No. 648,966. Patented May 8, 1900.

W. H. LEWIS.

PHOTOGRAPHIC RETOUCHING FRAME.

(Application filed May 12, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1

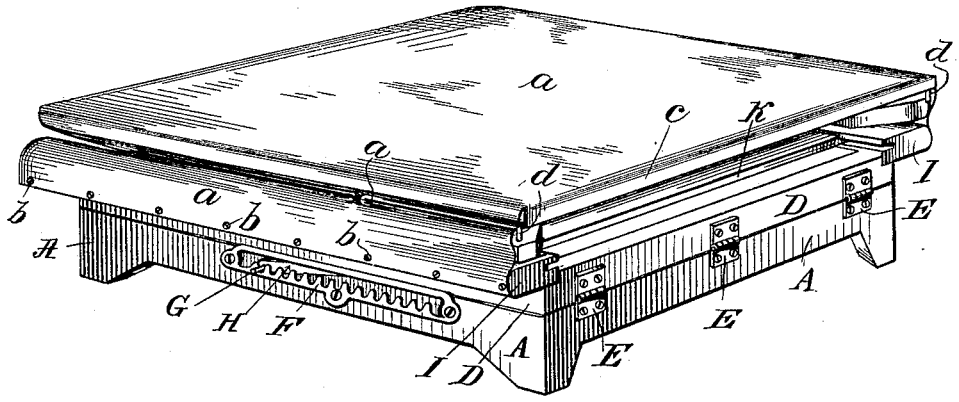
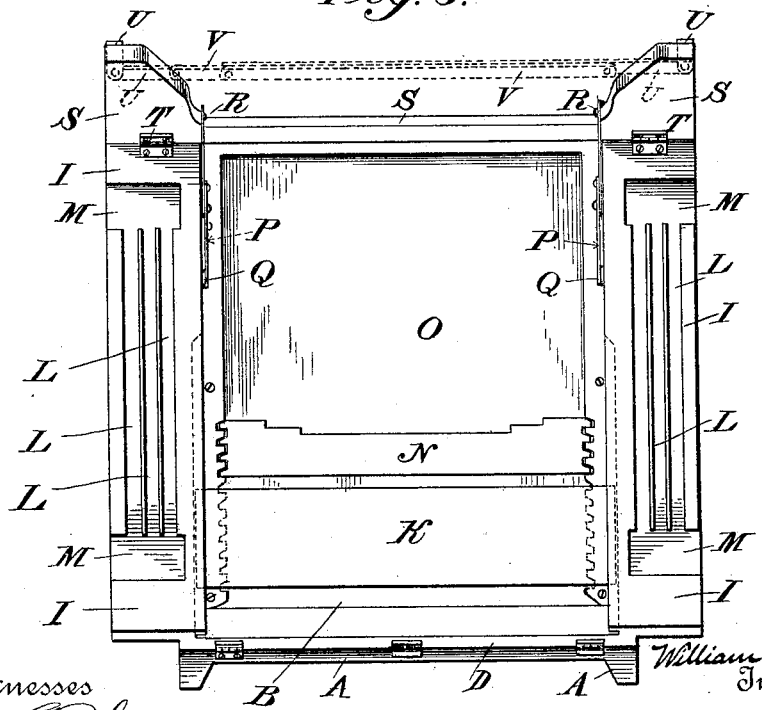


Fig. 3.



