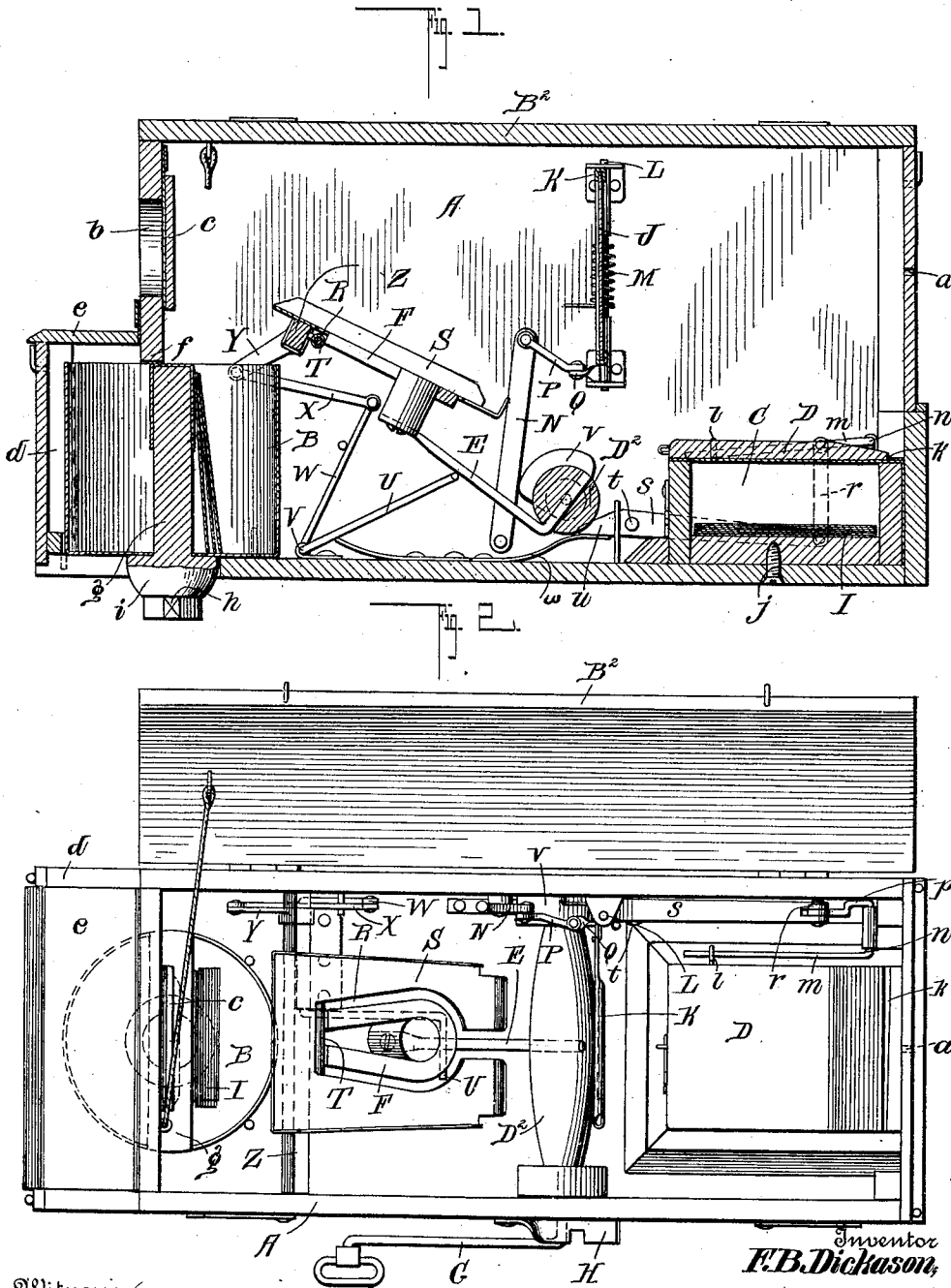


F. B. DICKASON.
TINTYPE MACHINE.
APPLICATION FILED AUG. 26, 1909.

994,064.

Patented May 30, 1911.

2 SHEETS—SHEET 1.



Witnesses

Philip H. Burch
J. J. Sheehy, Jr.

