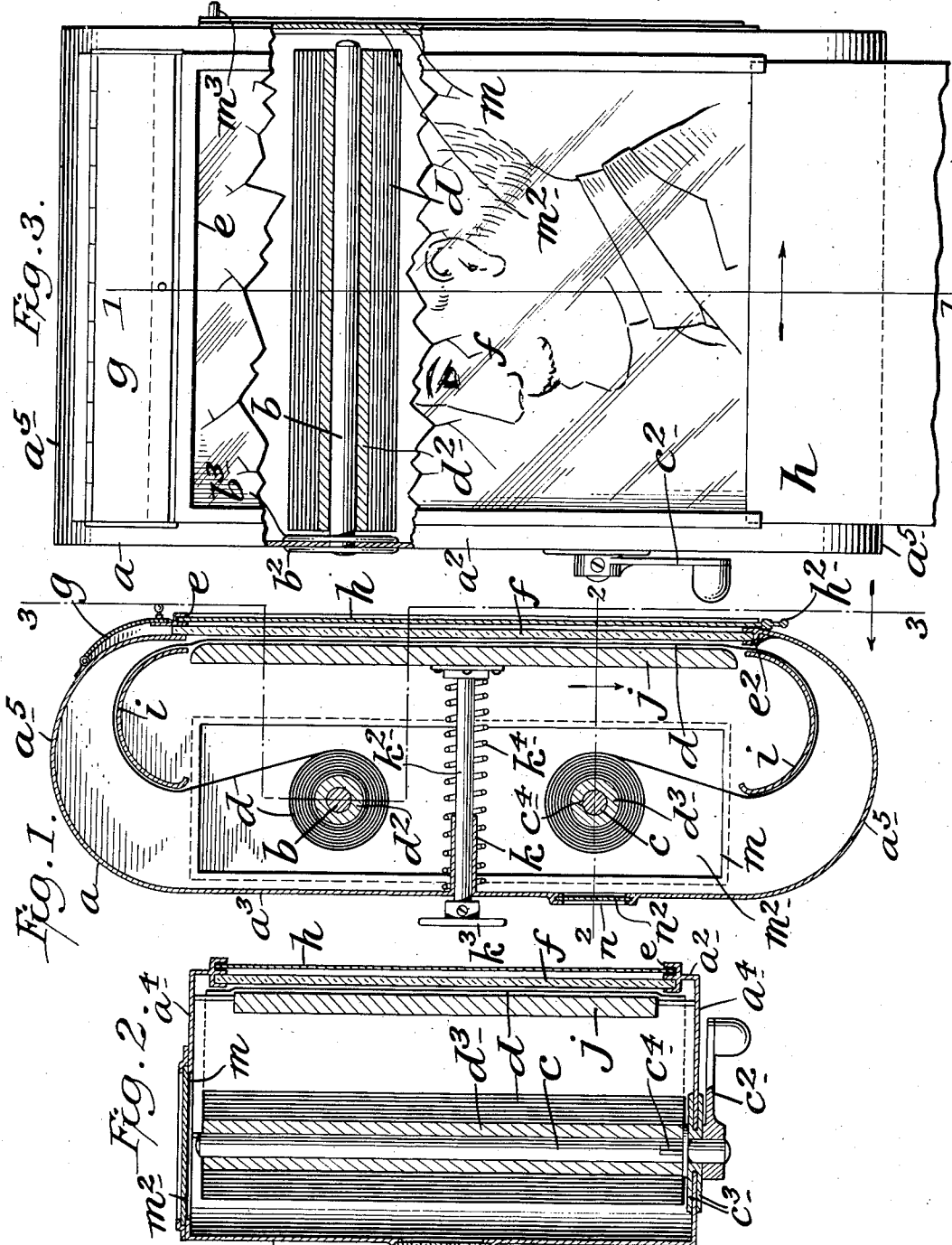


H. HALLER, JR.
 PHOTOGRAPHIC PRINTING DEVICE.
 APPLICATION FILED SEPT. 6, 1911.

1,016,623.

Patented Feb. 6, 1912.



WITNESSES
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HARRY HALLER, JR., OF ILION, NEW YORK.

PHOTOGRAPHIC-PRINTING DEVICE.

1,016,623.

Specification of Letters Patent.

Patented Feb. 6, 1912.

Application filed September 6, 1911. Serial No. 647,891.

To all whom it may concern:

Be it known that I, HARRY HALLER, JR., a citizen of the United States, and residing at Ilion, in the county of Herkimer and State of New York, have invented certain new and useful Improvements in Photographic-Printing Devices, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to printing devices or apparatus for reproducing pictures from a negative plate or film on a sensitive paper strip, and the object thereof is to provide a device or apparatus of this class which is simple in construction and operation, comparatively inexpensive, and by means of which the printing of photographs may be quickly, conveniently and safely accomplished without the use of a dark room.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:—

Figure 1 is a longitudinal section of my improved printing device on the line 1—1 of Fig. 3; Fig. 2 a transverse section on the line 2—2 of Fig. 1, and; Fig. 3 a front view of the device with part of the construction in section, the section being taken on the line 3—3 of Fig. 1.

In the practice of my invention I provide a box or case *a* which is oblong in form and which comprises a front *a*², a back *a*³, parallel sides *a*⁴ and end portions *a*⁵, and the end portions *a*⁵ are preferably rounded as clearly shown in Fig. 1, and said box or case is preferably composed of sheet metal, but may be composed of any desired material.

