No. 776,746. PATENTED DEC. 6, 1904.

D. R. KINSEY.

PHOTOGRAPHIC PRINTING CABINET.

APPLICATION FILED JULY 16, 1904.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 6.

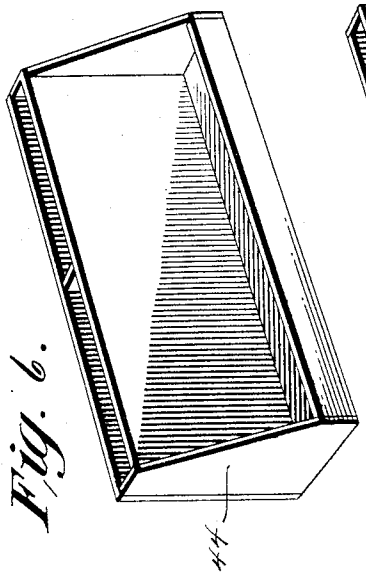


Fig. 7.

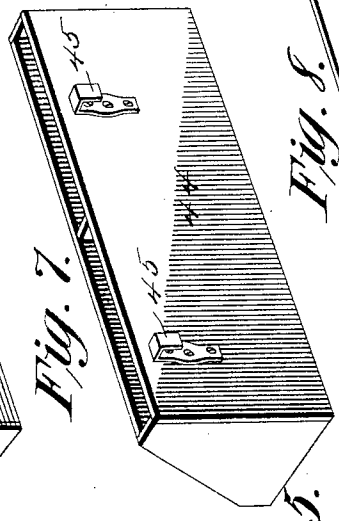


Fig. 8.

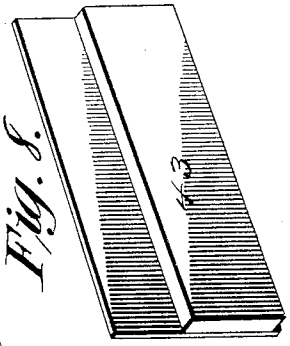


Fig. 5.

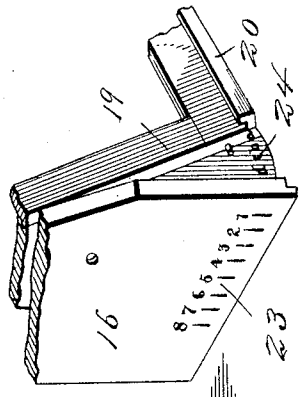
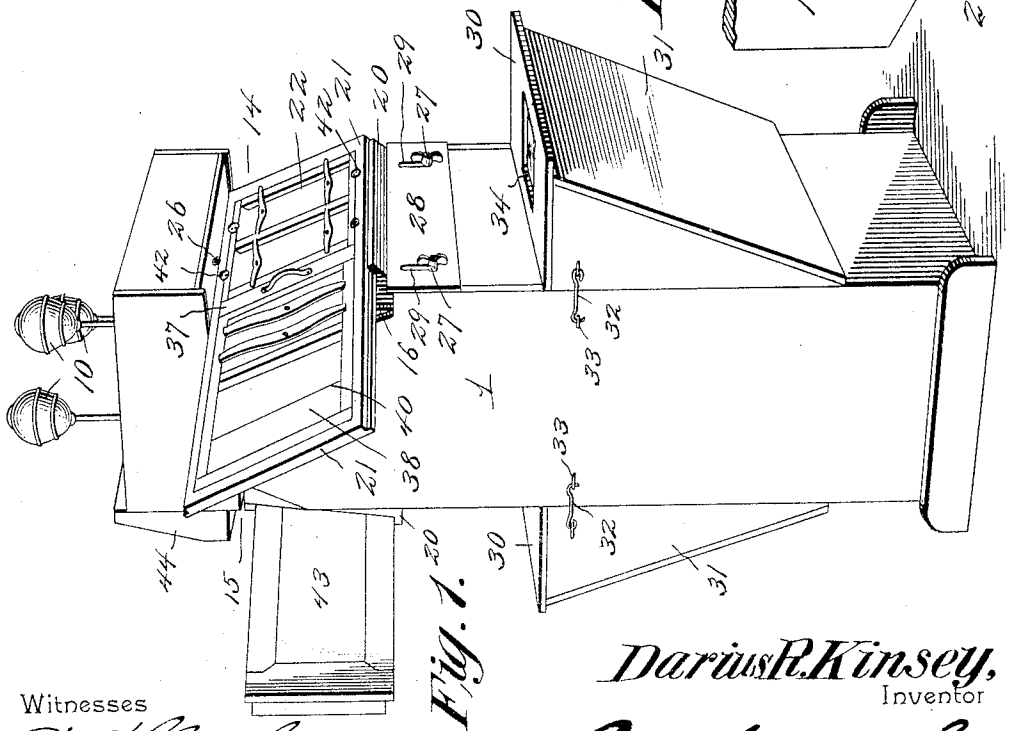


Fig. 1.



