

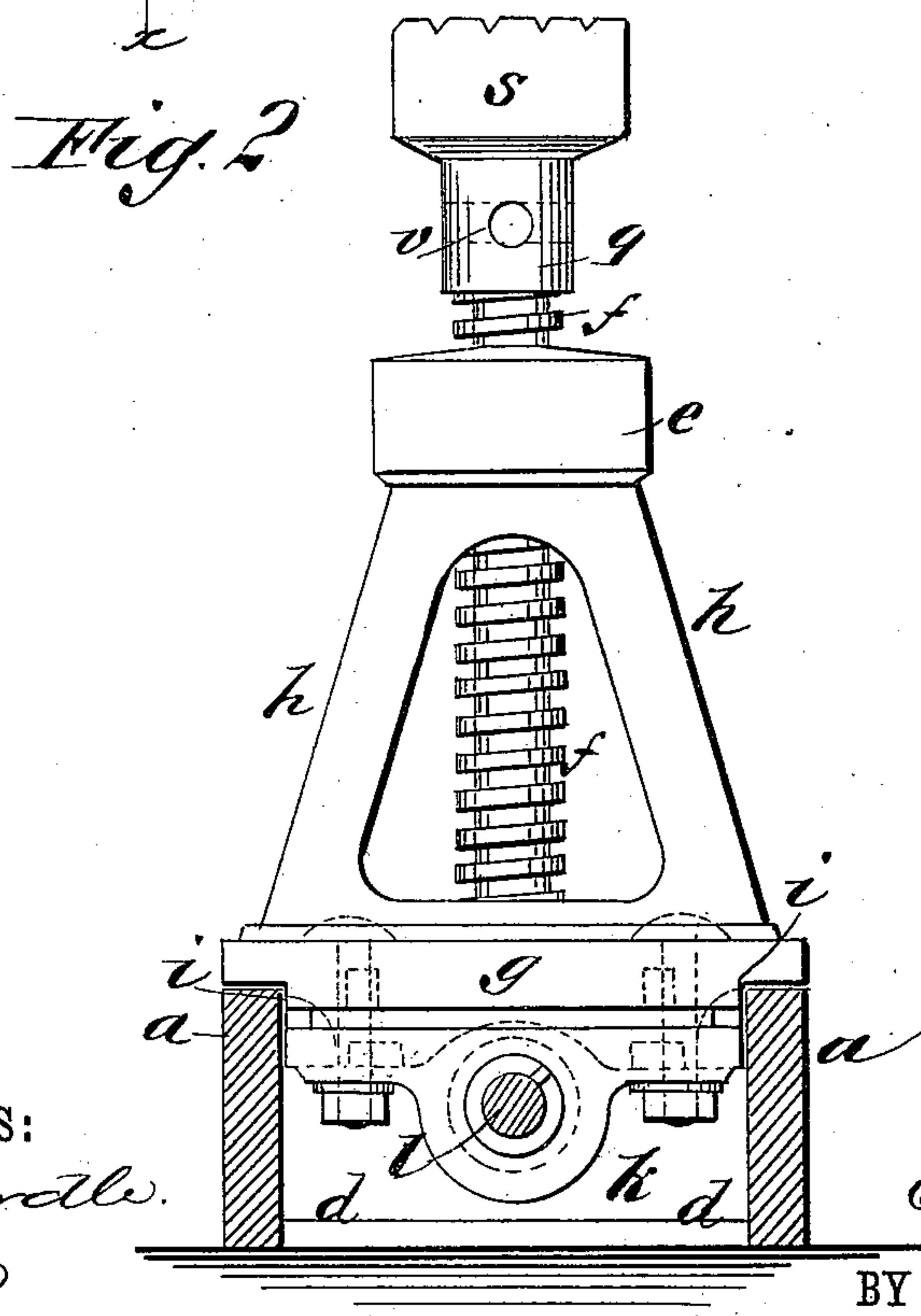