By

James J. Sheehy

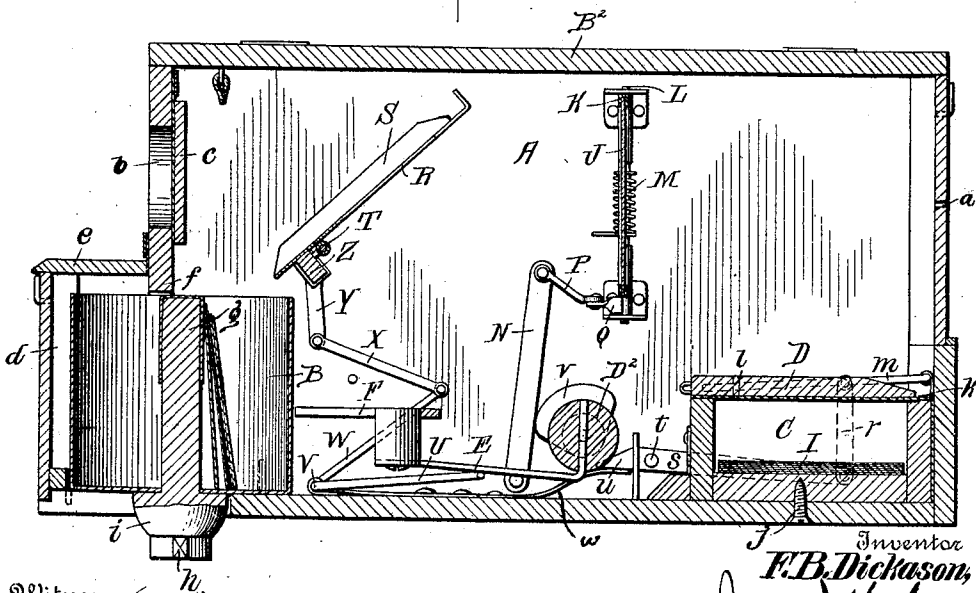
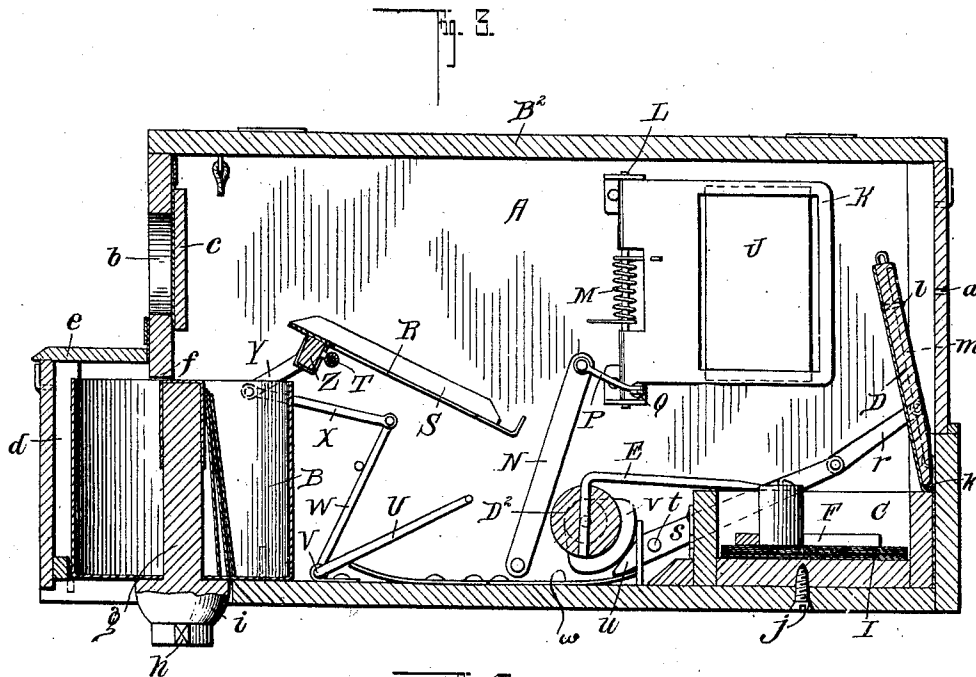
Attorney

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2 SHEETS—SHEET 2.



Witnesses

Philip H. Burch
J. J. Sheehy Jr.

