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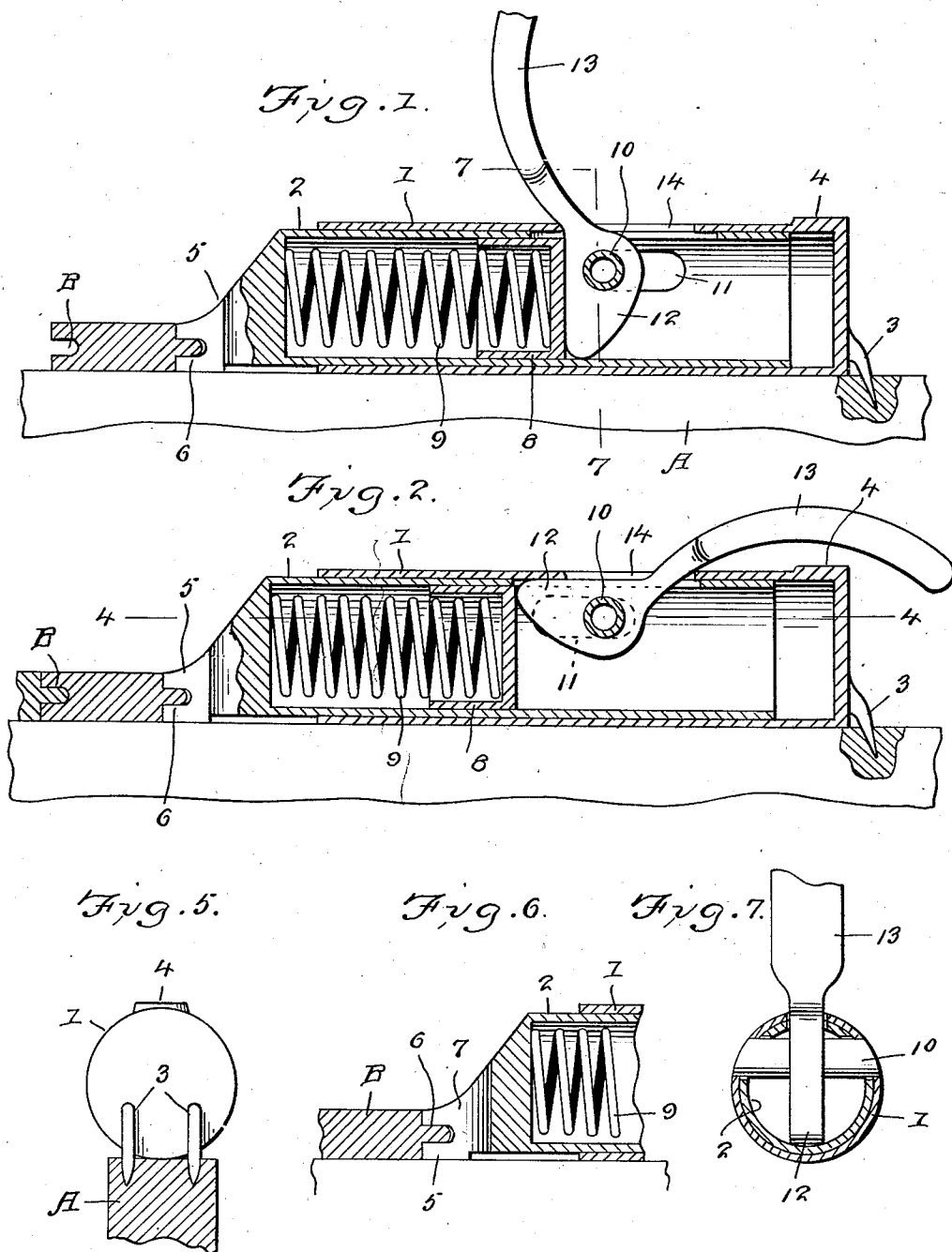
R. BROOK

