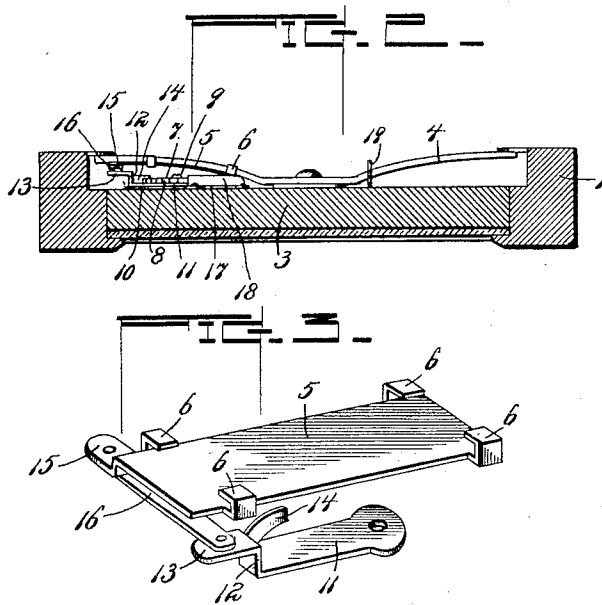
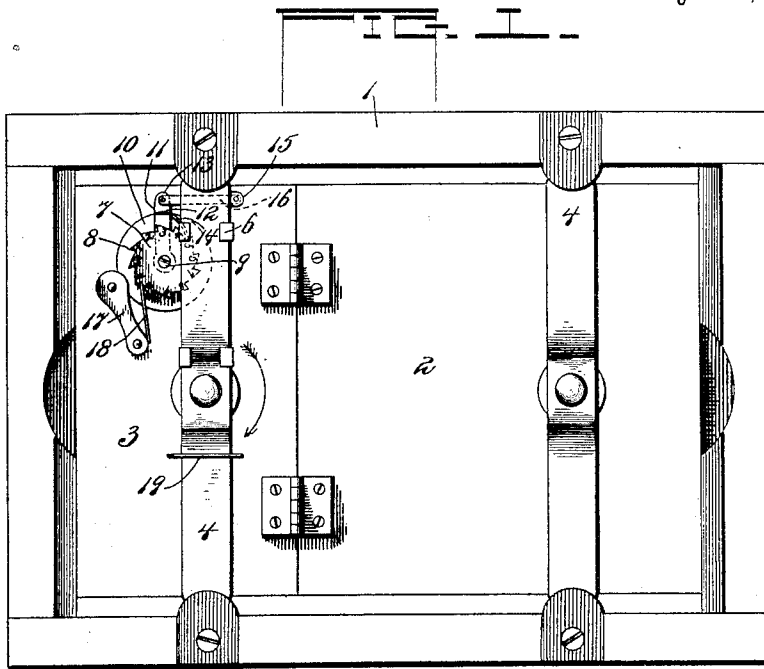


(No Model.)

S. H. SECKNER.
AUTOMATIC REGISTER FOR PRINTING FRAMES.

No. 582,376.

Patented May 11, 1897.



Inventor

Stephen H. Seckner,

Witnesses

Milton O'Connell By his Attorneys,
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UNITED STATES PATENT OFFICE.

STEPHEN H. SECKNER, OF FORT COLLINS, COLORADO.

AUTOMATIC REGISTER FOR PRINTING-FRAMES.

SPECIFICATION forming part of Letters Patent No. 582,376, dated May 11, 1897.

Application filed December 28, 1896. Serial No. 617,248. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN H. SECKNER, a citizen of the United States, residing at Fort Collins, in the county of Larimer and State of Colorado, have invented a new and useful Automatic Register for Printing-Frames, of which the following is a specification.

This invention relates to improvements in automatic registers for printing-frames used by photographers, draftsmen, and others in printing copies of photographs, drawings, and the like; and the invention consists in the several details of construction and combination of parts hereinafter fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a plan of a printing-frame with my automatic register attached thereto. Fig. 2 is a side view of the register, the printing-frame being shown in section. Fig. 3 is a view in perspective of a part of the register detached.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

1 represents the frame; 2 and 3, the shutters, hinged together, and 4 the pressure-springs. These are of the ordinary construction.