Witnesses
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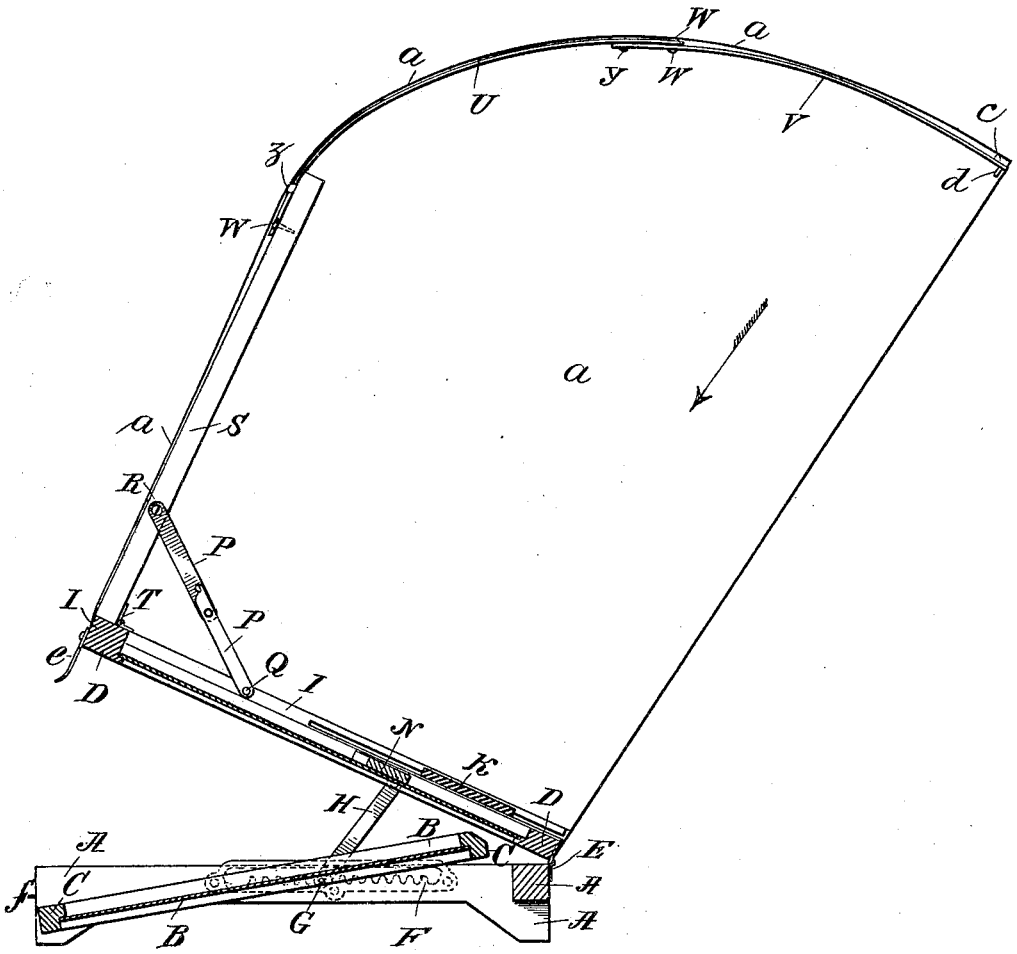
(No Model.) 2 Sheets—Sheet 2.

Fig. 2.



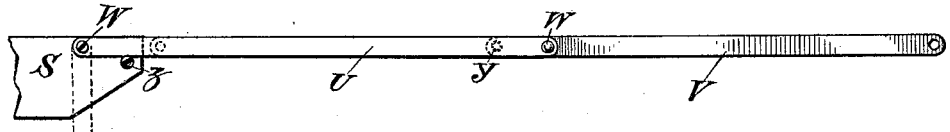


Fig. 4.

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UNITED STATES PATENT OFFICE.

WILLIAM H. LEWIS, OF HUNTINGTON, NEW YORK, ASSIGNOR OF ONE-HALF TO THE E. & H. T. ANTHONY & COMPANY, OF NEW YORK, N. Y.

PHOTOGRAPHIC RETOUCHING-FRAME.

SPECIFICATION forming part of Letters Patent No. 648,966, dated May 8, 1900.

Application filed May 12, 1899. Serial No. 716,504. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. LEWIS, a citizen of the United States, and a resident of Huntington, in the county of Suffolk and State of New York, have invented a new and useful Photographer's Retouching-Frame, of which the following is a specification.

The features of my invention are as follows:

First. The apparatus is so constructed that it may be quickly and conveniently collapsed or folded, so that when not in use it may be readily placed upon a shelf or otherwise disposed of or be packed in a trunk or valise for purposes of transportation, whereby this apparatus, which is ordinarily cumbersome and occupies much space, is rendered much more convenient both in the photographer's gallery and for the use of amateurs.

Second. Upon the tilting table of the apparatus I arrange certain racks adapted to hold the pencils and other utensils used by the retoucher, so that they are plainly in sight when he is at work and within easy reach of his hand. Thus is avoided the annoying feature of having to feel around for the proper utensil upon the table or other device which supports the apparatus as ordinarily used.

Third. I so construct the base-frame of the apparatus that it has no end rail. In other words, it extends around three sides of a square only. In this way the objectionable feature of the shadow of the end rail or cross-bar falling upon the reflecting-mirror is done away with.

Fourth. I provide the tilting frame or table of the apparatus with certain side braces provided with laterally-projecting pins which engage with racks upon the base-frame, and these pins can be readily found by the hand of the operator while his head is within the hood by simply running his fingers along the sides of the base-frame until they come in contact with the pins and thereby he can quickly and without changing his position adjust the tilting table as desired.

