

J. Hussey, Shaft Hanger.

No. 92,726.

Patented July 20, 1869.

Fig. 1.

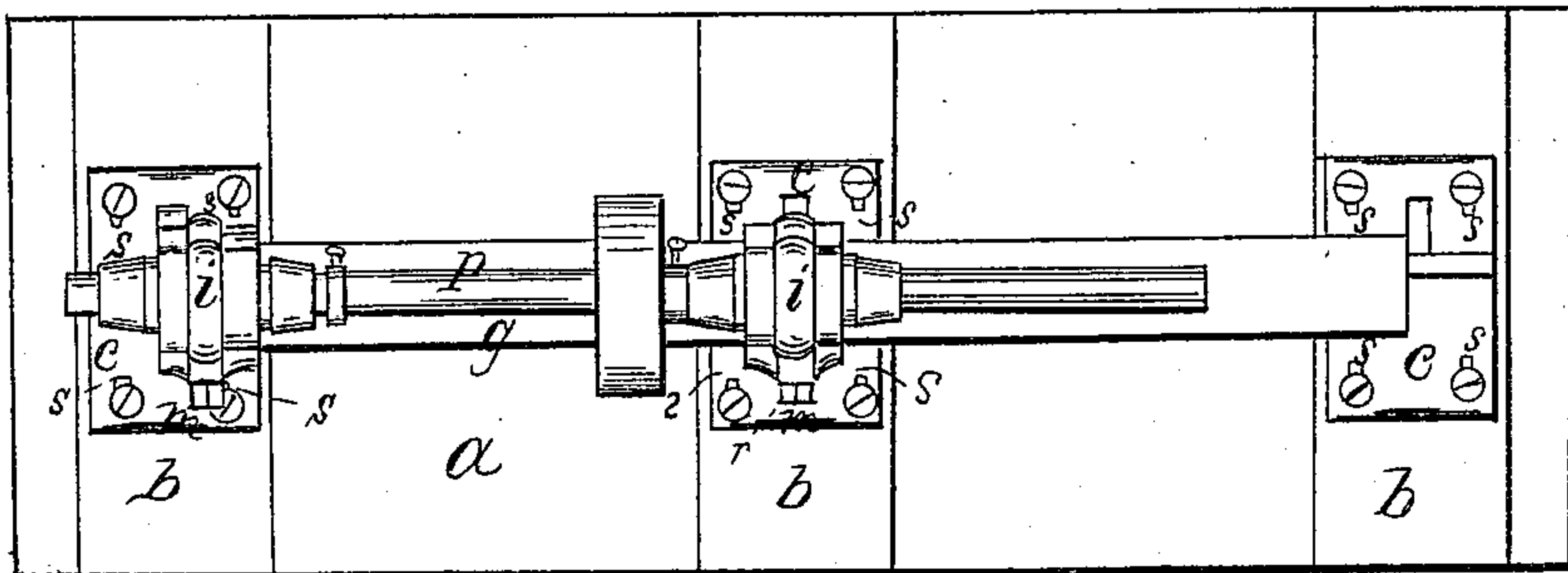


Fig. 2.

