

(No Model.)

J. M. HERNDON.
FIFTH WHEEL.

No. 305,077.

Patented Sept. 16, 1884.

Fig 1

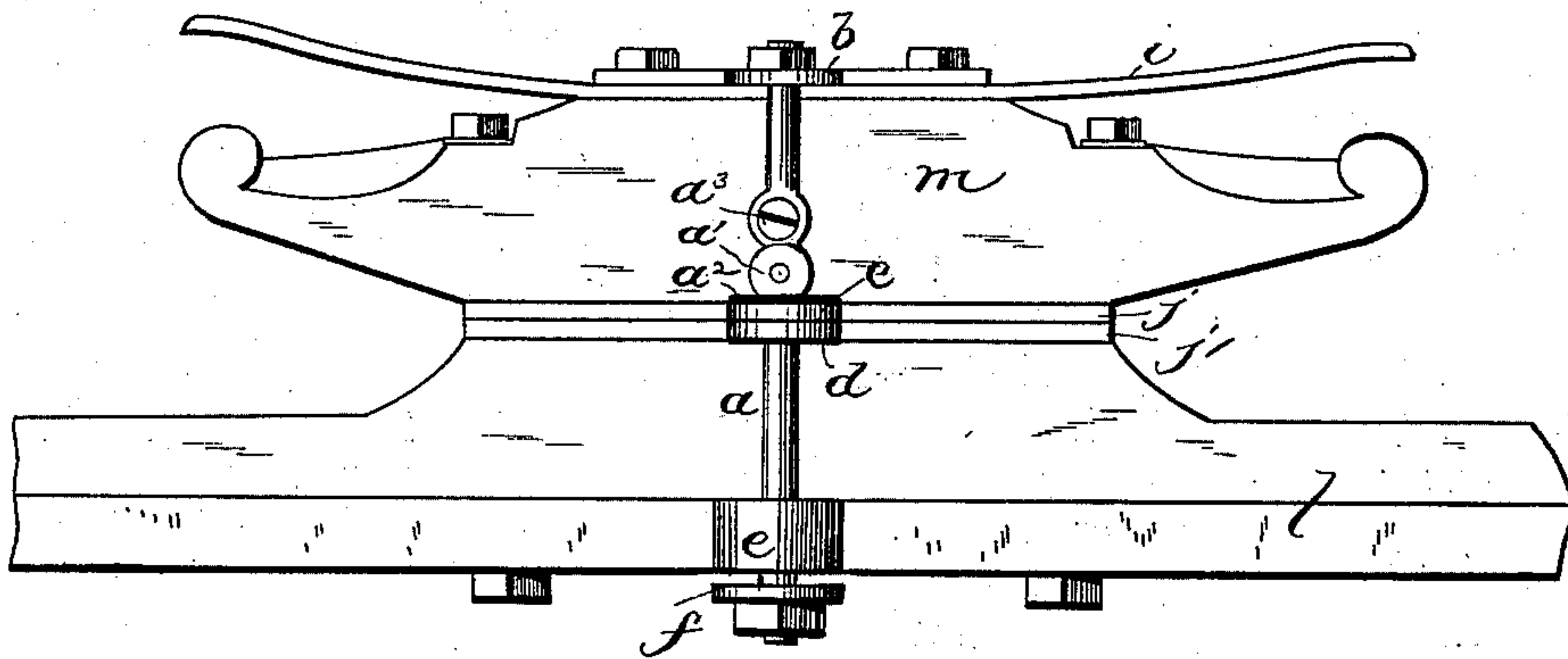


Fig 2

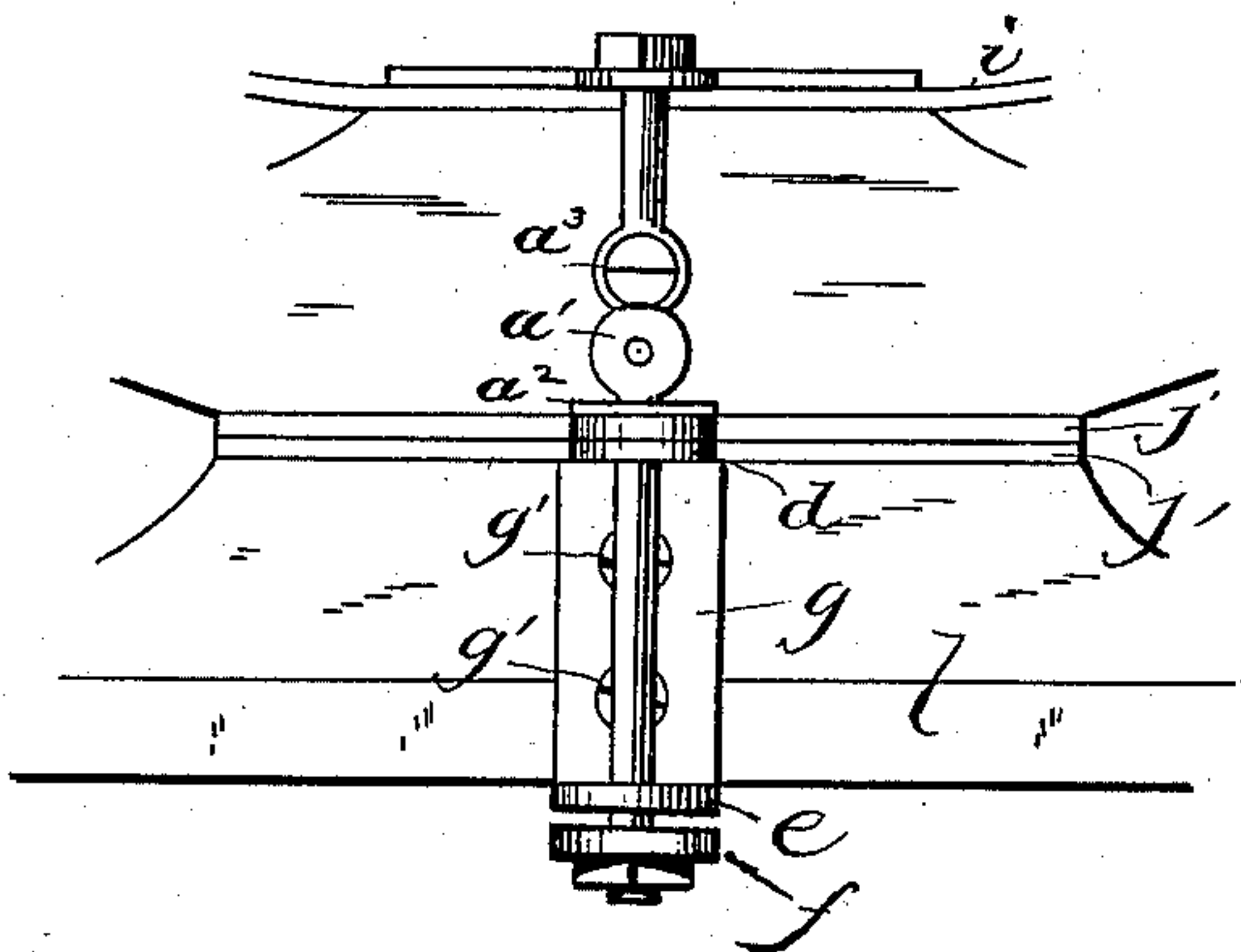