Fifth. My invention also includes the details of construction of the hood-frame and hood, as hereinafter described.

Referring to the drawings hereof, Figure 1 illustrates a perspective view of the apparatus when folded or collapsed. Fig. 2 illustrates a plan in vertical section of the apparatus as erected ready for use. Fig. 3 illustrates a view of the apparatus as shown in Fig. 2, taken in the direction of the arrow, the hood being removed and the elastic hood-frame shown in its folded position in dotted lines. Fig. 4 illustrates a detail of construction of the elastic hood-frame.

A is what may be called the "base-frame" of the apparatus, as shown best in Fig. 2. It embodies two side bars and a transverse bar at the end nearest the body of the operator, but with no transverse bar at the other end.

B is the mirror, mounted in a frame C or otherwise supported, as preferred. The mirror is pivoted in any suitable manner to the base-frame A, so that it may be tilted, as usual.

D is the tilting frame or table of the apparatus. It is pivoted by hinges E to the front rail of the base-frame.

F F are two racks, one on each side of the base-frame, with which engages a pin G, which projects laterally from a pivoted lever H, there being one of these levers on each side of the apparatus. The levers are pivoted at their upper ends to the side bars of the tilting frame D, and their lower ends slide between the racks F and the outer surfaces of the side bars of the base-frame. The pins G are preferably made of such length that they not only will engage with the teeth of the racks, so as to sustain the tilting frame in any desired position, but also project laterally therefrom a sufficient distance to be readily grasped by the fingers of the operator as he slides his hand along the sides of the base-frame, so that he can quickly grasp the same and change the vertical adjustment of the tilting frame as desired.

I I are two side pieces, preferably made of wood, which are connected to the side bars of the tilting frame.

K is the usual hand-rest, which slides in a slit or rabbet made in the side pieces I I.

L L are grooves adapted to receive pencils or other utensils, made in the upper face of the side pieces I.

M M are cut-out parts at the top and bot-

tom of the grooves L L, whereby the fingers of the operator may readily grasp the ends of pencils or other utensils which will project into these recesses.

N is the ordinary negative-rest, the ends of which are notched or toothed to coincide with similar notches made in the inner surfaces of the side bars I, so that the negative-rest may be adjusted higher or lower, as desired.

O is the usual ground-glass plate upon which the negative rests.

P P are two jointed braces, the same as usually employed in such apparatus, which are pivoted at Q Q to the side bars I of the tilting table, and at R R they are pivoted to another frame composed of three members S S and a bottom cross-bar S'. This frame is pivoted by hinges T T to the forward ends of the side bars I I. At the upper ends of each of the parts S S of this supplemental frame there is attached a folding frame for the support of the hood composed of strips U U of brass, steel, or equivalent elastic metal, each having an extension-piece V V, pivoted to the parts U U at W. Each of these extension parts has a little stud Y near its end, which projects outwardly from the upper side thereof, so as to enter a hole made in the part U in such manner that when the part V is swung outwardly or extended and strained by the hood these parts will maintain their proper position. In order to prevent the parts U U from moving inwardly under the pressure of the hood, a little stud Z is provided at or near the top of each of the side piece S S, against which the parts U U will be pressed when put under strain by the hood, as stated.

a is the hood, which is fastened in any suitable manner, as by screws *b b*, to the sides of the bars I I and across the front end of the frame, but is not attached to either the pivoted frame S S or the elastic frame U V. It is, however, adapted to be pulled up and over them when they are erected.

c is a rigid bar extending across the upper and forward edge of the hood, so as to properly stretch it transversely of the apparatus, and projecting downwardly from this bar are two pins *d d*, (see Figs. 1 and 2,) which are adapted to engage in holes made in the extreme ends of the elastic pieces V V of the folding frame.

e is an ordinary spring-catch which snaps over a pin *f* or equivalent device on the base-frame, so that these parts will be connected together during transportation or storage of the apparatus. I prefer to have them in duplicate, one on each side of the base-frame.

