

No. 709,612.

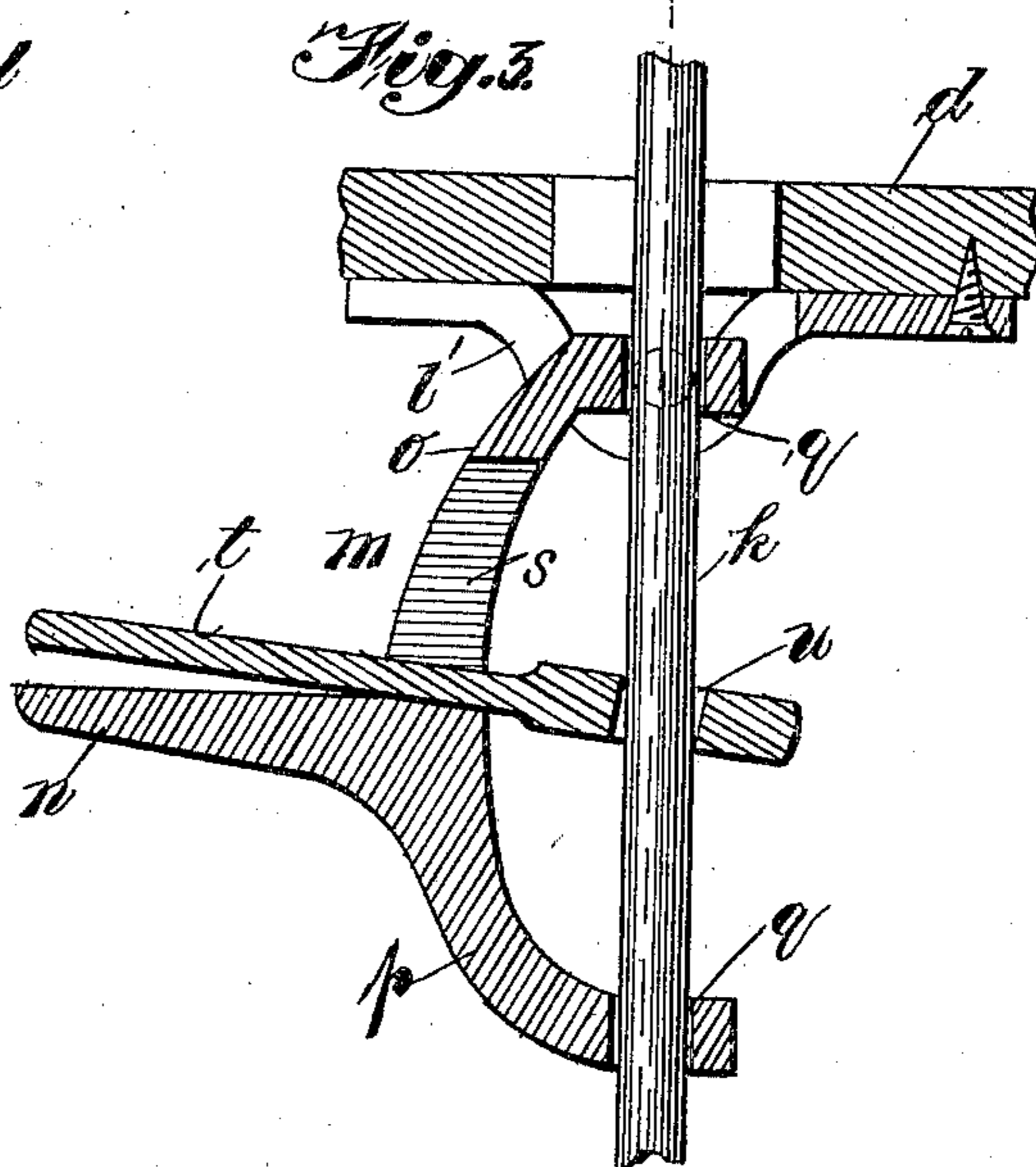
