

(No Model.)

G. SICKELS.
SELF LEVELING BERTH.

No. 255,397..

Patented Mar. 21, 1882.

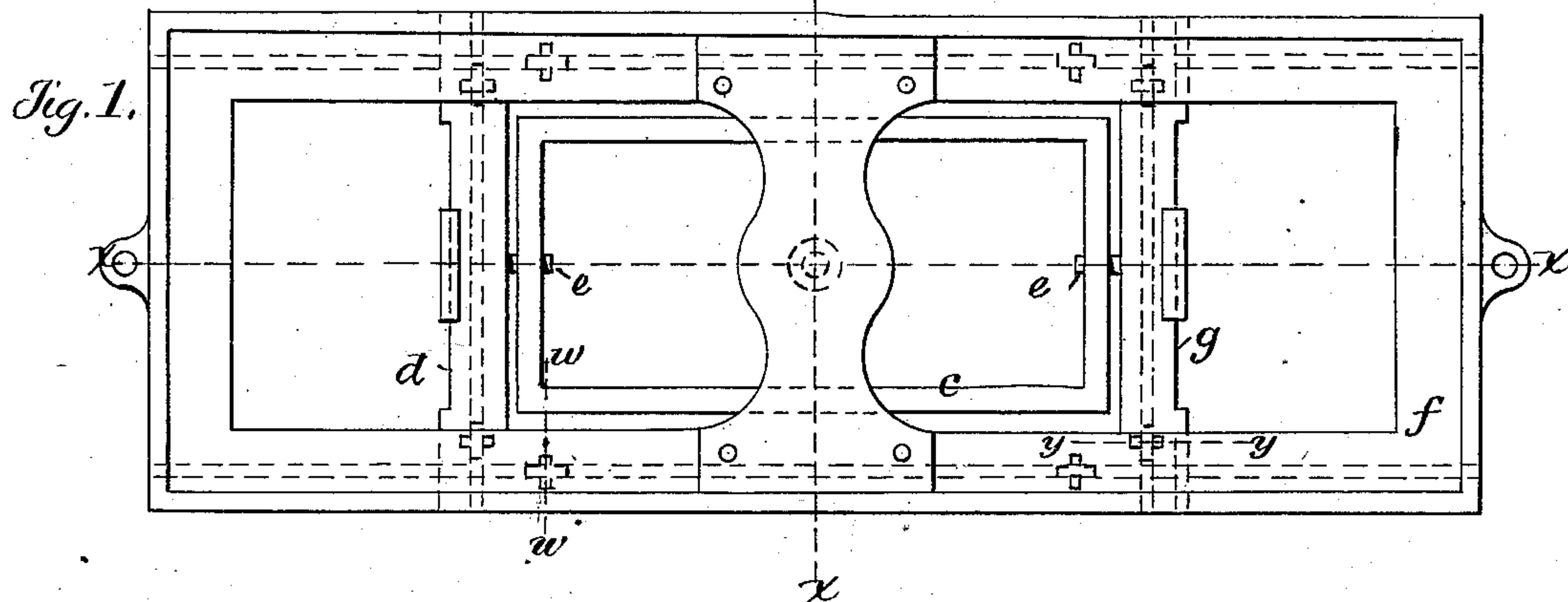


Fig. 2.

