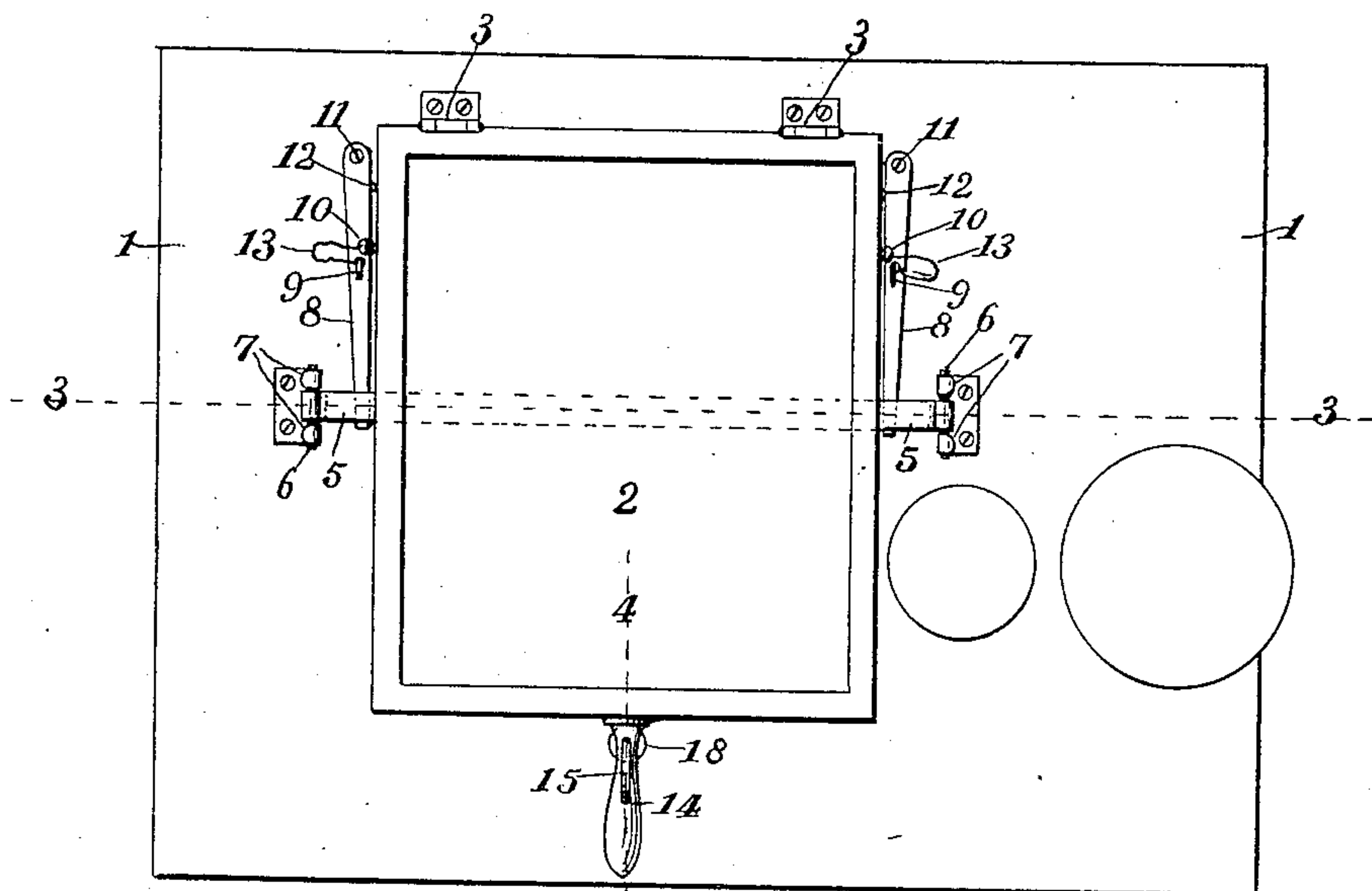


No. 862,235.

