H. P. DEXHEIMER & W. H. CLIFFORD.

ILLUMINATING APPARATUS.

APPLICATION FILED JUNE 7, 1913.

1,109,206.

Patented Sept. 1, 1914.

2 SHEETS—SHEET 1.

Fig. 1.

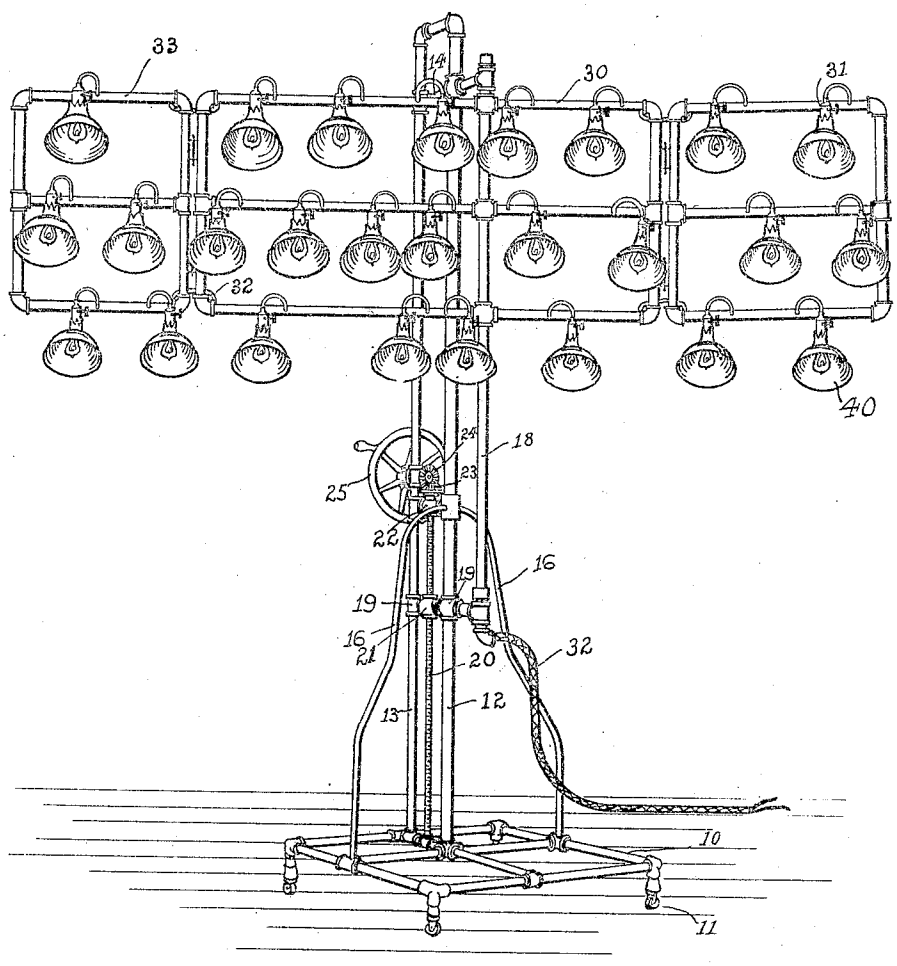
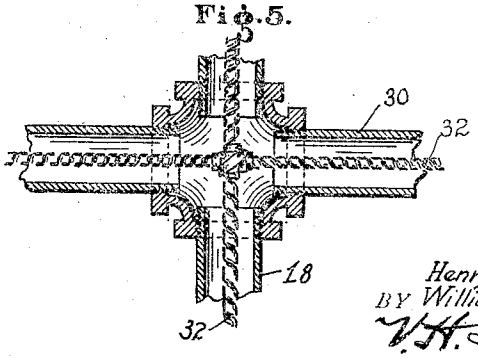


Fig. 5.



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2 SHEETS—SHEET 2.

Fig. 2.