The operation is as follows: The apparatus, being collapsed, as shown in Fig. 1, is compact in shape and may be conveniently stored upon a shelf or in any other suitable place or put in a trunk or valise for transportation. When it is desired to use the apparatus, the upper part of the hood, as shown in Fig. 1, is lifted until the frame S S may be swung upwardly until it attains the position shown in Fig. 2, whereupon the two-part braces P P will sustain it in that position. Thereupon the elastic folding frames U V are extended. The hood, which at this time is at the rear or back of the frame S S, is pulled over forwardly, which compresses or puts under strain the elastic metallic frames or strips U V. The hood is pulled so far forward that the pins *d*, attached to the cross-bar *c* at the front or upper edge of the frame, may be entered into holes in the extremities of the elastic parts V V. When this is effected, the hood, as will be seen, is thoroughly distended and in position for use. Thereupon the catch *e* is disengaged from the pin *f*, and the upper part of the structure is tilted forwardly toward the operator and adjusted at the desired angle by the braces H, having pins G, which engage with the racks F, as already stated. The operator then adjusts the mirror and proceeds with his work. His utensils are placed in the racks L L, which are right before him as he works, and he can readily take such utensils as desired or change them without removing his hands or arms from the hood or changing his position, and if he desires to change the angle of the tilting frame he can do so readily by extending his arms to the right and left and sliding his hands along the sides of the base-frame until his fingers touch the projecting pins G, when he can adjust the frame as he desires by proper manipulation of these pins.

I call particular attention to two features of my invention which are not obvious until the apparatus is put to use. First, by reason of the fact that the upper forward part of the hood is supported by the elastic frame U V it is at all times maintained in a tense or stretched condition, so that its entire interior is made available for the operator and its appearance likewise improved as compared with certain old forms, which after awhile become flabby and unsightly. Second, because of this yielding support any pressure (as by the arms, shoulders, or head of the operator) against the sides or top of the hood will not result in tearing the same, as is liable to occur where the hoods are supported upon rigid frames. On the contrary, such pressures will be compensated for by the temporary yielding of the elastic frame. Also when the hood-supporting frame is collapsed the parts S S or the rigid portion thereof fold downwardly over the implement-racks L L, &c., made on the face of the tilting table, so that pencils and other utensils will be securely held against loss within the racks.

I do not limit myself to the details of construction shown and described, since it will be obvious to those who are familiar with such matters that modifications may be made therein without departing from the essentials of the invention.

Having described my invention, I claim—

1. The combination, in a retouching appa-

ratus, of a base-frame, an adjustable table hinged thereto, a collapsible hood attached along substantially its entire base-line to three sides of the said table, a rigid frame hinged to said table, and elastic extension-pieces adjustably attached to said hinged frame adapted to support and stretch the hood when extended, for the purposes set forth.

2. In a retouching apparatus the combination of a frame for the support of the negative, a flexible hood attached along substantially its entire base-line to three sides of said table, another frame hinged to the first-named frame and adapted to fold down over it, composed in part of elastic material whereby the hood when distended will be maintained under tension, for the purposes set forth.

3. In a retouching apparatus the combination of a base-frame, an adjustable table hinged thereto, braces for the adjustable table engaging with racks upon the base-frame, and laterally-extending pins connected with said braces whereby the same may be manipulated, for the purposes set forth.

4. In a retouching apparatus the combination of a base-frame, a mirror supported in said base-frame, an adjustable table hinged to the base-frame, a hood attached to three sides of the said table, implement-racks made on the face of the table within the hood, and a folding frame for the support of the hood when distended hinged to the adjustable table and adapted to fold down upon and close the implement-racks, for the purposes set forth.

5. The combination, in a retouching apparatus, of a base-frame, a mirror pivotally supported in said base-frame, an adjustable table hinged to the base-frame, a hood attached to three sides of the said table, implement-racks made on the face of the table within the hood, a frame for the support of the hood when distended which is hinged to the table and adapted to fold down upon the implement-racks and close the same, and an extension of said last-named frame made of elastic material whereby the hood when in use will be under tension, for the purposes set forth.

6. In a retouching apparatus the combination of a base-frame which extends around three sides only of a square, a mirror pivoted in said base-frame, an adjustable table hinged to the base-frame, a collapsible hood connected to the table, and an extendible frame for the support of the hood when distended, a part of which is formed of elastic material whereby the hood when in use will be maintained under tension, for the purposes set forth.

7. In a retouching apparatus the combination of a hood made of flexible material, a rigid frame hinged to the table of the apparatus, braces for the support of the rigid frame, and elastic devices connected with said rigid frame whereby the upper and front portions of the hood will be distended and stretched, for the purposes set forth.

Signed at New York, in the county of New York and State of New York, this 5th day of May, A. D. 1899.

WILLIAM H. LEWIS.

Witnesses:

DOUGLASS CONKLIN,

R. W. DONNS.