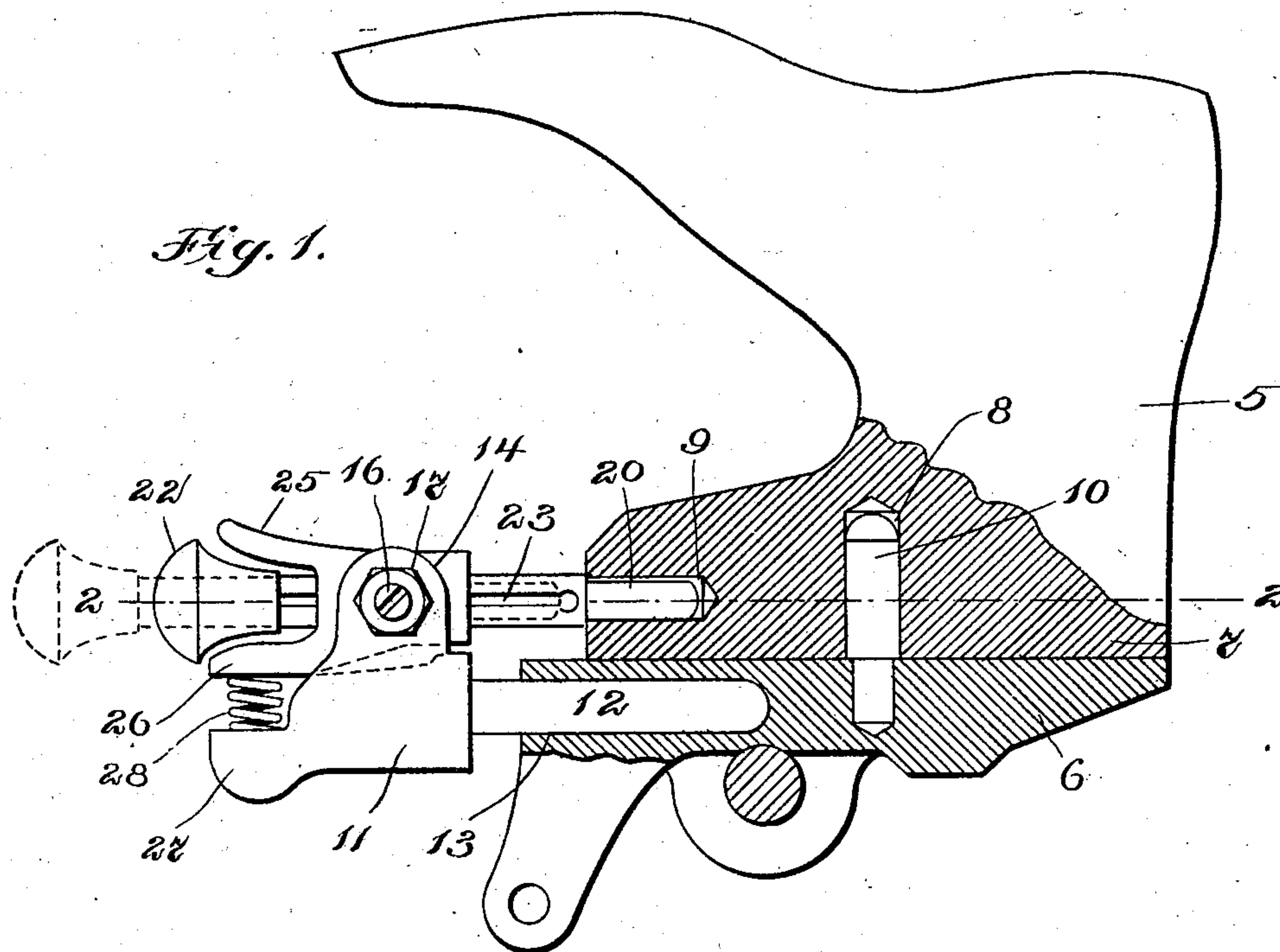
No. 725,961.

PATENTED APR. 21, 1903.

J. J. HEYS.
LOCK FOR JACKS.

APPLICATION FILED NOV. 21, 1901.

NO MODEL.



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UNITED STATES PATENT OFFICE.

JOHN J. HEYS, OF LYNN, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO
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LOCK FOR JACKS.

SPECIFICATION forming part of Letters Patent No. 725,961, dated April 21, 1903.

Application filed November 21, 1901. Serial No. 83,185. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. HEYS, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Locks for Jacks, of which the following is a specification.

This invention has for its object the provision of improved means for locking the jacks in leveling or molding machines for boots and shoes. Such jacks are formed with two apertures, one extending upwardly in the base and another extending inwardly from the front end of the base, for the reception of the locking-pins, which are set at an angle to each other. In boring the hole in the front of the jack it is difficult on account of the liability of the boring-bit to be forced slightly out of true when the end of the bit engages the surface of the front of the jack, which in some cases is inclined, to form the apertures accurately in a large number of the jacks, and consequently the front locking-pin cannot be forced into the aperture without difficulty or, if easily engaged with the aperture by reason of the aperture being located too near the baseline, without its having the operative pressure of the jack and mold.

