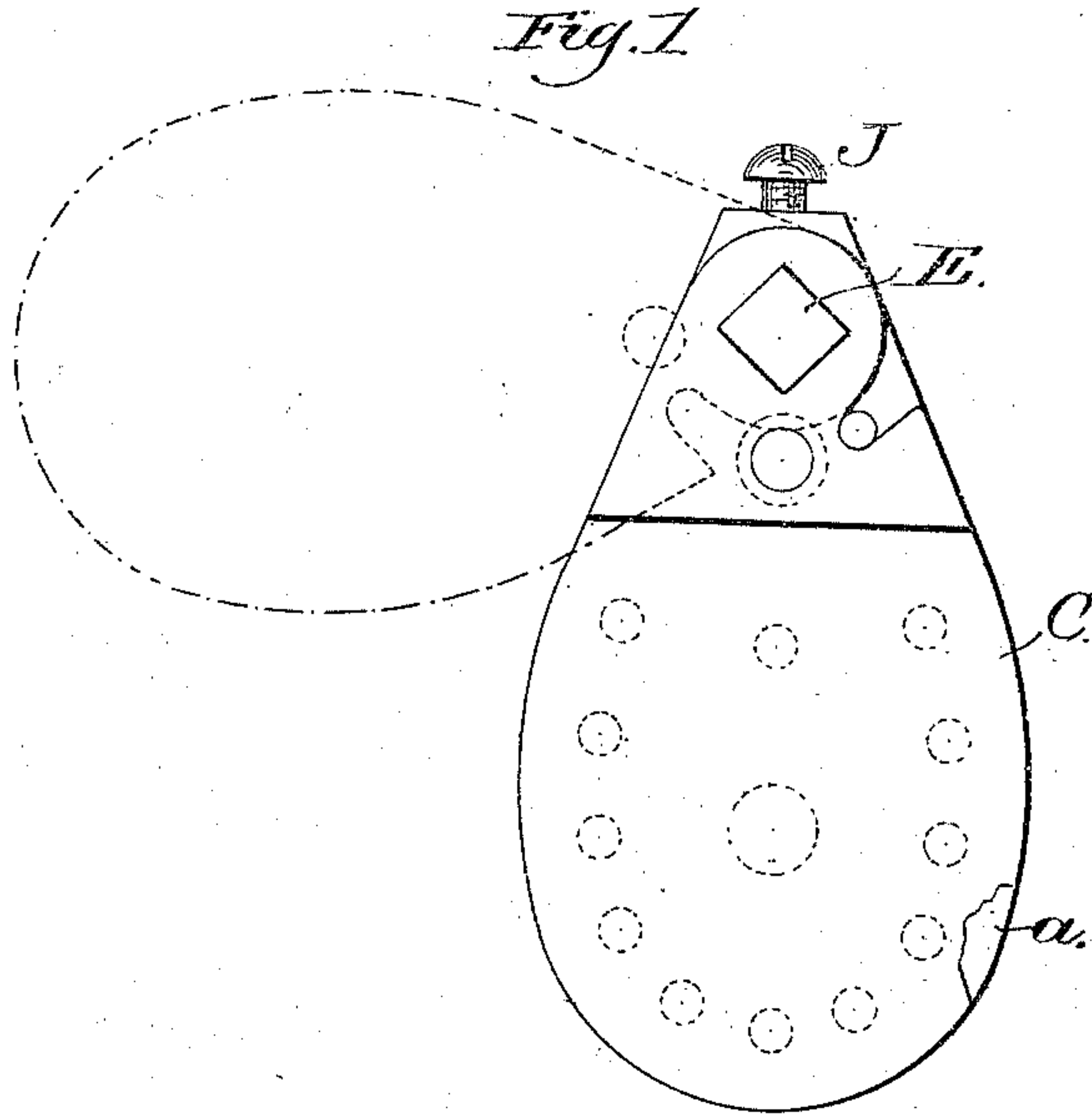


(No Model.)

