

No. 627,610.

Patented June 27, 1899.

M. BARTH.
COLLAPSIBLE LADDER.

(Application filed Dec. 3, 1898.)

(No Model.)

Fig. 1.

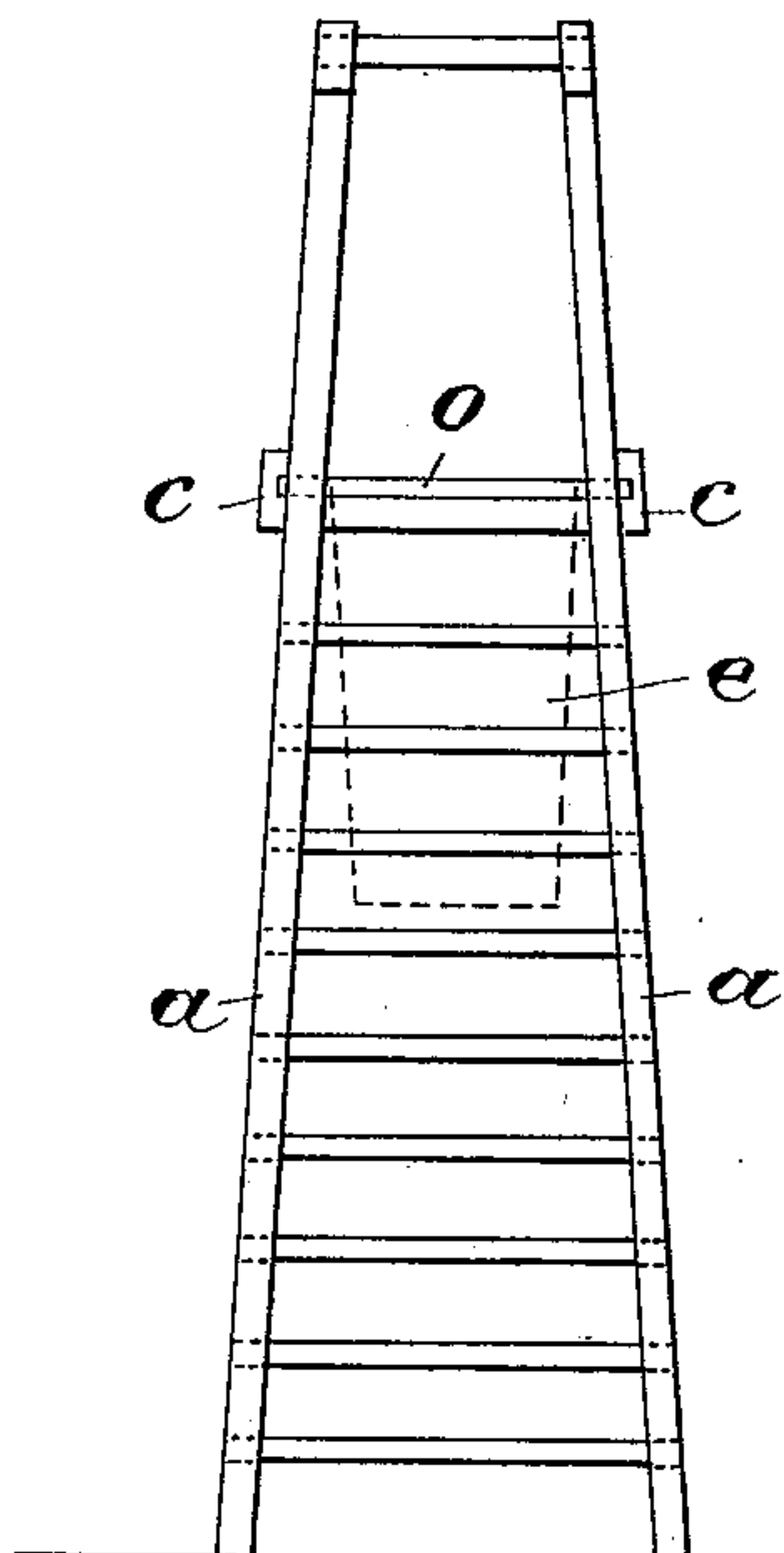


Fig. 2.