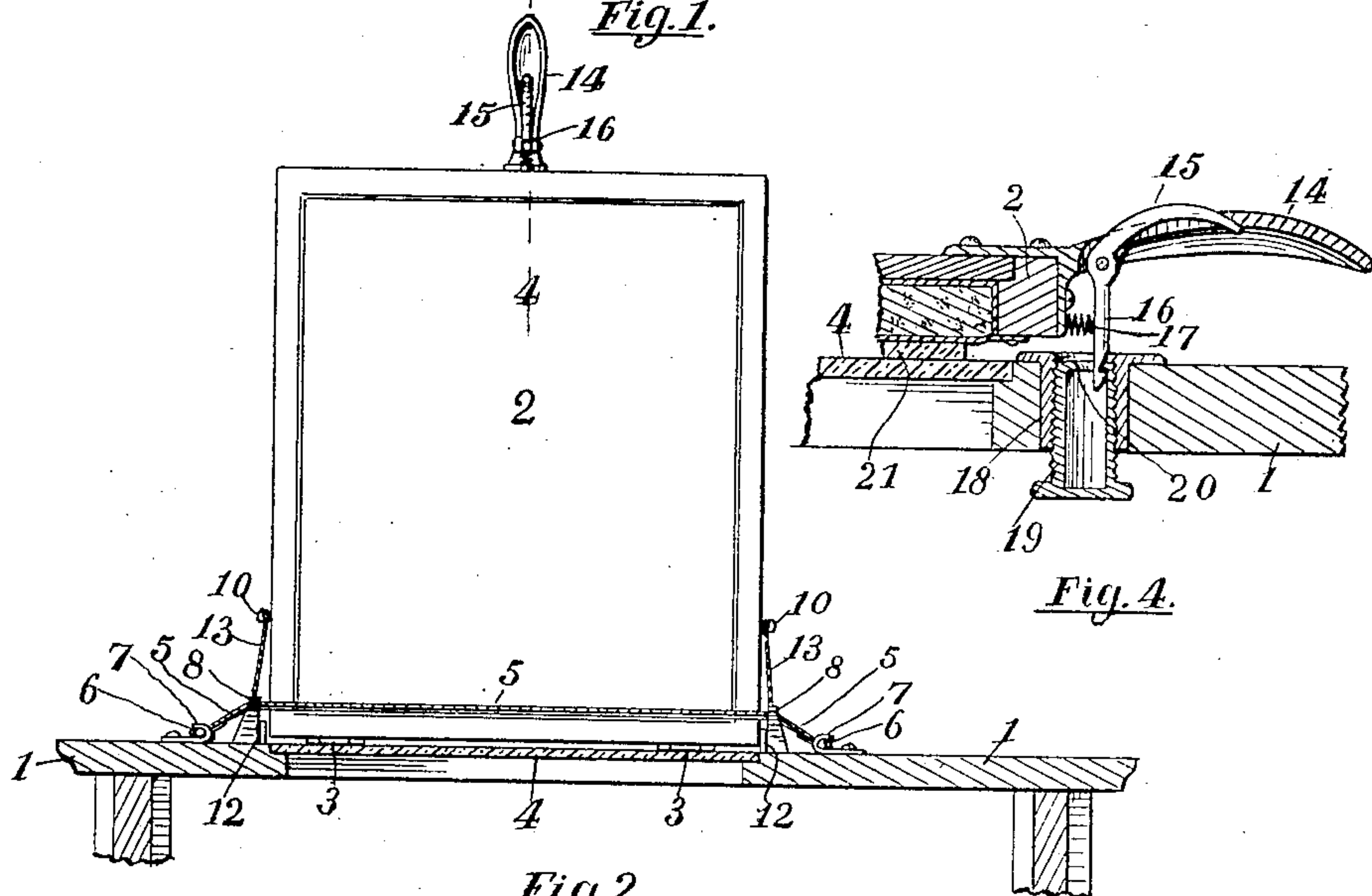
PATENTED AUG. 6, 1907.

