(No Model.)

W. F. GUTHRIE & N. C. PETERSON.

AUTOMATIC REGISTER FOR PHOTOGRAPHIC PRINTING FRAMES.

No. 347,292. Patented Aug. 10, 1886.

Fig. 1.

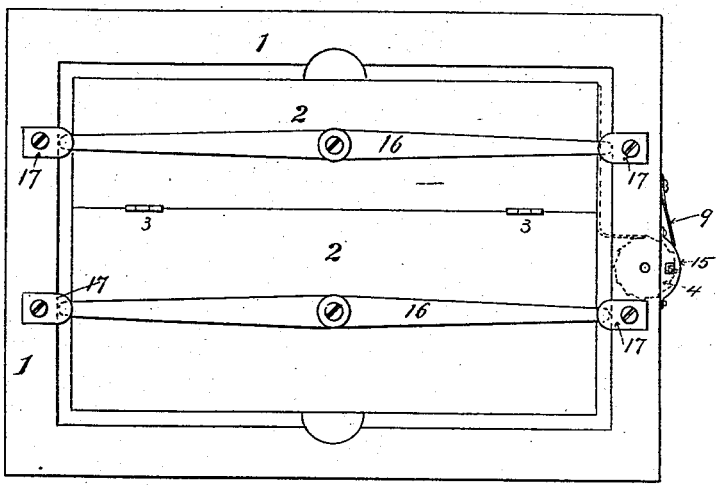


Fig. 2.

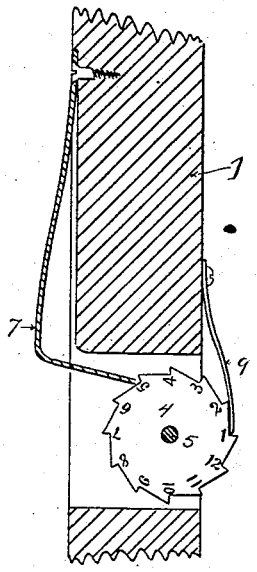
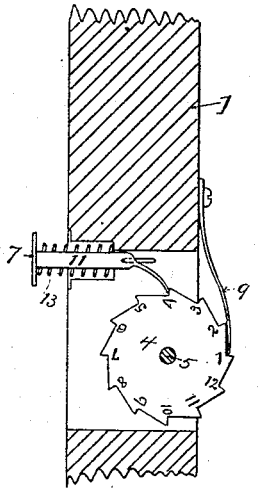


Fig. 3.



Witnesses
Chas L. James
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Atty.

UNITED STATES PATENT OFFICE.

WILLIAM F. GUTHRIE AND NIELS C. PETERSON, OF MINNEAPOLIS, MINN.; SAID PETERSON ASSIGNOR TO LESTER S. BARKER, OF SAME PLACE.

AUTOMATIC REGISTER FOR PHOTOGRAPHIC-PRINTING FRAMES.

SPECIFICATION forming part of Letters Patent No. 347,292, dated August 10, 1886.

Application filed December 24, 1885. Serial No. 186,609. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM F. GUTHRIE and NIELS C. PETERSON, citizens of the United States, and residents of Minneapolis, in the ounty of Hennepin and State of Minnesota, ve invented a new and useful Automatic gister for Photographic-Printing Frames, which the following is a specification.

Our invention relates to an automatic reg- ring device for use upon the printing-frames ployed by photographers; and the object we e in view is to provide such a frame with vice whereby a count or tally is automat- lly made of the number of prints taken in e frame to which it is applied.

r invention consists, generally, in the struction and combination hereinafter de- bed, and particularly pointed out in the aims.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of the back of a printing-frame to which our improvement is attached. Fig. 2 is a horizontal section of a portion of the frame, showing one arrangement of our device thereon. Fig. 3 is a similar view showing a modified construction.

In the drawings, 1 represents a printing-frame of ordinary construction, provided with a removable back, 2. This back is preferably made in two parts, as shown, which are secured together by hinges 3. The back may be formed of three or more pieces suitably hinged together; or in some instances it might be formed of a single piece. Our registering device may be used with either construction of back.