By

Inventor
F. B. Dickason,
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UNITED STATES PATENT OFFICE.

FRANK B. DICKASON, OF SHREVEPORT, LOUISIANA, ASSIGNOR OF ONE-HALF TO
ALBERT JOHN SCHMIDT, OF SHREVEPORT, LOUISIANA.

TINTYPE-MACHINE.

994,064.

Specification of Letters Patent.

Patented May 30, 1911.

Application filed August 26, 1909. Serial No. 514,747.

To all whom it may concern:

Be it known that I, FRANK B. DICKASON, citizen of the United States, residing at Shreveport, in the parish of Caddo and State of Louisiana, have invented new and useful Improvements in Tintype-Machines, of which the following is a specification.

My invention pertains to photography, and consists in the peculiar and advantageous machine, hereinafter described and claimed, for making photographic pictures and more especially what are commonly known as dry tin-types.

In the drawings, accompanying and forming part of this specification: Figure 1 is a longitudinal vertical section of the machine constituting the best practical embodiment of my invention of which I am cognizant, as the same appears when its parts are in their normal positions. Fig. 2 is a plan view of the same, taken with the lid of the casing in a raised position. Fig. 3 is a view illustrating the parts in the positions the same occupy when the magnet is in the magazine in position to attract a plate to it. Fig. 4 is a view like Fig. 1 showing the parts in the positions they occupy when the magnet has been moved to and downwardly through the plate-receiver to the lowermost position of the magnet, and the plate-receiver has chuted the plate into the developing receptacle.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which:

A is the casing of my novel machine, which is open throughout at its top and is equipped with a suitable hinged lid B². At its forward end the casing is provided with a lens of fixed or universal focus *a*, but I would have it understood in this connection that in lieu of said lens the ordinary well known bellows mounting a double lens may be employed without affecting my invention. I have, however, deemed it unnecessary to illustrate the said bellows and double lens, as the same *per se* form no part of my invention and are simply employed, when deemed expedient, to facilitate focusing. At its

rear end the casing A is provided with a sight opening *b*, normally closed by a gravitating shutter *c*. The said shutter *c* may be opened by a finger of the operator introduced through the opening *b*, or in any other suitable manner compatible with the purpose of my invention. It will also be observed by reference to Figs. 1, 3 and 4, that the casing A is provided at its rear end with a subcasing *d* having a hinged lid *e* of its own. Movable in a revoluble manner through an opening in the partition *f* between the casing A and the sub-casing *d* is a developing receptacle B, having a diametrical partition *g*, and also having a handle *h*, which latter is carried by a journal *i* bearing in the bottom wall of the casing, and is designed to enable the operator of the machine to conveniently turn the receptacle B without admitting light to the interior of the casing.

Located in the lower portion of the casing A and at the end of said casing remote from the developing receptacle B is a plate magazine C. The said magazine may be of any construction compatible with the purpose of my invention, but I prefer to detachably connect it to the bottom of the casing through the medium of a screw *j*, frictional contact or other suitable means, this in order that a depleted magazine may be removed and a fully-charged magazine put in its place. It will be noted that in the present embodiment of my invention, the magazine C is provided with a lid D, hinged at *k*, and that the said lid D is provided in turn with an eye *l*. The said eye *l* loosely receives an arm *m* on a rock-shaft *n*, which rock-shaft is disposed transversely of the machine and is provided with another and shorter arm *p*. This latter is connected through the link *r* with the long arm of a vertically swinging lever *s*, fulcrumed at *t* and having a beveled short arm *u*, designed to be engaged by a cam *v* on a transverse shaft D². The said shaft D² has an arm E, and fixedly connected with said arm is a horseshoe or other suitable magnet F.

Fixedly connected to one end of the rock-shaft D² is a crank G which is arranged out-

side the casing A and is designed to be engaged with and disengaged from a keeper H, also arranged outside the casing A. When the crank G is engaged with the keeper H, the arm E extends vertically upward from the shaft D², and when said crank G is disengaged from the keeper H and is moved forward, the shaft D² will be turned in the same direction, and the arm E and the magnet F will be swung forwardly and downwardly. Incidental to said movement of the shaft D², arm E and magnet F, the cam *v*, by acting against the beveled arm of the lever *s*, will, through the medium of said lever *s*, the link *r* and the arms *p* and *m* of the rock-shaft *n*, raise the lid D of the magazine C to the position shown in Fig. 3 so as to enable the magnet F to attract to it the uppermost of the superposed plates (preferably tin types I) in the magazine. On the reverse movement of the crank G back to its engagement with the keeper H, the magnet F and the tin-type thereon will be raised to a vertical position, with the face of the tin-type opposite and exposed to the lens *a*; and during the last part of said movement of the magnet, the cam *v* will release the forward arm of the lever *s*, whereupon a spring *w* acting upwardly against said arm will quickly close the magazine lid D.

