

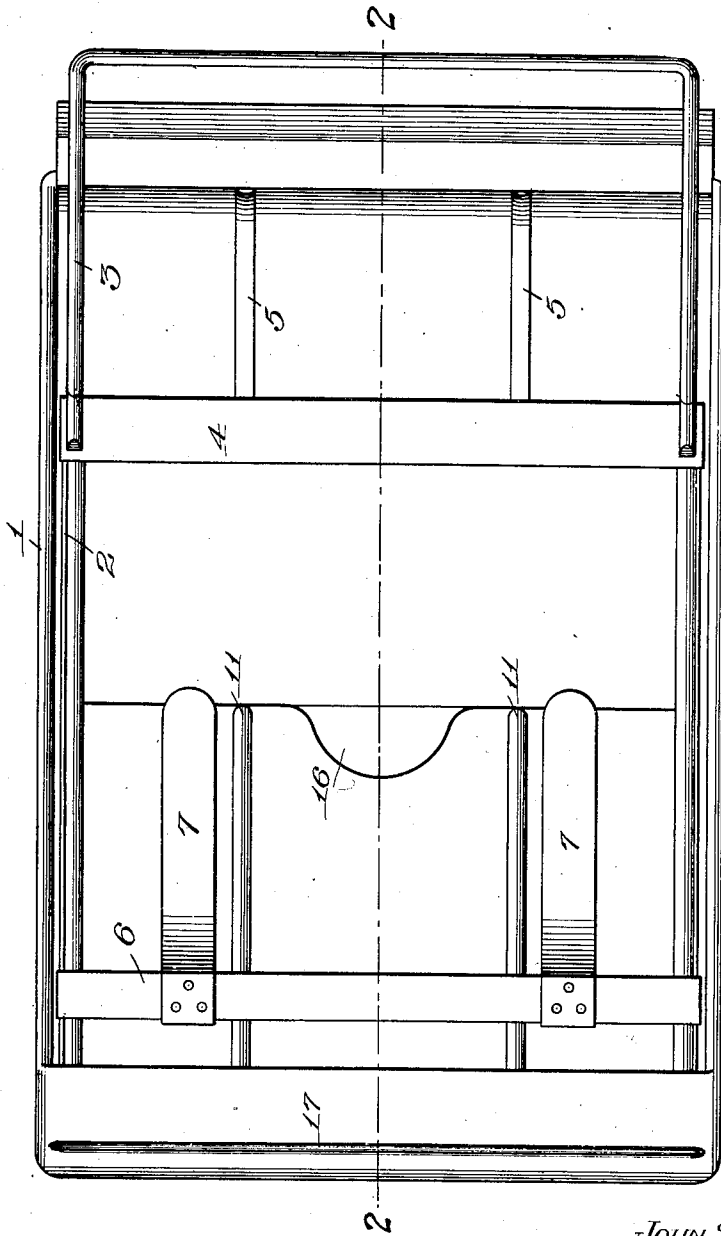
J. S. GREENE.
PHOTOGRAPHIC PRINT HANDLING DEVICE.
APPLICATION FILED MAY 13, 1911.

1,001,020.

Patented Aug. 22, 1911.

2 SHEETS—SHEET 1.

Fig. 1.



Inventor
JOHN S. GREENE

Witnesses

Nelson C. Copp
Russell W. Luffell

By *Charles C. Cook*

His Attorney

J. S. GREENE.
 PHOTOGRAPHIC PRINT HANDLING DEVICE.
 APPLICATION FILED MAY 13, 1811.

1,001,020.

Patented Aug. 22, 1911.