Fig 6

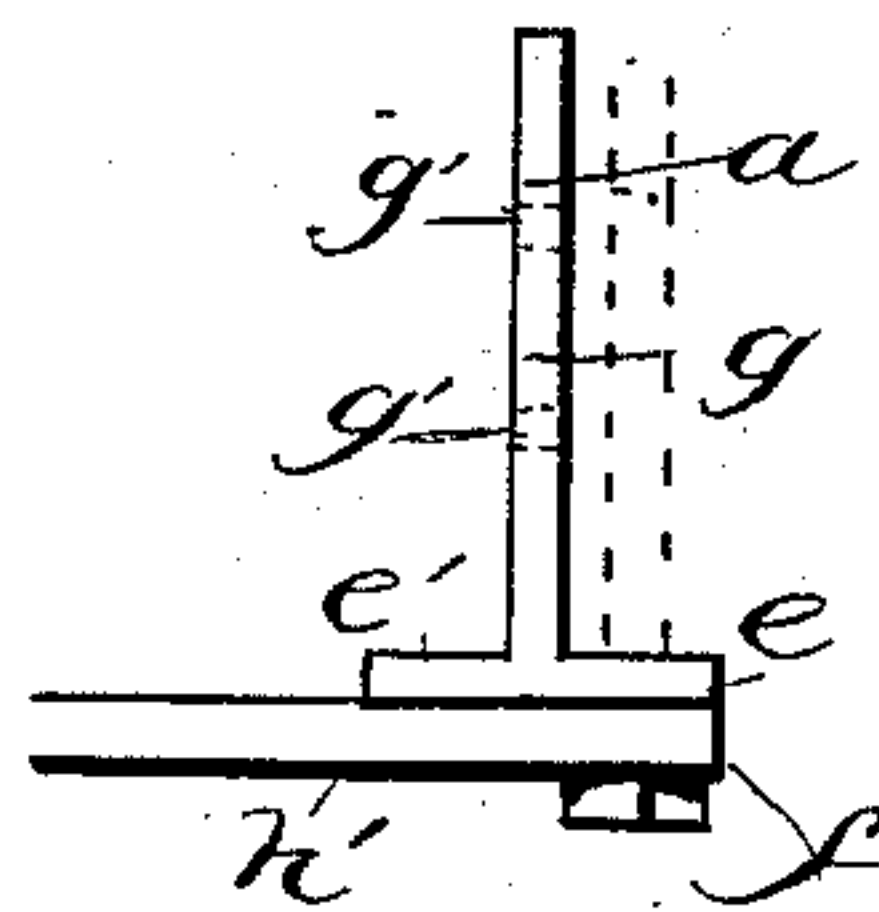


Fig 3

