

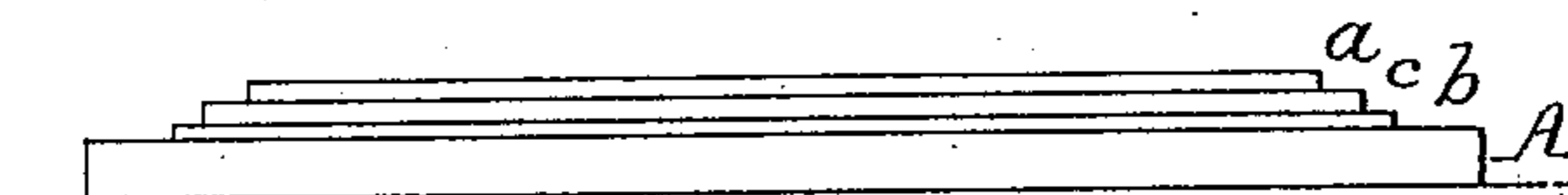
(Model.)

J. H. WHITLEY.

Photo Mechanical Printing Plate.

No. 229,930.

Patented July 13, 1880.



Attest:  
Courtney A. Cooper.  
J. O. M. Cleary.

Inventor:  
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By his attorney,  
Charles E. Foster

# UNITED STATES PATENT OFFICE.

JOHN H. WHITLEY, OF ELMIRA, NEW YORK.

## PHOTO-MECHANICAL PRINTING-PLATE.

SPECIFICATION forming part of Letters Patent No. 229,930, dated July 13, 1880.

Application filed May 7, 1880. (Specimens.)

*To all whom it may concern:*

Be it known that I, JOHN H. WHITLEY, of Elmira, Chemung county, New York, have invented an Improvement in Plates for Photo-Mechanical Printing, of which the following is a specification.

The object of my invention is a plate intended for use in what is known as "photo-mechanical printing," the said plate consisting of a sheet of glass or porcelain or other suitable material and certain films of such a character as to insure the adhesion of the gelatine during the inking and printing under pressure.

As is well known, it has always been a matter of difficulty to secure the gelatine printing-film to the glass or other backing in such a manner as will prevent its displacement by the suction of the roller in inking and under the heavy pressure to which the plate is subjected in mechanical printing. To avoid this difficulty I interpose between the glass plate A and the gelatine film *a* two films, *b* *c*, the first being formed by oxidizing alcohol by chromic acid or other equivalent substance, as ferric acid or manganic acid, which will, when the liquid is poured on the plate and evaporated, form a film insoluble in alcohol or water, and will adhere tenaciously both to the plate and to the superposed film. A good proportion is about two and one-half grains of acid to

one ounce of alcohol flowed upon the plate or otherwise applied and allowed to dry; the second a film of collodion to which has been added a small percentage of mastic or some other resinous substance—about four grains to an ounce of collodion. The proportions may be varied, however, with more or less success. I also prefer to add to the collodion about one-sixteenth part methylic alcohol.

Upon the collodion film I apply the film, *a*, of sensitized gelatine.

The combined films, as above described, with the glass backing, constitute a durable printing-plate which will maintain its integrity during inking and under the heavy pressure to which it is subjected in the process of mechanical printing.

I claim—

A plate for photo-mechanical printing, consisting of the backing-plate A, sensitized gelatine surface film *a*, and the interposed films *b* and *c*, formed substantially as described, and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN H. WHITLEY.

Witnesses:

N. P. FASSETT,  
F. A. THOMPSON.