

(No Model.)

W. NEHRING.
STEP LADDER.

No. 606,071.

Patented June 21, 1898.

Fig. 1

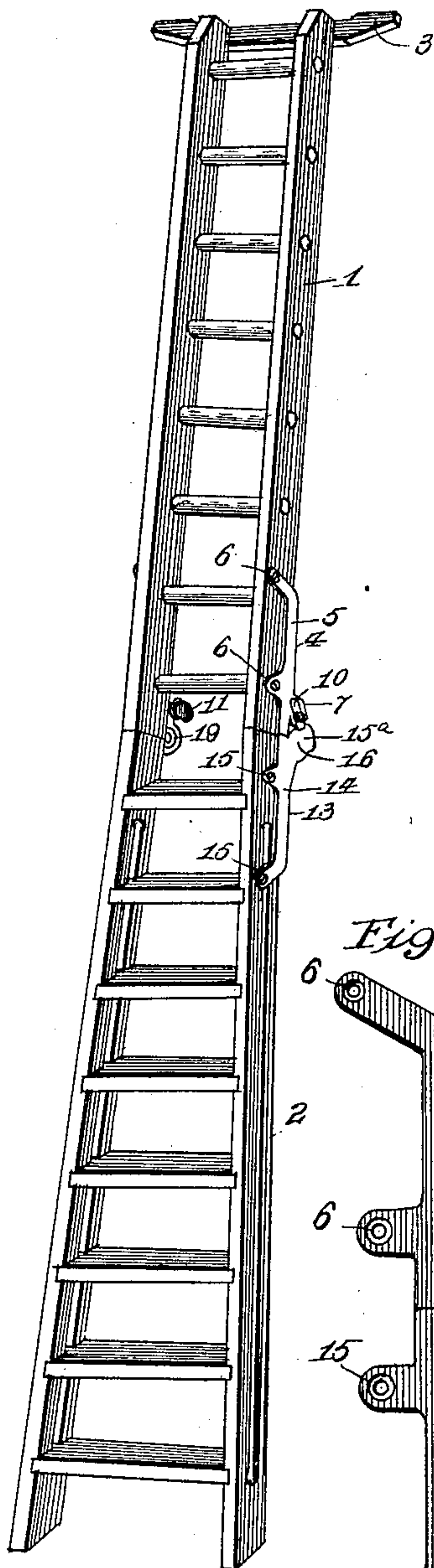


