No. 702,749. Patented June 17, 1902.

J. H. SMITH.

CAMERA STAND.

(Application filed Feb. 28, 1902.)

(No Model.) 2 Sheets—Sheet 1.

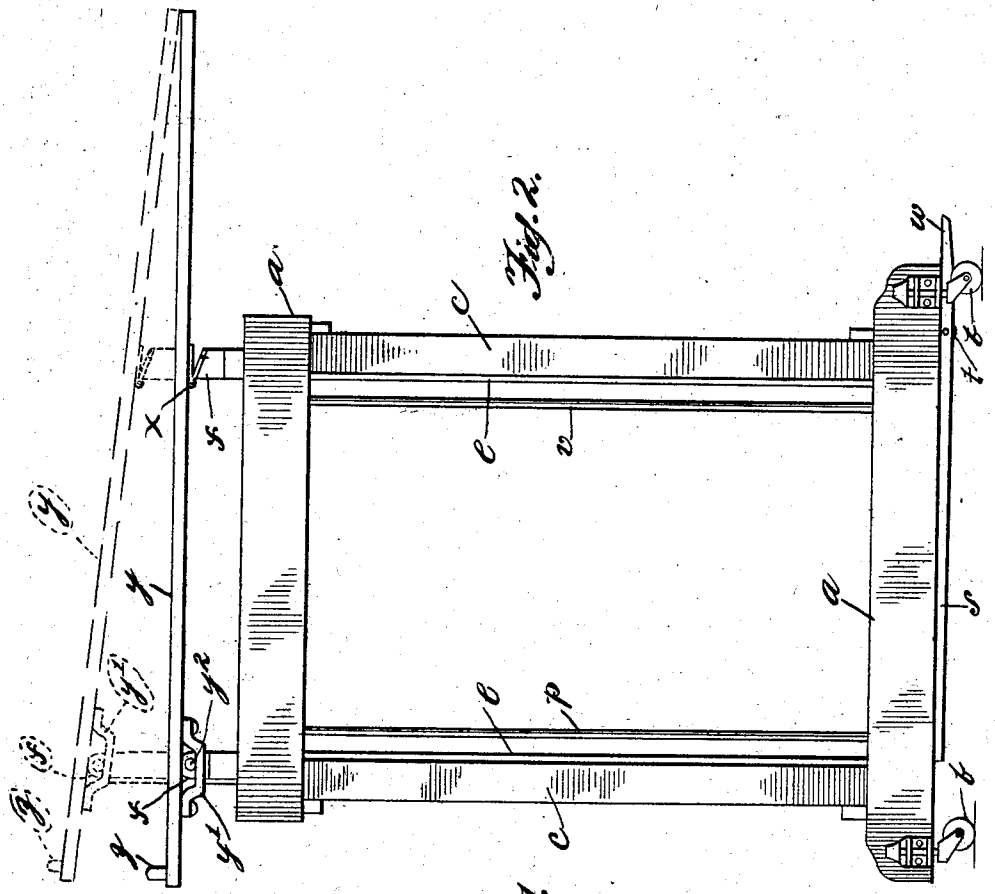


Fig. 2.

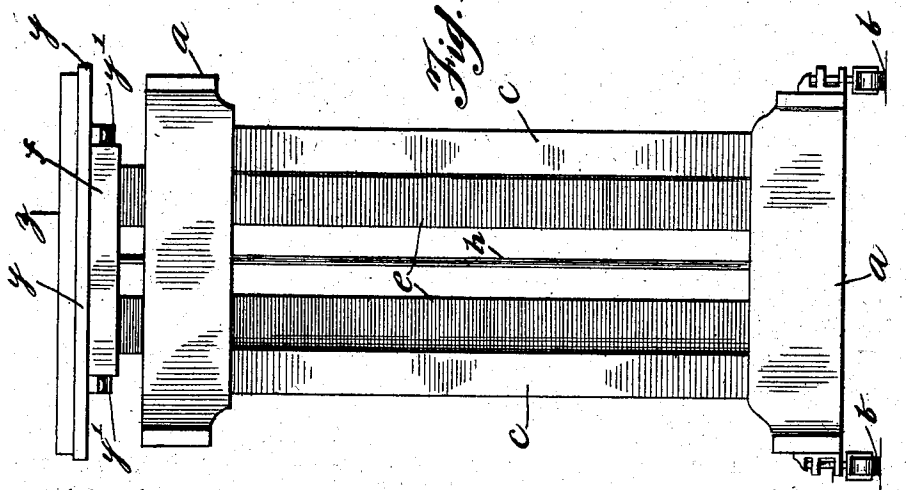


Fig. 1.

Witnesses:
Ira D. Perry
J. B. Weir

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

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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(No Model.) 2 Sheets—Sheet 2.

Fig. 3.