J. C. CALHOUN.  
PHOTOGRAPH PRINTING MACHINE.

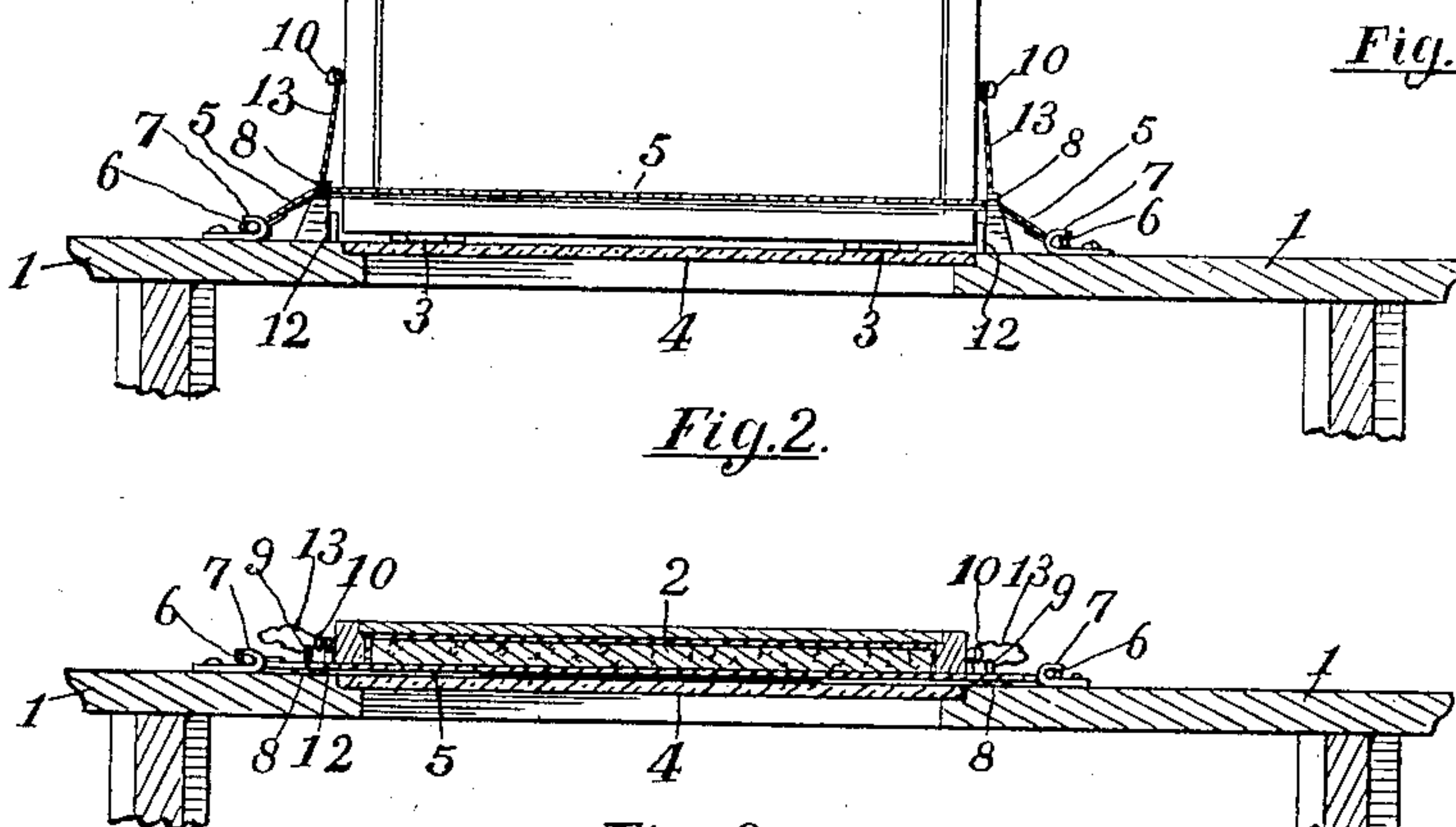
APPLICATION FILED SEPT. 17, 1906.