Fig. 2

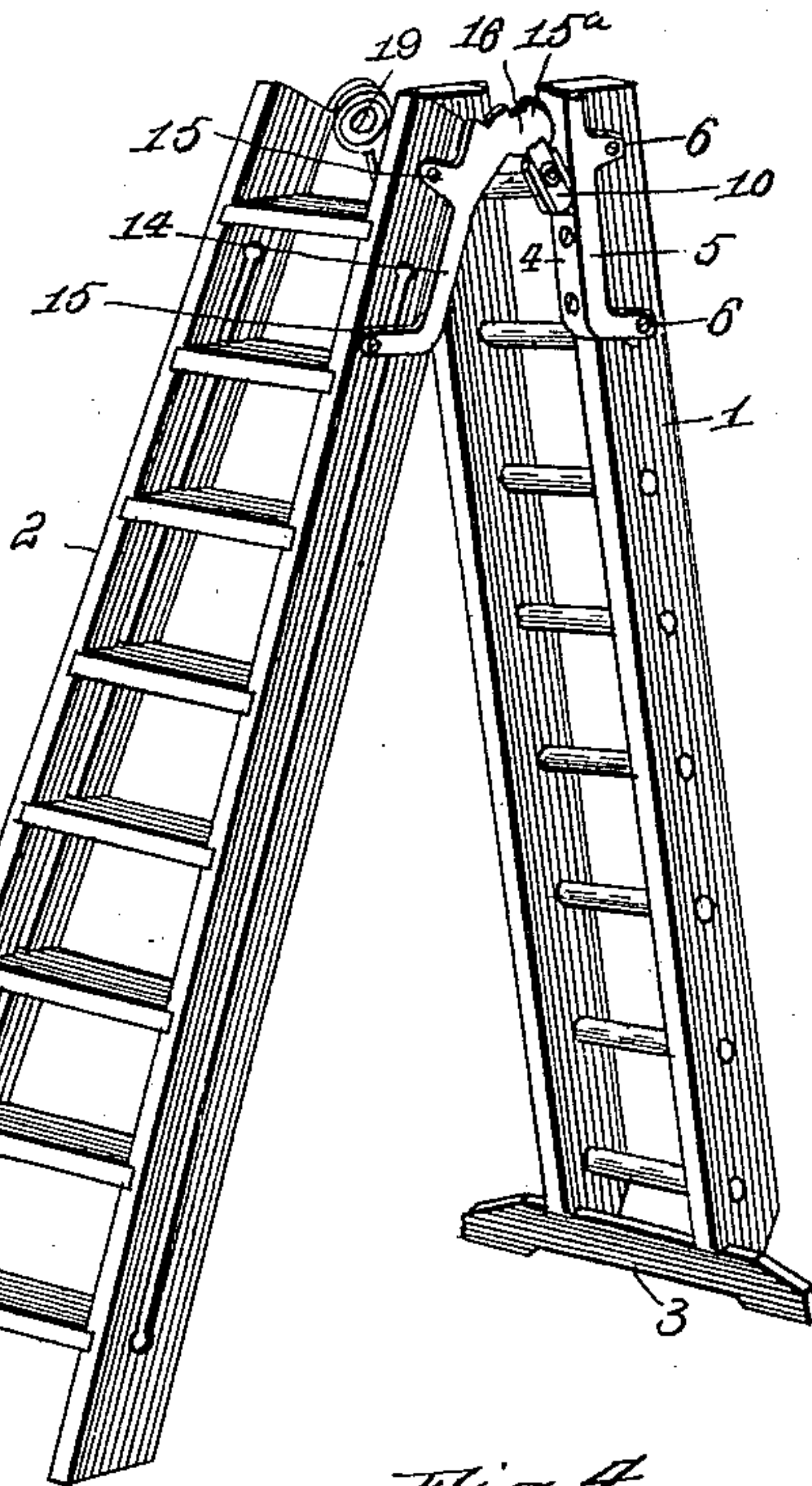


Fig. 3

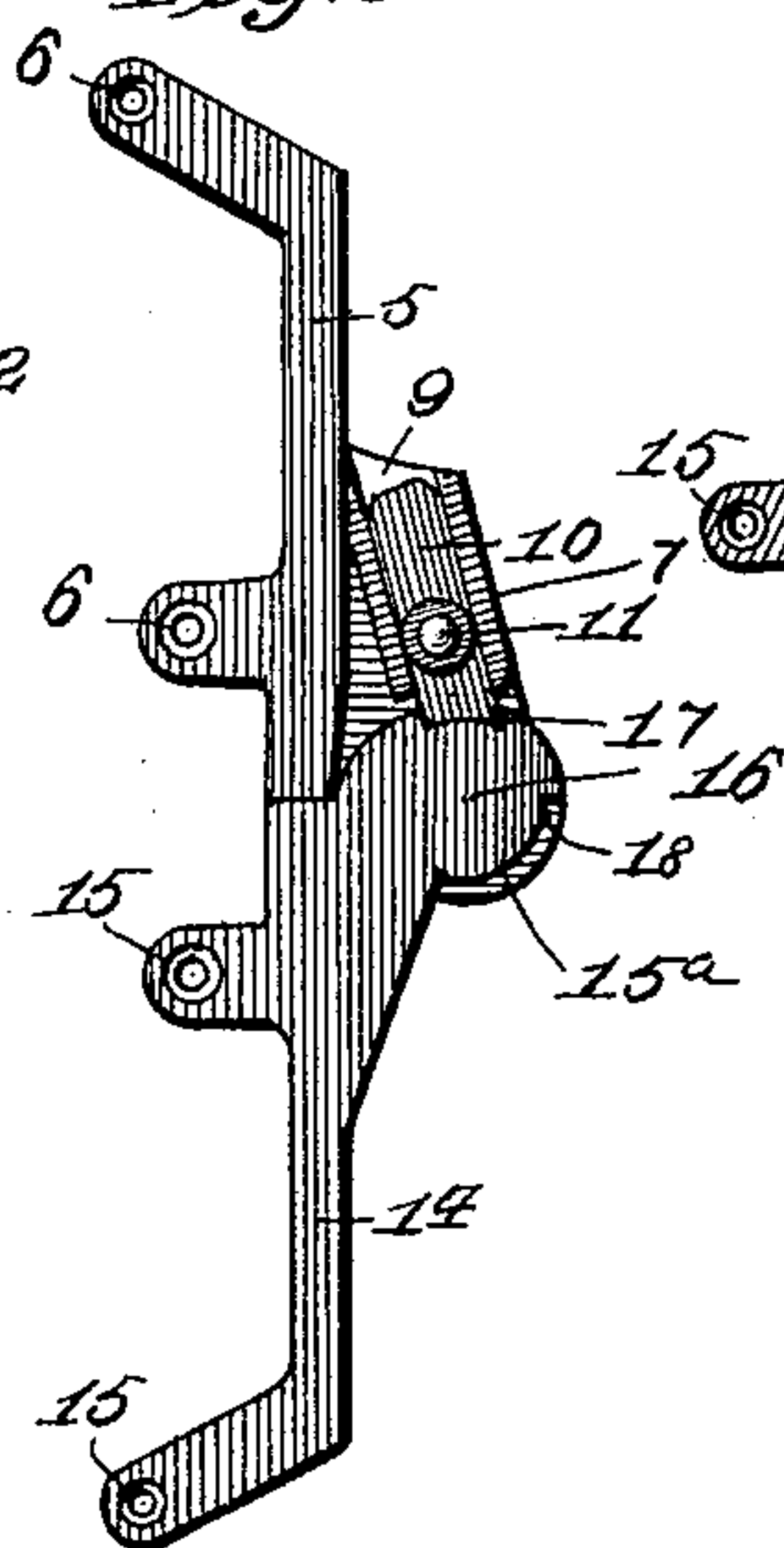


Fig. 4