5 represents a plate provided with clips 6, which plate is adapted to fit over the spring 4, which locks the shutter 3, the plate portion engaging the under surface of the spring.

7 represents a registering-disk provided with a series of teeth 8 on its periphery, which teeth have each a numeral. The disk may be provided with any number of teeth, but ordinarily twelve is the preferred number, and they are numbered in sequence, as shown in the drawings.

The disk 7 is centrally pivoted on the shutter 3 by means of a pin 9, and preferably a metal plate 10 is interposed between it and the shutter to prevent wear on the latter. As shown in the drawings, the disk extends partially under the spring 4 when the latter is in its locked position.

11 represents a lever pivoted at one end on the pin 9 and extending outwardly beyond the disk. Just beyond the periphery of the disk the lever is bent upwardly to form a vertical portion 12 and then outwardly to form

the horizontal portion 13, substantially parallel with the main part of the lever. From the vertical part 12 of the lever a spring-pawl 14 extends rearwardly and is curved to engage the teeth 8 of the registering-disk 7. The plate 5 is provided with a lug 15, to which is pivoted one end of a link 16, the other end of this link being pivotally connected to the horizontal portion 13 of the lever 11.

17 represents a plate secured on the shutter 3 and carrying a spring locking-dog 18, the end of which is in engagement with the teeth of the registering-disk.

19 represents a staple secured in the shutter 3 and extending over the spring-arm 4 for the purpose of limiting its lateral movement, this limitation being necessary in order to prevent the registering-disk being turned more than one tooth at a time.

Preferably the lever 11 is of spring metal to permit it to yield and accommodate itself to the vertical movement of the spring-arm 4, which is necessary in the locking and unlocking thereof.

The operation of the device will be readily understood from the foregoing description, and it is evident that when the spring 4 is turned on its pivot in the direction of the arrow the spring-pawl 14 will cause the registering-disk to turn to the extent of one tooth and that in its backward movement the dog 18 will prevent any backward movement of the registering-disk. Every time, therefore, that the spring 4 on the shutter 3 is unlocked it will be registered by the disk, and as in operation it will only be necessary to unlock this lever when a print is removed it is evident that an accurate register of the number of prints will be kept. By opening the shutter 2 the print can be inspected without removing it from the frame and without interfering with the registering device.

It will be apparent that changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

It is evident that my registering device can be readily attached to printing-frames now in use without mutilating them in any manner or necessitating any change in their struc-

ture, for the plate 5 can be easily attached to the spring-arm and the other portions readily attached to the shutter.

Having thus described the invention, what is claimed as new is—

1. In a printing-frame, the combination with a shutter and its locking-spring, of a registering-disk pivoted on the shutter and provided with a series of numbered peripheral teeth, a lever pivoted on the shutter and provided with a spring-pawl to engage the teeth of said disk, and a link connected at one end to the locking-spring and at its other end to the free end of the lever, substantially as described.

2. In a printing-frame, the combination with a shutter and its locking-spring, of a registering-disk pivotally mounted on a pin secured in the shutter, said disk having a series of numbered peripheral teeth, a lever pivoted at one end on said pin below the disk and provided at its free end with a spring-pawl to engage the teeth of the disk, a link connected at one end to the locking-spring and at its other end to the free end of the lever, a spring-dog secured at one end to the

shutter-frame with its free end engaging the teeth of the disk, and a device to limit the movement of the locking-spring, substantially as described.

3. In a printing-frame, the combination with a shutter and its locking-spring, of a registering-disk pivoted on the shutter and provided with a series of numbered peripheral teeth, a lever pivoted on the shutter and provided with a spring-pawl to engage the teeth of the disk, a plate secured to the under side of the spring and provided with a lug, a link connected at one end to said lug and at its other end to the free end of the lever, a spring-dog to prevent backward movement of the disk, and a device to limit the movement of the locking-spring, substantially as described.

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

STEPHEN H. SECKNER.

Witnesses:

WILLIAM C. STOVEN,
VERNER U. WOEB.