1,851,489

FLOOR JACK

Filed March 12, 1930

2 Sheets-Sheet 1



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INVENTOR

BY Victor J. Evans

ATTORNEY

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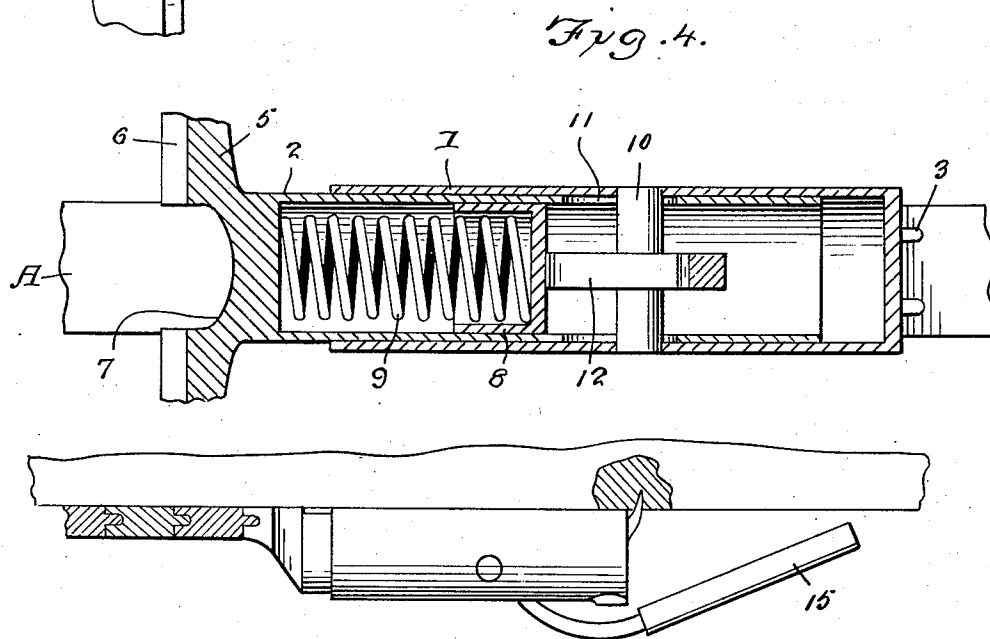
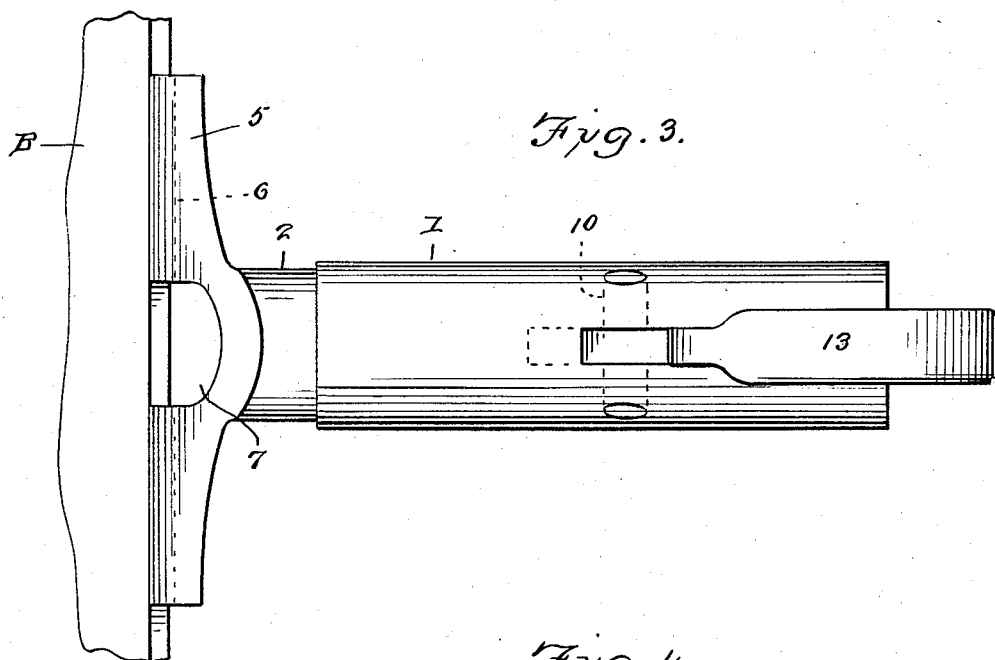


Fig. 8.

R. Brook

INVENTOR

BY Victor J. Evans

ATTORNEY

UNITED STATES PATENT OFFICE

REGINALD BROOK, OF VANCOUVER, BRITISH COLUMBIA, CANADA

FLOOR JACK

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This invention relates to a jack for pressing boards or the like into place, the device being mainly designed for use with floor boards, ceiling boards, etc.; the general object of the invention being to provide a pair of telescopic cylinders, one cylinder having points at its outer end adapted to be driven into a supporting member and the other having a shoe for engaging the member to be pressed into place, with a manually operated cam for causing a spring to press the shoe carrying cylinder forwardly to exert pressure on the board.

Another object of the invention is to so construct and arrange the parts that when the cam is moved to projecting position, it will lock the parts in this position.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a sectional view showing the device in use and before the cam is moved to projecting position.

Figure 2 is a similar view, but showing the cam in position locking the shoe carrying cylinder in projecting position.

Figure 3 is a top plan view of Figure 2.

Figure 4 is a section on line 4—4 of Figure 2.

Figure 5 is an end view showing the points of one cylinder penetrating a supporting member.

Figure 6 is a fragmentary view similar to Figure 2.

Figure 7 is a section on line 7—7 of Figure 1.

Figure 8 is a view showing the device used for pressing ceiling boards in position.

In these drawings, the numeral 1 indicates an outer cylinder and the numeral 2 an inner cylinder, these cylinders having their inner

ends open and their outer ends closed and the cylinder 1 is formed with the points or projections 3 at its outer end which are adapted to be driven into a joist or other supporting member A. The top of this cylinder, at its outer end, is formed with a thickened part 4 so that it can be struck by a hammer or the like to cause the points to penetrate the supporting member.