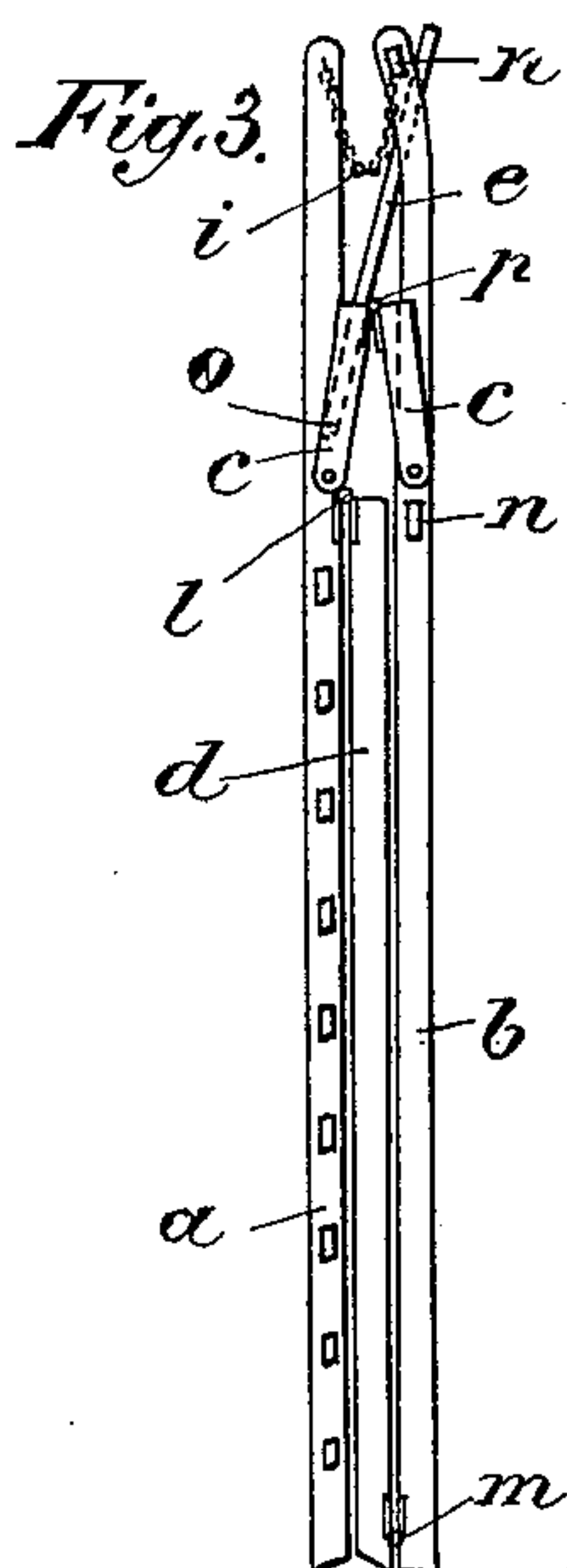
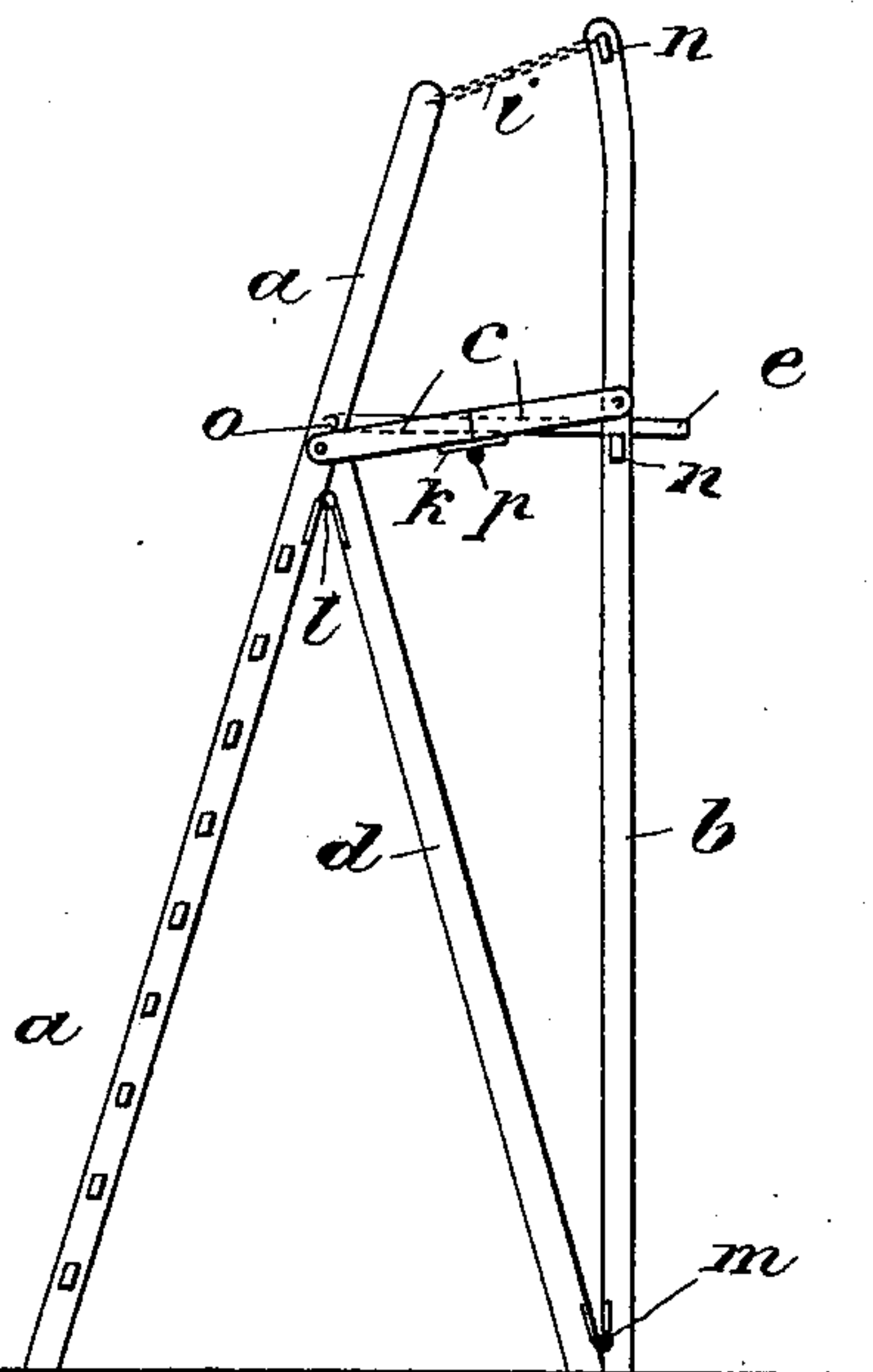
