No. 714,334. Patented Nov. 25, 1902.

H. R. SCHOONOVER.

COPY HOLDER FOR PHOTOGRAPHIC PURPOSES.

Application filed Feb. 11, 1902.

(No Model.)

Fig. 1.

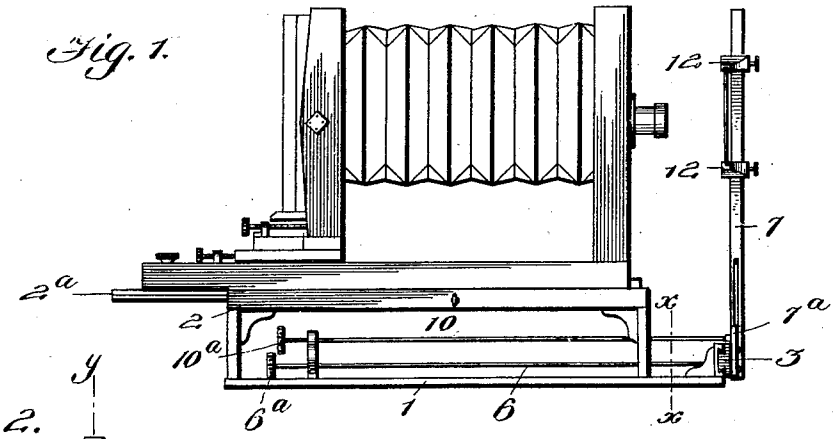


Fig. 2.

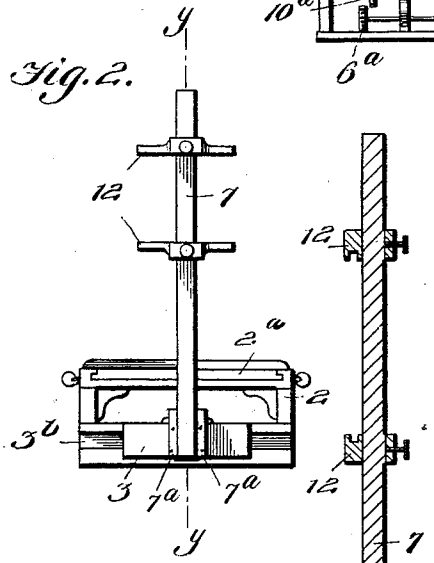


Fig. 4.

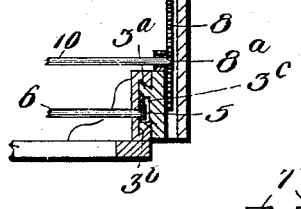


Fig. 3.

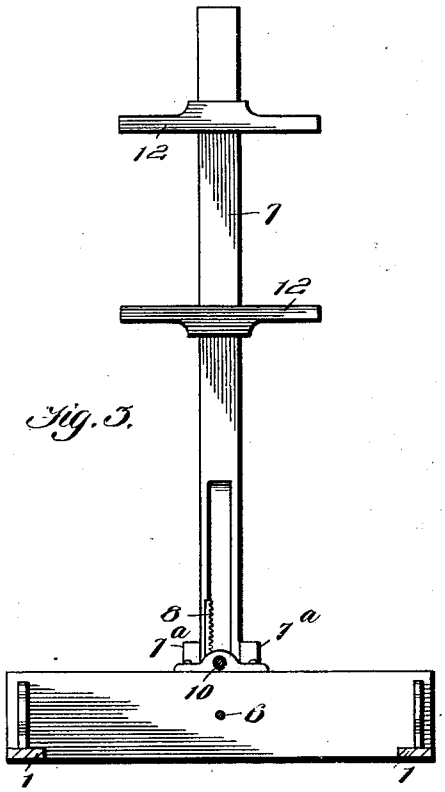
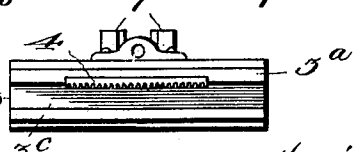


Fig. 5.



Witnesses
Edwin H. Towers
Edgar B. McPath

Inventor
Harrison R. Schoonover
by: Edson Bros.
Attorneys

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

UNITED STATES PATENT OFFICE.

HARRISON R. SCHOONOVER, OF EAGLEGROVE, IOWA.

COPY-HOLDER FOR PHOTOGRAPHIC PURPOSES.

SPECIFICATION forming part of Letters Patent No. 714,334, dated November 25, 1902.

Application filed February 11, 1902. Serial No. 93,621. (No model.)