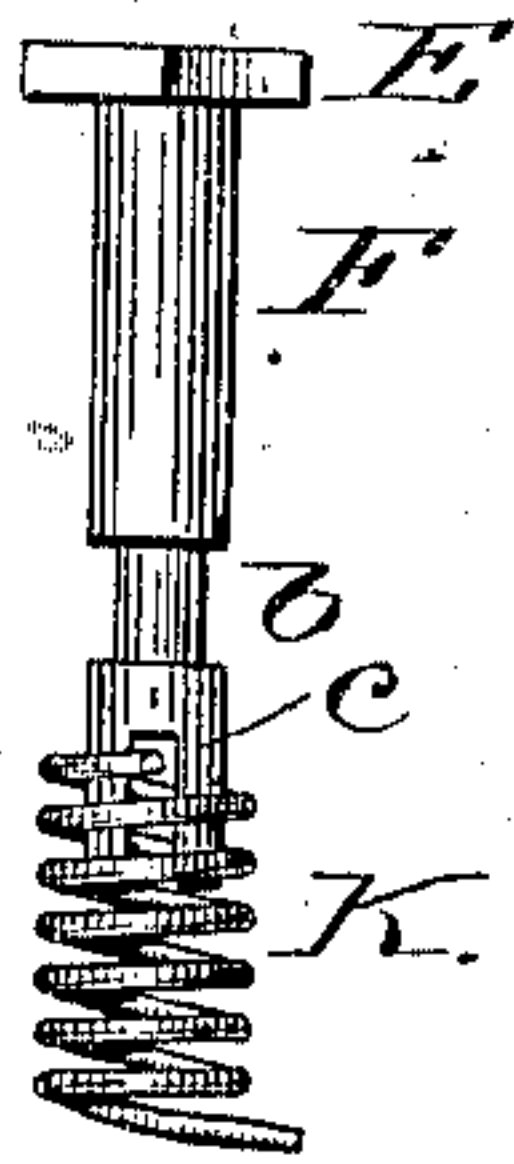
E. B. ALLEN.  
HEELING BLOCK.

No. 314,411.

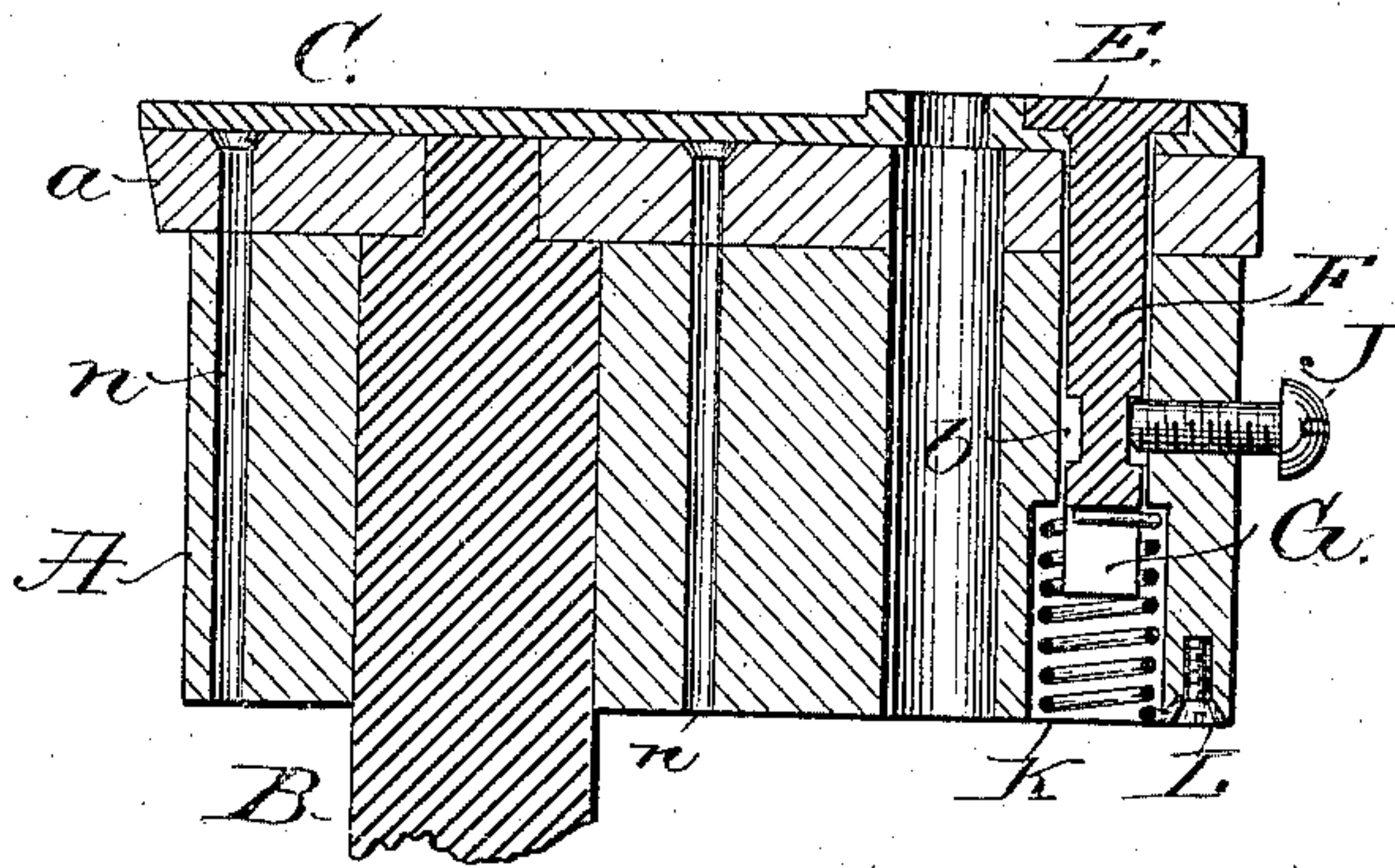
Patented Mar. 24, 1885.