Secured in the left hand side *a*⁴ of the box or case and in one end portion thereof is a spindle *b*, this connection being made by means of washers *b*² and *b*³ placed on said spindle and on the outer and inner sides of the box or case, and in the opposite end portion of said box or case is a similar spindle *c* more clearly shown in Fig. 2 and which is provided with a crank *c*² and this spindle is provided in said side of the box or case with a bearing consisting of integrally connected disks or washers *c*³, and said spindle *c* is provided adjacent to its crank end with a short V-shaped rib *c*⁴.

In practice, the strip of sensitive paper is wound on a sleeve *d*² which is adapted to be mounted on or slipped on over the spindle *b*, and the spindle *c* is provided with a similar sleeve *d*³ adapted to be mounted on or slipped on over the spindle *c*, and when the sleeve *d*³ is forced on to said spindle, the rib *c*⁴ engages said sleeve and prevents it from rotating on said spindle when said spindle is turned, and in practice, the free end of the sensitive paper strip *d* is connected with the sleeve *d*³.

The front of the box or case *a* is provided with a large opening *e* at one end of which or at the bottom of the box or case is a recess *e*² adapted to receive one end of a negative plate *f* and at the opposite or upper end of the box or case is a hinged door *g* adapted to be opened for the purpose of inserting said plate and removing it, and at the front of said opening and covering said plate when the latter is in position is an opaque slide *h* having a handle *h*², and said slide may be inserted into position or drawn out whenever desired. In the opposite end portions of the box or case and at the ends of the large central opening *e* are two semi-circular stationary bearings *i* around which the strip *d*, in practice, is passed and inwardly of said opening is placed a presser plate *j* which is of dimensions approximately similar to or slightly less than the dimensions of said opening, and in practice, the strip of sensitive paper *d* is passed between the presser plate *j* and the plate *f*, and said presser plate is intended to prevent said strip from wrinkling and to hold it smooth and even.

The back *a*³ of the box or case is provided with an inwardly directed sleeve bearing *k* through which is passed a rod *k*² connected with the presser plate *j* and provided at its outer end with a handle *k*³, and placed on said rod is a spring *k*⁴ which bears on said presser plate and normally serves to press it against the sensitive paper strip *d* as it passes between said plate and the negative plate *f*.

In the side *a*⁵ of the box or case is a large opening *m* closed by a slide plate *m*² provided at one end with a handle *m*³, and in loading the device the slide plate *m*² is withdrawn and the sleeve *d*² with the strip *d* wound thereon is mounted on the spindle *b*, after which the said strip is passed around

the adjacent bearing *i* and around the plate *j* and around the other bearing *i* and connected with the sleeve *d*³. The back *a*³ of the box or case is also provided adjacent to the spindle *c* with an opening *n* closed by a colored plate *n*² in the usual manner and through which the strip *d* as it is wound on the sleeve *d*³ may be observed so as to regulate the extent of said winding or to enable the operator to tell when a sufficient amount of the strip *d* has been wound on said sleeve.

The spindle *b* and the sleeve *d*² form one roller on which the strip *d* is wound at the beginning of operations and the spindle *c* and sleeve *d*³ form another roller onto which said strip is rewound in the operation of the device, and it will be understood that when the entire strip has been taken up or used in the operation of printing, the detachable parts of said rollers or the sleeves *d*² and *d*³ with which the strip *d* is connected may be detached and another strip and rollers substituted.

The use of this device will be readily understood by all those familiar with the operation of printing pictures from negatives, and in order to reprint or reproduce on the strip *d* a picture from the plate *f*, all that is necessary is to hold the device in light and draw out the slide *h* thus exposing the plate *f* and sensitized strip *d*.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a photographic printing device, a casing the front of which is provided with an opening adapted to receive a negative and in front of which is a movable opaque member and back of which is a presser plate, two spindles mounted in the opposite end portions of said casing and having bearings in one side thereof only and extending approximately across said casing and provided with removable roller sleeves on one of which a printed strip is adapted to be wound, and with the other of which said printing strip is adapted to be connected, the side of said casing opposite that in which the spindles are mounted being also provided with an opening through which said

sleeves and strip may be passed, and means for closing the same.

2. In a photographic printing device, a casing the front of which is provided with an opening adapted to receive a negative and in front of which is a movable opaque member, and back of which is a presser plate provided with a handle rod which passes backwardly through the back of said casing and on which is mounted a spring which bears on said presser plate, said casing being also provided in the opposite end portions thereof with spindles having bearings in one side of said casing only, and which extend approximately across said casing and on which are mounted removable roller sleeves, the side of the casing opposite that in which the spindles are mounted being provided with an opening, and means for closing the same, and one of said spindles being provided with a crank.

3. In a photographic printing device, a casing one side of which is provided with an opening adapted to receive a negative and in front of which is a movable opaque member and back of which is a presser plate, said casing being also provided in the opposite end portions thereof and adjacent to the opposite ends of the presser plate with curved guides, and said casing being also provided backwardly of the presser plate and in the opposite end portions thereof with two spindles which are mounted in one side of said casing only, and which extend approximately across said casing and which are provided with removable roller sleeves on one of which a printing strip is adapted to be wound and with the other of which the printing strip is adapted to be connected, said strip being also adapted to be passed around said guides and in front of the presser plate.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 31st day of August 1911.

HARRY HALLER, JR.

Witnesses:

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