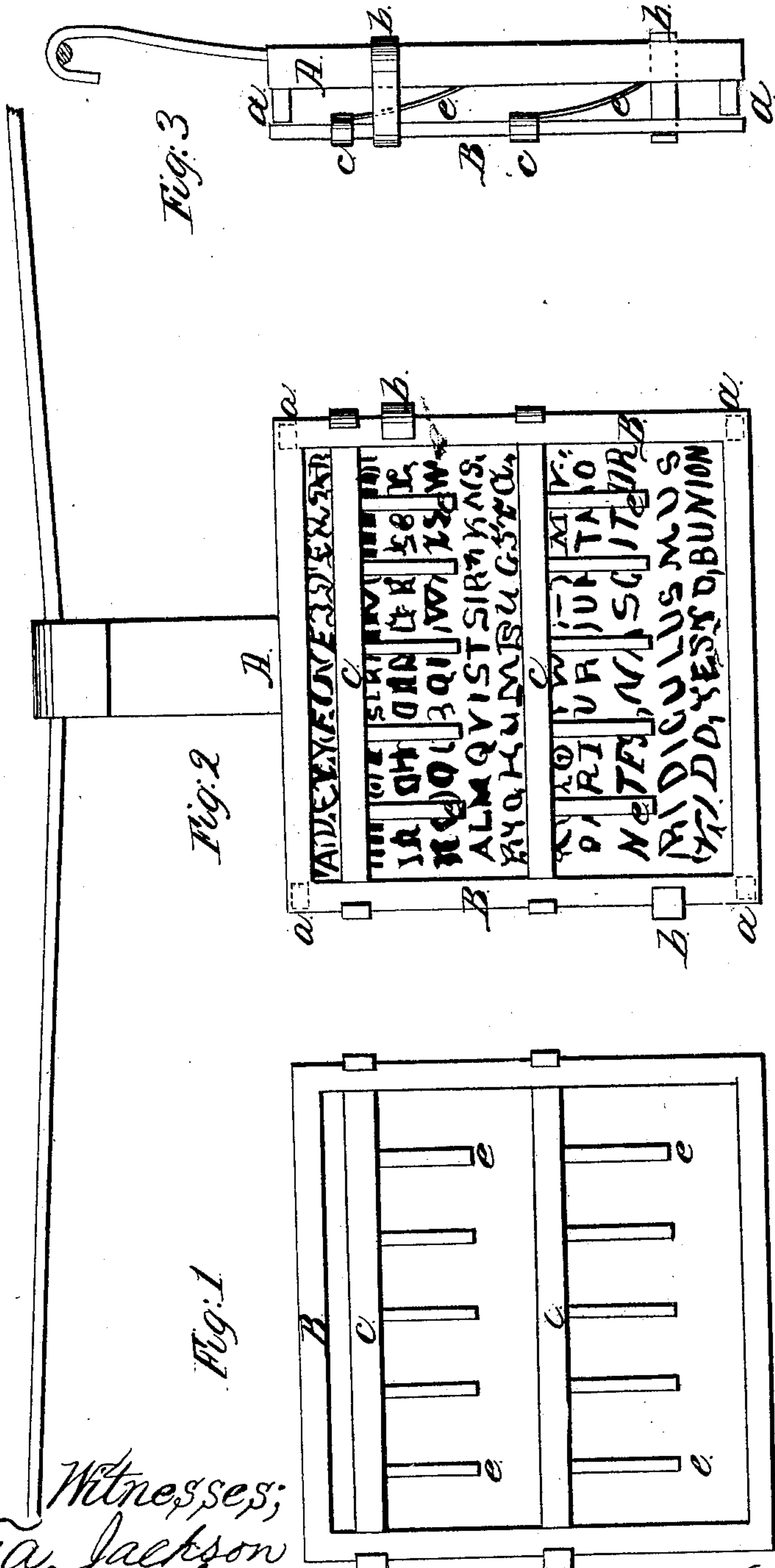


S. Hallock.

Electrotyping.

N<sup>o</sup> 63,512.

Patented Apr. 2, 1867.



Witnesses;  
W. A. Jackson  
J. A. Servell

Inventor;  
Samuel Hallock  
Per M. W. Co  
Attorney

# United States Patent Office.

SAMUEL HALLOCK, OF NEW YORK, N. Y.

*Letters Patent No. 63,512, dated April 2, 1867.*

## IMPROVED SURFACE CONDUCTOR FOR ELECTROTYPING.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, SAMUEL HALLOCK, of the city, county, and State of New York, have invented a new and improved Surface Conductor for Electrotyping; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a detached view of my improved surface conductor for electrotyping.

Figure 2 is a top view of the same when connected with a mould for electrotyping.

Figure 3 is an edge view of the same.

Similar letters of reference indicate like parts.

This invention relates to a new and improved mode of electrotyping, and consists in applying a metal conductor of electricity to the surface of the mould to be electrotyped instead of the usual method of employing wire pins pierced through the wax mould in contact with the bottom of the pan. The ordinary method of electrotyping through the medium of fine wire pins is slow and uncertain, as the currents of electricity passing through them are necessarily very weak, and are often cut off entirely by the intervention of a thin coating of wax which may attach itself to the point of the wire, so that the conductor does not come into actual contact with the metal bottom of the pan, thus producing imperfect plating of the face of the mould. While the time required by the wire conductors to electrotype a mould is usually about twelve hours, by my improved method the operation may be perfectly performed in a few minutes.

A represents an ordinary mould pan, and B a metal frame set upon projections *a a* at the corners, and fastened together by clamps *b b*, or in any convenient manner. Within the pan A is made the wax mould of a page of letter-press, which is covered with a thin coating of plumbago in the usual way. The frame B is provided with any necessary number of cross-bars *c c*, which are made adjustable by sliding loops at their ends or in any suitable way. Attached to the bars *c c* are a number of little metal arms, *e e*, the free ends of which are brought in contact with the plumbago surface of the mould at points on the spaces between the lines of letters, and the ends of the arms *e e* may be held in this position of actual contact with the plumbago surface of the mould by their natural spring or by some other device for bearing them down upon the mould. The pan A is then suspended in the bath on a wire connected with the battery in the usual manner, as shown in fig. 2. The currents of electricity will pass through the metal pan, and by the connections of the projections *a a* at the corners, through the frame B, the cross-bars *c c*, and the arms *e e*, to the plumbago surface of the mould, upon which will be deposited a thin film of copper. The surface conductor may then be removed and the mould placed in the bath again, to remain until the deposit of copper is of sufficient thickness, in the ordinary manner. The pan A is to be coated with wax in the usual way, except on the ends of the projections *a a*, where the bare metal must be in actual contact with the metal frame B, which is made bare at those points, and also at the ends or tips of the arms *e e*. All other parts of the frame B, the bars *c c*, and the arms *e e*, are to be covered with gutta percha or other non-conductor, as a permanent coating, in preference to wax.

This instrument for electrotyping by contact with the surface of the mould may be adapted to every variety of electrotyping, and my invention is not confined in its application to letter-press electrotyping.

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

A surface conductor for electrotyping, arranged and operating substantially as herein described.

SAMUEL HALLOCK.

Witnesses:

WM. F. McNAMARA,

ALEX. F. ROBERTS.