A ground-glass plate J is carried by a frame K, hinged at L to one side wall of the casing A, and a spring M is employed to move the frame K and plate J to and yieldingly retain the same alongside the said wall of the casing. It will be noticed, however, that a lever N is connected through a link P with an arm Q on the frame K, and also that said lever N is positioned to be engaged by the cam *v*. In consequence of this, it will be observed that when the magnet F and the tin-type thereon are moved rearwardly from the vertical position hereinbefore mentioned, the cam *v* by acting against the lever N will swing the frame K and the ground-glass plate therein to a position opposite the lens *a* in which position the ground-glass plate can be used incidentally to the focusing of the next subject of which a picture is to be taken. I would also state at this point that incidental to the upward and forward movement of the magnet F to the vertical position, where the crank G engages the keeper H, the cam *v* will release the lever N, whereupon the spring M will quickly move the frame K and plate J to and yieldingly hold the same against the side wall of the casing and out of the way. When the magnet F and the tin-type thereon have been retained in the vertical position hereinbefore mentioned until exposure of the plate is made, the crank G is disengaged from the keeper H and swung downwardly and rearwardly until the arm E and the magnet F pass through the open-

ing R in the flanged plate-receiver S. At this time the outer end of the magnet comes in contact with a magnet bar or device T for making the magnet permanent, and when the magnet is moved downwardly beyond the said device T, the tin-type is left on the plate or tin-type receiver S. Then incidentally to the continued downward movement of the arm E and the magnet F, the said arm E depresses a crank U on a transversely disposed rock-shaft V, which rock-shaft V has an arm W, connected through a link X with an arm Y on the rock-shaft Z by which the receiver S is carried, and consequently it will be observed that the forward end of the receiver S is elevated to enable the receiver to chute the tin-type into one compartment of the developing receptacle B. The said receptacle B is then turned to move the compartment containing the tin-type into the sub-casing *d*, and while the development of the said tin-type is taking place, the operation described may be repeated and a second tin-type deposited in that compartment of the receptacle B which is in communication with the interior of the casing A. At this time the first mentioned tin-type is ready to be removed from the receptacle B, and subsequent to said removal, the receptacle B is turned to move the compartment containing the second tin-type into the sub-casing *d*, and so on. The hinged lid *e* of the sub-casing *d* obviously permits of the tin-types being removed with facility from the described compartments of the receptacle B.

It will be gathered from the foregoing that when the magnet F is in its normal position, the ground-glass plate J rests in the position shown in Figs. 1 and 2, and consequently by looking through the sight opening *b* of the machine, the operator can focus the same. Then by swinging the crank G upwardly, forwardly and downwardly, the lid D of the magazine C is opened, and the magnet F is positioned to enable it to attract the uppermost plate or tin-type in the magazine C; also, incidental to the upward and forward movement of the crank G, the spring M moves the frame K and the ground-glass plate J to a position alongside of the side wall of the casing A. On the return movement of the crank G from its foremost position, the said crank is engaged and held by the keeper H, and the face of the tin-type is in position opposite the lens until exposure. The crank G is then disengaged from the keeper H and permitted to move rearwardly and downwardly to its normal position, and during said movement, the cam *v* by acting against the lever N, will return the ground-glass plate J to its working position opposite the lens. When the said crank G is in its normal position, the end of the magnet bears on the yielding

bar T, and the tin-type rests on the receiver S, and then by further downward and rearward movement of the crank G, the tin-type is separated from the magnet and left on the receiver S, and the forward end of the said receiver S is elevated, whereupon the tin-type will be chuted into the adjacent compartment in the receptacle B. It will further be gathered from the foregoing that when the parts of the machine are in the normal position shown in Figs. 1 and 2, the lid B² may be opened without exposing the tin-types, as the said types are always protected except when the mechanism is in action.

