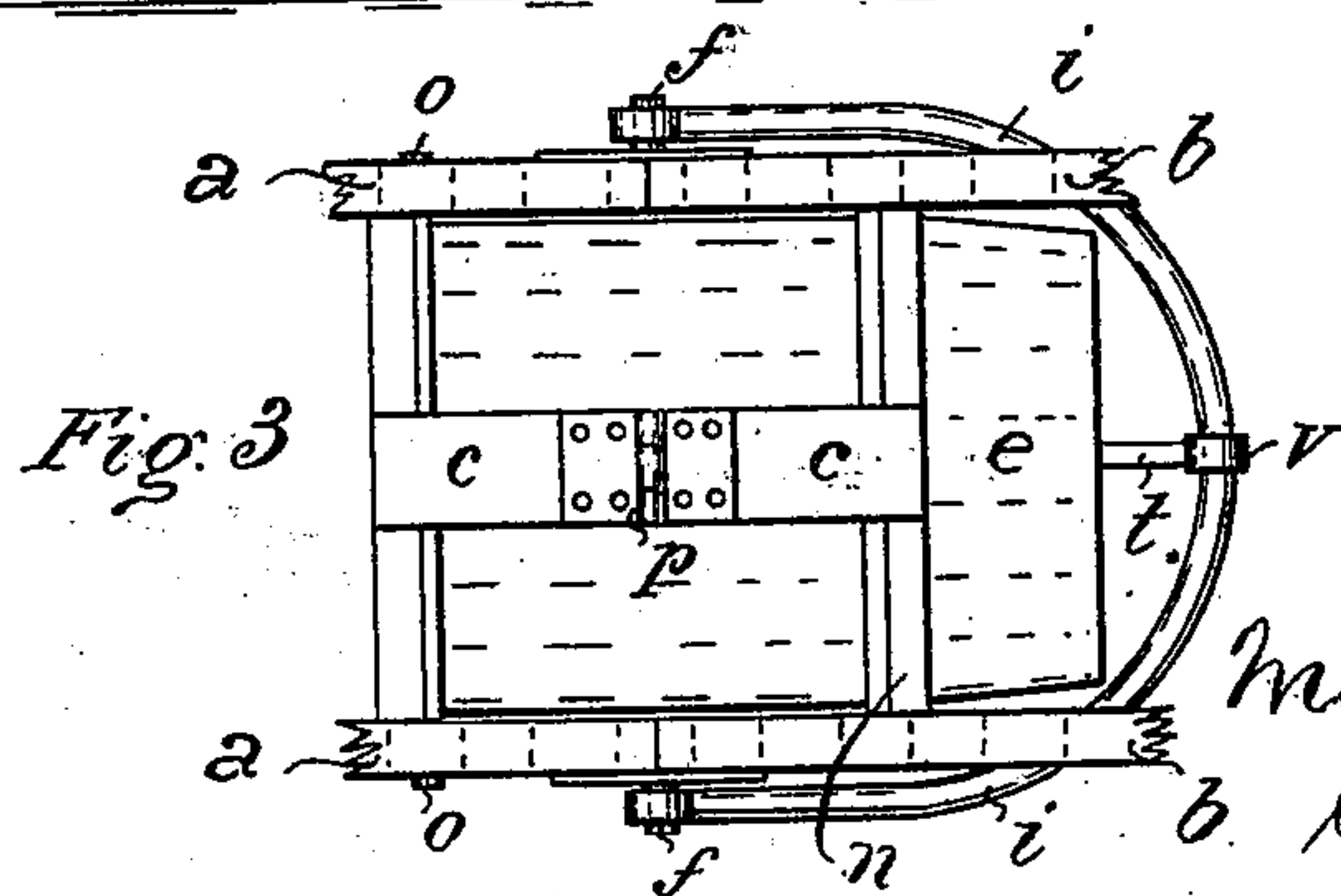
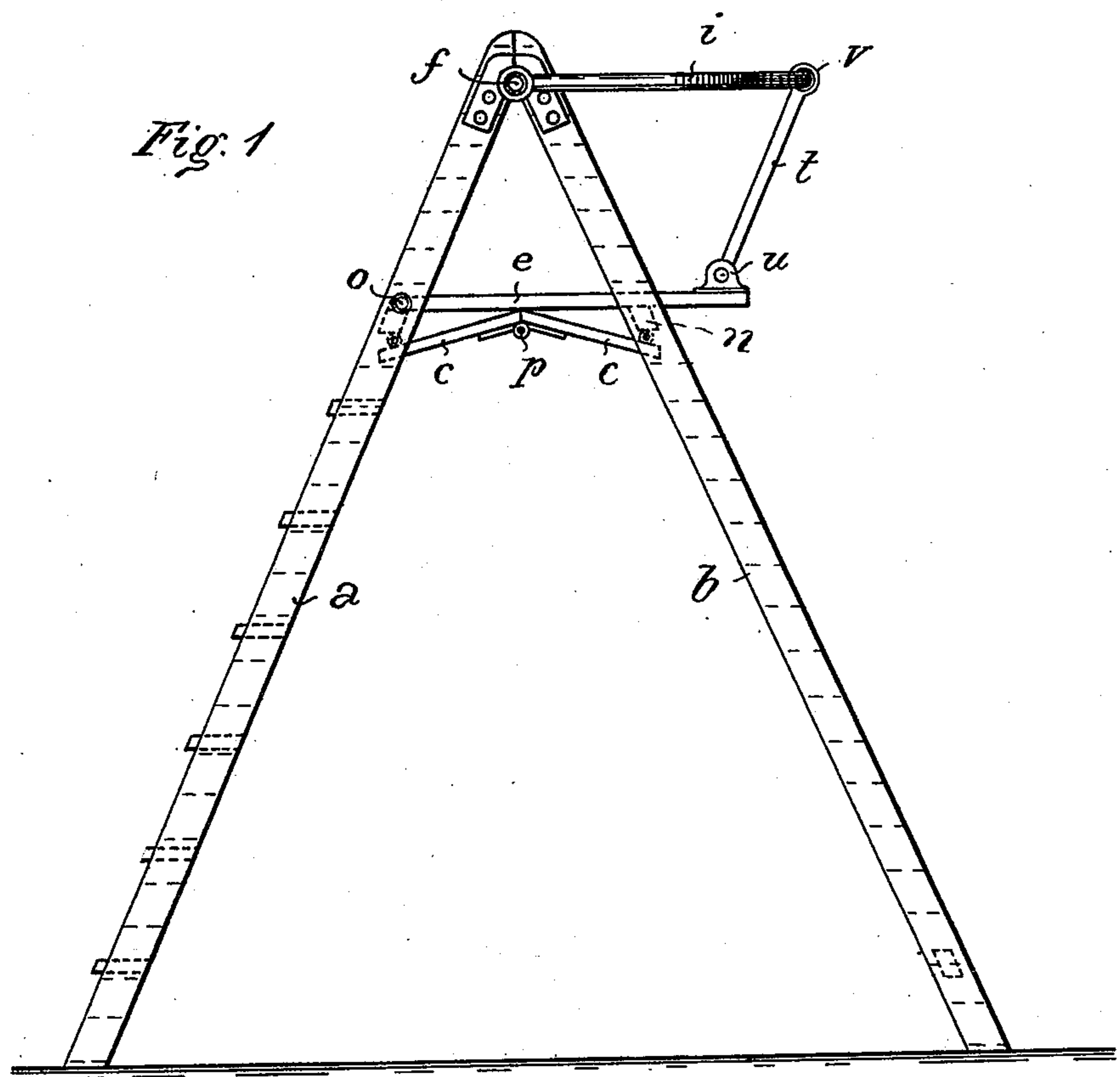
