

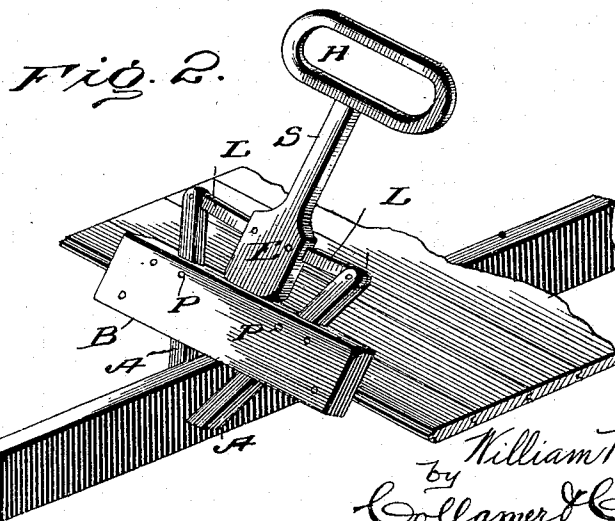
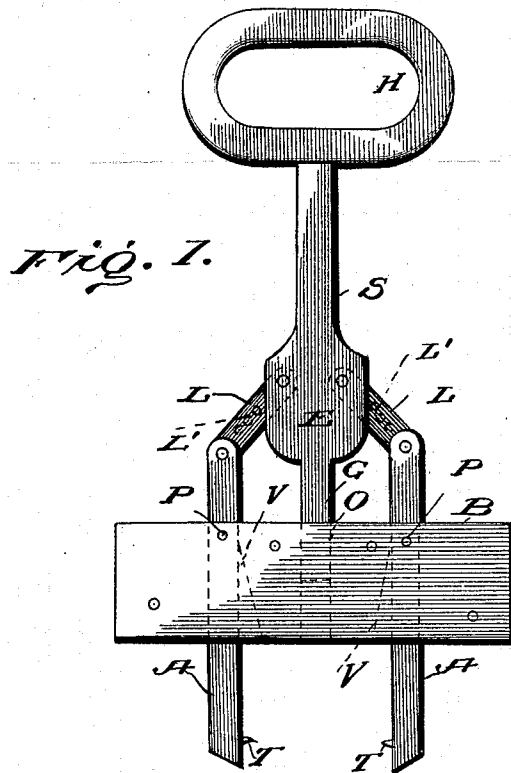
No. 624,147.

Patented May 2, 1899.

W. M. ALLEN.  
FLOOR SET.

(Application filed Feb. 2, 1899.)

(No Model.)



Witnesses:

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# UNITED STATES PATENT OFFICE.

WILLIAM M. ALLEN, OF LENA, OHIO.

## FLOOR-SET.

SPECIFICATION forming part of Letters Patent No. 624,147, dated May 2, 1899.

Application filed February 2, 1899. Serial No. 704,246. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM M. ALLEN, a citizen of the United States, and a resident of Lena, Miami county, State of Ohio, have invented certain new and useful Improvements in Floor-Sets; and my preferred manner of carrying out the invention is set forth in the following full, clear, and exact description, terminating with claims particularly specifying the novelty.

This invention relates to woodworking-tools, more especially of that class known as "floor-sets;" and the object of the same is to produce improvements in devices of this character.

To this end the invention consists in the specific details of construction hereinafter more fully described and as illustrated in the accompanying drawings, wherein—

Figure 1 is an elevation of this tool with the jaws open. Fig. 2 is a perspective view of the tool in use.

In the said drawings, B designates the body about of the shape shown and provided edgewise through it with a central opening O and two side openings V of V shape, as indicated in dotted lines in Fig. 1.

H is an eye or loop forming the handle, and S is the shank connected therewith and having its lower end G sliding through the opening O, and thus constituting a guide for the reciprocation of the shank. Midway of its length this shank has an enlargement E, whose shouldered lower end when it strikes the upper edge of the body B limits the downward movement of said shank.

A A are the arms of two jaws which extend through the V-shaped openings V V and are pivoted therein, as at P, and T T are prongs or teeth on the inner faces of such jaws.

L L are the links of a toggle-lever, respectively pivoted at their outer and inner ends to the upper ends of the arms A A and to the enlargement E of the shank, the construction being such that when the shank is down, as in Fig. 2, and the enlargement rests on the upper edge of the body B the links L will have passed just a trifle below true alignment, thus preventing the device from undesirably "knuckling" and releasing the joist at inopportune moments. Obviously by

forming a number of holes L' in the links, as indicated in dotted lines, the pivots can be adjusted so as to cause the teeth to grasp thicker or thinner joists. The relative sizes, shapes, and materials of parts are immaterial, excepting as it is necessary to make up an operative machine, and I do not wish to be confined to the exact construction shown.

In use the operator grasps the handle H and lifts the tool, as in Fig. 1, whereby its own weight causes the jaws to open. The latter are then passed astride the joist in advance of the flooring-board being laid and the tool pressed downward. When the lower edge of the body B strikes the joist, its downward movement ceases, and continued downward pressure on the handle causes the enlargement E to descend, which in turn spreads the links L L and turns the arms A A on their pivots P P. This throws the jaws inward and embeds the teeth T T in opposite sides of the joist, after which the handle is drawn toward the operator, whereby the body B is caused to press firmly on the beaded edge of the flooring and the latter is seated in place. All this can be readily done with one hand with a little practice, and the tool being held either by this hand or the knee or foot the operator then nails the flooring to the joist and is ready for another movement. Releasing the grasp of the tool from the joist is effected by a simple upward pull on the handle, which first spreads the jaws and unseats the teeth and then lifts the entire tool. I consider it highly advantageous to employ a toggle of the construction herein illustrated and described, because when in position with the links L L a trifle below a horizontal at their inner ends it is impossible for the jaws to accidentally loosen their grasp of the joist, and yet the shank and handle project upward out of the way of the operator in his work of nailing the flooring.

What is claimed as new is—

1. In a floor-set, the combination with a body having edgewise through it a central opening and two side V-shaped openings; of a shank having a guide reciprocating within said central opening, two arms pivoted in said side openings with teeth on the inner faces of their lower ends, a toggle connected with the shank and arms for operating the latter,

and a stop at the upper end of said guide for limiting the descent thereof when the toggle is just past its greatest spread, as and for the purpose set forth.

- 5 2. In a floor-set, the combination with a body having a central guide-opening, and two arms pivoted to said body; of a shank having a handle at its upper end and a guide at its lower end reciprocating in said opening,  
10 and between them an enlargement adapted to strike the upper edge of said body when the jaws are closed, and toggle-links pivotally

connecting said enlargement with the upper ends of the arms and adapted to pass just below a horizontal line when the enlargement 15 strikes the body, as and for the purpose set forth.

In testimony whereof I have hereunto subscribed my signature this the 30th day of January, A. D. 1899.

WILLIAM M. ALLEN.

Witnesses:

LYDIA A. ROBERTS,  
GLENN L. COLVIN.