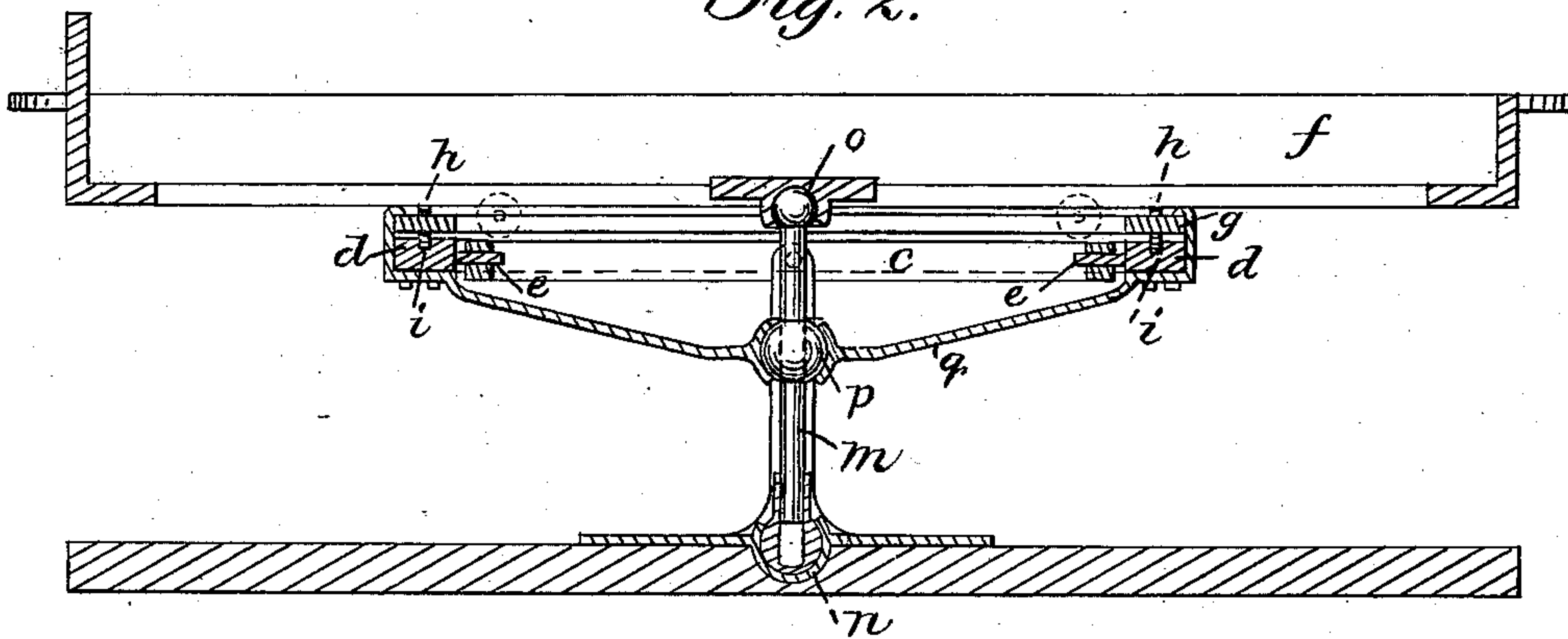


Fig. 4.

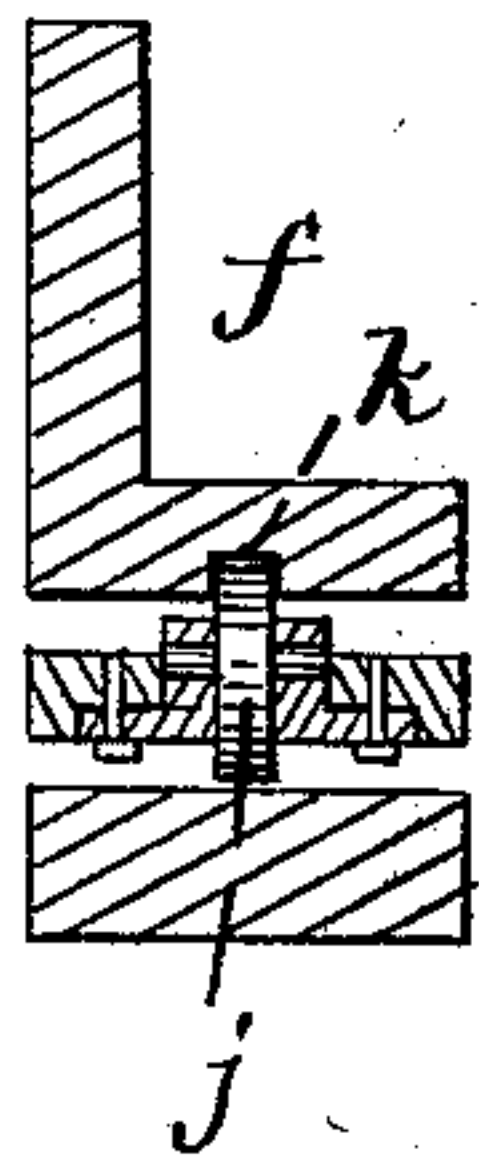


Fig. 3.