2 SHEETS—SHEET 2.

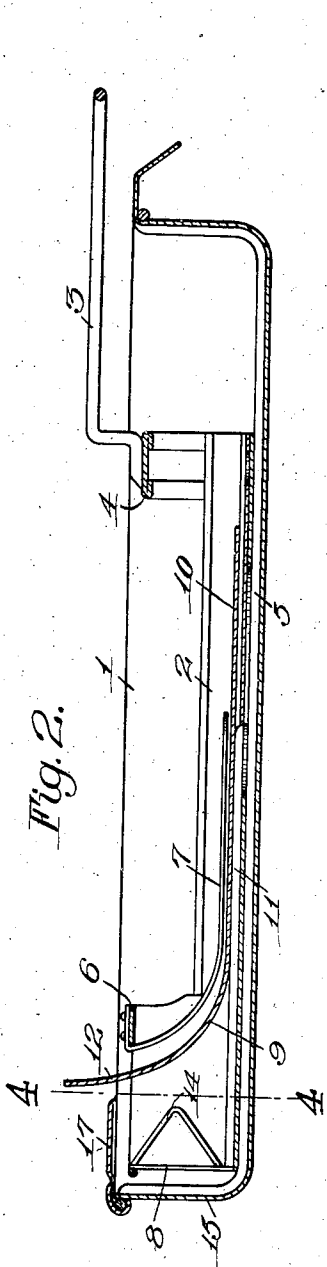


Fig. 2.

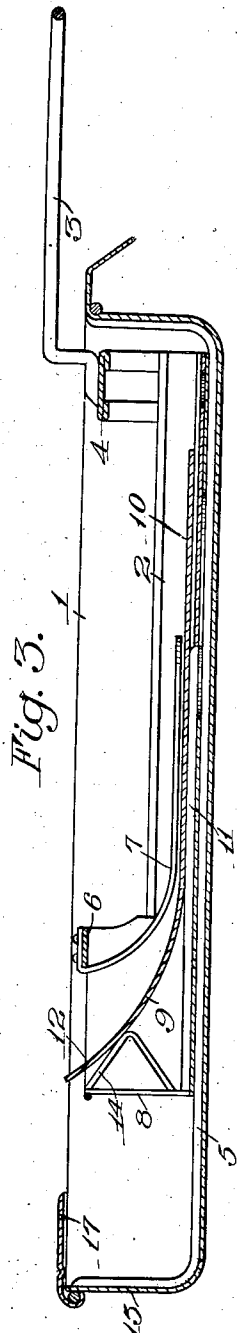


Fig. 3.

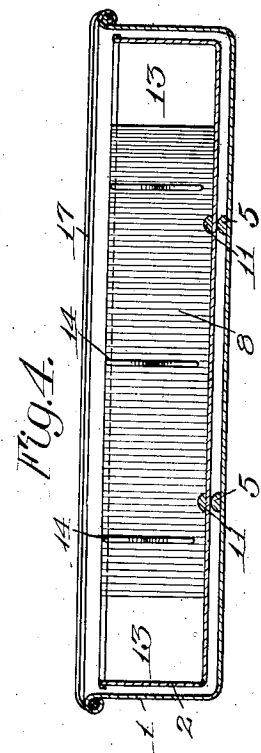


Fig. 4.

Witnesses

Nelson
Russell

Inventor

JOHN S. GREENE

By *Carroll*

his Attorneys

UNITED STATES PATENT OFFICE.

JOHN S. GREENE, OF ROCHESTER, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO COMMERCIAL CAMERA COMPANY, OF PROVIDENCE, RHODE ISLAND, A CORPORATION OF RHODE ISLAND.

PHOTOGRAPHIC-PRINT-HANDLING DEVICE.

1,001,020.

Specification of Letters Patent. Patented Aug. 22, 1911.

Application filed May 13, 1911. Serial No. 627,042.

To all whom it may concern:

Be it known that I, JOHN S. GREENE, of Rochester, in the county of Monroe and State of New York, have invented new and useful Improvements in Photographic-Print-Handling Devices; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My present invention relates to photography and it has for its object to provide simple and efficient means for handling photographic prints incident to the process of developing, fixing, washing or otherwise treating them in a liquid bath.