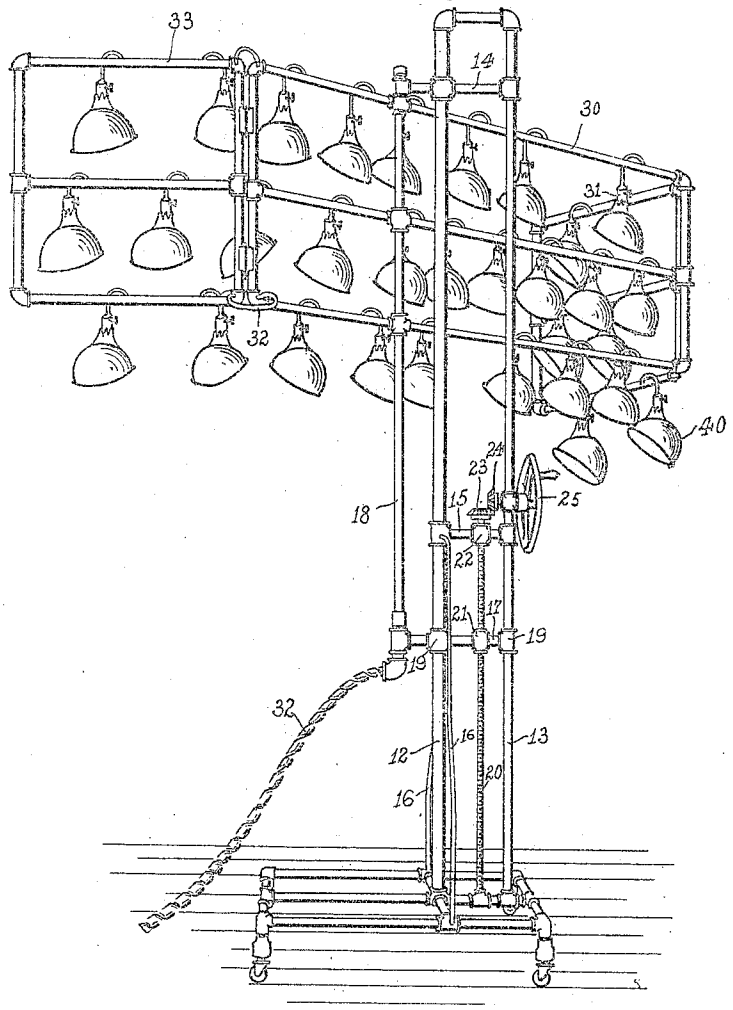


Fig. 3.

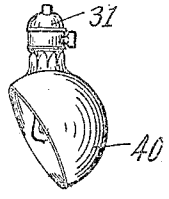
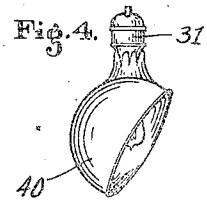


Fig. 4.



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ILLUMINATING APPARATUS.

1,107,206. Specification of Letters Patent. Patented Sept. 1, 1914.

Application filed June 7, 1913. Serial No. 772,412.

To all whom it may concern:

Be it known that we, HENRY P. DEXHEIMER and WILLIAM H. CLIFFORD, citizens of the United States, and residents of Marion, county of Grant, and State of Indiana, have invented a certain new and useful Illuminating Apparatus; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

The object of this invention is to furnish sufficient and suitably disposed light for use in photography.

One feature of the invention consists in providing a number of electric lamps with rotatable shades which are longer on one side than the other, whereby any of the shades may be quickly turned in position to hide the light or to uncover the light. With an apparatus provided with a large number of lamps, the operator can, by turning the shades, readily obtain the desired light and shade.

Another feature of the invention consists in providing a horizontally disposed frame in which a large number of lamps are mounted, said frame being horizontally oscillatory and also vertically adjustable and combining with said frame means for supplying electric current to the lamps.

Still another feature of the invention consists in providing such a horizontal lamp frame in sections hinged together so that the main section can be oscillated horizontally and each hinged section can be adjusted with reference to the other parts of the frame in order to secure the desired results.

The full nature of the invention will be understood from the accompanying drawings and the following description and claims.

In the drawings, Figure 1 is a front elevation of the device. Fig. 2 is a perspective view thereof from the rear. Fig. 3 is an elevation of a lamp and shade on an enlarged scale. Fig. 4 is the same with shade turned half way about. Fig. 5 is a central vertical transverse section through the junction between a vertical and horizontal pipe through which the current conductors extend, parts being broken away.

There is provided in the form therein shown to illustrate the invention, a base frame 10 made of metal tubes and carried on casters 11, whereby the device may be rolled from one part of a room to another part thereof. From said frame two uprights 12 and 13 extend rigidly, said uprights being herein shown as tubes connected at their upper ends and there is also an intermediate connection 15 which is fixed. There are lateral braces 16 extending down to the lateral portions of the base frame.