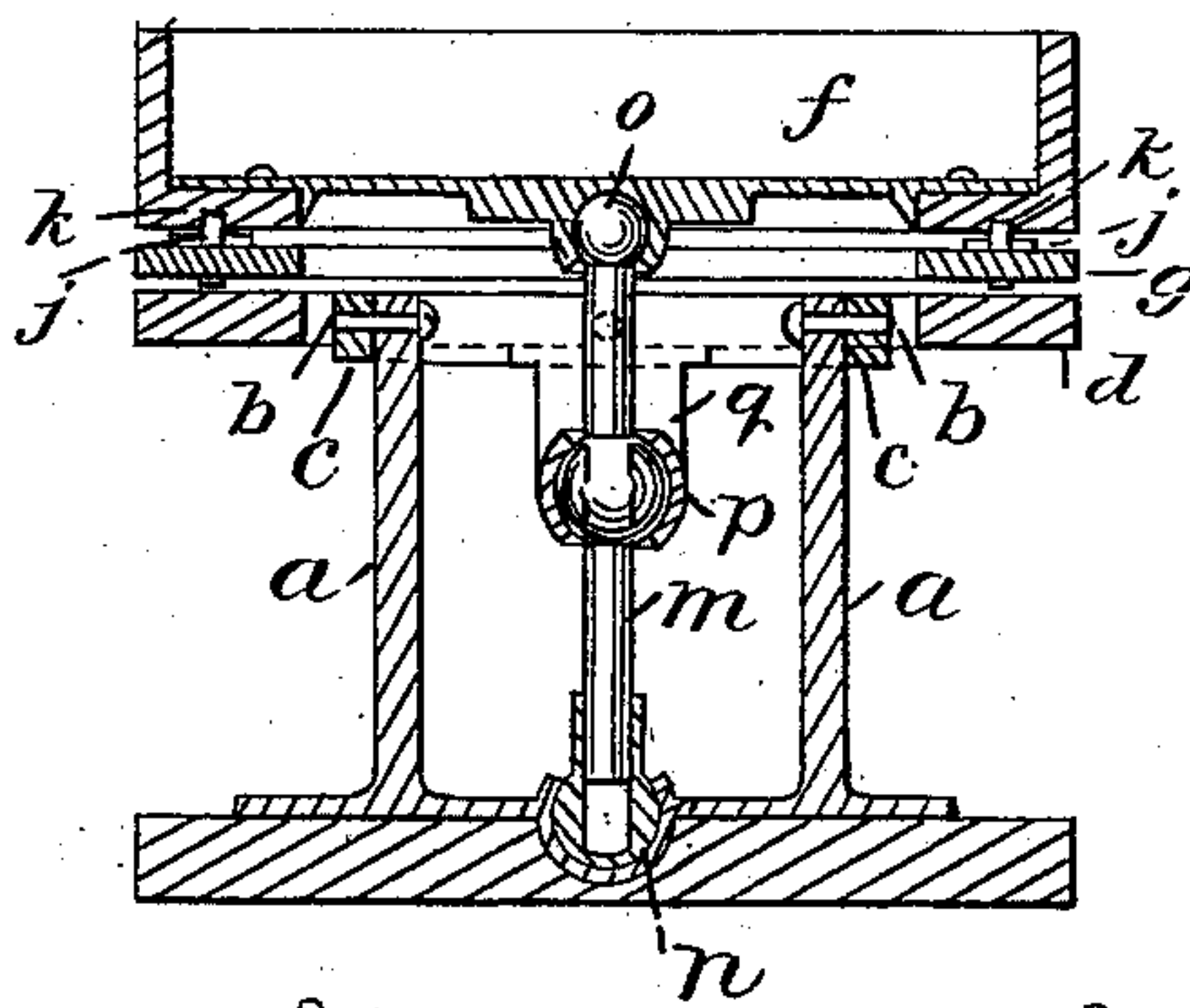


Fig 5.