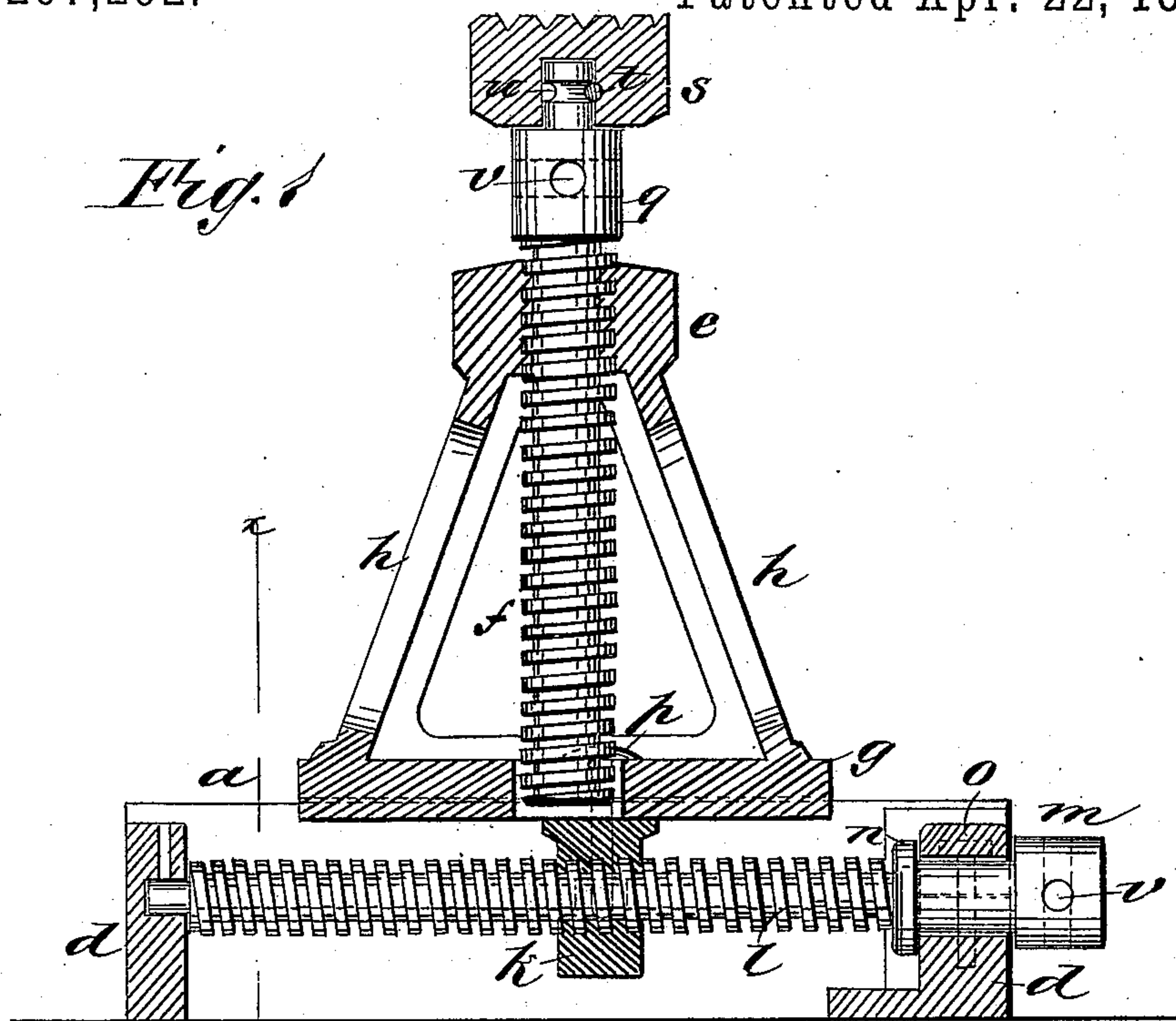
(No Model.)