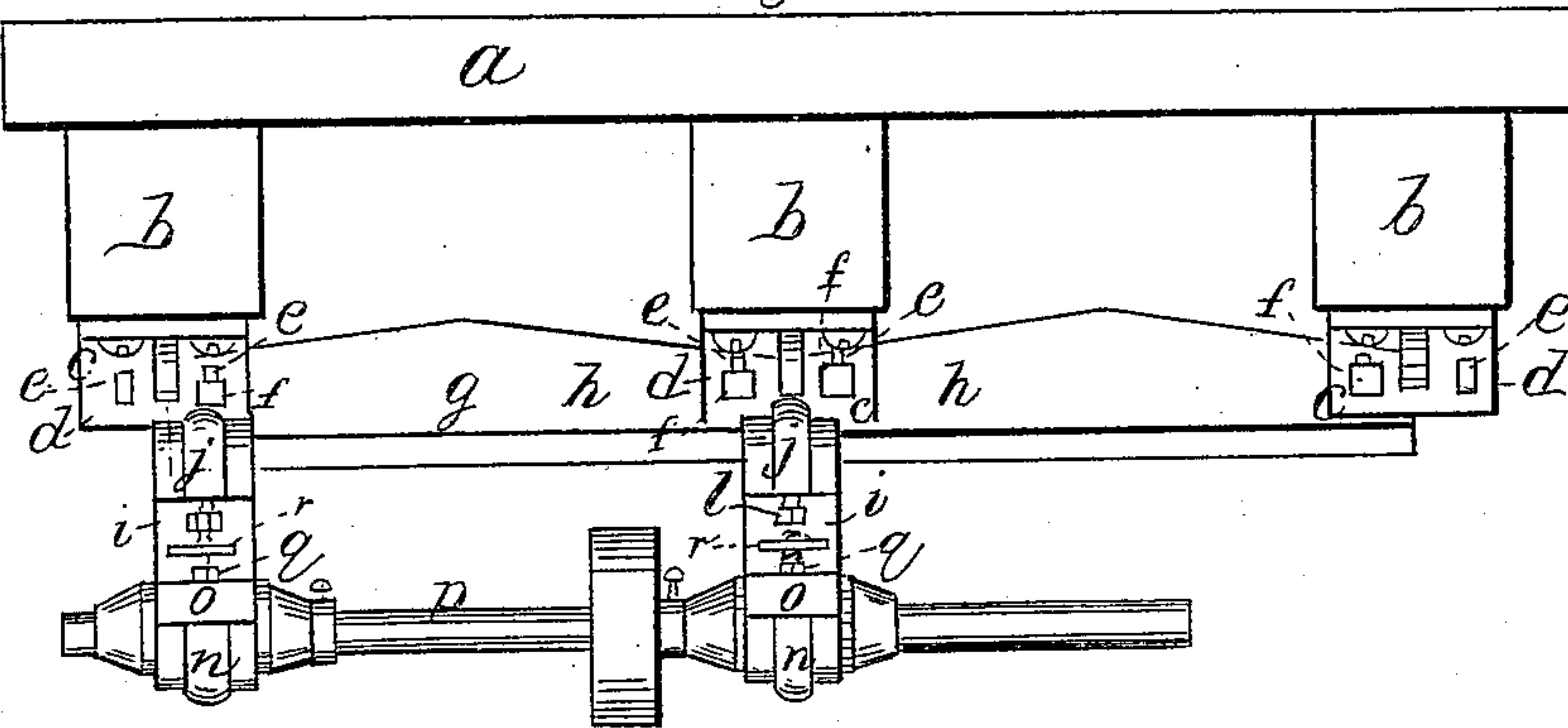
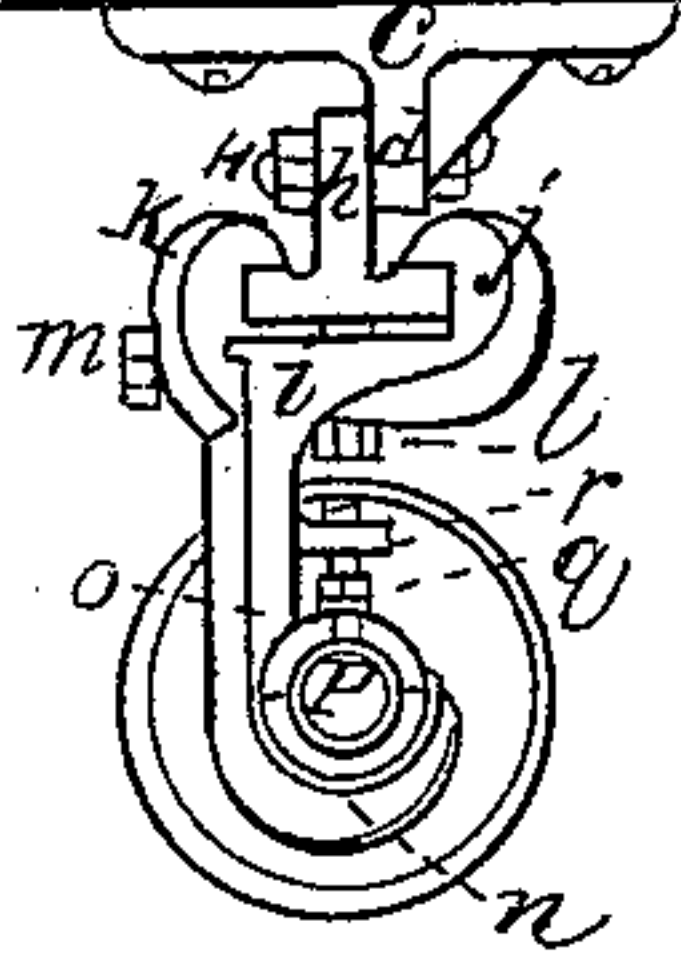
