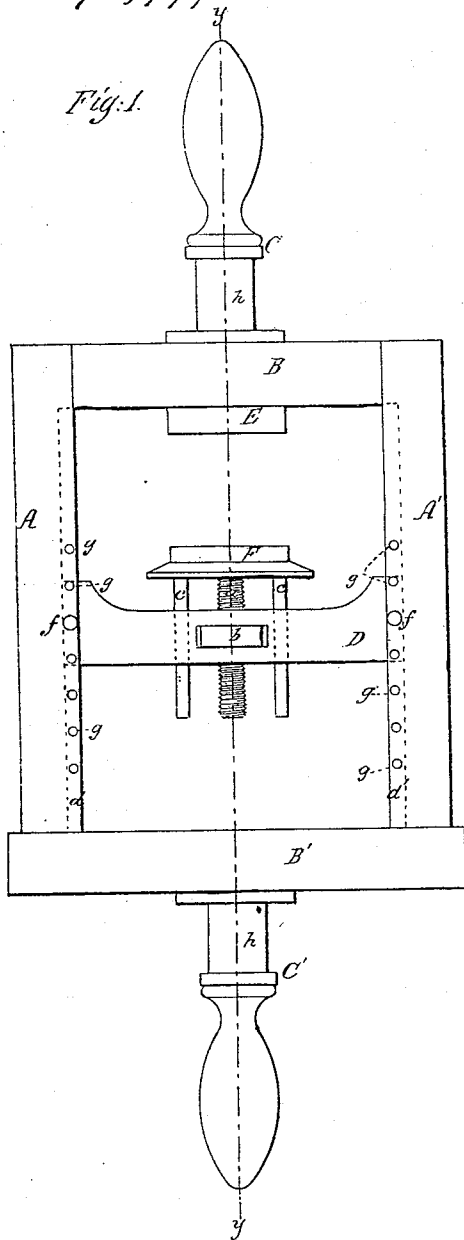
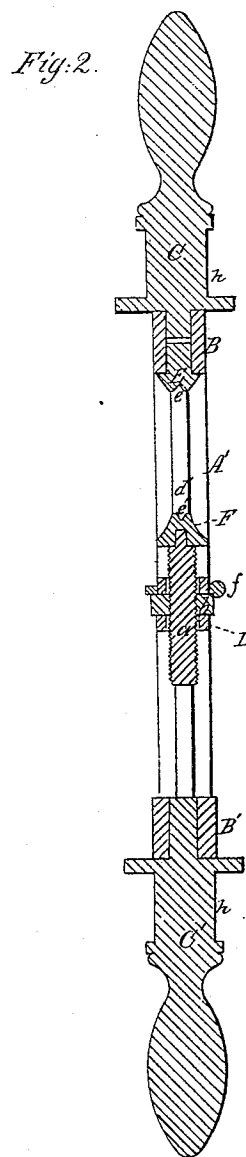


V. M. Griswold.
Photographers' Plate Vise.
N^o 95,999. Patented Oct. 19, 1869.



Witnesses.

*J. W. Weston
 L. A. Roberts*

Inventor.

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UNITED STATES PATENT OFFICE.

VICTOR M. GRISWOLD, OF PEEKSKILL, NEW YORK.

PHOTOGRAPHER'S PLATE-VISE.

Specification forming part of Letters Patent No. **95,999**, dated October 19, 1869; antedated October 7, 1869.

To all whom it may concern:

Be it known that I, VICTOR M. GRISWOLD, of Peekskill, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Photographers' Plate-Vises; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is to produce a cheap, ready, and available device for the use of photographers, by means of which they will be enabled to hold a plate securely while washing or otherwise cleaning it, the said device being so constructed and arranged that the plate may be readily turned over without removing it from the vise and all portions of its surface thoroughly washed and cleaned.

My said invention consists of a rectangular frame furnished with handles, journals, or pivots (having one at the center of each of its ends) and a sliding bar, which slides in ways or grooves in the sides of the said frame, the said sliding bar carrying one of the clamping or holding jaws and the other being fixed to the end piece of the said frame. The said sliding bar may be secured in place in any desired part of the said frame by means of pins passing through holes in the said frame and bar, by wedges forced in between the said frame and the bar, by pawls on the said bar actuated by springs, and taking into teeth on the said frame, or in any other suitable way by which the said bar may be readily adjusted and secured in any desired position in the said frame. The clamping or holding jaw is secured to the said bar by means of a screw, which is fixed in said jaw, and passes through said bar and through a nut, which turns freely in a slot in said bar, to regulate the distance of the said jaw from the said bar, and also to facilitate the clamping and removal of the plates to be operated upon. Two rods are fixed in the said jaw, one at each side of the said screw and parallel with it. These rods pass through the said bar and keep the said jaw from turning. Instead of or in addition to the screw a spiral or other spring may be interposed between the jaw and bar, to enable the jaw to yield readily and quickly to receive or liberate a plate. When adjusting the machine to receive plates of dif-

ferent sizes, the bar itself is moved; but after it is adjusted to receive plates of a given size the jaw alone is moved to receive and deliver individual plates of the same size. One or both of the journals or handles may rest in bearings, or upon a table or other support; or the frame may be hinged at one side to a suitable support, and a pan, vat, or box to contain the cleansing materials may be placed immediately beneath the said plate and frame.

In the accompanying drawings, Figure 1 is a side view of a machine embodying my invention. Fig. 2 is a longitudinal section of the same on the line *yy*, Fig. 1.

A A' are the side pieces of the rectangular frame; B B', the end pieces; C C', the handles or journals, and D the adjustable bar. E and F are the clamping or holding jaws. The jaw E is firmly fixed to the end piece, B, and the jaw F is attached to the bar D by the screw *a* and nut *b*. The rods *c c* pass loosely through the bar D, and prevent the jaw F from turning. Grooves *e* and *e'* are formed in the jaws E and F to receive the plate. The bar D slides up and down in the grooves *dd'*, (shown in dotted lines in Fig. 1,) and is fastened at any desired position by pins *f*, which pass through holes *g* in the side pieces, A A', and bar D. The handles C C' are so formed that the portions *h h* may be laid in bearings, in which the frame will be free to turn; or the frame may be held in the hands of the operator and turned by means of the handles; or it may be hinged at the side to any convenient support, so as to turn on its hinges.

In the above-described machine the plate to be cleaned is easily and quickly received or released, is firmly held while being cleansed, and readily turned over, so that all parts of its surface may be operated upon, and the whole operation of clamping, cleansing, and removing the plate may be performed without soiling the hands of the operator or leaving finger-marks upon the plate after it has been cleaned, as frequently occurs at present.

Having thus fully described my invention, I claim—

1. The combination, with the frame and the sliding adjustable bar D, of the jaw E and the independently-adjustable jaw F, substantially as hereinabove set forth.

2. The combination, with the frame and the

sliding adjustable bar D, of the journals or handles CC', or their equivalents, substantially as hereinabove set forth.

3. The combination, with the jaw F and bar D, of the screw *a*, nut *b*, and rods *c*, substantially as specified.

4. The combination, with the sliding bar D and the frame, of the pins *f* and holes *g*, substantially as set forth.

5. The revolving or reversible frame A. A' B B', combined with the jaws E and F and the adjustable bar D, substantially as set forth.

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Witnesses:

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