Witnesses

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PHOTOGRAPHIC PRINTING CABINET.

APPLICATION FILED JULY 16, 1904.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

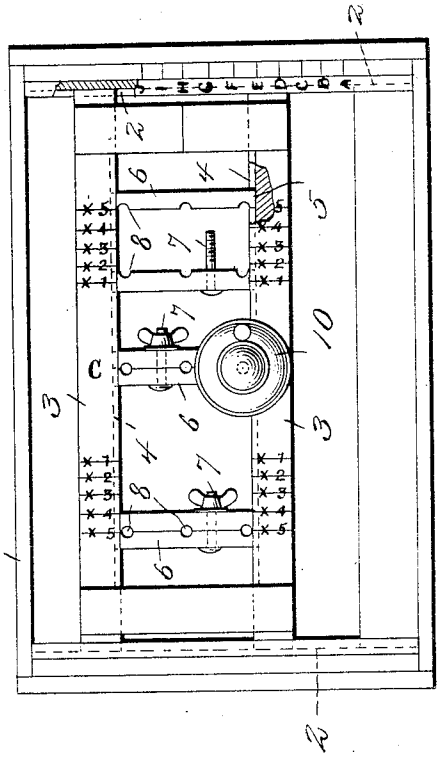


Fig. 4.

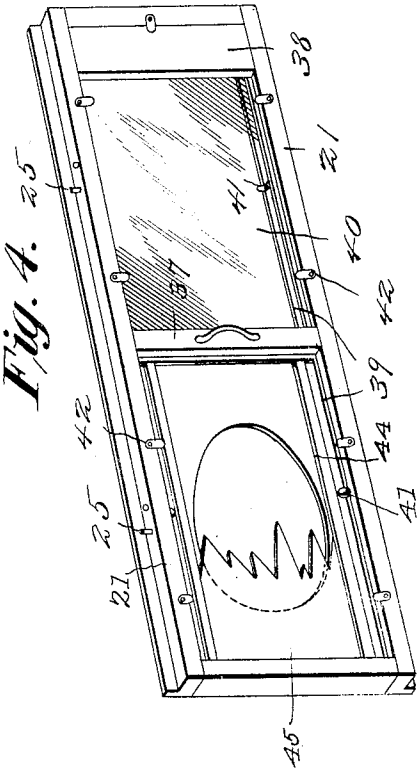
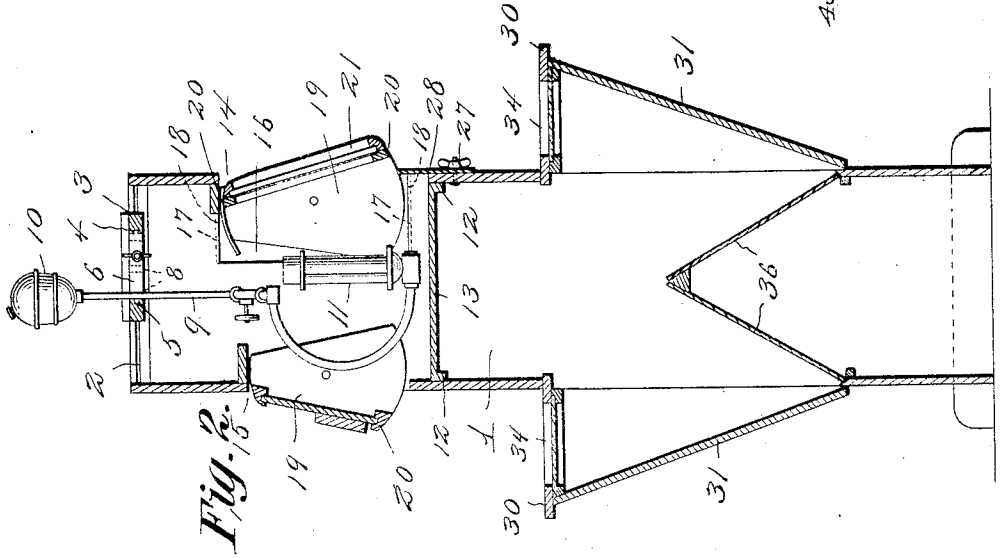


Fig. 2.



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No. 776,746. Patented December 6, 1904.