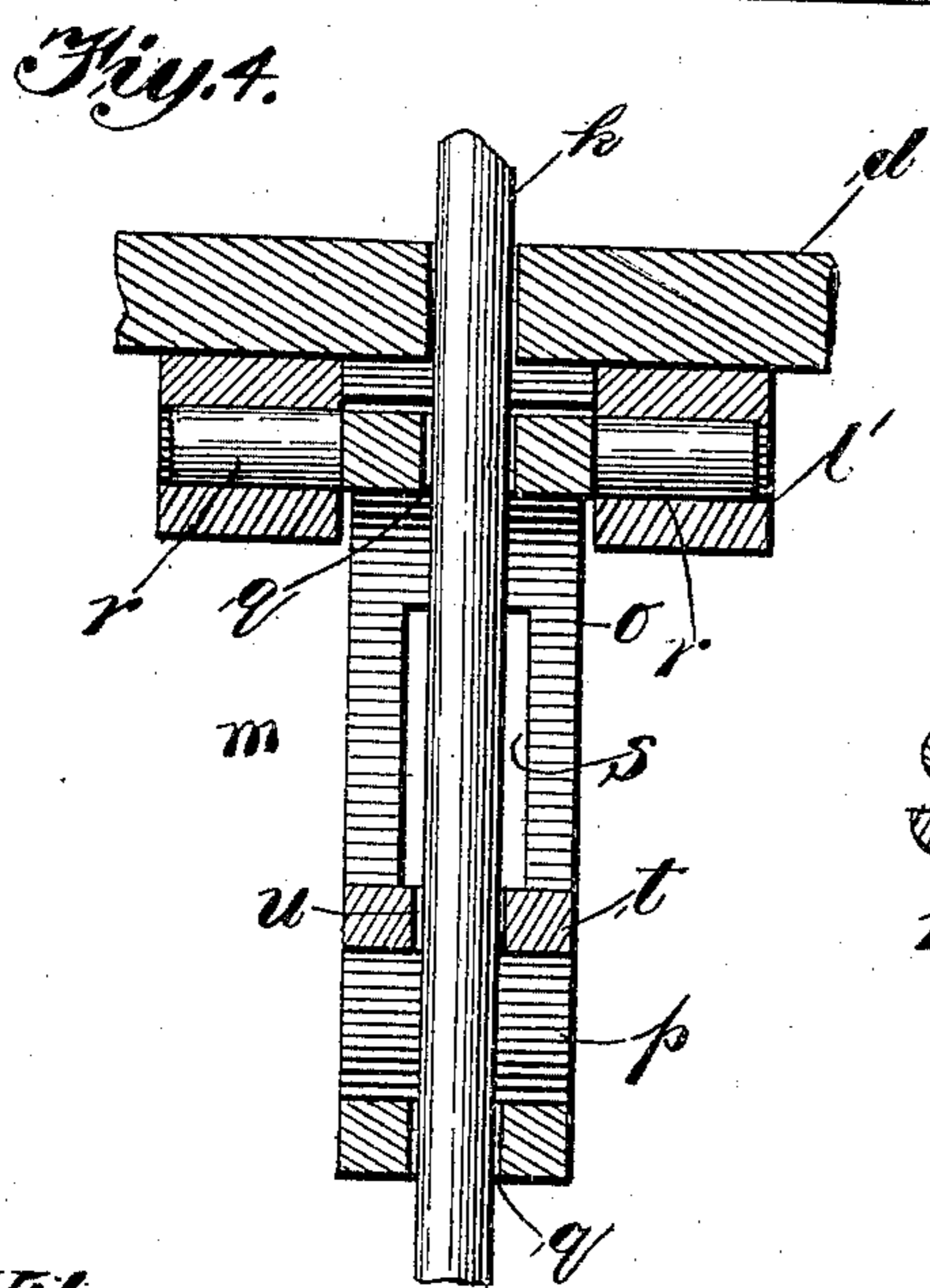
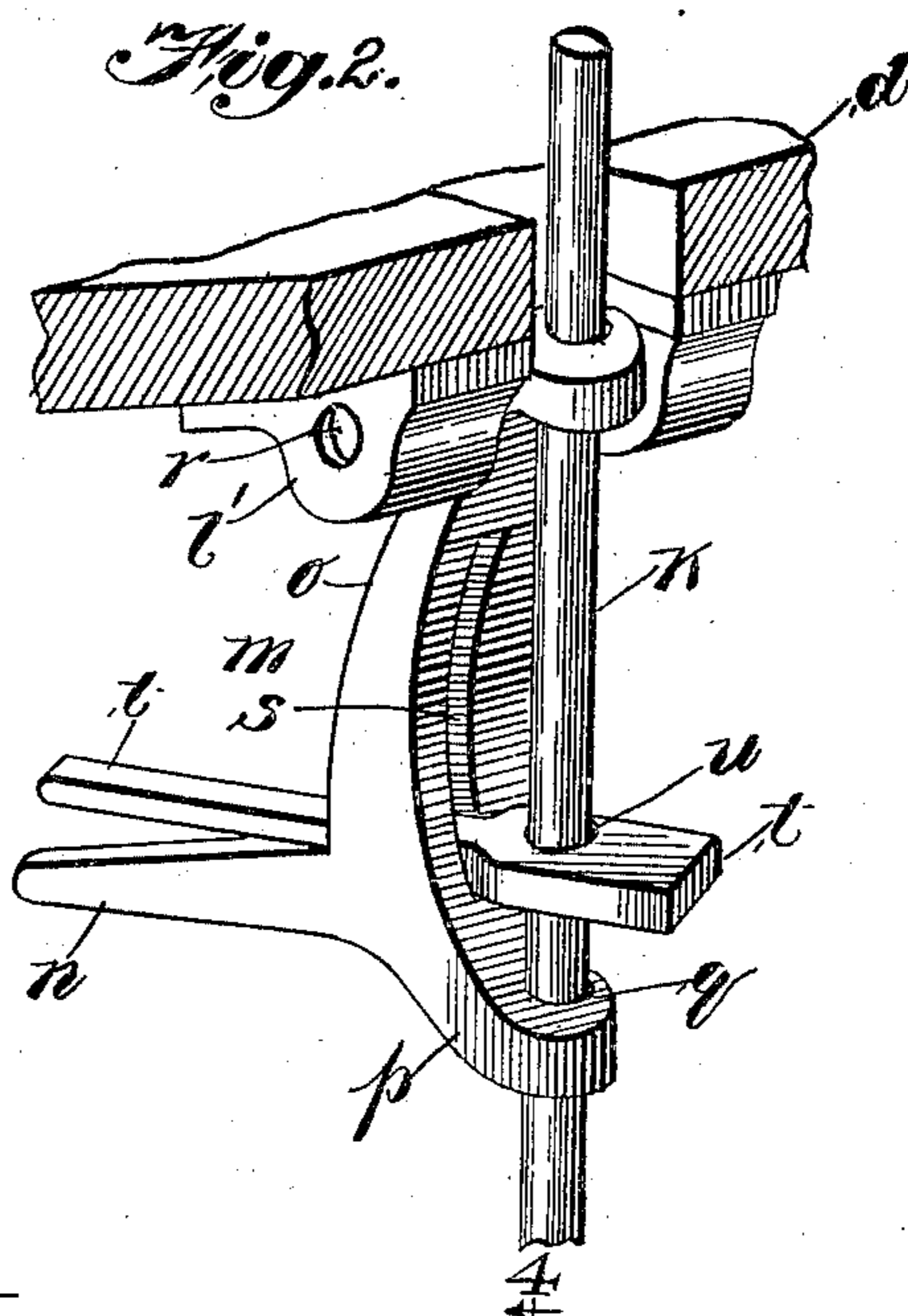
