

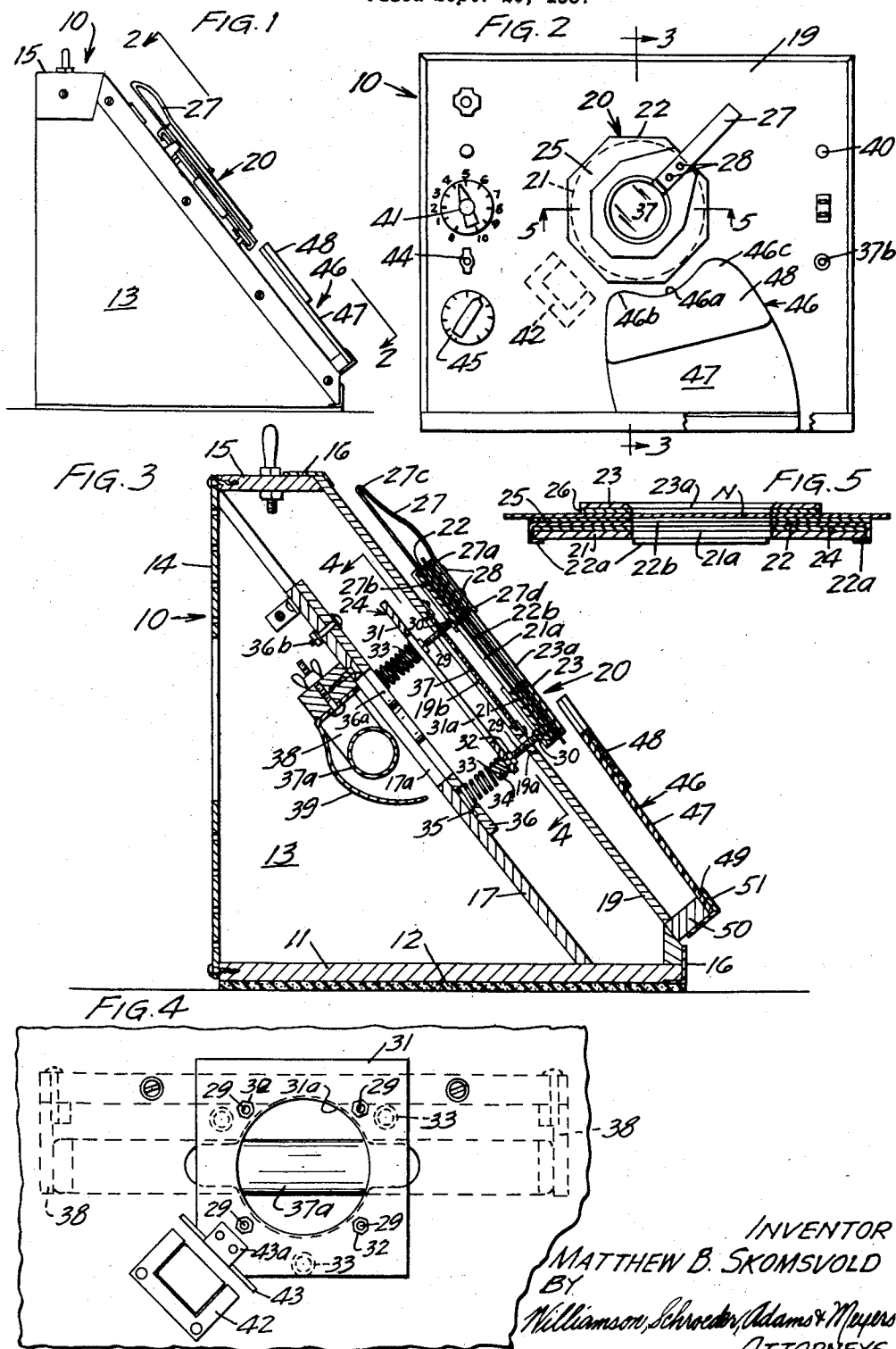
March 29, 1960

M. B. SKOMSVOLD

2,930,307

PHOTOGRAPHIC RETOUCHING DEVICE

Filed Sept. 20, 1957



INVENTOR
MATTHEW B. SKOMSVOLD
BY
Williamson, Schroeder, Adams & Meyers
ATTORNEYS

1

2,930,307

PHOTOGRAPHIC RETOUCHING DEVICE

Matthew B. Skomsvold, Minneapolis, Minn.