*Fig. 1.*



*Fig. 4.*



*Fig. 3.*

Witnesses

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# UNITED STATES PATENT OFFICE.

JOSEPH C. CALHOUN, OF HOLLAND, MICHIGAN, ASSIGNOR OF ONE-HALF TO GEORGE P. HUMMER, OF HOLLAND, MICHIGAN.

## PHOTOGRAPH-PRINTING MACHINE.

No. 862,235.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed September 17, 1906. Serial No. 334,943.

To all whom it may concern:

Be it known that I, JOSEPH C. CALHOUN, a citizen of the United States of America, residing at Holland, in the county of Ottawa and State of Michigan, have  
5 invented certain new and useful Improvements in Photograph-Printing Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and  
10 use the same.

My invention relates to improvements in photographic printing machines and more particularly to such machines as shown in my co-pending application Serial Number 317,275, filed May 17, 1906, for photographic printing machines, and its object is to provide  
15 improved means for holding the paper in place upon the negative when opening and closing the device; to provide for vertically adjusting the pad to various thicknesses of negatives; and to provide the device  
20 with certain new and useful features hereinafter more fully described and particularly pointed out in the claims, reference being had to the accompanying drawing, in which:

Figure 1. is a plan view of a device embodying my  
25 invention as it appears when closed; Fig. 2. the same shown partially in section as it appears when open; Fig. 3. a vertical section of the same on the line 3—3 of Fig. 1.; and, Fig. 4. an enlarged detail (taken on the line 4—4 of Figs. 1 and 2) of the means for adjust-  
30 ing the device to various thicknesses of negatives.

1 represents the table forming the top of the case in which the lights are located; 2 an elastic pad for holding the paper in place upon the negative and hinged at one side as at 3 beneath which pad is an opening in  
35 the top 1 closed by a horizontally arranged transparent plate 4, preferably of glass. Extending across the surface of this plate 4 is an elastic tape 5 to each end of which is attached a transverse rod 6 to engage hooks 7 fixed on the surface of the table 1, at each side of the  
40 pad and spaced apart therefrom, whereby the respective ends of the elastic tape are detachably fixed in place. Adjacent to the respective sides of the pad 2 and having one end extending beneath this tape 5 are arms 8, which arms are vertically movable at the ends  
45 beneath the tape and are secured to the top of the table by screws 11. These arms may be flexible, or the screws may be left sufficiently slack to form pivotal attachments for the arms. Between these arms and the pad are upwardly projecting pins 12 to prevent  
50 the arms from sliding inward beneath the pad when raised.

To staples 9 in the arms 8 are attached one end of cords 13, the other end of said cords being attached to

screws 10 inserted in the frame of the pad 2. These cords are of such length that when the pad is turned  
55 upon the hinges 3 to somewhat beyond the vertical position, the cords will support the pad and the weight of the pad will raise the arms and thus elevate the elastic tape 5 away from the plate 4 a sufficient distance to permit inserting beneath the tape a negative  
60 and the photographic paper placed thereon. As the pad is lowered to place the earliest movement of the pad will lower the arms 8 and thus permit the tape 5 to engage the photographic paper and securely hold the same in place while finally closing the pad down  
65 upon the same. To securely hold the pad down upon the paper and to adjust the same to various thicknesses of negatives, I provide a handle 14 for manipulating the pad in which is mounted a pivoted hook 16 extending downward and provided with a thumb lever  
70 15, by which the same may be released, and in the table top 1, I insert an internally threaded bushing 18 in which is a vertically adjustable screw threaded tube 19 having an inwardly projecting flange 20 to engage the hook 16. 17 is a spring which yieldingly  
75 holds the hook in such engagement, and the end of the lever 15 engages the rear wall of the opening in the handle and thus limits the movement of the hook when disengaged. By vertically adjusting the tube 19, the pad will be adjusted high or low for the thick-  
80 ness of the various negatives.