4 represents a ratchet-wheel or serrated dial-plate, having any desired number of notches or teeth, usually twelve, each division being numbered consecutively, preferably upon the face of the disk. This disk, as shown in the drawings, is partially set into the wood or side of the frame in the plane of the back 2 of the frame 1, and is held in position by a suitable pin, 5, around which the disk revolves.

7 represents a spring-plate placed upon the inside edge of the frame in the plane of the back 2. One end of this plate is secured to the frame, while the other end, which is bent at about a right angle with the main portion, forms a spring-pawl that engages the teeth on the disk 4, and when the spring is free or without tension the plate projects inward from the edge of the frame, as shown in Fig. 2.

9 represents a suitable spring arranged to engage the ratchet and prevent any back movement thereof.

When the back is in two parts, as shown in Fig. 1, the spring-plate is so located in the back that it will bear against both portions of the back, and either of the parts of the back may be turned on its hinges without releasing the spring-plate. When the back is formed in three parts, the spring-plate will bear against the middle portion thereof, so that either of the other parts may be opened without releasing the plate.

In the construction shown in Fig. 3 the spring-plate 7 is mounted on the end of a spindle, 11, the opposite end of which is formed into a spring-pawl, which engages the ratchet 4. A spiral spring, 13, surrounds the spindle, and tends to throw the plate 7 in toward the center of the frame. A covering-plate, 15, is preferably placed over the projecting portion of the registering-plate, and it is provided with an opening, through which the numbers on the disk may be read. The disk may be located upon the face of the frame instead of being set into an opening in the frame, in which case the spring-plate will still be located in the plane of the back, and the pawl or rod from the plate to the disk will be suitably shaped to cause the movement of the plate to operate the ratchet.

The operation of the device is as follows: After the negative and sensitized paper have been adjusted the back 2 is introduced into the frame, its end is brought against the plate 7, and the plate is shoved into position, thereby moving the plate and operating the register by turning the disk one notch. The parts of the back, where the divided back is used, may be either of them opened to permit an examination of the print without releasing the spring, and therefore the register will not be operated till the back is removed and another print is to be made.

The details of the device may be varied without departing from our invention, it being nec-

essary to locate the spring-plate in the inside of the frame in the plane of the back, where it will be operated by the insertion of the back.

The frame is shown provided with suitable ears, 17, and the back with pivoted spring-bars 16, by which the back is held in position.

We claim as our invention—

1. The combination, with the printing-frame and movable back, of the registering-disk and the operating spring-plate projecting into the inside of the frame in the plane of the movable back, whereby as the back is put in place the plate is moved and the registering device is operated, substantially as described.

2. The combination, with the printing-frame and movable sectional back, of the registering-wheel 4, the spring-plate 7, projecting into the interior of the frame opposite the joint in said back, and means, as described, connecting said plate and said wheel, all substantially as described.

3. The combination, with the frame 1 and removable divided back 2, of the spring-plate 7, arranged as described, the ratchet-disk 4, the spring 9, a pawl engaging said ratchet and operated by said plate, and the covering-plate 15, all substantially as described, and for the purpose set forth.

In testimony whereof we have hereunto set our hands this 21st day of December, 1885.

WILLIAM F. GUTHRIE.
NIELS C. PETERSON.

In presence of—
MEYER HOFF,
FRANK J. GEIST.

Correction in Letters Patent No. 347,292.

It is hereby certified that the name of the assignee in Letters Patent No. 347,292, granted August 10, 1886, upon the application of William F. Guthrie and Niels C. Peterson, of Minneapolis, Minnesota, for an improvement in "Automatic Registers for Photographic Printing Frames," was erroneously written and printed "Lester S. Barker," whereas said name should have been written and printed *Lester T. Barker;* and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 7th day of September, A. D. 1886.

[SEAL.]

D. L. HAWKINS,
Acting Secretary of the Interior.

Countersigned:

R. B. VANCE,
Acting Commissioner of Patents.