The present invention contemplates means for mounting the front locking-pin whereby it will have a slight transverse movement, whereby its end may be easily inserted in the aperture intended for it even if the aperture is somewhat out of true.

On the accompanying drawings, forming a part of this specification, Figure 1 represents a carrier having a jack thereon and illustrates one embodiment of my invention for locking the jack. Fig. 2 represents a section on the line 2 2 of Fig. 1.

On the drawings the jack is indicated at 5, and it is supported upon a carrier 6, which may be formed in any suitable way. The jack is provided with a base 7, having a flat surface which rests upon the flat top of the carrier. In the base of the jack are two holes or apertures 8 9, the former projecting upward or at right angles to its flat base and the lower projecting inward from the front of the jack, the intention being to have the two apertures at an angle of ninety degrees in relation to each other. The carrier 6 is

formed with a pin 10, which is adapted to fit accurately in the aperture or hole 8, as shown.

My invention consists of the improved locking-pin for engaging and entering the aperture 9. Secured in the front of the carrier there is a bracket 11, having a pin or member 12, which is secured in an aperture 13, formed in the front of the carrier. This bracket 11 is formed with two parallel ears 14 14, through which are passed two screws 15 16, respectively, each of which has a conical or pointed end. The screws are arranged in axial alinement, and they are adapted to be locked against movement by nuts 17. Fulcrumed upon the screws is a pivoted support 18, having an aperture from front and rear for the reception of the locking-pin 19, whose reduced end 20 is adapted to be inserted in the aperture 9 in the jack. It will be observed that the reduced end 20 of the pin is slightly smaller in diameter than the internal diameter of the aperture 9. The pin is formed with a shoulder 21 for engaging the front of the jack when the pin is inserted in its aperture. The said pin is adapted to be moved longitudinally in its pivoted support, and it is held against displacement or dropping out by the knob or head 22 on one end and by the conical point of the screw 16, which enters a longitudinal groove 23 in the pin and is adapted to engage the end of the shoulder 24 at the end of the groove when the pin is withdrawn. The pivotal support is formed with two fingers or projections 25 26 at its front end, one above the other, and between the finger 26 and the projection 27 on the bracket 11 there is placed a helical spring 28, whose function is to hold the front end of the pivoted support yieldingly upward. It will be observed from this construction that the pin 9 may be tilted to raise or lower its end 20 to bring it into alinement with the aperture 9 in case the said aperture is not accurately located in the jack. Ordinarily the dislocation of the aperture would be comparatively slight, and yet with the usual form of locking-pin, which is incapable of lateral movement, it would be impossible to force the end of the pin into the aperture. The spring 28 has a tendency to force the outer or front end of the pin upward, and when the said pin is engaged with

its aperture the spring causes it to bind in the aperture sufficiently to secure it yielding in place. There is no necessity to have the pin moved sidewise, as the jack may be 5 adjusted about the pin 10 to bring the aperture 9 into the vertical plane of the axis of the pin 19, and hence I make no provision therefor, it being sufficient to provide for the movement of the pin in lines longitudinal of 10 the pin 10. To raise the reduced end 20 of the pin 19 into alinement with the aperture 9, the thumb of the operator is placed upon the finger or projection 25 and is forced downwardly, the other end being employed 15 to move the said pin longitudinally when its end is in position to be forced into the said aperture 9.

Having thus explained the nature of the invention and described a way of constructing and using the same, although without attempting to set forth all of the forms in which it may be made or all of the modes of its use, I declare that what I claim is—

1. The combination with a base adapted to 25 receive a jack, of a pin supported by said base and arranged substantially in parallelism with said base, to enter an opening in the front of said jack, and provisions for a transverse movement of the end of said pin, whereby it may accommodate variations in the 30 openings in several jacks.

2. A locking device for jacks, consisting of a bracket, a spring-tension support pivotally mounted in said bracket, and a longitudinally- 35 movable pin passed through the said support.

3. A combination with a carrier having a pin to be inserted in the base of the jack, of a pin adapted to enter an aperture in the

front of the jack and arranged at an angle to the first-mentioned pin, and provisions whereby the second-mentioned pin has a lateral 40 movement to accommodate it to apertures which vary in position in the several jacks.

4. The combination with a base adapted to receive a jack, of a pin supported by said 45 base and arranged substantially in parallelism therewith to enter an opening in the front of the said jack, and means for yieldingly preventing the accidental withdrawal of said pin from said jack. 50

5. The combination with a base adapted to receive a jack, of a longitudinally-movable pin arranged substantially in parallelism with said base adapted to enter an opening in the front of said jack, a support for said pin, a 55 pivot for said support arranged transversely of the said pin, and a spring bearing against said support with a tendency to swing it about its pivot so as to automatically secure the said pin against withdrawal after it is in- 60 serted in the opening in the jack.

6. A locking device for jacks consisting of a bracket adapted to be connected to the jack-carrier, a support pivotally mounted in said bracket, a spring inserted between said sup- 65 port and said bracket so as to swing the support about its pivotal axis, a longitudinally-movable pin passed through said support, and means for limiting the longitudinal movement of said pin. 70

In testimony whereof I have affixed my signature in presence of two witnesses.

JOHN J. HEYS.

Witnesses:

M. B. MAY,
GEORGE PEZZETTI.