As before stated, the construction herein illustrated and described constitutes the best practical embodiment of my invention that I have as yet devised, but it is obvious that in the future practice of the invention such changes or modifications may be made as do not involve departure from the scope of my invention as defined in the claims appended.

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

1. In a tintype machine, the combination of a casing, a plate magazine arranged therein, a movable lid for said magazine, a plate-carrier comprising a magnet, means for moving said carrier, and means actuable by said means for moving the lid of the magazine.

2. In a tintype machine, the combination of a casing open at its top, a movable lid for closing said casing, a plate magazine arranged in the casing and open at its top, a movable lid for closing the top of the magazine, a plate-carrier comprising a magnet, means for moving said carrier, and means actuable by said means for raising the lid of the magazine to an open position.

3. In a tintype machine, the combination of a casing, a plate-magazine arranged therein, a hinged lid for normally closing the magazine, a rock-shaft having two arms one of which is connected with said lid, a lever connected with the other arm of said rock-shaft, a second rock-shaft having a cam for engaging and moving said lever, and a plate-carrier, on the second-named rock-shaft, comprising an arm extending from the shaft, and a magnet connected with said arm.

4. In a tintype machine, the combination of a casing, a plate-magazine arranged therein, a movable lid for said magazine, a plate carrier comprising a magnet, means for moving said carrier, means actuable by said means for moving the lid of the magazine, a movable ground-glass, and means actuable by the carrier-moving means for moving said ground-glass.

5. In a tintype machine, the combination

of a casing, a plate-magazine arranged therein, a hinged lid for normally closing the magazine, a rock-shaft having two arms one of which is connected with said lid, a lever connected with the other arm of said rock-shaft, a second rock-shaft, a plate-carrier, on the second-named rock-shaft, comprising an arm extending from the shaft and a magnet connected with said arm, a swinging-frame hinged to the casing, a ground-glass in said frame, a lever connected with the frame, and a cam on the second-named rock-shaft for actuating the two levers.

6. In a tintype machine, the combination of a casing, a receptacle disposed therein, a movable plate-receiver adapted in one position to discharge a plate to the receptacle, a plate-carrier, and means actuable by the plate carrier for moving the plate-receiver to the said position.

7. In a tintype machine, the combination of a casing, a receptacle disposed therein, a plate-receiver, a rock-shaft carrying said plate receiver and having an arm, a second rock-shaft having arms one of which is connected with the said arm of the first-named rock-shaft, and a swinging plate-carrier adapted to engage and move the other arm of the second-named rock-shaft.

8. In a tintype machine the combination of a casing, a receptacle disposed therein, a swinging and flanged plate-receiver having an opening and a yielding magnet-bar and adapted when inclined to chute a plate into the receptacle, a rock-shaft carrying said plate-receiver and having an arm, a second rock-shaft having arms one of which is connected with said arm of the first-named rock-shaft, a third rock-shaft, an arm carried thereby and adapted to engage and move the other arm of the second-named rock-shaft, and a magnet on the arm of the third rock-shaft and forming a plate-carrier; said magnet being arranged to contact with and move past the said magnet-bar.

9. A tintype machine comprising a casing, a plate magazine therein, a movable lid for the magazine, a plate-carrier comprising a magnet, means for moving said carrier, means actuable by the carrier-moving means for moving the magazine lid, a receptacle disposed in the casing, a movable plate-receiver adapted in one position to discharge a plate into the receptacle, and means actuable by the plate-carrier for moving the plate-receiver to said position.

10. A tintype machine comprising a casing, a plate magazine therein, a movable lid for the magazine, a plate-carrier comprising a magnet, means for moving said carrier, means actuable by the carrier-moving means for moving the magazine lid, a movable ground-glass, means actuable by the carrier-

moving means for moving said glass, a receptacle, disposed in the casing, a movable plate-receiver adapted in one position to discharge a plate into the receptacle, and means
 5 actuatable by the plate-carrier for moving the plate-receiver to said position.

In testimony whereof I have hereunto set

my hand in presence of two subscribing witnesses.

FRANK B. DICKASON.

Witnesses:

JOHN P. WOLF,
 LAFFAYETTE F. CRANE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