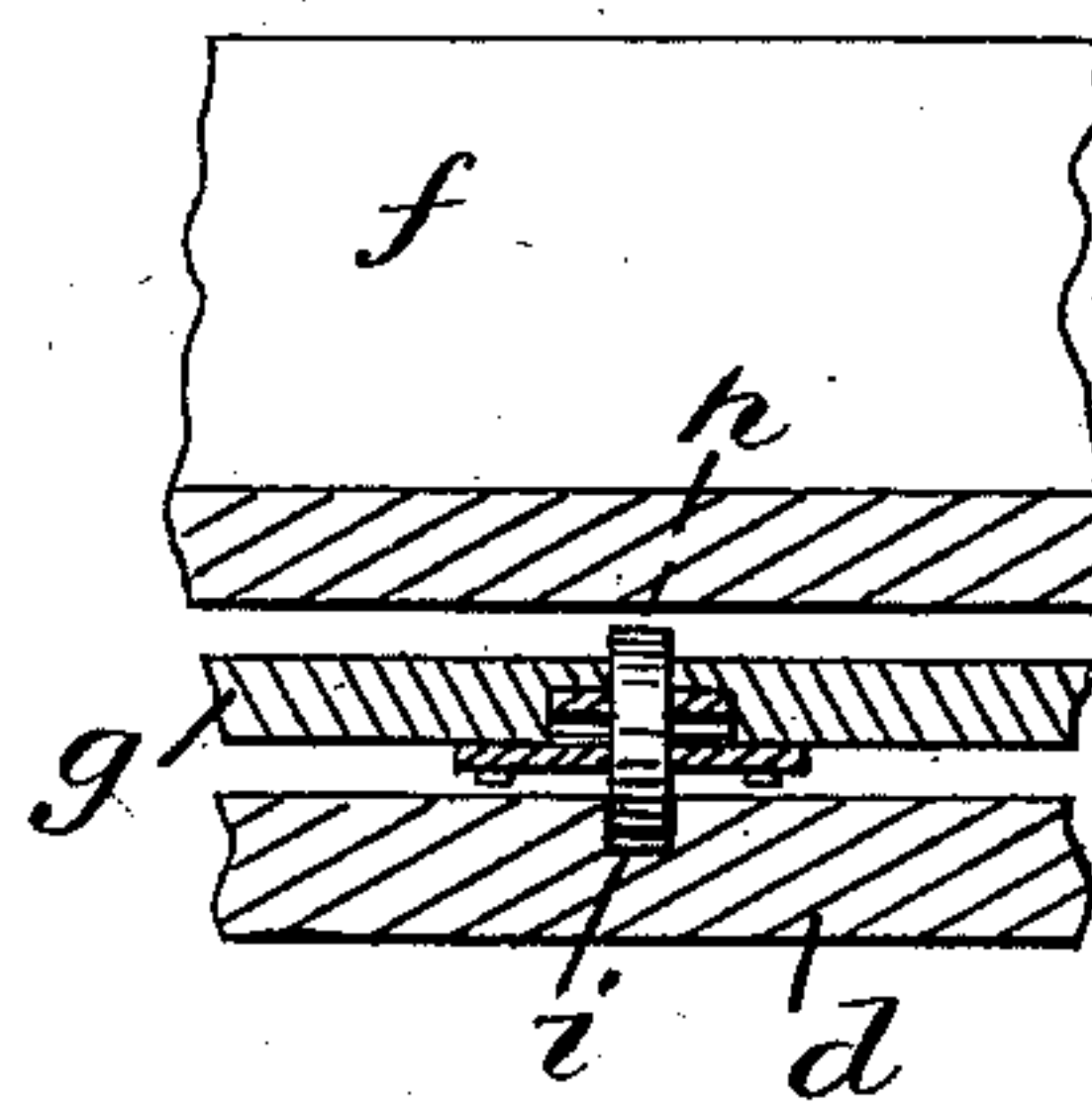
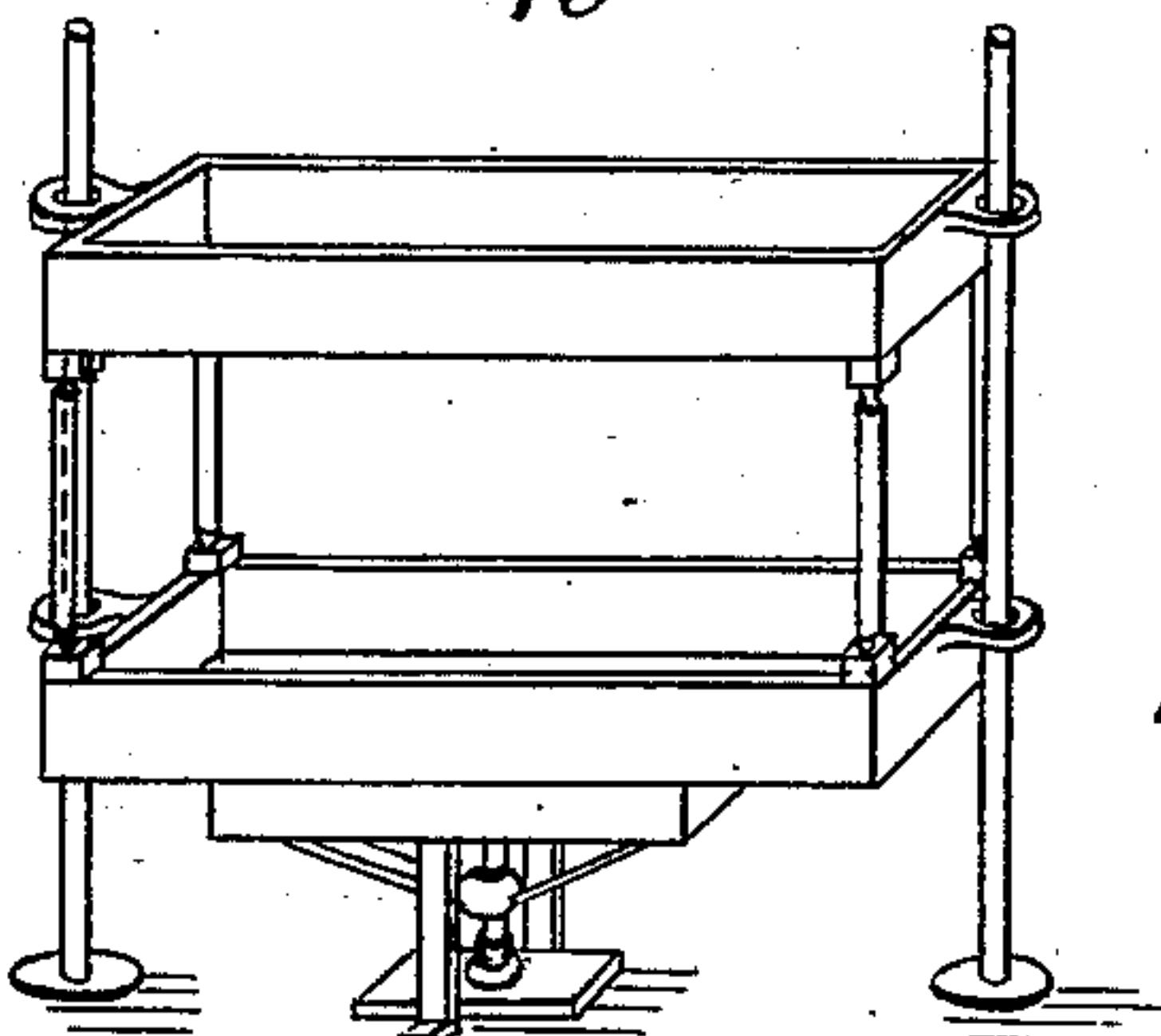