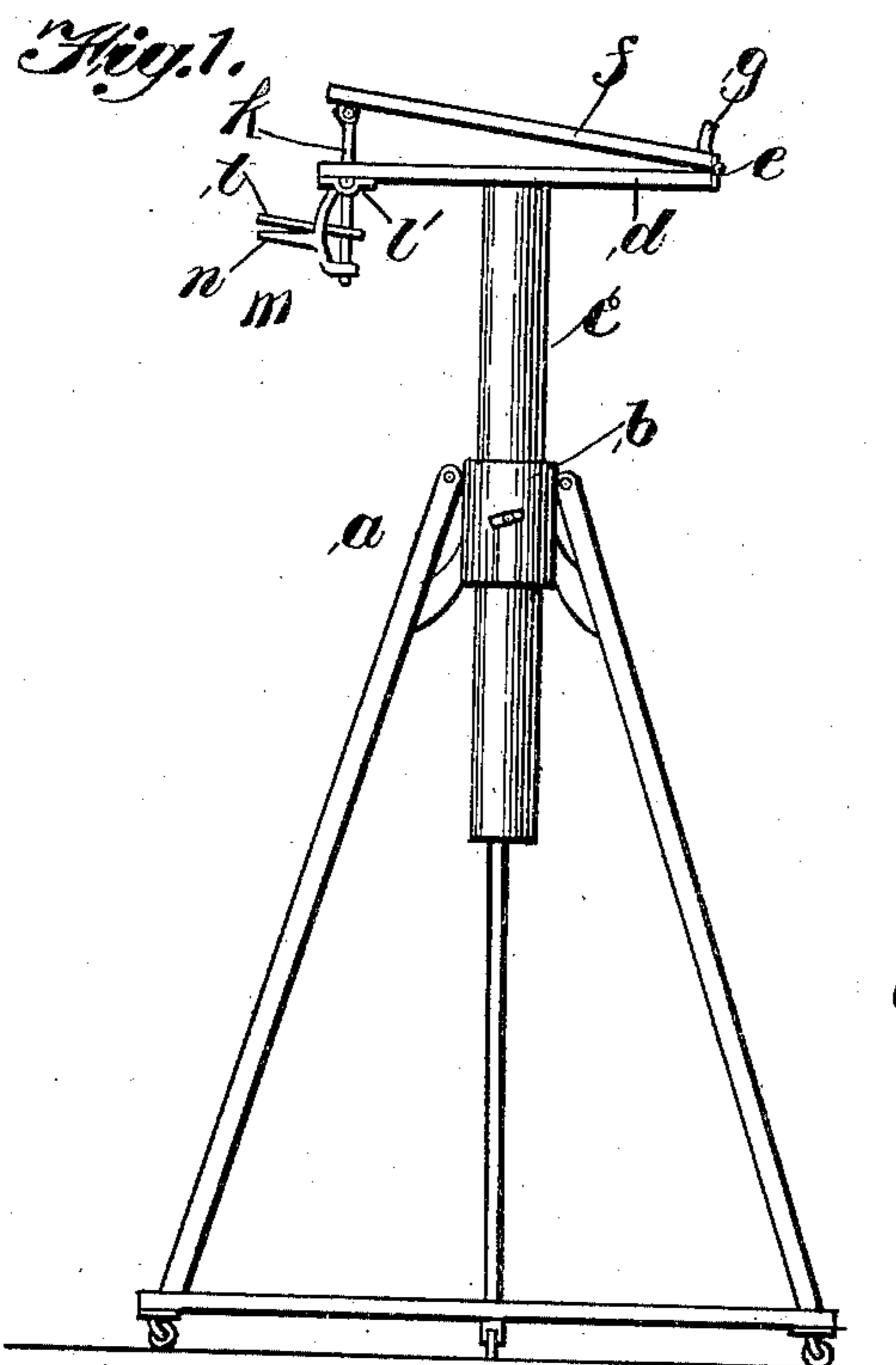
Patented Sept. 23, 1902.

