J. Buchtel,

Photographic Printing Frame,

No. 84,168 Patented Nov. 17, 1868.

Fig. 1.

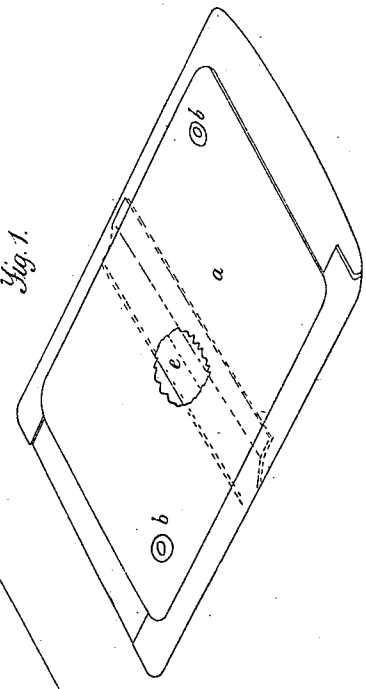


Fig. 4.

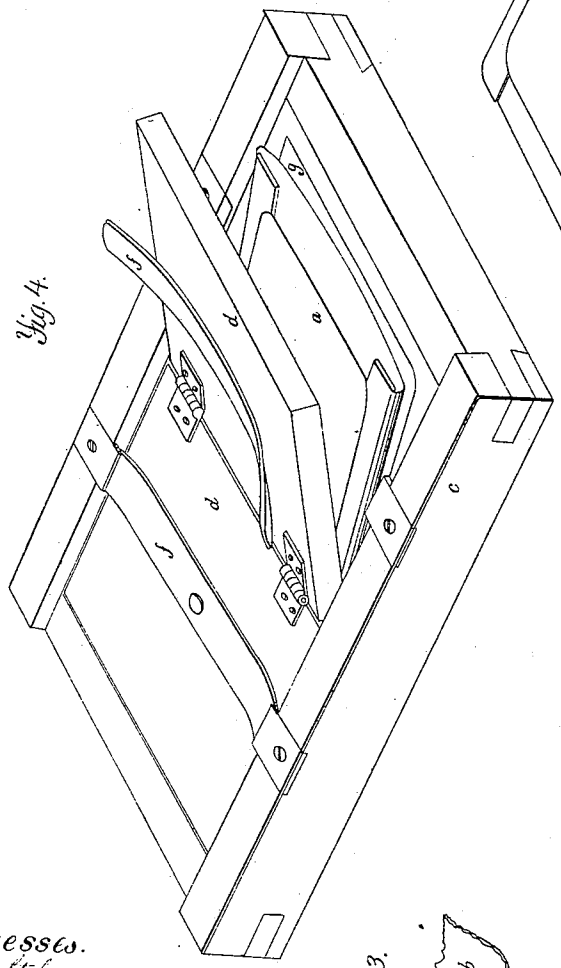


Fig. 2.

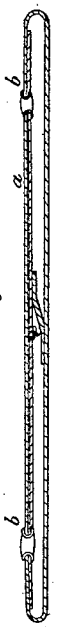


Fig. 3.



Witnesses.
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JOSEPH BUCHTEL, OF PORTLAND, OREGON.

Letters Patent No. 84,168, *dated November* 17, 1868.

CONTACT-PAD FOR PHOTOGRAPHIC PRINTING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOSEPH BUCHTEL, of Portland, in the county of Multnomah, in the State of Oregon, have invented a new and useful Apparatus for Effecting a Perfect Contact of Tissues or Papers to be Printed from Photographic Negatives; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Description of Joseph Buchtel's Photographic Contact-Pad.

This pad is intended to take the place of the ordinary thick cloth or felt usually put between the covers of a photographic-printing frame and the silvered paper which rests on the "negative."

In the common process there is a great waste of silvered paper, owing to a number of pits and wrinkles, which are not perfectly pressed out by the springs and cloths in common use; for when the glass of the "negative" is warped or uneven from any cause, the flat boards of the covers and cloths possess no quality of adapting themselves to the surface of such glass or negative, and the result is a bad print, or, that which is worse, the frequent breaking of uneven negatives. This fault is more common than formerly, as at the present time more cheap or common glass is used.

The invention obviates another difficulty which perplexes the photographer in warm weather, viz, the discoloration of the white paper, by preventing the air from contaminating it during the process of printing, as it fits air-tight at its back when under pressure; and, as the pieces are taken, one by one, from under weights, and laid on the negative, they will not be as much exposed as formerly.

Figure 1 is a perspective view.

Figure 2 is a section, showing the manner of placing the diaphragm *e* in the sack or pad *a*.

Figure 3 shows the manner of providing a place for filling the sack or pad *a* with gas, air, or fluid, through an eyelet, *b*, with a screw inserted in its opening.

Figure 4 shows a common photographic-printing frame, with the pad in its place.

The sack or pad *a* is made of rubber cloth or any air, gas, or fluid-tight material, inflated at the time of making or afterward, by leaving a small hole in each compartment, of such a shape that it may be closed by some plastic cement; or, if not made in this manner, the eyelets *b* will be used with screws, of such a kind that they may be screwed into and fit air-tight in the openings of the eyelets *b*.

When the pad is made with more than one apartment, a diaphragm, *e*, will be always necessary, as will be seen by reference to fig. 4, where *c* is the wood-work of the frame, *d* the "covers," *a* the pad, *g* the silvered paper, and *f* brass springs, pressing the "covers" against the pad, silvered paper, "negative," and glass resting in the wood frame *c*.

Now, if the spring *f* on one of the covers *d* were liberated, and the pad contained only one apartment, the filling would rush into the end so liberated, and could not be easily put back again, such an operation being done once or twice, as each "print" is examined, to ascertain how far the printing has progressed.

To prevent the escape described from the part under pressure, the diaphragm *e* is provided, making each chamber or compartment separate and air-tight. The "print," by this arrangement, may be examined from either end of the frame without any danger of moving it.

When large prints are making, it will be found more desirable to use fluids than gases or air, as it is more effective in removing the wrinkles as it is laid on the silvered paper.

Claim.

I claim the use of the elastic pad *a*, filled with fluid, air, or gas, and also the eyelets *b*, with the attendant screws, together with the diaphragm *e*, substantially as set forth, and for the purpose described.

JOS. BUCHTEL. [L. S.]

Witnesses:

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