The improvements are directed in part to features by the provision of which the operator is not required to immerse his hands in the liquid, and a further object of the invention is to provide a device of this character adapted for the day-light method of treating the prints, particularly when fed to the apparatus from an automatic or mechanical device such as a camera that exposes a strip of sensitized material, severs the exposed portion and delivers it for treatment.

To these and other ends the invention consists in certain improvements and combinations of parts all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings:—Figure 1 is a top plan view of a print handling device constructed in accordance with and illustrating one embodiment of my invention. Fig. 2 is a longitudinal central section therethrough taken substantially on the line 2—2 of Fig. 1. Fig. 3 is a similar section but showing the carrier in a different position, and Fig. 4 is a transverse section taken substantially on the line 4—4 of Fig. 2.

Similar reference numerals throughout the several figures indicate the same parts.

Referring more particularly to the drawings, 1 indicates a suitable pan or liquid holding receptacle that may be placed below and adjacent to or within the camera, magazine or other device from which the prints are fed. Within the pan is arranged a preferably tray-shaped carrier 2 which in the

present instance, fits rather closely the transverse interior dimensions thereof, as shown in Fig. 4, but is shorter than the receptacle so that it is permitted a reciprocatory, longitudinal movement back and forth therein. To this end the carrier is provided with a suitable bail or other handle 3 that extends beyond the receptacle and is preferably sufficiently long to be readily accessible from the exterior thereof whatever the position of the carrier. In the present instance the handle is connected to a bridge piece 4 that spans one end of the tray and raises the handle above the rim of the container, the handle being disposed horizontally so that it can project beyond the camera or other device in connection with which it is used, as hitherto mentioned. I also prefer to provide longitudinally extending and upwardly projecting ribs 5 on the bottom of the pan 1 upon which the carrier slides during its reciprocatory movement. Near the opposite end of the carrier, in the present instance, is arranged a guide member comprising a second bridge piece 6 having downwardly curved and preferably light and resilient fingers 7 secured thereto. It is designed that the print or sensitized sheet be fed to or inserted in the apparatus at one side of this guiding member and between it and the adjacent end 8 of the tray-shaped carrier, as shown in Fig. 2, so that as the print 9 descends edgewise its advancing end 10 is disposed by the fingers 7 in a flat position within the carrier and it is preferable that the bottom of the latter be provided with raised ribs 11 similar to the ribs 5 of the container so that the print may not stick to the bottom and will have a body of liquid beneath as well as above it.

With the operation of introducing the print thus far advanced, the problem is to submerge and flatten out the rear end 12 thereof, which, particularly when fed to the developing apparatus by automatic or mechanical means, is left projecting upwardly or outwardly, as shown in Fig. 2, and when the print is light and readily softens under contact with the liquid, as is the case with ordinary print paper, the extent of this projection is considerable, due to the fact that the print has not sufficient inherent stiffness and body to advance its forward edge very far by a longitudinal thrust at its rear edge.

To lower and submerge this portion 12 of the print and carry the latter to a substantially central position within the receptacle in which it is free to spread out and undergo treatment to the best advantage, I form the end wall 8 of the carrier or tray 2 to constitute a baffle plate or member, that will not, however, completely close that end of the carrier. For this purpose I do not extend said wall entirely across the tray, but leave openings 13 at each end thereof and provide a support 14 for reinforcing the top of the wall. By this arrangement, with the parts in the position of Fig. 2, and the receptacle 1 filled to the proper extent with a liquid suitable for the intended bath, the carrier is drawn to the opposite end of the pan by manipulation of the handle 3 and to the position shown in Fig. 3. When this occurs the inertia of the liquid will cause it to ride against the rear end 12 of the print and lower it to some extent, as shown in the last mentioned figure, in which the latter rests against supports 14 preferably provided on the baffle plate 8 to prevent it from crumpling or folding. Immediately thereafter the carrier is thrust back to its former position, whereupon the liquid between the baffle plate 8 and the adjacent end wall 15 of the receptacle, will back up and have its level raised by the sudden impact of the baffle plate, splashing of the contents being prevented by an overhanging plate 17, after which momentary rise it will flow or gush back into the tray-shaped carrier 2 through the openings 13. As it does so, this bulk of fluid comes in contact with the raised end 12 of the print wetting it down and flattening it out and at the same time has a tendency to wash the print bodily toward the opposite end of the container so that it can lie perfectly flat and be uniformly treated. Of course, these movements may be duplicated in case the print is not carried forward, as indicated, on the first actuation and thereafter the carrier may be reciprocated slowly back and forth to cause the liquid to flow back and forth over the print in the manner desired in such instances. The carrier is also utilized to remove the print after treatment, for which purpose it is drawn forward and raised, by means of the handle 3, until its edge comes above the rim of the receptacle 1 whereupon the forward end of the print becomes readily accessible to the fingers of the operator and for facilitating the grasping of the edge of the print the corresponding edge of the bottom of the carrier is preferably cut away, as at 16.