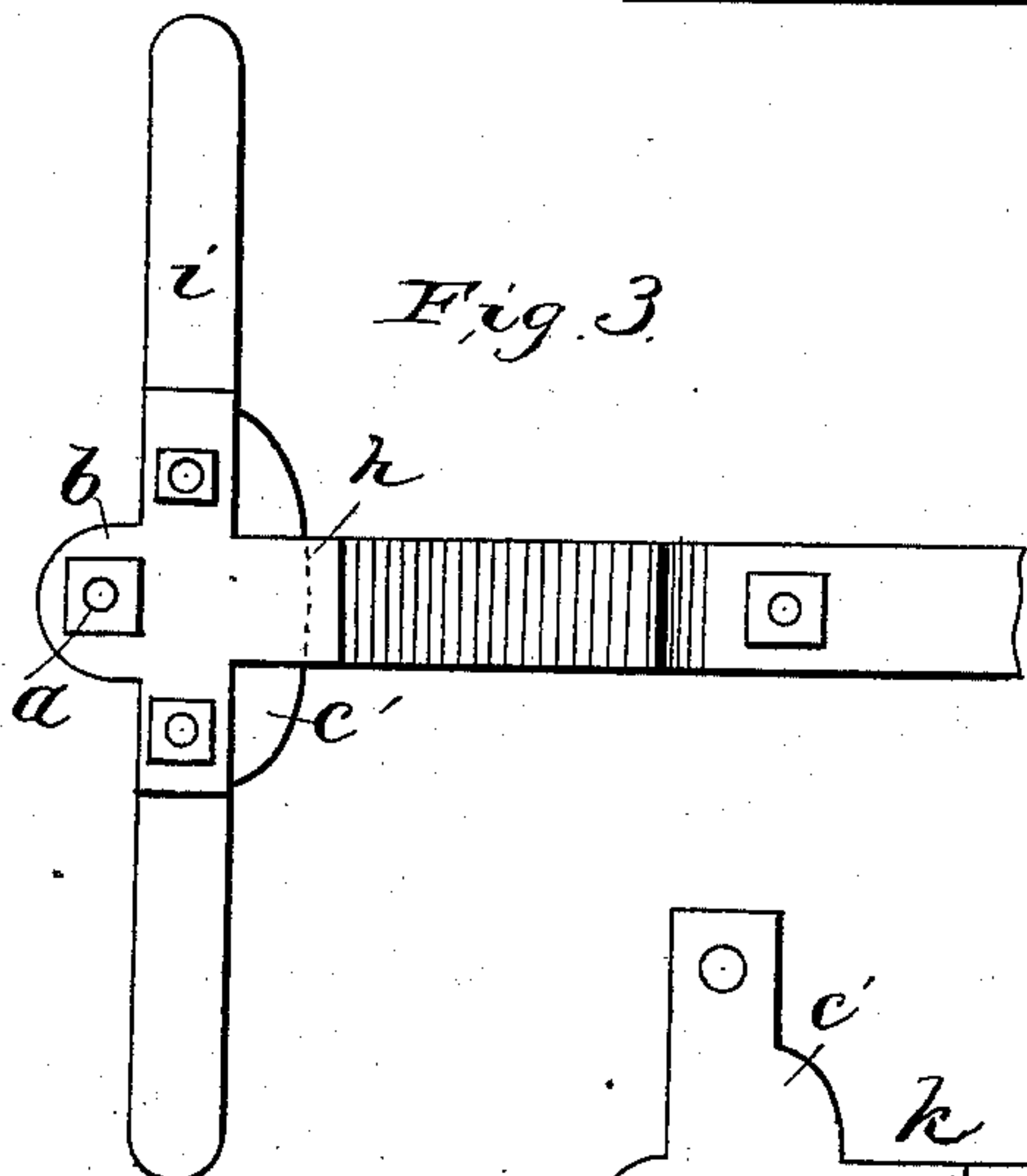
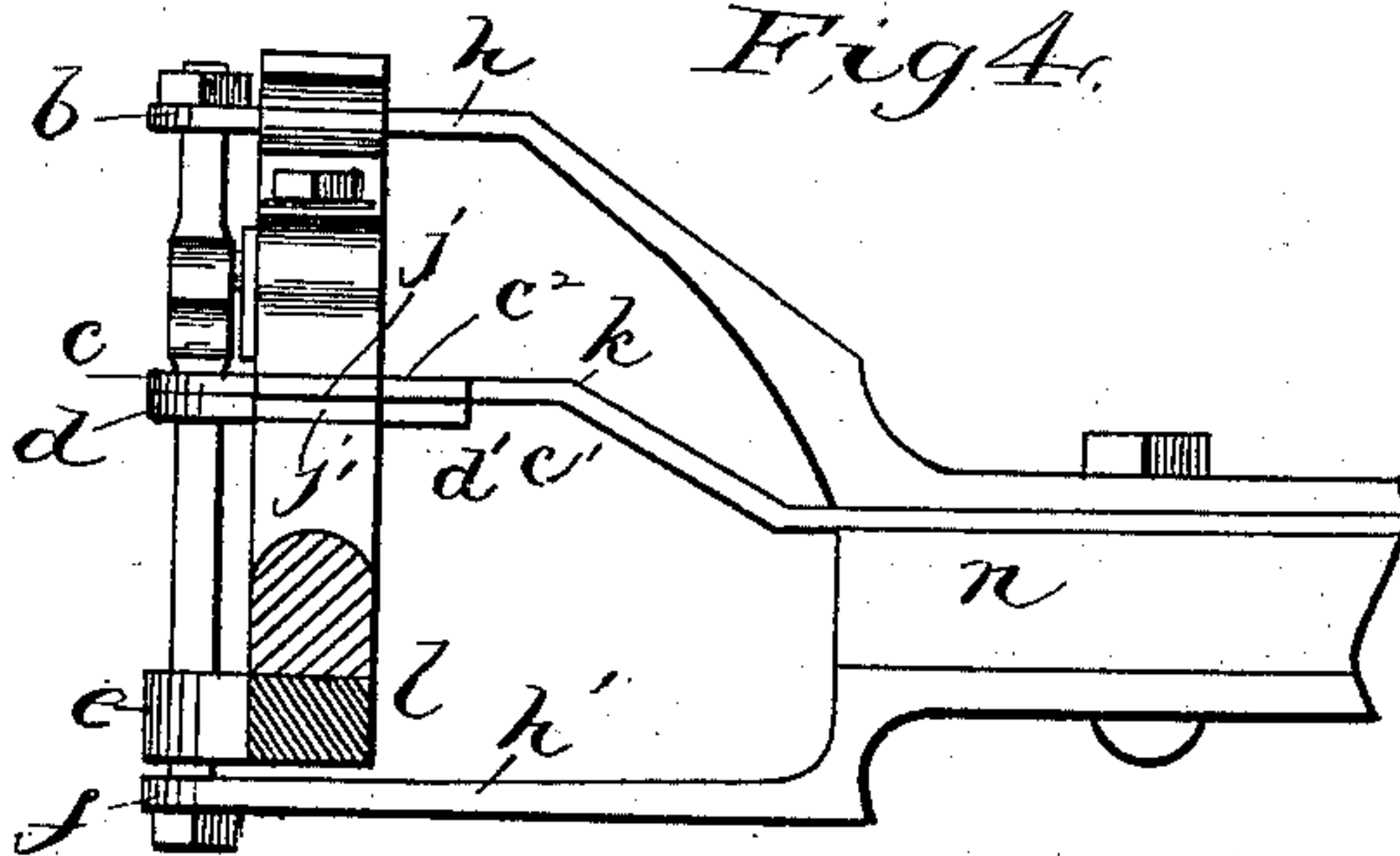