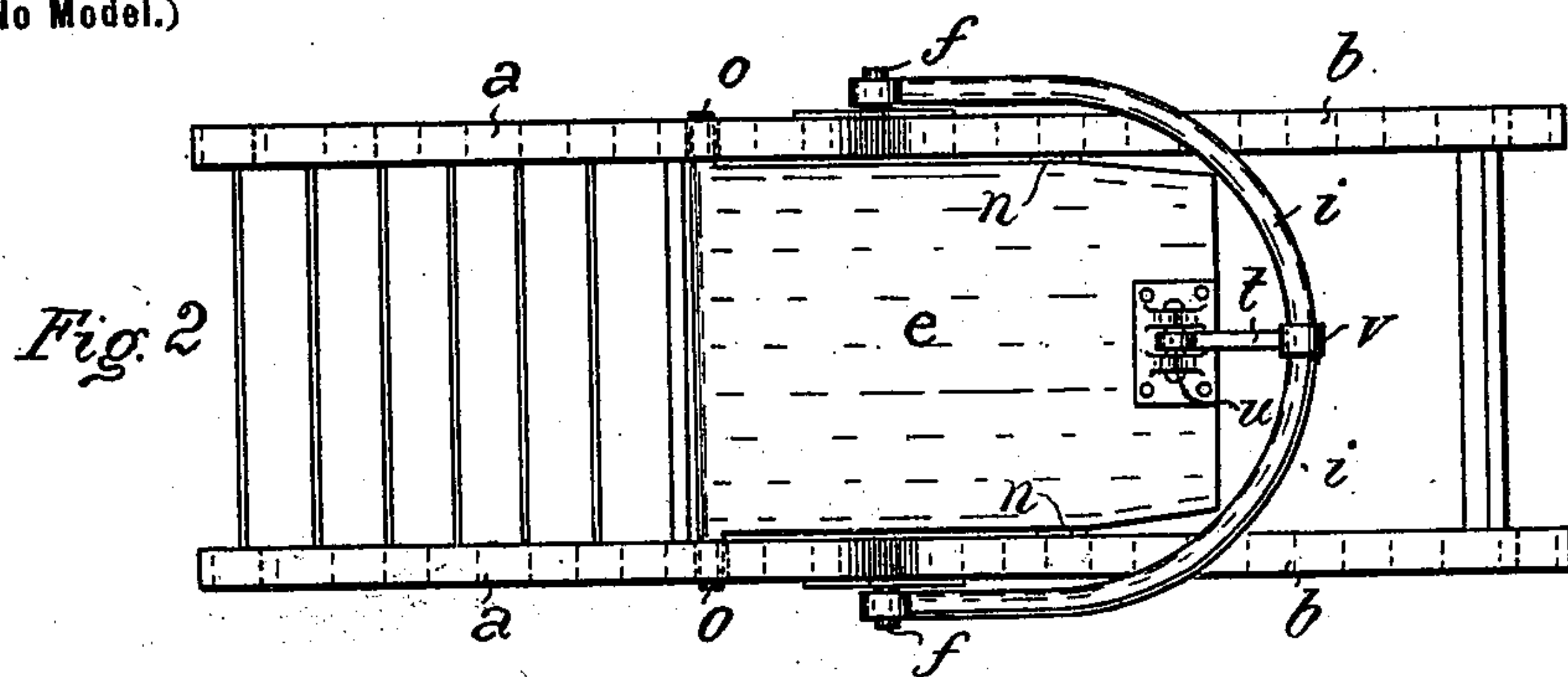


