

# UNITED STATES PATENT OFFICE.

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## PROCESS OF DEVELOPING PHOTOGRAPHIC PLATES AND FILMS.

1,029,511.

Specification of Letters Patent.

Patented June 11, 1912.

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*To all whom it may concern:*

Be it known that I, HARRY M. PRINDLE, a citizen of the United States, residing in Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Processes of Developing Photographic Plates and Films, of which the following is a specification.

This process is particularly, but not necessarily exclusively, adapted to the developments of plates or films which are sensitive to all colors, and the invention has for its principal object to enable a plate which has been inserted in a plate-holder in the ordinary manner, to be removed from the plate-holder, or a film removed from the camera, in subdued daylight, twilight, or subdued artificial light, and said plate or film developed in subdued daylight or artificial light without any necessity for a dark room or ruby light.

In my process:—first, the plate or film after having been removed from the plate-holder or camera is, in subdued actinic light, such as daylight or artificial light, immersed in a bath (which may be in an open tray), said bath consisting of a developer, such as metol developer for example, and bichlorid of mercury. Preferably sodium chlorid is employed in connection with the bichlorid of mercury since it very materially increases the solubility of the bichlorid, the water, bichlorid of mercury and sodium chlorid being mingled in substantially the following proportions viz., 16 parts water, 1 part bichlorid of mercury and 1 part salt, the said compound and developer being mingled and being in substantially the proportions of one to four parts of the compound to sixty-four parts of the developer. While this plate is being immersed in the bath in the open tray, no dark room or ruby light is necessary. Second, the plate or film is removed from the above mentioned bath and washed in water or other suitable liquid. Third, the plate or film is placed in an ordinary fixing bath of, say, sodium thiosulfate and water. The second and third steps are old in themselves considered.

By means of this process a plate which

is sensitive to colors, such as a Carbutt polychromatic plate, which has been inserted in the plate-holder in the ordinary manner, and removed therefrom in subdued artificial light or subdued daylight, may be developed without the employment of a dark room or ruby light, but by subdued actinic light, doing away with halation. Moreover, as an over-exposure, unless excessive, is not injurious, the objects in shadows, or the subshadows, are brought out with a greater degree of detail.

This process is especially valuable where plates or films have been accidentally exposed to the light so that they are light-struck or fogged either before or after they have been exposed in the camera, many of such plates giving good results when developed according to this process.

Of course the steps in this process may be taken in darkness or by ruby light, but no better effect is produced by so doing.

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

1. The process of original development of photographic plates or films, consisting in immersing the plate or film in a bath comprising water, bichlorid of mercury, sodium chlorid, and a developer; washing the plate or film; and placing the plate or film in a fixing bath, substantially as herein described.

2. The process of original development of photographic plates or films, consisting in immersing the plate or film while in subdued actinic light, in a bath comprising water, bichlorid of mercury, sodium chlorid, and a developer; washing the plate or film; and placing the plate or film in a fixing bath, substantially as herein described.

3. The process of original development of photographic plates or films, consisting in immersing the plate or film, while in subdued actinic light, in an open or exposed bath comprising water, bichlorid of mercury, sodium chlorid, and a developer; washing the plate or film; and placing the plate or film in a fixing bath, substantially as herein described.

4. The process of original development of

photographic plates or films consisting in  
immersing the plate or film in a bath com-  
prising water, bichlorid of mercury and a  
developer, and thereafter fixing the plate or  
5 film.

In testimony whereof I have signed my

name to this specification in the presence  
of two subscribing witnesses.

HARRY M. PRINDLE.

Witnesses:

HENRY W. WILLIAMS,

A. K. HOOD.

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