A shoe 5 is formed on the outer end of the cylinder 2, this shoe having a groove 6 at its outer edge for receiving the tongue of a board B which may be a floor board, a ceiling board or the like and the outer edge of the tongue is so formed that it may be used with boards having straight edges as well as those having tongues.

An opening 7 is formed at the center of the shoe, said opening extending through the front edge of the shoe and this opening permits the board to be nailed or otherwise fastened in place while it is being pressed by the shoe. The shoe is of elongated form, as shown, so as to engage a considerable part of the board, and said shoe can be formed with thickened portions, if desired, so that it can be struck by a hammer or the like.

A cup-shaped piston 8 is arranged in the inner cylinder 2 and a spring 9 is located in the cylinder and bears against the front inner end thereof and against the piston.

A shaft 10 has its ends fitting in holes in the outer cylinder and said shaft passes through elongated slots 11 in the inner cylinder, the shaft carrying a cam 12 which is formed with a curved handle 13 which passes through slots 14 formed in the upper parts of the cylinders.

When the handle is in raised position, a flat edge of the cam will engage the piston, as shown in Figure 1, but when the handle is swung downwardly and rearwardly, the nose of the cam will engage the piston and thus force the same forwardly so as to contract the spring and cause said spring to project the cylinder 2 and cause the shoe to exert pressure against the board which it engages. The parts are so arranged and constructed that when the handle is depressed, the cam will lock the parts in projected position, as shown

in Figure 2, so that it is not necessary to hold the handle in depressed position and thus both hands of the workman are left free to nail the board in place.

5 As before stated, the device can be used on floor boards, as shown in Figures 1, 2, 3 and 4, or it may be used on ceiling boards, as shown in Figure 8, and, of course, it can be used on side boards. When used on ceiling boards, a
10 tubular member 15 can be slipped over the handle so as to provide greater leverage for operating the cam. When used on floor boards, the handle may be depressed by the foot.

15 Thus it will be seen that I have provided a simple device for pressing one board against another and for holding the board in position while it is being nailed.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

20 It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:—

1. A device of the class described comprising telescopic cylinders, a shoe at the outer
25 end of one cylinder, pointed projections at the outer end of the other cylinder, spring means in the inner cylinder, a transverse shaft pivotally and slidably connected to the cylinders, a cam on the shaft and having a pair of active
30 faces, and a handle connected with the cam and passing through slots in the cylinders whereby by moving the handle in a certain direction, one of the faces of the cam will engage and exert pressure upon the spring
35 means to project the inner cylinder and lock the parts in projected position.

2. A device of the class described comprising telescopic cylinders, an elongated shoe connected with the outer end of the inner
40 cylinder, said shoe having a groove in its outer edge and opening at its center opening out through said outer edge, downwardly extending pointed projections at the outer end of the outer cylinder, said inner cylinder having longitudinally extending slots
45 therein and both cylinders having longitudinally extending slots in their upper parts, a shaft passing transversely through the cylinders with its ends carried by the outer
50 cylinder and said shaft passing through the first mentioned slots in the inner cylinder, a cam on the shaft, a handle connected with the cam and passing through the upper slots in the cylinders, a piston in the inner
55 cylinder engaged by the cam and a spring in the inner cylinder bearing against the piston and the front end of the inner cylinder.

3. A floor jack comprising inner and outer cylinders, anchoring means for one of the
60 cylinders, a shoe on the other cylinder and

engaging a strip of flooring, a cam having angularly disposed faces carried by said cylinders, tension means between the inner cylinder and the cam, and a handle for adjusting the position of the cam to alternately
65 engage the faces of the cam with said tension means, whereby the positioning of the handle in one position will bring one of the faces into engagement with the tension means for holding the inner cylinder projected relative to the outer cylinder.

4. A floor jack comprising inner and outer cylinders, anchoring means for the outer cylinder, a shoe on the inner cylinder to engage a strip of flooring, a cam pivotally and slidably connected to the cylinders and having angularly disposed faces, tension means between the inner cylinder and the cam and the handle for adjusting the position of the cam to alternately engage the faces of the cam
70 with said tension means whereby the positioning of the handle in one position will bring one of the faces into engagement with the tension means for holding the inner cylinder projected relative to the outer cylinder.

5. A floor jack comprising inner and outer cylinders, an anchoring means on the outer cylinder, a shoe on the inner cylinder to engage a strip of flooring, a cam pivotally and slidably connected to the cylinders and having angularly disposed faces, a follower slidable in the inner cylinder to be engaged by the cam, tension means between the inner cylinder and the follower, and the handle for adjusting the position of the cam to alternately engage the faces of said cam with the follower, and whereby the positioning of the handle in one position will bring one of the faces into engagement with the follower for holding the inner cylinder projected relative to the outer cylinder.

In testimony whereof I affix my signature.
REGINALD BROOK.

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