No. 652,948.

Patented July 3, 1900.

M. BARTH.
FOLDING LADDER.
(Application filed Dec. 28, 1899.)

(No Model.)



Witnesses:

J. D. McMahon.

J. Buehler.

Inventor,

Moritz Barth

by H. Z. Singer

Att'y.

UNITED STATES PATENT OFFICE.

MORITZ BARTH, OF BERLIN, GERMANY.

FOLDING LADDER.

SPECIFICATION forming part of Letters Patent No. 652,948, dated July 3, 1900.

Application filed December 26, 1899. Serial No. 741,662. (No model.)

To all whom it may concern:

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

This invention relates to the folding ladder, with platform, described in my previous patent, No. 627,610.

The improvement consists in an arrangement whereby the movement of the platform *e* when the ladder is collapsed is transferred in such a way to a guard-rail that this latter is also automatically operated.

In the drawings, Figure 1 is a side elevation of a ladder embodying my improvement. Fig. 2 is a top plan view thereof, and Fig. 3 a fragmentary bottom plan view.

There ladder proper is indicated at *a*; but the frame *b* differs from said former patent in being connected thereto at the top by a hinge *f*, which may be practically a rule-joint hinge, as shown, to aid in bracing the parts when spread. Braces *c*, hinged to the ladder and to said frame, are united at the center by a hinge *p*, as heretofore, and a bridge or platform *e* is also hinged at *o* to the ladder to rest, also, as before, upon a suitable step *n* on the frame when the apparatus is in use. Otherwise, with the exception hereinafter noted, the construction is or may be the same as in my said former patent, to which reference is hereby made for the purpose of further elucidation.

The purpose of the present invention is to provide a rigid folding guard adapted to be brought into effective position by opening or

spreading the apparatus and automatically closed when the parts are folded together. To this end a guard-rail *i* is hinged to the device at any suitable point, preferably, but not necessarily, at *f*, where ladder and frame meet and are hinged together. This rail, as shown, has a curved outline, but may be of other appropriate form. The free end or bow of this frame is connected with the free end of the bridge *e* by a link *t*, hinged to the bridge at *u* and to said rail at *v*, whereby when this bridge is resting upon its step, as indicated in Fig. 1, the guard-rail will be supported therefrom in a horizontal position. It is self-evident that in this arrangement the guard-rail will be obliged to automatically follow any movement of the bridge or platform *e*, folding up when said platform is folded and being let down when the platform is extended.

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

A collapsible or folding ladder comprising a hinged platform *e*, a rail *i*, and a link or rod *t* connecting said platform to said rail, the latter being made of suitable form and of rigid material and pivoted on the ladder in such a way that the rail automatically follows any movement of the platform when the latter is collapsed or extended, substantially as hereinbefore described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

MORITZ BARTH.

Witnesses:

WOLDEMAR HAUPT,
HENRY HASPER.