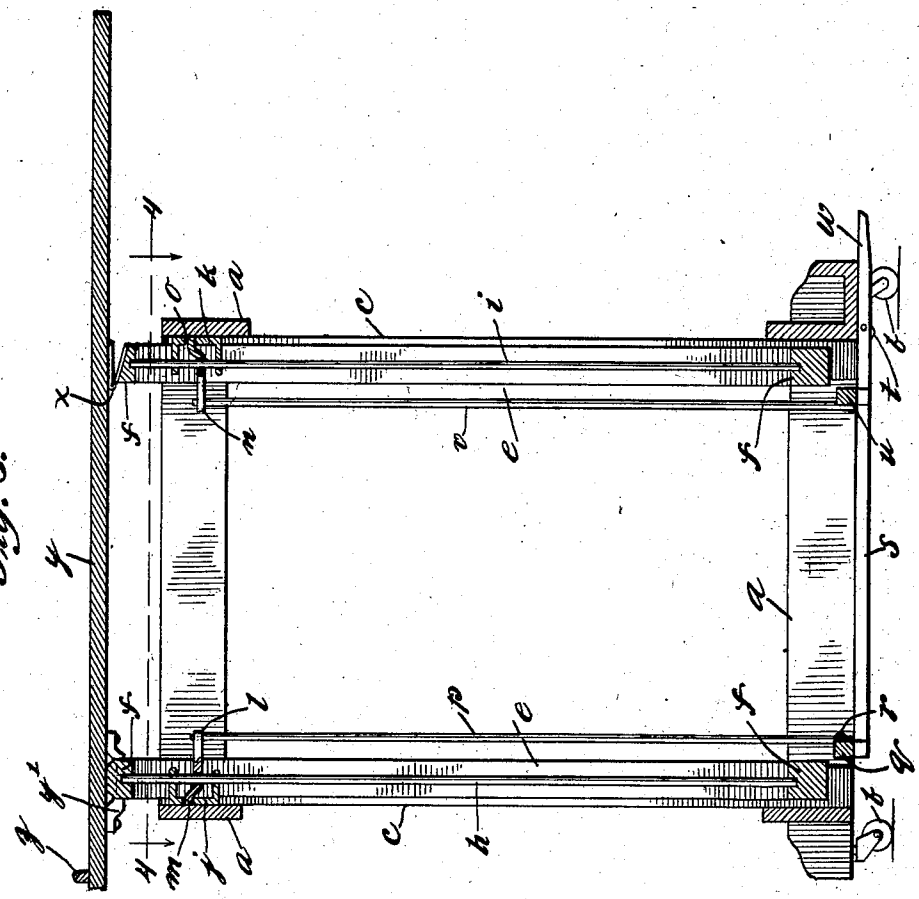
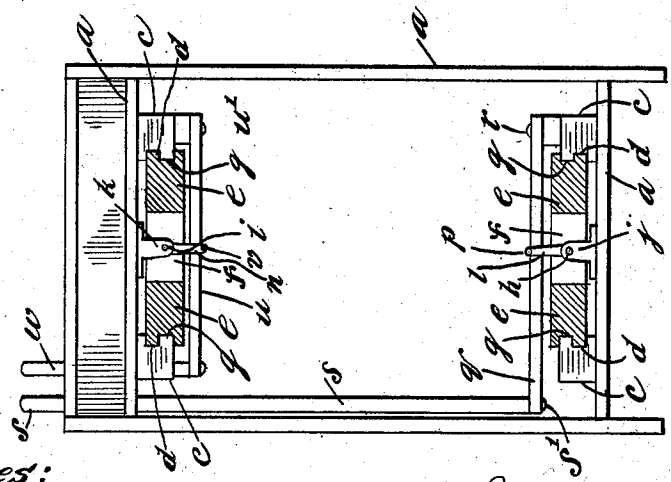


Fig. 4.



Witnesses:
Ira D. Perry
J. B. Weir

Inventor:
James H. Smith,
By David H. Fletcher
his Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES H. SMITH, OF CHICAGO, ILLINOIS.

CAMERA-STAND.

SPECIFICATION forming part of Letters Patent No. 702,749, dated June 17, 1902.

Application filed February 28, 1902. Serial No. 96,140. (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 Improvements in 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 corresponding letters of reference in the different figures indicate like parts.

The object of my invention is to provide a table or stand, more especially intended for use as a camera-stand, in which the top or bed designed for the support of the camera-case may be adjustably supported in such a way that it may be raised or lowered at will and adjusted to any desired height or angle and automatically clamped in position, all of which is hereinafter more particularly described, and definitely pointed out in the claims.

In the drawings, Figure 1 is a front end elevation of a camera-stand embodying the features of my invention. Fig. 2 is a side elevation thereof. Fig. 3 is a central longitudinal vertical sectional view thereof; and Fig. 4 is a sectional plan view taken upon the line 4 4, Fig. 3.

Referring to the drawings, *a* represents a rigid frame, which may be constructed in any well-known way and mounted upon casters *b*. The vertical uprights *c* of the frame are provided with longitudinal grooves *d*, Fig. 4, into which sliding guide frames or supports consisting, preferably, of upright members *e e* and cross-bars *f f* at bottom and top, respectively, are fitted, said upright members being rabbeted, as shown at *g*, Fig. 4. A vertical iron or steel rod *h*, Figs. 1, 3, and 4, is attached at top and bottom to said cross-bars *f* at the front of said stand midway between the guide members *c*, while a like rod *i* is attached in like manner to the members *f f* at the rear.