UNITED STATES PATENT OFFICE.

DARIUS REYNOLDS KINSEY, OF SEDRO WOOLLEY, WASHINGTON.

PHOTOGRAPHIC-PRINTING CABINET.

SPECIFICATION forming part of Letters Patent No. 776,746, dated December 6, 1904.

Application filed July 16, 1904. Serial No. 216,854. (No model.)

To all whom it may concern:

Be it known that I, DARIUS REYNOLDS KINSEY, a citizen of the United States, residing at Sedro Woolley, in the county of Skagit and State of Washington, have invented a new and useful Photographic-Printing Cabinet, of which the following is a specification.

My invention relates to photographic-printing cabinets, and has for its objects to produce a comparatively simple inexpensive device of this character adapted for the use of artificial light in connection with the printing operation and one wherein the printing-frames may be readily adjusted toward or from the light and at the proper angle relative to the latter.

Further objects of the invention are to adjust the lamps or other light-supplying devices to the proper relative positions, to adjust the printing-frame-carrying slide readily and accurately to its proper printing position, and to provide for obtaining a uniform exposure of negatives of varying degrees of density.

With these and other objects in view the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a perspective view of my improved cabinet. Fig. 2 is a vertical longitudinal section centrally therethrough. Fig. 3 is a top plan view of the cabinet on a larger scale. Fig. 4 is a perspective view of the printing-frame-holding slide. Fig. 5 is a detail perspective view of a portion of the rocking frame and one of its supporting-heads. Figs. 6 and 7 are perspective views of the glass-holding receptacle. Fig. 8 is a perspective view of one of the parts.

Referring to the drawings, 1 designates the cabinet, having adjacent to its top a pair of oppositely-disposed inner horizontal grooves or guideways 2, which receive tongues or guides provided on the ends of a supporting-frame 3, the parallel bars of which have upon their inner faces guide-grooves 4 for the reception of tenons 5, formed upon the ends of clamping members or blocks 6, arranged in pairs normally maintained in clamping position by means of clamping-bolts 7.

The clamping-blocks 6, which are arranged in pairs, have formed in their inner meeting faces semicircular recesses, which conjointly produce vertical openings 8, formed between the blocks for the reception of feed pipes or tubes 9, leading from supply-tanks or reservoirs 10 to suitable lamps 11, carried at the lower ends of the tubes, there being provided upon the end walls of the cabinet oppositely-disposed cleats 12, adapted to sustain a removable shelf 13, constituting a support for stand-lamps when it becomes necessary or desirable to employ the latter. It is to be observed that each pair of blocks 6 is provided with a series of three openings 8, thereby permitting of the lamps 11 being adjusted toward or from either side wall of the cabinet and, furthermore, that the clamping-blocks are adjustable longitudinally of the frame 3 toward and from each other, whereby the light radiated from the lamps or other light-supplying devices may be more or less concentrated.

The cabinet has formed in its side walls in line with the lamps 11 suitable openings 14 15, in the former of which there is arranged for sliding movement in a direction transversely of the cabinet and toward and from the lamps members or heads 16, provided at their upper and lower ends with guides or flanges 17, designed to travel in guideways 18 in the form of horizontally-grooved cleats attached to the inner end walls of the casing, there being suitably pivoted to the end members 16 a rocking frame 19, having upper and lower flanges or ways 20, provided with suitable grooves for the reception of tongues formed upon the side edges of a longitudinally-slidable carrying-frame 21, which in practice receives the printing-frame or frames 22. The members 16, which are adjustable for approaching the printing frames toward and from the light, and the rocking frame 19, which in practice may be manipulated for gaining the angular position of the plates relative to the light, are provided, respectively, with appropriate graduations 23 24, while the slide 21 has in its normally upper edge and arranged at appropriate intervals sockets for the reception of pins 25, designed to contact with a stop or abutment 26 upon the adjacent portion of the frame 19 to limit the movements of the slide.

The opening 15 has pivoted therein a rocking frame 19, similar in construction and operation with that just described and adapted for the reception of a carrier-slide 21, which receives and sustains the printing-frames in printing position, while the frame 19 permits of the negatives being brought to the proper angular position relative to the light, attention being directed to the fact that in the present instance the adjusting-heads 16 are omitted and that the lamps may be adjusted toward and from the plates or negatives sustained by the rocking frame, as circumstances require.

For wholly closing the opening 14 beneath the rocking frame 19 to exclude natural light from the lamp-chamber as circumstances require I secure to the front side wall of the cabinet by means of bolts 27 an adjustable cut-off plate or shutter 28, having therein transverse slots 29, which receive the bolts 27 and permit of the proper movement of the plate.