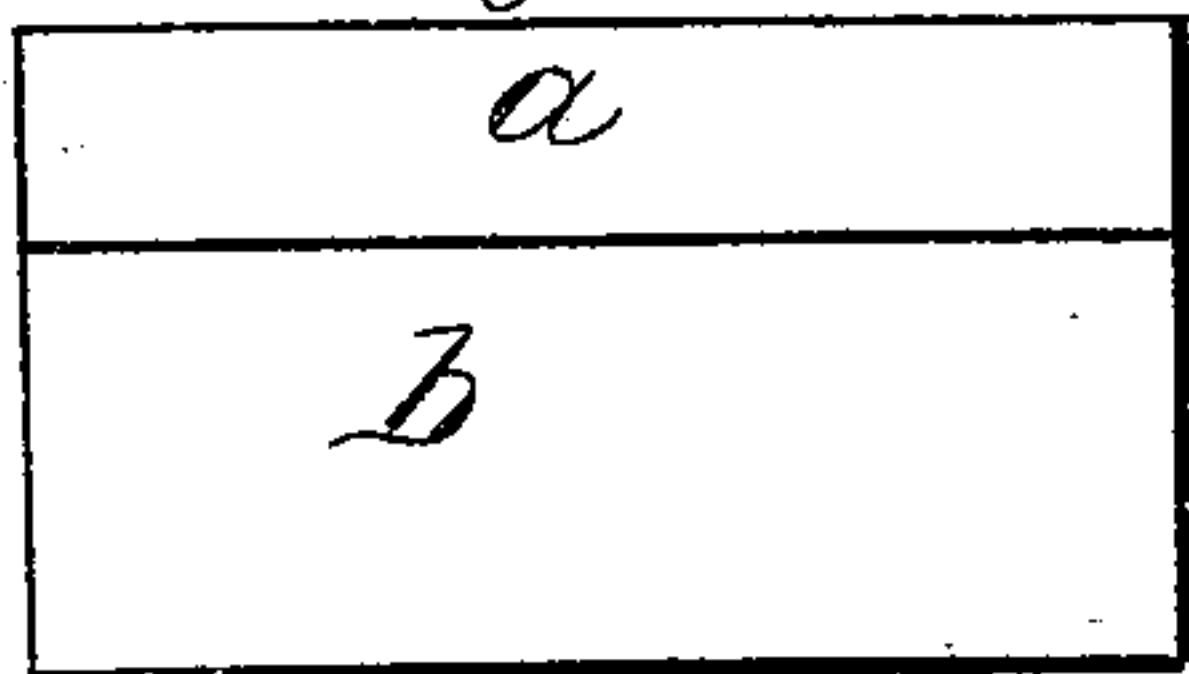