Fig 4



Witnesses:

Wm. A. Rosenbaum
John Hetch

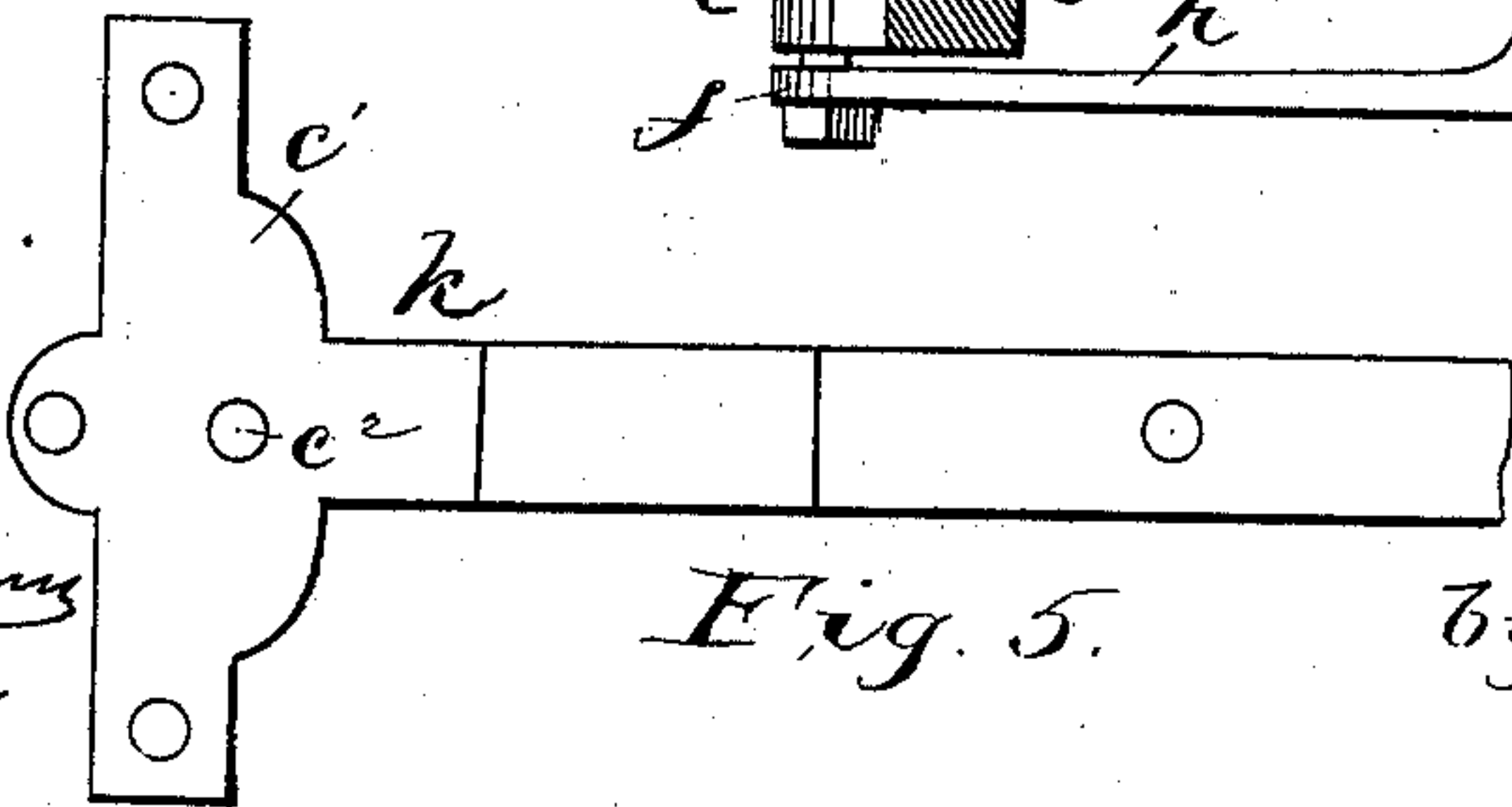


Fig 5

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UNITED STATES PATENT OFFICE.

JAMES MILTON HERNDON, OF JUDSONIA, ARKANSAS.

FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 305,077, dated September 16, 1884.

Application filed June 12, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. HERNDON, a citizen of the United States, residing at Judsonia, in the county of White and State of Arkansas, have invented certain new and useful Improvements in King-Bolt and Carriage-Coupling; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has relation to king-bolts and carriage-couplings, including braces and bolster-plates.

After twenty years of experience in the repairing and manufacturing of buggies, wagons, &c., I have noticed that two-thirds of the repairing on buggies and carriages is on the old-fashioned fifth-wheel and clip king-bolts. I have the pleasure to announce that I have at last invented a combination coupling that will do away with all such arrangements. The fifth-wheel and clip king-bolts are always worn out when the buggy or carriage is still good. I claim that the combination which I have invented will be good when the buggy or carriage is past use.

In the accompanying drawings, Figure 1 is front view of my invention, showing the king-bolt *a* and lips *b*, *c*, *d*, *e*, and *f*. Fig. 2 is a front view of my invention, showing the king-bolt *a*, and a face view of my attachment *g* for repairing vehicles already manufactured. Fig. 3 is a top view of my top brace, *h*, secured to spring *i*, and of the quarter-circle *c'* of the top bolster-plate, *j*, also showing lip *b* and the nut on the upper threaded end of the king-bolt *a*. Fig. 4 is a side view of my invention, showing the top brace, *h*, bottom brace, *h'*, and the additional center brace, *k*. Fig. 5 is a face view of the center brace, *k*. Fig. 6 is an edge view of my attachment shown in Fig. 2, and of the front end of brace *h'*, having lip *f*.

My invention is described as follows:

At the center of the axle *l*, I project a lip,

e, either by enlarging the axle at this point or by means of the attachment *g*, which is firmly secured to the front face of the axle by means of bolts or screws *g'*, its lip *e* extending to the front, and its heel *e'* extending backward under the axle.