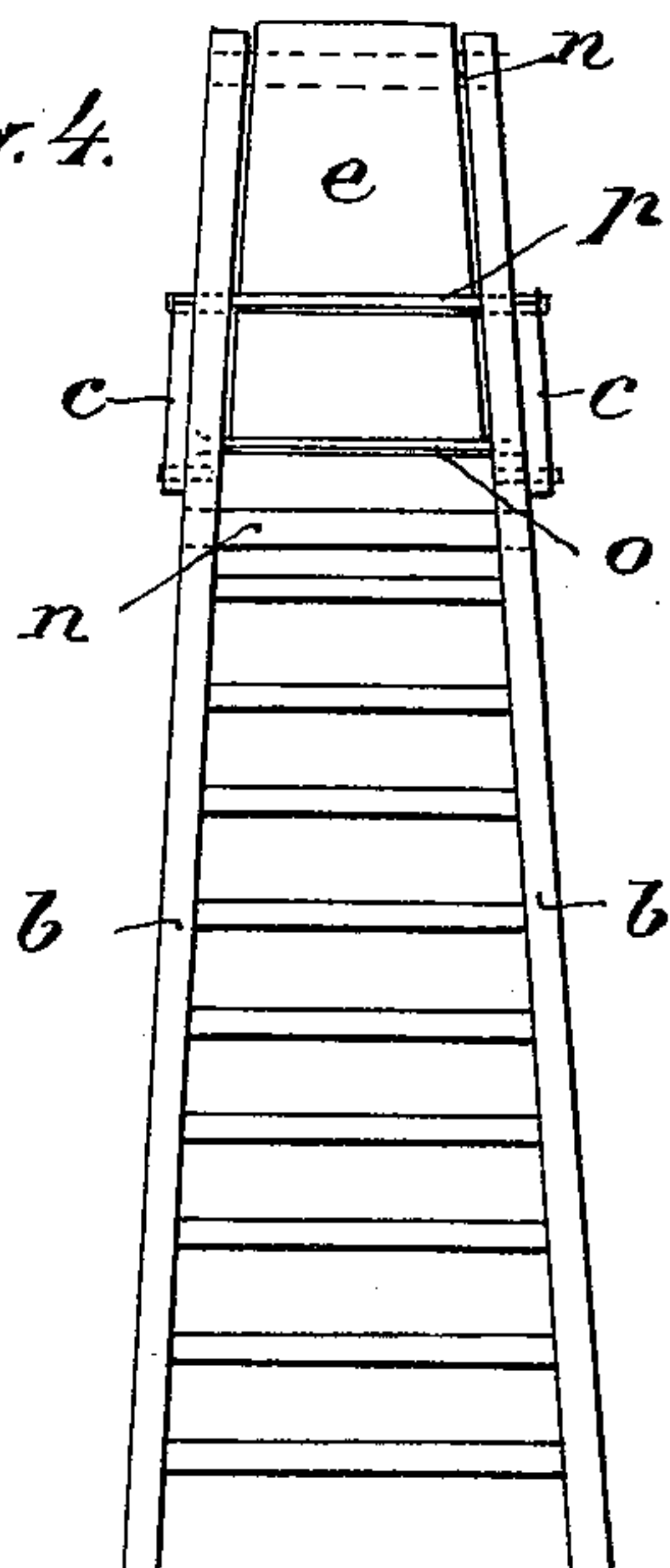