Application September 20, 1957, Serial No. 685,350

2 Claims. (Cl. 95—103)

This invention relates to a photographic retouching device.

An object of my invention is to provide a new and improved photographic retouching device of simple and inexpensive construction.

Another object of my invention is the provision in a photographic retouching device of a novel negative carrier which is movable so as to permit ready and easy reorienting of the negative with relation to direction of vibratory movement thereof and thereby permit the character of shading or retouching to be varied in one portion of the negative as compared to the shading or retouching of other portions of the negative.

Another object of my invention is the provision of a photographic retouching device wherein the negative carrier and hand rest are both movable in relation to each other so as to permit the operator to vary his working position in relation to the position of orientation of the negative and thereby permit him to readily and easily vary the type of shading and retouching lines produced on different portions of the negative.

These and other objects and advantages of my invention will more fully appear from the following description made in connection with the accompanying drawings wherein like reference characters refer to the same parts throughout the several views and in which:

Fig. 1 is a side elevation view of the invention;

Fig. 2 is an elevation view of the front of the retouching device, and taken on an inclined plane as indicated at 2—2 in Fig. 1;

Fig. 3 is a transverse section view of the invention taken on a substantially vertical plane as indicated at 3—3 in Fig. 2;

Fig. 4 is a detail section view taken on an inclined plane as indicated at substantially 4—4 in Fig. 3; and

Fig. 5 is a detail section view taken at substantially 5—5 in Fig. 2.

One form of the present invention is shown in the accompanying drawings and is described herein. The photographic retouching device is indicated in general by the numeral 10 and includes a housing which comprises the supporting structure for the operative portions of the machine. The housing has a bottom 11 with a resilient rubber pad 12 affixed thereon, a pair of generally triangular end panels 13, and rear and top panels 14 and 15 respectively. The housing is secured together as by screws and metallic binding strips 16. The supporting structure also includes an inclined frame plate or panel 17 which is supported in grooves 18 in the end panels 13.

The front panel 19 is secured to the housing and is disposed in an inclined plane so as to provide a working surface. A number of controls, hereinafter specifically defined are carried on the front panel 19.

A movable negative carrier is indicated in general by numeral 20 and includes a mounting plate 21, a negative plate 22, a negative clamping element or ring 23, and a yieldable supporting structure 24 for the plates. The mounting plate 21 has a circular outer edge and has an opening 21a in the central portion thereof to admit pas-

2

sage of light through the mounting plate. The negative plate 22 is substantially hexagonally shaped and has a plurality of clamping ears 22a wrapped around the peripheral edge of the mounting plate 21 in loose fitting relation so as to permit rotation of the negative in its own plane. The negative plate 22 is maintained in separation from the mounting plate 21 by means of a thin felt lamination 24 which is adhesively affixed to the negative plate 22. The negative plate 22 also has a thin felt lamination 25 on the upper side thereof to provide a soft surface upon which the negative will be laid so as to prevent damage to the negative. The negative plate 22 also has a central opening 22b centrally thereof and in alignment with the opening 21a to admit passage of light through the negative plate. The felts 24 and 25 are provided with similar openings therethrough.

The negative clamping element or ring 23 also has an opening 23a centrally therethrough in alignment with the openings 22b and 21a to provide access to the negative N. The clamping element 23 also has a felt lamination 26 on the bottom side thereof for engaging the negative clamped thereby.

Spring means are provided for interconnecting the clamping element with the negative plate, and in the form shown, such means include an elongated flat spring element 27 which is bent back upon itself and which is oriented generally radially of the negative plate 22 and the clamping element 23. The opposite end portions 27a and 27b are respectively affixed to the clamping element 23 and the negative plate 22 as by rivets 28. It should be noted that the outer looped end 27c of the spring 27 is disposed well away from the negative plate 22 to permit a negative which is substantially larger in area than the negative plate 22 to be carried on the negative plate and clamped by the clamping element 23. The spring 27 may then be used as a handle to turn the negative plate 22 and the clamping element 23 with respect to the mounting plate 21 without necessitating manual touching of the negative. It should be noted that the inner edge portion 27a of the spring 27 extends slightly inwardly of the opening 23a in the clamping element 23 to define a lip 27d which is engageable by the person's thumb for raising the clamping element 23 off the negative plate 22 and to facilitate ready and easy insertion and removal of a negative.

