R. E. SCHARZ.

DEVICE FOR TIMING PHOTOPRINTING.

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929,987.

Patented Aug. 3, 1909.

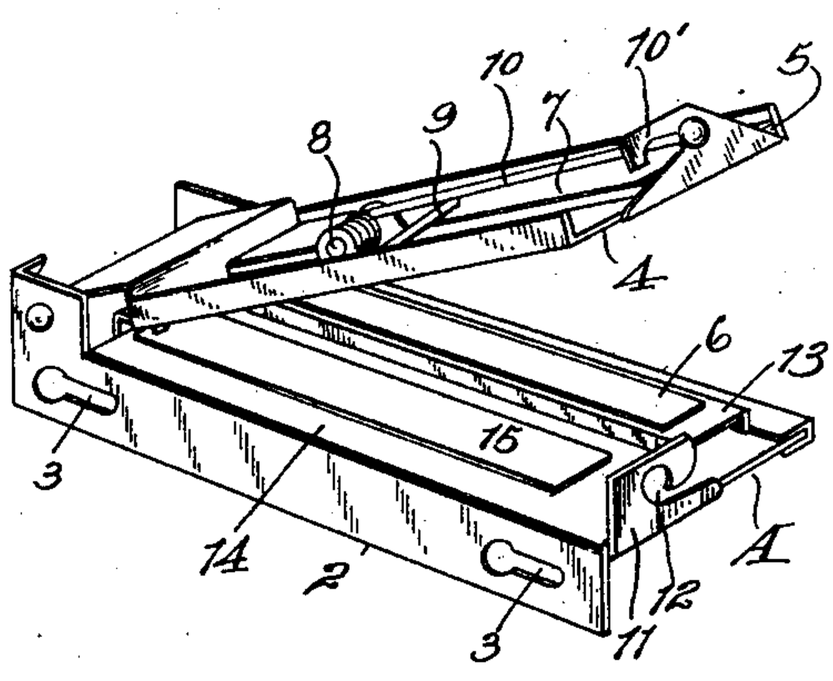

Fig. 1.