Fig. 3.



Inventor.

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Witnesses.

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DANIEL HUSSEY, OF LOWELL, MASSACHUSETTS.

Letters Patent No. 92,726, dated July 20, 1869.

IMPROVED METHOD OF HANGING SHAFTING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, DANIEL HUSSEY, of Lowell, in the county of Middlesex, and State of Massachusetts, have invented new and useful Improvements in the Method of Hanging Shafting; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in providing for the hanging of shafting with adjustable rails, stands, and hangers, which can be adjusted transversely, laterally, or vertically, as occasion may require, the object of which being to decrease the size of the shafting, by adding any number of hangers that the transverse pressure may require, thus removing a surplus amount of metal to be run, and transferring it to the stationary rail, consequently reducing the friction and expense, besides saving from thirty to fifty per cent. in power.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure 1 represents a plan of my improved method of hanging shafting.

Figure 2 represents a side elevation of the same.

Figure 3 represents an end view of the same.

Similar letters, in the different figures, indicate corresponding parts.

In the construction of my improved device, *a* represents the overhead floor, which rests on and is secured to the beams *b b b*.

On the under side of these beams *b b b*, are secured the slotted stands *c c*, by means of the requisite bolts, these stands being provided with suitable flanges, *d d*, which are furnished with slotted holes, *e e*, running vertically with the same, through which pass the requisite bolts, *f f*, which secure the adjustable rail *g* to the same, by means of the flange *h*.

This adjustable rail *g*, as represented in fig. 3 of the drawings, is formed in the shape of an inverted T, which, "when in position," its flange *h* being secured to the flange *d* of the stands *c c*, its upper part is finished off true and straight, and its edges parallel with each other.

In some instances, it may be advisable to place the adjustable rail *g* in different positions, and form the same in different shapes, to accommodate the hanging of all kinds of shafting. For this reason, I do not wish to confine myself to any particular shape or position the rail is to be placed in.

Sliding on this T-part of the rail *g*, are the sliding hangers *i i*, their feet, *j* and *k*, being so formed and finished as to correspond, in shape, with the T-part of the rail *g*, they being secured in position by means of the set-screw *l*.

The foot *k* of the hangers *i i* is formed separate

from the foot *j*, its shape and finish corresponding with the other, it being secured to the same by means of the screw *m*.

The lower part of these hangers *i i* is provided with the requisite boxes, *n n*, and caps, *o o*, for the reception of the journals on the shaft *p*, the caps *o o* being secured in their required positions by the screw *q*, which passes through the projection *r*, on the hangers *i i*, provided for that purpose.

In ordinary and common shafting, much labor is spent in hanging the same, arising from the difficulty of levelling up and making the centres of the same straight. The feet of the hangers being necessarily small, with a disproportioned bearing-surface, on securing them to the beams, which beams being usually from seven to ten feet apart, it requires extra attention to have their centres correspond with each other; also, these hangers being so far distant from each other, unless they are bolted to the floor, between the beams, which is impracticable, that large shafting is required to sustain the transverse strain of belts and gears, and corresponding couplings, collars, boxes, and caps, are compelled to be furnished with correspondingly-increased size and weight, thus requiring extra power to furnish the required speed to drive this extra amount of metal, where, oftentimes, but little power is required to furnish the given speed to drive the machinery desired; and, also, the journals of the shafting being large, exposing more bearing-surface, consequently produces more friction, which also requires extra power to supply this defect, and an extra amount of oil to lubricate the same.

In my improved method of hanging shafting, each and every item of the above defects is, to a great extent, obviated.

The stands *c c* being firmly secured to the beams *b b*, the flanges *d d* of which being adjusted on a line with each other by aid of the slots *s s*, the rails *g g* are then secured to the same, the T-part of which is levelled, by means of the slots *e e*, in the flanges *d d*, of the stands *c c*, and screws *f f*, they then being in a proper condition to receive the entire line of hangers *i i*, which are easily and quickly placed on the same, and secured, at any point desired, by means of the screw *l*, and movable part of the foot *k*, without being in any danger of throwing the shaft *p* out of line, the distance from the T-part of the rail *g* to the centre of the shaft *p* being the same in all of them; consequently they bear the same relation to each other.

By aid of this continuous rail *g*, used in connection with the shaft *p*, I am enabled to locate pulleys on any part of the same, in under the beams *b b b*, or otherwise, which will accommodate the machinery to be driven; also, the hangers *i i* being susceptible of being moved to any point desired, and more especially close to the driving-pulleys, the transverse strain on the

shafting is transferred, through them, to the stationary rail *g*. Thus I am enabled to use much lighter shafting, smaller pulleys, lighter hangers and boxes, with a greater increase of speed, requiring much less power to drive the same, as nearly one-half the metal commonly used in shafting is stationary; besides, when a shaft, hanger, or pulley, is required to be removed, it is easily and quickly done, and the usual attendant settling and springing of beams *b b b*, which are often occurring, are easily and quickly remedied, by bringing the entire line of shafting true, and into line again.

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

1. The rail *g*, in combination with the shaft *p*, when

arranged substantially as described, and for the purposes specified.

2. In combination with the rail *g*, the stands *c c*, arranged and operating as described and specified.

3. The arrangement and construction of the sliding hanger *i*, when used in connection with the rail *g*, as described and specified.

4. In combination with the sliding hanger *g*, the movable foot *k*, when operating as described and specified.

DANIEL HUSSEY.

Witnesses:

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