Fig. 4.



Witnesses:

Max Mayer.

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by the Attorney:

F. A. Hopper

UNITED STATES PATENT OFFICE.

MORITZ BARTH, OF BERLIN, GERMANY.

COLLAPSIBLE LADDER.

SPECIFICATION forming part of Letters Patent No. 627,610, dated June 27, 1899.

Application filed December 3, 1898. Serial No. 698,234. (No model.)

To all whom it may concern:

Be it known that I, MORITZ BARTH, manufacturer, a subject of the King of Prussia, German Emperor, residing at No. 8 Fruchtstrasse, Berlin, in the Kingdom of Prussia, German Empire, have invented certain new and useful Improvements in Collapsible Ladders, of which the following is a specification.

This invention relates to a collapsible ladder which at its outer end is provided with a platform of such a size that said platform affords a safe and convenient support which forms a kind of bridge between the front part of the ladder or ladder proper and the rear part thereof. Said support or bridge is combined with a railing or balustrade by which the workman or other person is secured against falling down from the same. This ladder may be collapsed in a very short time and without difficulty whatever and has such a low weight that it may well be carried by only one person.

My particular improvements in this collapsible ladder relate to certain arrangements and combinations of parts, as described hereinafter, and pointed out in the claim.

In order to make my invention more clear, I refer to the accompanying drawings, in which similar letters denote similar parts throughout the different views, and in which—

Figure 1 is a front view of my improved collapsible ladder. Fig. 2 is a side view of the same, the ladder being in its working position. Fig. 3 is also a side view of the ladder, showing the same collapsed. Fig. 4 is a front view of the ladder when collapsed.

At a short distance behind the ladder proper, *a*, is arranged a frame *b*, connected with the ladder by two stays *c*. Each of the latter is composed of two parts, which are connected by a hinge *k* in such a manner that the two parts of each stay move in an upward direction when they are being laid one against the other—*i. e.*, when the ladder is being collapsed. At the same time the frame *b* moves in the direction of the ladder proper, *a*, and is then placed closely against the same. As a further means of making the whole ladder rigid the latter is provided with stays *d*, which at their upper ends are connected with the ladder proper, *a*, by hinges *l* and at their lower ends with the frame *b* by hinges *m*.

The safe support is formed by a bridge *e*, resting with its rear part upon a step *n* of the frame *b* and connected at its front part with the uppermost stay of the ladder proper, *a*, by means of hinges *o*. The upper ends of the two lateral main parts of the ladder proper, *a*, and the corresponding ends of the frame *b* are connected by chains *i* or equivalent parts, these chains or parts representing the means by which the workman or other person is prevented from falling down from the bridge.

The hinges *k* of the lateral stays *c* are provided with a common connecting-bolt *p*, which extends just below the bridge when the ladder is in its working position.

In order to collapse the ladder, the stays *c* are first moved slightly upward by hand, and the frame *b* is then moved against the ladder proper, *a*. At the same time the bridge *e* is moved upward by means of the corresponding bolt *p* and turns upon or around its hinge *o*. If the bridge is sufficiently long, it remains standing in a raised position behind the uppermost connecting-ledge of the frame *b*.

Having now particularly described and ascertained the nature of my said invention, what I desire to secure by Letters Patent of the United States is—

In a collapsible ladder having an upright frame adapted to be placed at some distance behind the ladder proper and a platform adapted to be supported by said ladder proper and frame, the combination with the said ladder proper and frame, of stays *d* connected by hinges *l* with the ladder proper *a* and by hinges *m* with the frame *b*, and of other stays *c* consisting each of two parts connected by hinges *k*; these last-mentioned hinges having a common bolt *p* extending just below the platform *e* and being adapted to raise the latter when the ladder is collapsed, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

MORITZ BARTH.

Witnesses:

HENRY HASPER,
C. H. DAY.