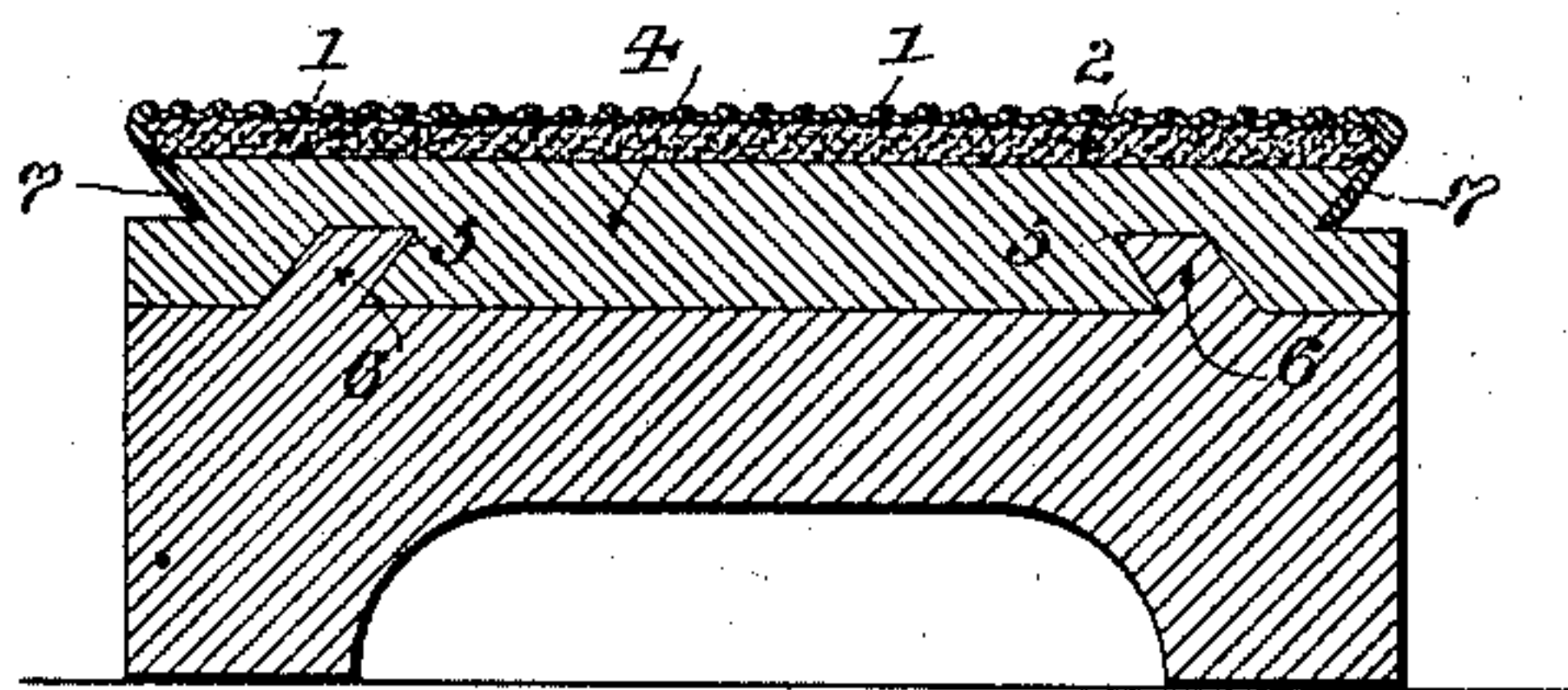


(No Model.)

G. H. BENEDICT.
ELECTROTYPE PLATE AND PROCESS OF MAKING SAME.
No. 575,321. Patented Jan. 19, 1897.



WITNESSES:

Arthur Ashley
Geo M. Coppenhaver

INVENTOR

G. H. Benedict
BY
P. T. Dodge
ATTORNEY.

UNITED STATES PATENT OFFICE.

GILBERT H. BENEDICT, OF ELLENVILLE, NEW YORK.

ELECTROTYPE-PLATE AND PROCESS OF MAKING SAME.

SPECIFICATION forming part of Letters Patent No. 575,321, dated January 19, 1897.

Application filed August 17, 1896. Serial No. 603,043. (No model.)

To all whom it may concern:

Be it known that I, GILBERT H. BENEDICT, of Ellenville, county of Ulster, and State of New York, have invented a new and useful Improvement in Electrotypes and Analogous Plates and the Process of Making Same, of which the following is a specification.

This invention has reference to electrotypes or similar plates or shells and to the process of making the same, the object of the invention being to produce a plate which will be light and durable and which will possess a printing-surface of a character to produce clean and clear impressions.

With these ends in view my invention consists, primarily, of backing an electrotypes or similar shell with a strengthening filling consisting of a plastic cement having a base of metallic oxid. To this filling is applied a backing of a material of a fibrous nature, such as papier-mâché, wood-pulp, or the like.

The invention also consists in the improved process of treating electrotypes or similar shells with a view of strengthening and stiffening the same.

The invention also consists in the details of construction and the combination of parts hereinafter described and claimed.

The accompanying drawing represents a vertical section through an electrotypes-plate constructed in accordance with my invention and applied to a base-block.

Referring to the drawing, 1 represents a shell produced by electrotyping or otherwise having applied to its back a layer or filling 2, of plastic cement, having a base of a metallic oxid, preferably zinc. This filling is applied to the shell so as to completely fill all the cavities and depressions therein, and the metallic oxid forming an amalgam with the material composing this shell the cement will firmly and intimately unite therewith. Before the filling hardens I apply to its back a layer of backing 4, of a material of a fibrous character, preferably papier-mâché or wood-pulp, and I firmly press this backing into intimate contact with the cement, which action will result in the penetration of the fibers of the backing in the surface of the filling, thereby forming a complete union between the two. The edges of this papier-mâché backing are notched or undercut, as at 7, and the edges of the shell are turned down-

ward and seated tightly in these notches, as shown, thereby firmly securing the shell to the backing.

As a result of the application to the shell of the filling and backing described I produce a plate which will be light and durable, and which will possess the requisite degree of stiffness and strength, and which, by reason of the fibrous backing, will possess a slight degree of elasticity, a condition the most favorable for the production of a clean and clear impression.

The plate thus produced may be secured to the base-block in any suitable and well-known manner, preferably by forming in the fibrous backing inclined grooves 5, adapted to receive similarly-formed ribs 6 on the base-block.

Having thus described my invention, what I claim is—

1. The process of treating electrotypes or similar metallic shells to strengthen and stiffen the same, which consists in filling the cavities and depressions in the back of the shell with a plastic cement having a base of a metallic oxid, forming an amalgam of the metallic oxid and the rear face of the metallic shell, applying to the cement while in a plastic condition a fibrous backing, and incorporating the fibers of the backing in the cement.

2. The improved electrotypes-plate consisting of an electrotypes-shell having the cavities in its rear face filled with a plastic cement embodying a base of a metallic oxid, whereby the metallic oxid will form an amalgam with the face of the shell, and a fibrous backing applied to the filling of cement with the fibers of the backing incorporated in the cement.

3. The improved electrotypes-plate consisting of a shell having applied to its back a filling consisting of a plastic cement having a base of oxid of zinc, and a backing of papier-mâché or analogous material applied to said filling.

In testimony whereof I hereunto set my hand, this 13th day of August, 1896, in the presence of two attesting witnesses.

GILBERT H. BENEDICT.

Witnesses:

C. A. NEALE,

W. R. KENNEDY.