Metal brackets *j k*, Figs. 3 and 4, are rigidly attached to the inside of the stationary frame *a*, one at the front and the other at the rear, which brackets are provided with vertical bores through which the rods *h i* are loosely projected. A gravity clamping member *l* is loosely pivoted at *m*, Fig. 3, in the bracket *j*, and a like member *n* is pivoted in like manner at *o* in the bracket *k*. Said clamping members are identical in construction, and each is provided with a vertical bore through which the adjustable supporting-rod *h* or *i*, as the case may be, is inserted. The outer end of the clamping member *l* is extended rearwardly and is jointedly connected by means of a rod *p* with a lever *q*, pivoted at *r* to a stationary support upon the main frame. A foot-lever *s* is pivoted to the bottom of the frame at its rear end in alinement with the point *t*, Fig. 4, from which said lever projects, as shown in said last-named figure, the forward end of said lever being jointedly attached at *s'* to the lever *q*. A lever *u*, pivoted at a stationary point *u'* upon the frame at the rear end, is in like manner connected with a releasing-rod *v*, the upper end of which is jointedly attached to the clamp *n*, the free end of the lever *u* being jointedly connected with a foot-lever *w*, pivoted at *t*, Fig. 3, to the bottom of the frame. The members *q s* and *u w*, respectively, constitute compound foot-levers, the parts *s w* projecting side by side at the rear of the frame and near one side, as clearly shown in Fig. 4. The object of thus compounding said levers is to bring them out at one side of the vertically-movable guide-frame, thereby permitting a larger range of movement to the latter; otherwise a single lever in each case would serve the purpose equally well, and hence I do not confine myself to the lever construction shown.

The top of the rear cross-bar *f* is preferably beveled toward the rear, as shown, to which member is hinged or otherwise pivotally attached, as indicated at *x*, Figs. 2 and 3, an adjustable bed *y* for the support of the camera-case. Upon the forward end of said bed is a cleat *z*, against which the forward end of the camera is intended to rest. Yokes *y'*, Figs. 1 and 2, are connected with pins y^2, projecting laterally from the ends of the cross-bar *f* at the forward end of the stand. The rear end of the bed *y* projects considerably beyond the rear of the frame, and thus in effect forms a lever, the fulcrum of which is at *x*. Upon lifting the rear end of the bed the rear guide-frame, together with the rod *i*, is correspondingly raised, the gravity clamping member *n*

allowing the rod *i* to slide upwardly through the bore therein. On the other hand, a depression of the rear end of said bed serves to tilt the forward end up, the rod *h* sliding loosely through the clamping member *l* in like manner; but inasmuch as the outer ends of said clamping members tend to descend by the action of gravity the rods *h i* are clamped thereby, and said rods, together with said guide-frames, are thus supported at any desired height. The dotted lines in Fig. 2 show the bed in one of an indefinite number of abnormal positions, which may be varied at will to adjust the camera to any angle or height desired. In lowering the camera the rear of the bed is grasped by the operator and the foot-lever *s* depressed, which serves to release the clutch *l*, when by lessening the pressure of the hands the front of the bed is permitted to descend by its own gravity to the desired limit. By depressing the pedal *w* the clutch *n* is released in like manner, which allows the rear end to descend. It will thus be seen that by a series of reverse movements of the bed *y*, acting as a lever, any desired adjustment may be obtained with the utmost facility and ease, while the automatic clamps serve to hold the bed rigidly and firmly in place in whatever manner it may be adjusted.

It is obvious that the gravity-clamps may be released by merely lifting the free ends thereof by hand; but I prefer to employ special mechanism for that purpose.

Having thus described my invention, I claim—

1. The combination with the stationary frame of a camera-stand, of vertically-movable guide-frames at front and rear, a supporting camera-bed hinged to the upper ends respectively of said supporting guide-frames, vertical supporting-rods rigidly attached to said guide-frames, automatic friction-clamps attached to said stationary frame for normally clamping said rods against downward movement, foot-levers pivotally attached to the bottom of the frame and projecting outwardly therefrom, and means for connecting said foot-levers with said friction-clamps.

2. The combination with the stationary frame of a camera-stand, of vertically-movable guide-frames at front and rear, a supporting camera-bed hinged to the upper ends respectively of said supporting guide-frames, vertical supporting-rods rigidly attached to said guide-frames, automatic friction-clamps attached to said stationary frame for normally clamping said rods against downward movement, transverse levers *q u* pivotally attached to the lower portion of the frame, foot-levers *f w* in operative connection with said transverse levers, and rods *p v* for connecting said transverse levers with said friction-clamps.

In testimony whereof I have signed this specification, in the presence of two subscribing witnesses, this 21st day of February, 1902.

JAMES H. SMITH.

Witnesses:
D. H. FLETCHER,
MALVIN JOHNSON.