J. H. SMITH.

ADJUSTABLE CAMERA STAND.

(Application filed Feb. 20, 1902.)

(No Model.)



Witnesses:
J B Weir
Cora D. Perry

Inventor
James H. Smith.
By David H. Fletcher.
Atty.

UNITED STATES PATENT OFFICE.

JAMES H. SMITH, OF CHICAGO, ILLINOIS.

ADJUSTABLE CAMERA-STAND.

SPECIFICATION forming part of Letters Patent No. 709,612, dated September 23, 1902.

Application filed February 20, 1902. Serial No. 94,942. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. SMITH, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Adjusting Mechanism for Camera-Stands, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which
10 corresponding letters of reference in the different figures indicate like parts.

In all camera-stands for indoor work it is customary to place the camera-case loosely upon a tilting support and to adjust it by varying the relative angle of said support to the
15 plane of the horizon. Various means more or less complicated and unsatisfactory have been employed to accomplish this result.

The object of my invention is to provide a
20 simple, cheap, and efficient means therefor; and to this end my invention consists in the combination of elements hereinafter described, and specifically set forth in the claims.

In the drawings, Figure 1 is a side elevation of a camera-stand embodying the features of my invention. Fig. 2 is an enlarged detail
25 view, partly in section, of my improved clamping mechanism and a portion of the support therefor. Fig. 3 is a longitudinal vertical sectional view thereof, and Fig. 4 is a sectional view thereof with the exception of the adjustable rod, taken upon the line 4-4, Fig. 3, as viewed in the direction of the arrow
30 there shown.