*Fig. 3.*



*Fig. 2.*



witnesses.  
John F. C. Prentiss  
B. J. Boyes

Inventor,  
Edward B. Allen  
by Crosby & Gregory attys



# UNITED STATES PATENT OFFICE.

EDWARD B. ALLEN, OF PORTLAND, MAINE, ASSIGNOR TO JAMES W. BROOKS,  
TRUSTEE, OF CAMBRIDGE, MASSACHUSETTS.

## HEELING-BLOCK.

SPECIFICATION forming part of Letters Patent No. 314,411, dated March 24, 1885.

Application filed May 3, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD B. ALLEN, residing in Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Heeling-Blocks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention in heeling-machines has for its object to provide the top-lift plate of the usual nail-box with means for automatically operating it, so that the latter will be thrown into position to sustain the top lift immediately after the nail-box and die-bed spindle are lowered from the nailed heel, thus placing the top-lift plate in position to receive upon it the top lift, which is to be attached to the nails left projecting from the heel, thus completing the latter at the next rise of the die-bed spindle.

In heel-nailing machines heretofore used in which a top-lift plate has been employed the said plate has always been turned into position above the nail-box by hand. Operating the said plate mechanically enables the speed of the machine to be very considerably increased.

Figure 1 is a top or plan view of a nail-box of usual construction detached from a heel-nailing machine, the usual top-lift plate being shown by dotted lines as turned aside into the position that it will occupy while the heel is being nailed. Fig. 2 is a central vertical section of Fig. 1; and Fig. 3 is a detail of the top-lift-plate swing-pin, and its actuating-spring.

The nail-box or heel-support A, provided with the holes *n* for the reception of the nails of a loaded heel, and the drivers to drive such nails into and through the heel far enough to fasten it to the sole, the top *a* of the said nail-box, the post B to support the said nail-box, and the top-lift plate C, are all substantially as in United States Patent No. 166,795, dated August 17, 1875, to which reference may be had.

The top-lift plate described in the said patent is swung into position above the nail-box by hand when the top lift is to be applied to

the projecting ends of the nails. To operate the top-lift plate automatically to compel it to be quickly turned into position above the perforated top of the nail-box immediately after the body of the heel has been nailed upon the sole, and the nail-box and heel are separated for the reception of the top lift, I have connected the top-lift plate with a swing-pin, F, which, extended down into the nail-box, is surrounded by or provided with a spring, which normally acts to keep the top-lift plate closed, as in full lines, or so as to cover the holes *n* in the nail-box.

The swing-pin is shown as provided with a square or angular head, E, which enters a correspondingly-shaped recess made in the top-lift plate, and the shank of the swing-pin, besides being provided with an annular groove, *b*, for the reception of the end of a screw, J, by which to restrain endwise movement of the spindle, is also forked or bifurcated, as at *c*, for the reception of the end of a spring, K, the other end of which is fixed to or with relation to the nail-box by a screw, L.

The top-lift plate C is held in its dotted-line position by the heel while the nails are being driven therein; but as soon as the heel and nail-box are separated the spring K acts quickly and throws the top-lift plate into position to cover the nail-box and support the usual top lift, while the heeling-machine in its next operation acts to force the top lift upon the heads of the nails left protruding from the end of the heel.

In another application, Serial No. 130,242, I have shown and claimed mechanism for automatically operating the top-lift plate in both directions; but herein the said plate is operated in one direction by means of a spring. The operation of the nail-box in the machine referred, to and known in the market as the "McKay and Bigelow Heeling-Machine," is well known, so, to illustrate my invention, only that part to which my invention is applied need be illustrated or described.

I do not claim a horizontally-swinging top-lift holder-plate for carrying a top lift to and holding it in position over the heel-blank when combined with an actuating-spring to return the said plate to its normal condition.

I claim—

A horizontally-swinging top-lift plate piv-  
oted to the nail-block, combined with an actu-  
ating-spring to return said plate to its normal  
position above, and to cover the nail-block  
5 when a blind top-lift is to be attached to the  
heel, substantially as described.

In testimony that I claim the foregoing as

my own I have affixed my signature in the  
presence of two witnesses.

EDWARD B. ALLEN.

Witnesses:

CHAS. L. WILSON,  
H. G. BRIGGS.