The mounting structure 24 for the negative carrier includes a plurality of bolts 29 having their heads countersunk into the mounting plate 21 and held therein by nuts 30. Bolts 29 extend through apertures 19a in the front panel 19 and are affixed to a stabilizing plate 31 disposed immediately below the panel 19 by means of nuts 32 and 34. The plate 31 is resiliently mounted on the frame plate 17 by means of three coil springs 33 which are affixed at their upper ends to the plate 31 by means of nuts 34 which are internally threaded to receive the ends of the bolts 29 and are externally threaded for threaded connection with the coil spring 33. The lower ends 35 of the springs 33 are straightened out and are secured to the frame plate 17 by an overlying retainer plate 36 which is secured to frame plate as by bolts 36b. The plate 31 interconnects the upper ends of all of the springs so as to produce identical movement of all the springs when the negative carrier is moved. Plate 31 also has an opening 31a through the central portion thereof and in alignment with the openings 21a, 22b and 23a to admit passage of light therethrough.

The front panel 19 also has an opening 19b in the central portion thereof in alignment with the openings 21a, 22b, 23a and 31a to admit passage of light therethrough, and the opening 19b is covered with a sheet of frosted glass 37 for diffusing the light passing outwardly there-

3

The frame panel 17 and the retaining plate 36 have identically shaped openings 17a and 36a therein which are in alignment with the openings 19b and 31a. The openings 17a and 36a have central, substantially circular portions, and elongated, diametrically opposed recessed portions arranged in horizontal position.

Immediately behind the plate 17, a light source is provided and in the form shown, such light source comprises a fluorescent bulb 37a which is mounted on conventional brackets 38 at the opposite ends thereof which are affixed as by screws to the frame plate 17. A reflector 39 is also carried by the brackets 38 for directing the light through the openings in the various panels in order to provide as much light at the negative as possible. The fluorescent light 37a is controlled by a switch button 37b on the front panel 19 and may of course be provided with a fuse 40 in the circuit. A rheostat 41 is also provided in connection with the light 37a to vary the intensity thereof.

Means are provided for vibrating the negative carrier, and in the form shown, such means include an electromagnet 42 fixed on the frame plate 17 adjacent one corner portion of plate 31. A magnetic plate 43 is affixed to the plate 31 as by rivets 43a and is positioned in closely spaced relation with the armature or core of the electromagnet 42 to be influenced by the magnetic field produced in the electromagnet 42. The electromagnet will be controlled by a switch 44 and will also be controlled by a variable autotransformer 45 to vary the current supplied to the electromagnet and thereby vary the length of magnetic field produced which controls the magnitude of shifting of the plate 43, plate 31 and the negative carrier 20. It is to be particularly noted that the negative carrier is vibrated in the direction of arrow A as seen in Fig. 2 or in a diagonal direction.

It has been observed that when a pencil is drawn over the negative end on the negative plate 22, a sharply defined saw-toothed shaped line is produced.

A hand rest 46 is carried by the supporting structure adjacent the negative carrier 20, and in the form shown, the hand rest 46 includes a rigid plate 47 having a resilient cushion 48 thereon. The lower edge of the rigid plate 47 projects into and is slidable in a groove or channel 49 which is defined by an elongated mounting block 50 affixed adjacent the bottom edge of panel 19, and a metallic strip 51. The hand rest 46 is slidable along the panel 19 from one end thereof to the other so as to be disposed in different positions in relation to the negative end on the carrier.

The hand rest 46 has an arcuately curved upper edge 46a which extends generally peripherally of the negative plate 22. A portion of the edge 46a, as at 46b extends obliquely in relation to the direction of vibrating movement as indicated by the arrow A. The hand rest 46 also is provided with an upwardly extending projecting portion 46c which, when the hand rest 46 is moved along in the groove 49, will overlie a portion of the negative carrier so that the operator's hand may be properly oriented for producing various characters of shading and retouching of the negative.

In operation, the clamping element 23 will be raised off the negative plate 22 and a negative of substantially any size may be inserted therebetween. The hand rest 46 may be slid to any position along the panel 19, but will most likely be placed in the position shown in Fig. 2 initially. The vibrator and light will be turned on and adjusted by the rheostats 41 and variable transformer 45. The operator will then move his pencil along the negative and the vibration of the negative carrier and the negative will cause production of shading or other retouching marks on the negative. Because of the differences in technique for producing some shade marks as compared to others, it is desirable to turn the negative to permit retouching in the desired manner on certain portions of the negative and retouching in another manner on other