E. J. QVARNSTROM.

LIFTING JACK.

No. 297,292.

Patented Apr. 22, 1884.



WITNESSES:

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ERICK J. QVARNSTROM, OF NORWAY, ASSIGNOR TO HIMSELF AND JOHN E. HAGEY, OF VULCAN, MICHIGAN.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 297,292, dated April 22, 1884.

Application filed March 3, 1884. (No model.)

To all whom it may concern:

Be it known that I, ERICK J. QVARNSTROM, of Norway, in the county of Menominee and State of Michigan, have invented a new and Improved Lifting-Jack, of which the following is a full, clear, and exact description.

My invention consists of improvements in the construction of screw-jacks arranged to shift the hoisting-screw after the load is raised, to move the load while supported on the screw, the said improved construction being designed to simplify the same and provide substantial and reliable jacks, all as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a longitudinal sectional elevation of my improved hoisting-jack, and Fig. 2 is a transverse section of the jack on the line *x x*, Fig. 1.

I make a rectangular bed-frame of suitable size, consisting of two parallel side sills, *a*, and cross-pieces *d*, making the cross-pieces a little lower than the sides, and I provide a nut, *e*, for the hoisting-screw *f*, which I construct, together with a broad base-plate, *g*, and legs *h*, by casting them together in one piece, the base-plate being as wide as the bed-frame, and being rabbeted along the margins of its sides at *i* suitably to form guides, by which said base-plate and nut may rest on the sides *a* of the bed-frame, so as to be shifted along the sides *a* and to guide the said base-plate in a straight line when so shifted.

For shifting the bed-plate *g*, I have bolted a strong screw-nut, *k*, to the bottom of said bed-plate, and fitted a working-screw, *l*, in it and in bearings of the cross-pieces *d*, the said screw having a head, *m*, on one side and a collar, *n*, on the other side of one of the cross-pieces *d*, to resist the end-thrusts of the screw. The head end of the screw *l* is secured in its bearing in the cross-piece *d* by a cap, *o*; but the other bearing is simply a socket, into which the end of the screw is inserted before the head end drops into its bearing. The screw *l* is located directly under the hoisting-screw *f* and the center of the base-plate *g*, so that with a plate, *g*, of considerable length, to prevent turning so as to cramp between the sides *a*, one

screw *l* is sufficient to shift the hoisting-screw. The arrangement of the cross-pieces *d* a little lower than the sides *a* enables the base-plate *g* to be shifted along over them, so that the range of hoisting-screw is the distance the nut *k* can move along the screw *l*, much greater than if the ends of bed-plate *g* were stopped against the end pieces, *d*, of the bed-frame.

To enable the hoisting-screw *f* to descend as low as possible, and thereby to be made longer and have a longer range, I have made the base-plate *g* with a hole, *p*, under the screw, allowing the end of said screw to extend down to the level of the bottom of the plate, or thereabout, when the head *q* descends to the top of the nut *e*.

The caps of the hoisting-screw is fitted suitably for enabling the screw to turn independently of the cap when supporting the load, and is secured by a key, *t*, in the cap and the groove *u* in the screw, and both screws have a hole, *v*, in the head, for the application of a lever for turning them, the said holes being both the same size, to enable one lever to serve for both screws.

The nut *e* may be bushed, for removal of the threads when worn, if desired.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The nut *e* for the hoisting-screw *f*, supported on the base-plate *g*, having rabbet-grooves *i* in the bottom, fitted to the sides *a* of the bed-frame, and having the nut *k*, in combination with the screw *l*, fitted in said nut and in bearings of the end pieces, *d*, of the bed-frame, substantially as described.

2. The nut *e*, legs *h*, and the base-plate *g*, constructed in one integral piece, and combined with the hoisting-screw *f*, adjusting-screw *l*, and the bed-frame *a d*, substantially as described.

3. The nut-supporting bed-plate *g*, fitted to the sides *a* of the bed-frame by rabbet-grooves *i*, in combination with end pieces, *d*, of said bed-frame, fitted to allow the bed-plate to slide over them, said bed-plate being connected with the adjusting-screw *l*, substantially as described.

ERICK J. QVARNSTROM.

Witnesses:

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