There is a sliding frame consisting of the horizontal portions 14 and 17 and a vertical tube 18 horizontally oscillatable with them. The rod or tube 17 is vertically guided by the uprights 12 and 13 as there are tubular portions 19 connected with the tube 17 which envelop and slide on the uprights 12 and 13. The vertical movement of this movable frame is caused by a screw 20 which has a bearing at its lower end in the base frame and screws through an internally threaded member 21 of the tubes 17 and has bearing at its upper end in a bearing 22 connected with the tube 15. The screw is actuated by a beveled gear 23 on the screw and a beveled gear 24 on a horizontal shaft mounted on the upright 13 and driven by a hand lever 25. By this means the movable frame is vertically adjustable readily and is guided by the uprights and is limited in its downward movement by the base frame and in its upward movement by the cross bar or tube 15.

A main horizontal lamp frame 30 is secured to a vertical tube 18 of the movable frame and is horizontally oscillatable on said tube. At intervals on said tube electrical lamps 31 are secured, and electrical connections for said lamps lead from a conductor 32 to the lower end of the tube 18 and up through that tube to the horizontal bars of the frame 30 to the various lamps. Hence, neither the vertical nor oscillatory movement of the parts interfere with the electrical circuit.

On each end of the main lamp frame 30 there is hinged an additional lamp frame 33 which can be turned horizontally to any angle with reference to the main lamp frame 30 and lamps 31 on the hinged frames are supplied with current by a conductor passing through the tubes of said frame from the main frame.

On the lamp globe there is a lamp shade 40 with an opening in the upper end thereof through which a reduced upper portion of the lamp globe protrudes and the lower edge

of the lamp shade is cut away at an angle of about 45° from a vertical or horizontal line through the lamp, so that when the globe is turned in one position, the light will be obscured, while in an opposite position, the light will shine. These shades are readily turned by hand and, therefore, with a large number of lamps and shades and with the lamp frames horizontally and vertically adjustable as heretofore indicated, any desired light or shade or density of light or shade may be obtained and may be directed upon any side of the subject being photographed.

The invention is:

1. Illuminating apparatus including a stationary frame having two uprights, a movable frame slidable on said stationary frame, means connected with the stationary frame for vertically moving the movable frame, and a lamp frame mounted on the movable frame so as to be horizontally oscillatable.

2. Illuminating apparatus including a stationary frame having two uprights, a movable frame slidable on said stationary frame, means connected with the stationary frame for vertically moving the movable frame, a lamp frame mounted on the movable frame so as to be horizontally oscillatable, lamps on said lamp frame, and means passing through said movable and lamp frames for maintaining lights in said lamps.

3. Illuminating apparatus including a stationary frame having two uprights, a frame vertically movable on said uprights including a vertical tube horizontally oscillatable, a lamp frame formed of tubes and secured to said vertical tube, lamps on said lamp frame, and means passing through said vertical tube and lamp frame tubes for maintaining lights in said lamps.

4. Illuminating apparatus including a base frame, a pair of uprights extending therefrom connected at their upper ends, an intermediate cross bar secured to said uprights, lateral braces extending from said cross bar to the base, a screw having bearings in said cross bar and the brace, means for driving the screw, a frame mounted on said uprights so as to be vertically slidable, an operative connection between said screw and said movable frame whereby the latter is elevated or lowered, and a lamp frame mounted on said movable frame so as to be horizontally oscillatable.

5. Illuminating apparatus including a stationary frame having two uprights, a movable frame slidable on said stationary frame, means connected with the stationary member for vertically moving the movable frame, a lamp frame mounted on the movable frame so as to be horizontally oscillatable, and additional lamp frames hinged to said main lamp frame so that they may be adjusted to any angle with reference thereto.

6. Illuminating apparatus including a stationary frame having two uprights, a frame vertically movable on said uprights including a vertical tube horizontally oscillatable, a lamp frame formed of tubes and secured to said vertical tube, lamps on said lamp frame, means passing through said vertical tube and lamp frame tubes for maintaining lights in said lamps, additional lamp frames hinged to said main frame and formed of tubes, and means passing from said main lamp frame through the tubes in said hinged frames for maintaining lights in the lamps thereon.

7. Illuminating apparatus including a stationary frame having two uprights, a movable frame slidable on said stationary frame, means connected with the stationary member for vertically moving the movable frame, a lamp frame mounted on the movable frame so as to be horizontally oscillatable, additional lamp frames hinged to said main lamp frame so that they may be adjusted to any angle with reference thereto, lamps on said frames, and individual adjustable shades for said lamps whereby the desired light and shade may be obtained by the combined adjustment of the various lamp frames and shades.

In witness whereof, we have hereunto affixed our signatures in the presence of the witnesses herein named.

HENRY P. DEXHEIMER.
WILLIAM H. CLIFFORD.

Witnesses:
J. A. HARDMAN,
CHAS. E. NEAL.