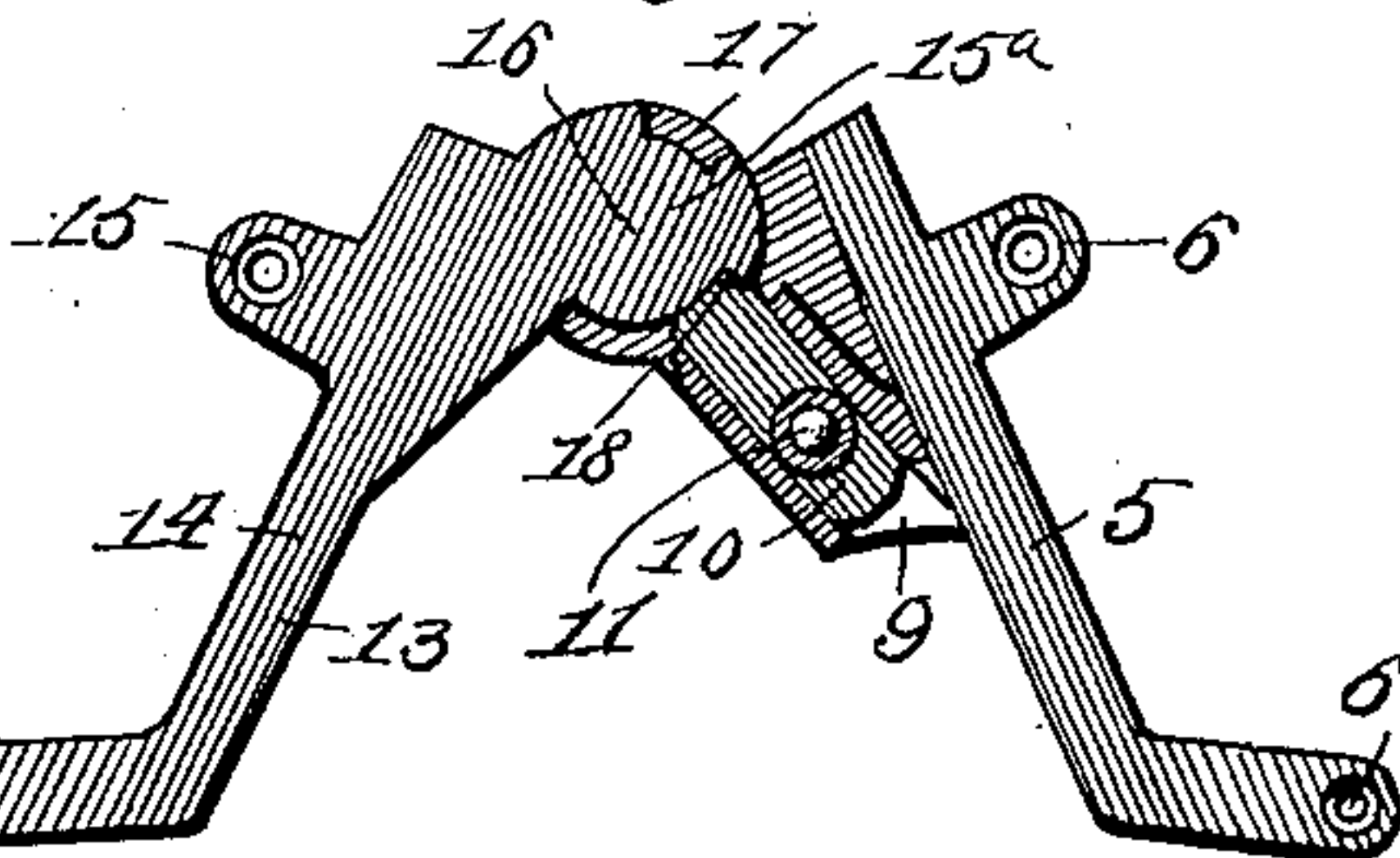
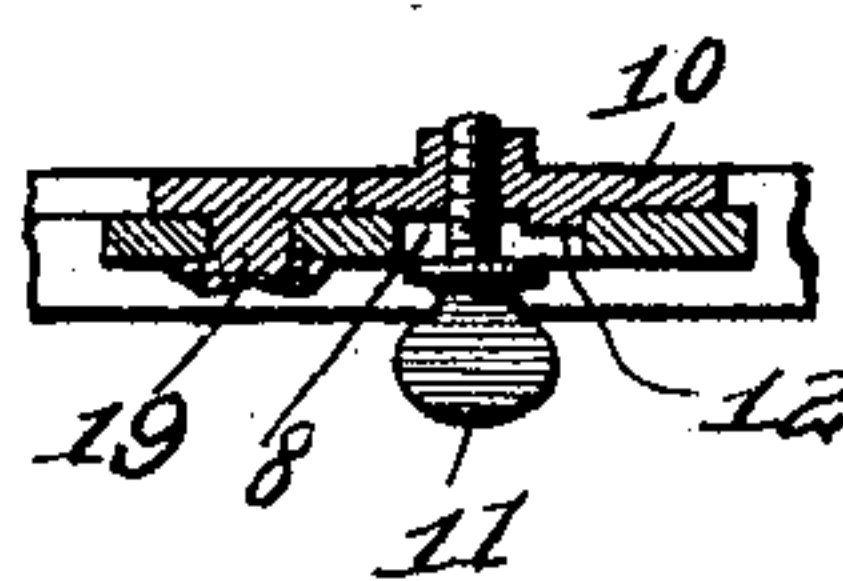


Fig. 5



Witnesses
Herbert Bradley,
Edward K. Allen,

Inventor
William Nehring

By Knight Bros
Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM NEHRING, OF EVANSVILLE, INDIANA.