With a device constructed in accordance with my invention and which is relatively simple in construction, it will be seen that prints may be washed and manipulated in a bath of any kind without requiring the op-

erator to place his hands in the liquid, which would be undesirable in that it is often of a nature causing stains. It is only required to handle the print when it is removed, and even this may be done away with through the use of tongs or other devices, if desired. Furthermore, manipulation is effected from one end of the device and it may therefore be conveniently placed beneath any desired apparatus from which the prints are automatically fed thereto.

Another advantage gained from the use of a device constructed in accordance with my invention is that when the receptacle 1 is utilized as a developing pan from which the prints must be transferred to the fixing solution or hypo, there is no possibility of the latter solution being mixed in with the fixing bath which deteriorates rapidly when contaminated in this way. When an operator makes the transfer by hand, as formerly, his hands become wet with fixing solution which is carried into the developing pan in the process of handling the print therein.

I claim as my invention.

1. In a photographic print handling device, the combination with a liquid containing receptacle, of a carrier shorter than the receptacle arranged therein to reciprocate back and forth longitudinally thereof and adapted to receive a print introduced edgewise and a baffle member on the carrier adapted to raise the level of the liquid before it, as the carrier is moved toward one end of the receptacle and permit the back flow to wash the print.

2. In a photographic print handling device, the combination with a liquid containing receptacle, of a carrier shorter than the receptacle arranged therein to reciprocate back and forth longitudinally thereof, a guide for disposing flatwise within the carrier the advancing end of a print introduced edgewise and a baffle member on the carrier adapted to raise the level of the liquid in the receptacle before it, as it is moved toward one end of the latter and to permit the back flow to wash and flatten out the rear end of the print.

3. In a photographic print handling device, the combination with a liquid containing receptacle, of a tray shaped carrier shorter than the receptacle arranged therein to reciprocate back and forth longitudinally thereof and adapted to receive flatwise the advancing end of a print introduced edgewise and a baffle plate rising from the carrier at one end adapted to raise the level of the liquid in the receptacle before it as it is moved toward the adjacent end of the latter, and to permit the back flow to wash and flatten down the rear end of the print.

4. In a photographic print handling device, the combination with a liquid con-

5 taining receptacle, of a tray shaped carrier shorter than the receptacle arranged therein to reciprocate back and forth longitudinally thereof, a baffle plate at one end of the carrier and a guide adjacent thereto for disposing flatwise within the carrier the advancing end of a print introduced edgewise between the guide and baffle plate.

10 5. In a photographic print handling device, the combination with a liquid containing receptacle, of a carrier shorter than the receptacle arranged therein to reciprocate back and forth longitudinally thereof and

adapted to receive a print introduced edgewise and a baffle member on the carrier 15 adapted to raise the level of the liquid before it as the carrier is moved toward one end of the receptacle and permit the back flow to wash the print, and a handle for the carrier extending beyond the receptacle and 20 accessible from the exterior of the latter in all positions of the carrier.

JOHN S. GREENE.

Witnesses:

RUSSELL B. GRIFFITH,
NELSON COPP.