4

portions of the negative. For instance in a portrait negative, it may be desirable that a negative vibrate in one direction when the lines in and around the face of the portrait are being retouched, and it may be desirable that the negative be reoriented when the hair is being retouched. The negative plate 22 may be easily turned by manipulating the spring 27 and the spring 27 may be swung beneath a hand rest 46 in order that the negative may be reoriented through a complete 360 degree revolution. For certain types of work, it may be desirable that the inwardly projecting portion 46c of the handrest 46 be shifted into overlying relation with respect to the negative plate so that the operator may rest his hand in close proximity with the negative. In addition, it is also desirable that the hand rest be shiftable to various positions in relation to the negative carrier so that the pencil in the operator's hand may be oriented and maintained in a relatively stationary position for retouching certain portions of the negative in the desired manner and so that the pencil may be properly oriented in the operator's hand in relation to the direction of vibrating movement. The rotatability of the negative plate and clamping element and the shiftable of the hand rest facilitate a multiplicity of different arrangements of the operator's hand and pencil and the movements thereof in relation to the orientation of the negative in the carrier and in relation to the direction of movement as indicated by the arrow A of the negative carrier.

It will therefore be seen that I have provided a new and improved photographic retouching device wherein the negative on the carrier may be readily and easily reoriented in relation to the direction of vibrating movement thereof, and the hand rest upon which the operator of the machine places the heel of his hand may be adjusted so as to facilitate application of the pencil onto the negative from the desired angle or position so that a character of shading or retouching of the negative may be varied in the precise manner to obtain the desired results.

It will, of course, be understood that various changes may be made in the form, detail and arrangement and proportion of the parts without departing from the scope of my invention which consists of the matter described herein and set forth in the appended claims.

What is claimed is:

1. A photographic retouching device, comprising a supporting structure, a front panel on the supporting structure and having a light pervious central portion, a negative carrier including a mounting plate overlying the panel and having a light pervious portion aligned with the central portion of the panel, said carrier also including a negative plate overlying the mounting plate and having a light pervious portion aligned with the light pervious portions of the mounting plate and panel, said negative plate being rotatably connected to the mounting plate for rotation in a plane, a negative clamping element overlying the negative plate and having an opening there-through aligned with said light pervious portions, resilient means connecting the clamping element to the mounting plate and urging said element toward the plate to hold the negative therebetween, mounting means on the support structure and projecting through the panel and connected with the mounting plate, means vibrating the negative carrier in the plane of the negative plate, and a hand rest on the supporting structure and having an inner edge adjacent the negative and spaced therefrom in a direction away from the panel, said inner edge extending generally peripherally along a portion of the negative plate and said edge having portions extending generally obliquely of the direction of vibrating movement of the negative carrier whereby to facilitate supporting of the operator's hand in various positions in relation to the orientation of the negative and in relation to the vibrating movement of the negative carrier and thereby permit the character

5

of shading or retouching to be easily changed and controlled.

2. A photographic retouching device, comprising a supporting structure, a front panel on the supporting structure and having a light pervious central portion, a negative carrier including a mounting plate overlying the panel and having a light pervious portion aligned with said central portion of the panel, said carrier also including a negative plate overlying the mounting plate and having a light pervious portion aligned with the light pervious portions of the mounting plate and panel, said mounting plate being rotatably connected to the mounting plate for rotation in a plane, a negative clamping element overlying the negative plate and having an opening therethrough aligned with said light pervious portions, resilient means connecting the clamping element to the mounting plate and urging said element toward the plate to hold the negative therebetween, mounting means on the support structure and projecting through the panel and connected to the mounting plate, said mounting means including yieldable elements to permit movement of the negative carrier, means vibrating the negative carrier in the plane of the negative plate, and a hand rest spaced

6

outwardly of the negative plate from the panel and being movably mounted on the supporting structure for substantially linear shifting movement along the panel and adjacent the negative plate, said hand rest having an inner edge defining an inwardly extending projection adapted to overlie the negative plate when the rest is shifted along the panel and thereby permit the operator's hand to be rested above the negative to easily change the character of the shading or retouching of the negative, whereby to facilitate movement of the point at which the operator's hand is supported in relation to the direction of vibrating movement of the negative carrier and in relation to the orientation of the negative held between the negative plate and the clamping element and thereby permit the character of shading or retouching of the negative to be varied.

References Cited in the file of this patent

UNITED STATES PATENTS

2,215,462	Davidson	Sept. 24, 1940
2,422,174	Adams	June 17, 1947