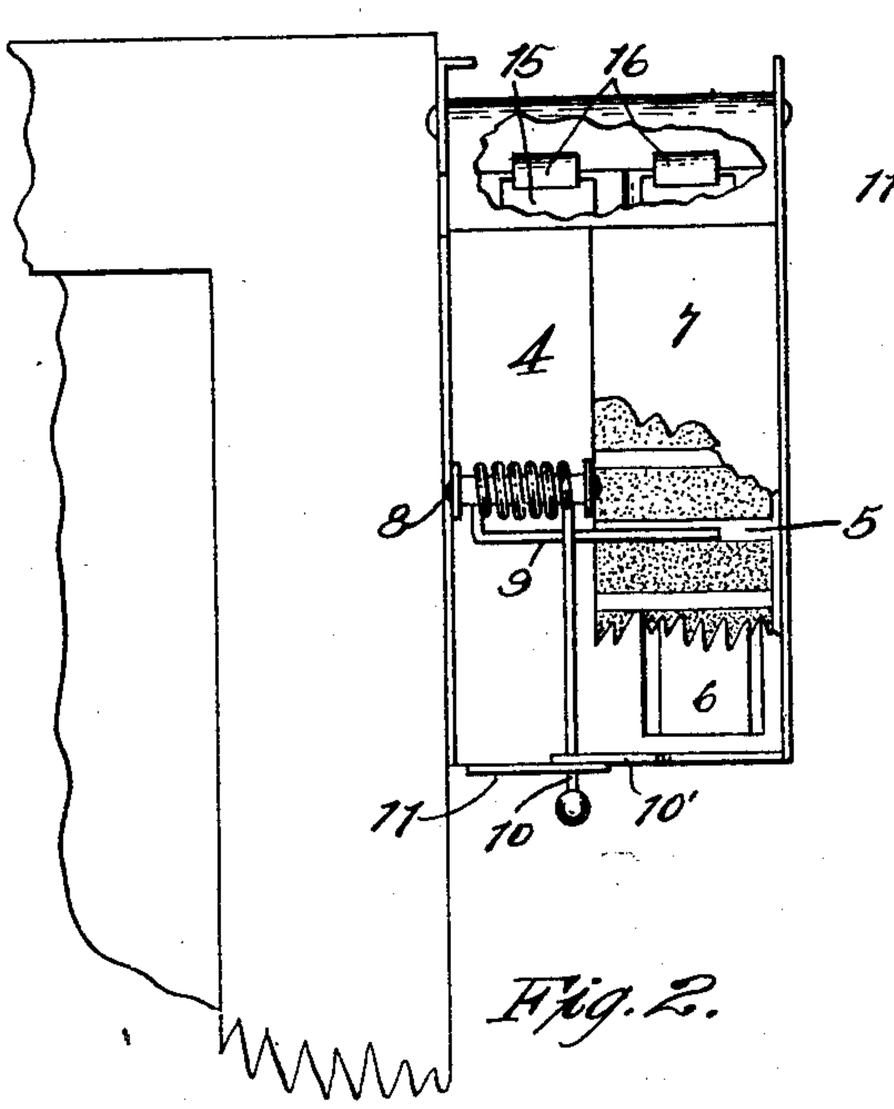

Fig. 2.

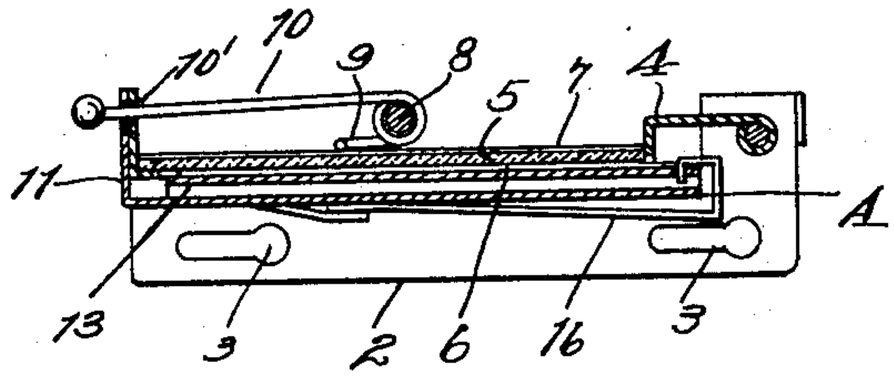

Fig. 3.

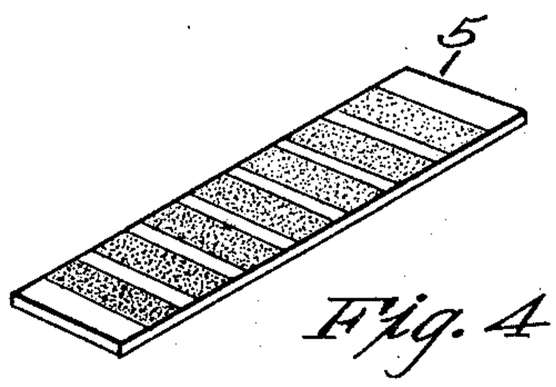

Fig. 4.

WITNESSES

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UNITED STATES PATENT OFFICE.

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DEVICE FOR TIMING PHOTOPRINTING.

No. 929,987. Specification of Letters Patent. Patented Aug. 3, 1909.

Application filed May 15, 1908. Serial No. 433,096.

To all whom it may concern:

Be it known that I, RICHARD E. SCHARZ, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented new and useful Improvements in Devices for Timing Photoprinting, of which the following is a specification.

My invention relates to devices for timing the printing of photographs and other prints from negatives or other similar means of printing, with sun or other light rays. Its object is to provide a small attachment for an ordinary printing-frame, which shall be simple, cheap and practical, and easily attached to or detached from the frame for the purpose of properly timing the exposure of the paper in the frame.

The practice generally followed in photographic studios, in printing from negatives, is to open the negative frame from time to time, and lift and inspect the print or photograph during the process of printing, in order to determine when the printing is completed. Besides the uncertainty and slowness of this operation, it requires an expert photographer to determine when the exposure is complete and a proper print obtained, and this must be done by him in the case of each and every print.

The purpose of my invention is to provide a printer's guide, by which, during the printing of the first print made from a negative or other similar means of printing with sun or light rays, a printed slip is obtained, which is used, in printer's guide, as a test or pattern strip, with the aid of which all succeeding prints can be made of uniform density and quality by any person of ordinary intelligence, and without disturbing the negative or print in the frame.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a perspective view of the device. Fig. 2 is a plan, partly broken away and showing a portion of a printing frame to which the device is attached. Fig. 3 is a longitudinal section. Fig. 4 is a perspective of a pattern plate.