Fig. 6.



Attest.

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UNITED STATES PATENT OFFICE.

GERARD SICKELS, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HARRY B. WOOD, OF SAME PLACE.

SELF-LEVELING BERTH.

SPECIFICATION forming part of Letters Patent No. 255,397, dated March 21, 1882.

Application filed January 9, 1882. (No model.)

To all whom it may concern:

Be it known that I, GERARD SICKELS, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Self-Leveling Berths and other Structures, of which the following is a specification.

This invention has for its object to provide improved means for supporting a berth or other structure upon a navigable vessel so that said structure will always maintain an approximately level position.

The invention consists in the combination of a platform or support pivoted so as to tilt in any vertical plane, a berth or other structure adapted to slide both laterally and longitudinally on said support, and a bar or rod pivoted at one end to the deck or other fixed part of the vessel below the berth, and having at its upper end a bearing in the berth, and at its center an intermediate bearing in the tilting frame, said bar supporting the platform and berth, so that they will maintain a level position by gravitation, as I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a top plan view of a berth and its supporting devices embodying my invention. Fig. 2 represents a longitudinal section on line *x x*, Fig. 1. Fig. 3 represents a section on line *x y*, Fig. 1. Figs. 4 and 5 represent respectively sections on lines *w w* and *y y*. Fig. 6 represents a perspective view of a modification.