To all whom it may concern:

Be it known that I, HARRISON R. SCHOONOVER, a citizen of the United States, residing at Eaglegrove, in the county of Wright and State of Iowa, have invented certain new and useful Improvements in Copy-Holders for Photographic Purposes; and I do hereby 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.

My invention relates to improvements in copy-holders, especially those adapted to support or hold a copy to be reproduced by the process of photography. Its object is to provide a device of the character described by which the copy may be adjusted before the lens from the rear of the camera and without the operator removing his head from the focusing-cloth.

Broadly stated, my invention consists in providing a frame, preferably adapted to support a camera, with a transversely-movable cross-head carrying a vertically-movable upright for supporting a copy or object to be photographed, and, further, in providing means for independently adjusting said cross-head and upright, consisting of rods adapted to be turned from the rear of the frame, having pinions on their forward ends, which mesh with racks upon said frame and cross-head.

In the accompanying drawings, illustrating the preferred embodiment of my invention, Figure 1 is an elevation of my device, showing it applied for use. Fig. 2 is an end elevation. Fig. 3 is a cross-section on the line $x\,x$, Fig. 1. Fig. 4 is a longitudinal section on the line $y\,y$, Fig. 2. Fig. 5 is a detached inside view of the cross-head 3 with the standard or upright 7 and shaft or rod 6 disconnected therefrom.

In carrying out my invention I provide a frame or base 1, above which is preferably erected a suitable stand 2, having a movable top 2^a, adapted to support a camera. At the forward end of said frame is a shiftable cross-head 3, having, preferably, a dovetail tenon 3^a, adapted to slide within a correspondingly-shaped groove 3^b in said frame. Within the rear face of said cross-head is a depression or slot 3^c, having a rack 4 arranged along one of its horizontal edges. A pinion 5, secured to the forward end of a rod 6, having suitable bearing in said frame, is adapted to engage said rack and move said cross-head when said rod is turned by, preferably, a hand-wheel 6^a, secured to its rear end.

A vertically-movable upright 7 is suitably supported at its lower end between guides or ways 7^a on the cross-head and provided with a vertical rack 8. A pinion 8^a, meshing with said rack, is secured to the end of a second rod 10 and is adapted to raise and lower the upright when said rod is turned. Said rod 10 is also provided with a hand-wheel 10^a and has a bearing in the rear of said frame. Its forward end has a bearing in said cross-head, so as to always retain the teeth of said pinion in engagement with the teeth of said rack 8 when the cross-head is shifted. These bearings for the rod 10 are loosely fitted to permit the forward end of said rod to move with said cross-head. This upright 7 has, preferably, thereon suitable adjustable cross-pieces or brackets 12, adapted to hold a copy to be photographed.

In using my device a camera is placed upon the stand or support 2 and the copy secured to the upright, preferably between the brackets 12. Then by turning the hand-wheels the copy may be raised or lowered and moved transversely. It will be readily seen that by my construction and arrangement the operator may focus the camera and center the object without removing his head from the focusing-cloth.

The movable top 2^a to which the camera is attached provides a ready means for moving the camera so as to vary the size of the reproduction.

It is obvious that other forms of stands or supports for the camera may be provided than that which I have shown or that the stand or support for the camera may be separate from my device.

I do not wish to limit myself to the details of construction herein shown and described, as I am fully aware that there may be changes and variations therein without in any way departing from the spirit of my invention and the same yet remain intact and be protected.

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

1. In apparatus of the character described, the combination of a camera-stand, a transverse slide carried thereby, a vertically-movable copy-holder carried by said slide, and manually-actuated shafts geared to said slide and copy-holder, respectively, substantially as set forth.

2. In apparatus of the character described, the combination of a camera-stand, a transverse slide carried thereby and provided with a rack, a vertically-movable copy-holder carried by said slide and provided with a rack, and manually-actuated shafts geared to said racks respectively, substantially as set forth.

3. In apparatus of the character described, the combination of a camera-stand, a transverse slide carried thereby and provided with a rack, a vertically-movable copy-holder carried by said slide and provided with a rack, and manually-actuated shafts geared up to said racks, respectively, and extending within ready reach of the operator at the back of the camera-stand, substantially as set forth.

4. In apparatus of the character described, the combination of a camera-stand having an upstanding forward edge portion provided with a longitudinal dovetailed groove, a slide having a corresponding tongue engaging said groove and a rack, a vertically-movable copy-holder engaging vertical guideways upon the outside of said slide and having a rack, and manually-actuated shafts provided with pinions gearing with said racks, substantially as set forth.

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

HARRISON R. SCHOONOVER.

Witnesses:

W. N. MERRITT,

J. W. MIDDLETON.