STEP-LADDER.

SPECIFICATION forming part of Letters Patent No. 606,071, dated June 21, 1898.

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To all whom it may concern:

Be it known that I, WILLIAM NEHRING, a citizen of the United States, and a resident of Evansville, in the county of Vanderburg and State of Indiana, have invented certain new and useful Improvements in Step-Ladders, of which the following is a specification.

The object of my invention is to produce a combined step and long ladder; and it consists of two sections united by means whereby said sections may be secured in an extended or folded position without the intervention of stays other than the means for securing said sections together, which shall be strong and firm in either adjustment and simple in operation.

In the drawings, Figure 1 is a perspective view of an extended ladder with my improvement attached. Fig. 2 is a similar view of the ladder folded as a step-ladder. Fig. 3 is a side elevation of the hinge detached and locked in an extended position. Fig. 4 is a similar view, the hinge being in folded position. Fig. 5 is a detail sectional view.

1 represents the upper and 2 the lower section of the ladder, which may be of any approved pattern. The upper section is provided with a rest or foot 3, the ends of which extend slightly beyond the end of such section and serve as a rest for the ladder against a wall when the ladder is extended and as a foot when the ladder is used as a step-ladder, thereby giving the ladder a firmer footing.

4 is the upper member of the hinge, from which extends at right angles a flange 5. 6 are projections from said flange provided with suitable screw-openings, the lower projection being longer than the upper one. 7 is a flange extending from the opposite side of the member 4, in which is formed a slot 8. 9 is a groove formed on the inner side of said flange, into which the slot 8 opens. 10 is a bolt adapted to slide in said groove, and 11 is a thumb-screw detachably secured to said bolt. The bolt 10 is provided with an integral depending lug 12, which is adapted to enter the slot 8 and coact with the thumb-screw as a guide to the bolt, thereby preventing the bolt from binding in the groove.

13 is the lower member of the hinge, provided with a flange 14, with projections or lugs 15, having screw-openings.

15^a is a flange projecting from the opposite

side of the member 13, terminating in a substantially circular body 16, in which are formed notches 17 and 18. A lug 19 extends upwardly from the body 16.

The members of the hinge are secured together by passing the lug 19 through an opening in the end of the flange 7, placing a washer around the lug, and then riveting the lug in the washer, thus leaving the members free to turn.

The hinge is secured to the ladder-sections by suitable screws, as shown in the drawings.

When it is desired to use the ladder straight or in its extended form, the thumb-screw is loosened and the bolt 10 drawn down out of engagement with the notch 18, whereupon the hinge is free to turn. As soon as the ladder-sections are extended, as shown in Fig. 1, the bolt is shot into the notch 17 and the thumb-screw again tightened, thereby locking the hinge in its extended position. When it is desired to use the ladder as a step-ladder, the thumb-screw is again loosened and the bolt drawn back from the notch 17, the ladder-sections being folded in the position shown in Fig. 2. The bolt is then shot into the notch 18 and the thumb-screw tightened. In Fig. 2 it will be seen that the rest 3 acts as a foot or base of the step-ladder, thereby insuring a firmer base than the mere ends of the ladder would.

What I claim as new, and desire to secure by Letters Patent, is—

In a hinge, the combination with one member comprising a right-angled plate provided with perforated lugs extending from said plate, a second lug also extending from the plate in an opposite direction to that of the first-named lugs, there being a groove formed in the second-named lug, and a slot in the bottom of said groove through the lug, and a bolt secured in said groove by means of a set-screw, of the other member comprising a right-angle plate provided with perforated lugs extending from said plate and a second lug extending in an opposite direction to the first-named lugs and formed with notches or recesses in its edge, substantially as described.

WILLIAM NEHRING.

Witnesses:

JAMES T. COULTER,
JAMES T. WALKER.