The same letters of reference indicate the same parts in all the drawings.

In carrying out my invention I provide two stout posts, *a a*, securely attached to the deck or other fixed part of a vessel. To these posts I pivot at *b b* a frame, *c*, which is capable of oscillating on its pivots in a vertical plane. *d* represents a platform or support pivoted to the frame *c* at *e e*, so that it can oscillate at right angles to the plane in which said frame oscillates. The platform *d* is thus enabled to tilt or oscillate in any vertical plane, as will be readily seen. The frame *c* is preferably rectangular, and an opening is formed in the platform to receive said frame.

Upon the platform *d* is supported the berth or other structure, *f*, which is adapted to slide

both laterally and longitudinally on the platform *d* by means of a frame or slide, *g*, interposed between the platform and berth, said slide having rollers *h h*, running in transverse grooves *i i* in the platform, and rollers *j j*, running in longitudinal grooves *k k* in the bottom of the berth. The slide *g*, with the berth, runs laterally on the rollers *h h*, while the berth runs longitudinally on the rollers *j j*, the latter rollers projecting into the grooves *k k*, acting as checks or stops to prevent the berth from moving laterally independently of the slide *g*.

m represents a bar or pin, pivoted at its lower end in a socket, *n*, in the deck or other fixed part of the vessel, and passing upwardly into a bearing, *o*, in the berth, at or near the center thereof, and through an intermediate bearing, *p*, formed in a cross-bar, *q*, which is rigidly attached to and forms a part of the platform *d*, said bearing *p* being below the level of the pivots of said platform. The bar *m* can tilt in any direction, and its office is to support the berth *f* and platform *d* so that said parts will not tip over and will maintain a level position when the vessel is in motion.

It will be seen that when the deck is inclined the platform and berth, which at first are inclined with the deck, seek to assume a level position. The connection afforded by the rod *m* between the berth, the tilting platform, and the deck enables the weight of the berth to assist the tilting platform in assuming a level position, the berth sliding upon the platform so long as the latter is inclined, and thus executing a leverage on the rod which, acting on the bearing attached to the platform, forces the latter to a level position. The rod *m* has a ball, *o*, rigidly attached to its upper end, said ball resting in a socket in the berth. The bearing in the cross-bar of the tilting platform is a ball, *s*, adapted to turn in a socket in said cross-bar. The bearing in the deck is a ball, *t*, adapted to turn in a fixed socket in the deck. The rod *m* is adapted to slide in the balls *s t*, the latter having a sleeve, *t'*, which prevents the rod from being disengaged from its lower bearing when considerably inclined relatively to the deck. If desired, a berth, *f'*, supported as described, may support another berth, *f'*, above it, as shown in Fig. 6, by means of in-

terposed standards *u u*, the ends of which rest in sockets on the berths.

I do not limit my invention to berths, as it is applicable to chairs, tables, and other structures.

I claim—

1. The combination, with the berth and its supporting-platform pivoted to tilt in any vertical plane, as described, of the rod *m*, pivoted to the berth at the upper end, to the deck at the lower end, and having midway a bearing in the tilting platform, below the pivots thereof, substantially as and for the purpose specified.

2. The combination of a platform or support pivoted so as to tilt in any vertical plane, a berth or other structure adapted to slide laterally and longitudinally on said support, and a bar or rod pivoted at one end to a fixed part of the vessel below the berth, and having at its upper end a bearing in the berth and at its central portion an intermediate bearing in the tilting frame, below the pivots thereof, said

parts co-operating to keep the berth or structure in a level position, as set forth.

3. The combination, with a berth or other structure for use on navigable vessels, of a frame or support on which the berth is adapted to slide longitudinally, and adapted to slide laterally with the berth, a platform supporting said frame and berth and adapted to tilt or oscillate in any direction, and a rod pivoted at one end to the deck or other fixed part of the vessel below the berth, and having a bearing at its other end in the center of the berth, and an intermediate bearing in the tilting platform, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 30th day of December, A. D. 1881.

GERARD SICKELS.

Witnesses:

HARRY B. WOOD,
C. F. BROWN.