Referring to the drawings, *a* represents the frame of my improved camera-stand, which consists of diverging legs attached to a central body *b*, in a bore in which is adjustably
40 secured in the usual way a central standard *c*, to the top of which is rigidly attached the usual stationary base *d*, which is arranged horizontally. Upon one end of said base *d* is hinged at *e* the usual adjustable bed *f*,
45 which serves as a support for the camera-frame, and which is provided with a flange or cleat *g*, against which the front of the camera may rest.

Pivotally mounted in a bearing *h*, attached
50 to the bottom of the base or frame *d*, is a friction-lever (designated generally by *m*), which consists of a rearwardly-projecting

handle *n* and diverging arms *o p*, the ends of which are parallel with each other and are provided with bores *q q* in alinement with
55 each other, so as to receive the rod *k*. The upper end of the arm *o* is provided with laterally-extended trunnions *r r*, Figs. 2 and 4, which are supported in the bearing *l*, the axis of said trunnions being in substantial aline-
60 ment with that of the bore *g*. A vertical slot *s* is formed in the arm *o*, extending upwardly from the upper face of the handle *n*, through which is loosely projected the arm of a clamping member *t*, which member is provided
65 with a bore *u*, through which the rod *k* is passed. The forward portion, through which said bore is formed, is heavier than the rearwardly-projecting arm, and inasmuch as the latter rests in the bottom of the slot the forward end tends to fall by its own gravity,
70 thereby clamping the rod *k* and preventing its descent. The bore *u* of the clamping member is enough larger than the diameter of the rod to permit the clamping member to assume an
75 inclined position with respect to the handle *n*, as shown in Figs. 2 and 3. When, therefore, the handle, the upper face of which is at right angles to the rod *k*, is grasped and the part *t* pressed against it, the rod *k* is released
80 and is free to descend. If, however, the handle is lifted upwardly with sufficient force, a frictional action is produced upon the rod *k* by the backward pressure of the arm *p*, which prevents a sudden descent of the rod, thereby
85 acting as a friction-brake and enabling the device to be operated with one hand. Unless this pressure, as described, is exerted upon the handle it is manifest that both hands
90 would be required to properly operate the device. It will thus be seen that the structure constitutes a combined clamp and friction-brake.

Having thus described my invention, I claim—

1. The combination of a stationary support, a vertically-movable supporting-rod, a hand-lever having diverging branches provided with bores therein through which said supporting-rod is loosely passed, means for piv-
100 otting said lever to said stationary support, and a gravity clamping member arranged to rest pivotally upon said lever adjacent to said rod, the same being interposed between the

branches of said lever and having a bore therein to receive said supporting-rod.

2. The combination with an adjustable supporting-rod of an element supported thereby, a hand-lever having diverging branches bored at the ends to receive said supporting-rod, one of said branches being pivotally mounted upon a stationary support, and a gravity clamping member pivoted upon said hand-lever, said clamping member being provided with a bore to receive said supporting-rod, the normal or clamping position of said member being at an angle to the handle of said lever, whereby the simultaneous pressure in opposite directions upon the two, may serve to release said clamp and to act as a friction-brake upon said rod.

3. The combination with a tilting member hinged at one end, of a supporting-rod loosely depending from the opposite end, a hand-lever having diverging branches bored to receive said supporting-rod, means for pivoting one of said branches to a stationary support and a gravity clamping member pivotally supported by said hand-lever, said clamping member being arranged approximately at right an-

gles to said supporting-rod and provided with a bore to receive the latter; whereby said supporting-rod may be lifted at will or caused to descend gradually by simultaneously pressing said hand-lever upon said rod to produce the requisite friction and releasing said clamping member.

4. A combined clamping device and friction-brake for a vertically-adjustable supporting-rod, consisting of a bifurcated hand-lever having one of its branches pivoted to a stationary support, bores in said branches for the reception of said rod, and a friction clamping member pivoted in a slot in the uppermost branch, said clamping member having a bore therein for the reception of said rod, and being provided with a rear extension arranged to stand normally at an angle to the handle portion of said lever.

In testimony whereof I have signed this specification, in the presence of two subscribing witnesses, this 13th day of February, 1902.

JAMES H. SMITH.

Witnesses:

D. H. FLETCHER,
EDWIN DAVIS.