A represents the base of my improved device, which base may be of any suitable size, shape or material. It need not be larger than sufficient to form a suitable support for two strips of sensitized paper, say half an inch wide and two inches long. This base is provided with suitable means, as the flange 2 and the elongated slots 3, for attachment to an ordinary printing-frame. Hinged to the base at one end is a cover portion 4 which is slotted lengthwise preferably at one side, as here shown, with the outside of the cover having a suitable surrounding flange forming a seat for a translucent pattern plate 5. This pattern plate ordinarily consists of a small strip of glass divided into a number of areas, preferably about seven, which are of equal size. Each area or division of this pattern plate 5 is of a different degree of opacity, gradually increasing in density from one end to the other, so that the sensitized strip of paper 6 placed underneath this plate on the top of the base will be printed to different degrees of intensity. These several divisions afford a wide enough range in time to allow of printing from an ordinary photographic negative which is placed in the printing-frame at the same time that the test strip 6 is placed in the printer's guide. However, if the negative happens to be a dense or slow-printing one, a small strip of colored celluloid 7, or other suitable material, may be laid on top of the pattern plate 5, thereby increasing the length of time of exposure required for printing the test strip underneath.

Any suitable means may be employed for removably holding the test plate and its translucent mask 7 (where the latter is employed) in position. As here shown, I employ a coiled spring suitably fulcrumed at 8 on the cover, and having an arm 9 bearing on top of the plate or mask, and also having a locking arm 10 engageable in a keeper 10′ formed by an undercut notch in the flange at the front end of the cover. This flange on the cover is adapted to just fit inside of a corresponding flange 11 on the base when the cover is closed down on the base, and this base flange 11 has an undercut notch 12 into which the lever arm 10 may be shifted from the notch 10′, and thereby yieldingly hold the cover down on top of the base.

The test strip 6 on the base is supported on a lengthwise extending shelf 13 thereon registerable with the opening in the cover over which the pattern plate fits in such fashion that when the cover is closed snug down on the base, this test strip 6 will be

pressed down into contact with the under side of the test plate 5.

Arranged alongside of the support for the test strip 6 is an area 14 on the base forming a support for a second strip of sensitized paper, as 15, which latter, after having been properly exposed underneath the pattern plate, is placed on the support 14 and remains there during the printing from the negative in the printing-frame and becomes the pattern strip, as will be shortly explained.

Any suitable means may be employed to hold the strips 6 and 15 in position. As here shown, I employ a couple of spring clamps 16 which are secured to the under side of the base and project up at the end and have teeth coöperating with holes in the base to grip the respective strips. The portion of the cover covering the pattern strip 15 is opaque, so that when a strip is once laid on the area 14, this strip will thereafter be unaffected by the light.

In practice, a negative to be printed, with a sensitized sheet, is put into its frame, and also a small strip of paper, as 6, is placed in position beneath the pattern plate of the print timing device or printer's guide, and the cover closed down; the printer's guide being attached to the frame. The printing of the first print from the negative is carefully observed, and when this print is taken out, the strip just printed through the pattern plate 5 is placed on the area 14 of the timing device, and a fresh strip of paper, as 6, put into the device beneath the plate 5. The first strip thus printed thereupon becomes the pattern strip, and it is only necessary to lift the cover of the printer's guide from time to time to know just how the paper on the negative is printing; the completion of the printing of each succeeding print after the first being indicated by observing when a fresh test strip has the same appearance as that of the first or pattern strip, which latter all the while remains in the printer's guide and is protected from the light by the opaque portion of the cover. These two strips 6 and 15 being arranged close together and parallel, can be minutely compared, the comparison being easily made from time to time by lifting the cover, this cover serving the double function of carrying the translucent pattern plate and of protecting the underneath pattern strip from further action thereon by sun or other light rays.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. A print timer comprising a base portion and a cover portion, said base and cover being hingedly connected at one end and said cover having a cut away portion and also having an opaque portion parallel thereto, a pattern plate fitting over said cut away portion, and means for closing the cover down over the base, said base having means for supporting a test strip and for also supporting an adjacent pattern strip, and said base having means permitting its ready attachment to a printing frame.

2. A print timing attachment for a printing frame, said attachment comprising a base portion and a cover, said base and cover being hingedly connected at one end and said base having means for ready attachment to a printing frame, said cover having a cut away portion or opening and also having an opaque portion parallel thereto, a pattern plate fitting over said opening, and spring-actuated devices on the cover for holding the plate in position and for locking the cover down on the base.

3. A print timing attachment for a printing frame said attachment consisting of two coöperating members hingedly connected at one end and movable toward and from each other, one of said members having a support for two parallel strips of paper and the other of said members provided with a pattern plate of graduated opacity, said pattern plate registerable to print on one of said strips, and the other of said strips having protective means afforded by a portion of said member carrying said pattern plate, and spring actuated devices on one of said members adapted to hold the pattern plate in a position thereon.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

RICHARD E. SCHARZ.

Witnesses:
E. P. Cook,
M. Holmes.