What I claim is:

1. The combination of a table, a transparent panel in the table, a pad opposite said panel and hinged to the table, an elastic tape extending across the panel and fixed  
85 at its respective ends, and means for connecting the tape and the pad, whereby the tape is raised when the pad is turned upon its hinges to open position.

2. The combination of a table, a transparent panel in the table, a pad opposite said panel and hinged to the table, an elastic tape extending across the panel, means  
90 for securing the ends of the tape to the table, arms having vertically movable ends extending beneath the tape and means for connecting the arms to the pad whereby the tape is raised when the pad is turned to open position.

3. The combination of a table, a transparent panel in the table, a pad opposite the panel and hinged to the table, an elastic tape extending between the panel and pad and outward therefrom at each end, hooks on the table, transverse pins in the ends of the tape, an arm at each side of  
100 the pad and having one end beneath the tape and the other end attached to the table and cords connecting the arms and pad, whereby the pad is supported in open position and the tape raised away from the panel.

4. The combination of a table, a transparent panel in  
105 the table, a pad opposite the panel and hinged to the table at one side, a handle on the other side of the panel and having a slot therein, a hook pivoted in the slot and extending downward, a thumb lever on the hook and projecting upward within the slot, and a vertically adjustable  
110 detent in the table to engage the hook.



5. The combination of a table, a transparent panel in the table, a pad opposite the panel and hinged to the table at one side, a handle on the other side of the pad and having a longitudinal slot therein, a hook pivoted in the handle and extending downward therefrom, a thumb lever on the hook said lever being movable in the slot and projecting therefrom and also engaging the end wall of the slot at its free end, a spring engaging the hook, and a vertically adjustable detent in the table to engage the hook.
- 10 6. The combination of a table, a transparent panel in the table, a pad opposite the panel and hinged to the table at one side, a pivoted hook attached to the pad at the other side, a spring engaging the hook, an internally threaded bushing in the table, a threaded tube adjustable in the
- 15 bushing, an inwardly projecting flange in the tube to engage the hook, and means for manually releasing the hook from the flange.
- 20 7. The combination of a table, a transparent panel in the table, a pad opposite the panel and hinged to the table at one side, a handle on the opposite side of the pad and having a longitudinal slot, a hook pivoted in the slot, a spring engaging the hook, a lever on the hook and movable in the slot, an internally threaded bushing in the table, an externally threaded tube in the bushing, and an inwardly
- 25 projecting flange in the tube to engage the hook.
8. The combination of a table, a transparent panel in the table, a pad opposite the panel and hinged to the table at one side, an elastic tape extending between the panel and pad, means for securing the ends of the tape to the

table, means for connecting the tape and the pad, a handle on the pad, a hook pivoted to the handle, a lever to release the hook, and a vertically adjustable detent to engage the hook.

9. The combination of a table, a transparent panel in the table, a pad opposite the panel and hinged to the table at one side, a handle on the opposite side of the pad and having a longitudinal slot, a hook pivoted in the slot, a lever on the hook, a spring engaging the hook, a vertically adjustable detent in the table to engage the hook, an elastic tape extending between the pad and panel and outward therefrom, means for securing the ends of the tape to the table, arms each extending beneath the tape at one end and secured to the table at the other end, and cords connecting the arms and pad.

10. The combination of a table, a transparent panel in the table, a pad opposite the panel and hinged to the table at one side, a handle on the opposite side of the pad, a hook pivoted to the handle, a lever to release the hook, a spring to engage the hook, a vertically adjustable detent engaged by the hook, an elastic tape between the panel and pad, means for attaching the ends of the tape to the table and means for connecting the tape with the pad.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH C. CALHOUN.

Witnesses:

PALMER A. JONES,

LUTHER V. MOULTON.