On the top face of the wooden part of the axle *l*, I securely bolt a bolster-plate, *j'*. This bolster-plate *j'* has a lip, *d*, extending from the front face of the axle, and a quarter-circle, *d'*, extending from the rear face of the same.

On the lower face of the bolster *m*, I securely bolt a bolster-plate, *j*. This bolster-plate *j* has a lip, *c*, extending from the front face of the bolster, and a quarter-circle, *c'*, extending from the rear face of the same. In the center of this quarter-circle I form an oil-cup, *c''*, for oiling the fifth-wheel, which is made by these two plates, having the lips *c* and *d* and quarter-circles *d'* and *c'*.

The upper brace, *h*, has its front end secured on the upper face of the spring *i* by bolts extending down through the cross ends of the same, and through the spring *i*, the bolster *m*, and the bolster-plate *j*, which are fastened by heads and nuts. This brace *h* then extends backward, and is secured to the upper face of the reach *n* by bolts and nuts. The lower brace, *h'*, is secured to the lower face of the reach *n* and extends forward under the axle *l*, and is secured by king-bolt *a* passing through its lip *f*.

I have a center brace, *k*, Fig. 3, designed for use in the manufacture of heavy vehicles. When I use this center brace, *k*, it is welded to the upper face of bolster-plate *j*, and is carried back and secured to the upper face of the reach *n* and under brace *h*, and secured by the same bolts that secure braces *h* and *h'*.

My king-bolt *a* is made in two pieces having a right and left joint, *a'*, but is perfectly rigid respecting back and front movement. Immediately below this joint *a'* is a shoulder, *a''*, having a flat face, which rests on the upper face of lip *c* of bolster-plate *j*. Immediately above this joint *a'* is a bolt-hole, *a'''*, through which the king-bolt is securely bolted to the bolster *m*. The king-bolt passes through the holes in lips *b*, *c*, *d*, *e*, and *f*, and is held in by

nuts screwed on its threaded ends, which are bradded down to prevent the nuts from working loose. The brace *h*, extending from the king-bolt over the top of the spring *i*, thence
 5 to the reach *n*, holds the bolster in position so that it cannot sag either forward or backward. The combination of the braces *h* and *h'*, king-bolt *a*, and lips *b*, *c*, *d*, *e*, and *f* holds the bolster *m* and axle *l* in a perpendicular position.
 10 The right and left hinge *a'* allows the necessary action of the bolster when the buggy or other vehicle runs over rough ground, without unusual wear or strain on the same. The cup *c'*, made in the quarter-circle *c'* of bolster-plate *j*, allows oiling of the fifth-wheel without
 15 trouble.

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

20 1. The king-bolt *a*, having right and left joint *a'*, shoulder *a''*, resting on the upper face of lip *c*, bolt-hole *a'''*, by means of which it is bolted to bolster *m*, said king-bolt passing through lips *b*, *c*, *d*, *e*, and *f*, and being se-

cured by nuts on its upper and lower ends, 25 substantially as shown and described, and for the purposes set forth.

2. The combination of brace *h*, having lip *b*, brace *h'*, having lip *f*, lip *e* of axle *l*, bolster-plate *j'*, having lip *d*, bolster-plate *j*, hav- 30 ing lip *c*, and oil-cup *c'*, and king-bolt *a*, having right and left joint, and bolt-hole *a'''*, said bolt passing perpendicularly through said lips *b*, *c*, *d*, *e*, and *f*, substantially as shown and described, and for the purposes set forth. 35

3. The combination of brace *h*, having lip *b*, brace *h'*, having lip *f*, and brace *k*, welded to the upper face of bolster-plate *j*, having lip *c*, the rear end of said brace being secured to reach *n*, and king-bolt *a*, passing perpendicu- 40 larly through said lips *b*, *c*, and *f*, and lips *d* and *e*, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES MILTON HERNDON.

Witnesses:

JNO. D. DEBOIS,
 FRED S. BARKER.