Arranged upon the side walls of the cabinet and at suitable points beneath the swinging frames 19 are outwardly-projecting horizontal shelves 30, each sustained by and forming the top of a removable portion or section 31, retained in place by hooks 32, designed for engagement with eyes 33, carried by the end walls of the cabinet, the outer side faces of the sections 31, which are disposed, respectively, upon opposite sides of the cabinet for closing corresponding openings therein, being inclined downwardly and inwardly from the top to the bottom of the sections. The shelves 30, upon which the printing-frames rest while the prints are being changed, are provided with rectangular openings 34, having arranged therein appropriately-colored glass or other material, while within the cabinet there is arranged centrally between the sections 31 a horizontal rod or support 35. In practice one of the sections 31 may be removed and the opening thereby produced in the cabinet properly arranged over the window of the dark room, through which latter the light will enter and through the medium of a properly-inclined reflector 36 by the support 35, sustained within the cabinet, be directed onto the glass or the like within the opening 34, over which, as before stated, the printing-frame is in practice arranged.

The slides 21 each consist, preferably, of an open rectangular frame having at its longitudinal center a division strip or partition 37, whereby the frame is divided into two sections, each adapted to receive one or more printing-frames 22, which may be arranged either side by side or end to end, as illustrated in Fig. 1, there being provided filling members or frames 38, whereby the printing-frames may be properly fitted within the slides. Each slide has inwardly-projecting marginal flanges or ledges 39, forming seats or bearings for ground glasses 40, which in practice are arranged between the printing-frames and the light, these glasses 40 being held removably in place by means of pivoted buttons 41. The slide-frames 21 are of such thickness as to accommodate three layers of glass 40 between the printing-frames and light, if such number be necessary, whereby provision is made for obtaining a uniform exposure of the prints irrespective of the density of the negatives. Each of the plates of glass 40 is retained in place by a pair of the buttons 41, and the slide-frame is so mortised for the reception of the buttons that the latter will occupy different relative planes for engagement with one or more sheets of the glass. The filling members 38 are preferably held in place by pivoted buttons 42.

When it is desired to effectually close one of the openings 14 or 15, the corresponding slide 21 may have seated therein a non-transparent closure 43, such as is illustrated in Fig. 8, or when it is desired in practice to shade certain portions of the negative while being printed a vignette-holder 44, a portion of which is shown in Fig. 4, may be seated upon the ledges 39 within the slide 21 and in turn receive a vignette 45.

Adapted for suspension from the top of the cabinet 1 and above the opening 15 is a receptacle 46, having compartments for the reception of glass plates, &c., there being attached to the back of the receptacle suitable hooks or devices 47, by which it may be suspended.

From the foregoing it is apparent that I produce a comparatively simple inexpensive device admirably adapted for the attainment of the ends in view, it being understood that minor changes in the details of construction herein set forth may be resorted to without departing from the spirit of the invention.

Having thus described the invention, what is claimed is—

1. In a device of the class described, a cabinet, a light-radiating medium arranged therein, and a printing-frame holder pivotally connected with the cabinet and adapted for angular adjustment relative to the light.

2. In a device of the class described, a cabinet, supporting members slidably connected therewith, and a printing-frame holder pivotally connected with and carried by the members.

3. In a device of the class described, a cabinet provided with an opening, a rocking frame pivotally mounted within the opening and provided with guideways, and a frame-holder longitudinally slidable within the guideways.

4. In a device of the class described, a cabinet provided with an opening, a rocking frame pivotally mounted within the opening, and a frame-holder slidably connected with the rocking frame.

5. In a device of the class described, a cabinet having an opening, supporting members

slidably mounted within the opening for adjustment toward and from the cabinet, a rocking frame carried by the members, and a printing-frame holder slidably connected with the rocking frame.

6. In a device of the class described, a cabinet, a pair of coöperating clamps adjustably sustained within the cabinet, and a lamp carried by the clamps.

7. In a device of the class described, a cabinet, a pair of coöperating clamps adjustably sustained thereby and provided with a plurality of seats, and a lamp designed to be carried by the clamps within any one of the seats.

8. In a device of the class described, a cabinet, a supporting member adjustably sustained within the cabinet, and a lamp operatively connected with the support, the lamp being adapted for adjustment in a direction longitudinally of the support.

9. In a device of the class described, a cabinet, a reflector disposed therein, a detachable section forming a part of the cabinet and having an upper shelf, and a translucent panel arranged in said shelf.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

DARIUS REYNOLDS KINSEY.

Witnesses:

HORACE H. HINDS,

WM. H. PERRY.