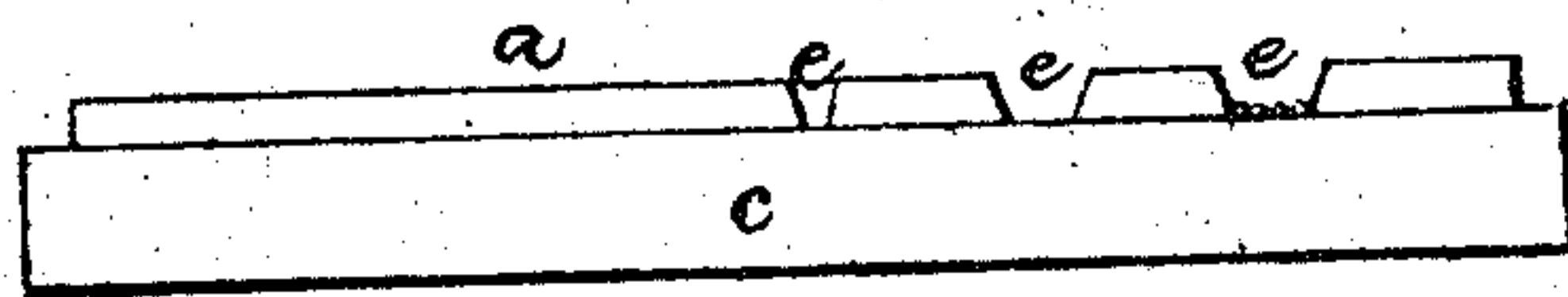


*T Bardon,*

*Engraving Plate,*

*Nº 81,461,*

*Patented Aug. 25, 1868.*



*Witnesses;*  
*Geo. A. Walker*  
*Chas. H. Smith*

*Inventor,*  
*James Bardon*  
*per L. W. Furrell*

# United States Patent Office.

THOMAS BARDON, OF BROOKLYN, NEW YORK.

*Letters Patent No. 81,461, dated August 25, 1868.*

## IMPROVEMENT IN ENGRAVERS' PLATES.

*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, THOMAS BARDON, of Brooklyn, in the county of Kings, and State of New York, have invented and made a certain new and useful Improvement in Engraving; and I do hereby declare the following to be a full, clear, and exact description of the said invention, and the features that distinguish the same from other modes of engraving.

In wood-engraving it is necessary that the surface be cut away, and the lines left in relief to be printed from. In this character of work it is very difficult to "pick out" the quadrangular spaces between fine intersecting lines, and in almost all engravings there is more work required in cutting out the surface on each side of a line and leaving that line than there would be in engraving the line itself.

To facilitate engraving, efforts have heretofore been made to engrave by the use of wax or plastic material spread upon a plate of glass, and then removing such material where the lines are required, and electro-typing to produce the printing-plate or block. In this character of engraving, the direct picture is drawn and engraved, (not in reverse,) and the surface for the ink is the electro-type at the point where the plate has been exposed by removing the wax.

In this last-named style of engraving, the small particles of wax that are left projecting between intersecting lines are liable to break off if the plastic compound is sufficiently hard to be cut, and where the wax is of a softer nature it is apt to spread; thus the forming of one line is apt to injure the next line, or partially fill up intersecting lines.

The nature of my said invention consists in an engraving-surface formed of a soft and slightly brittle metal or metallic alloy, such as type-metal, fused upon the surface of a harder metallic plate, such as brass or steel. By this mode of forming an engraving-surface, the lines are produced by cutting the soft coating-metal down to the surface of the plate of which it forms a coating, and the said softer metal being cut with great ease, and being of a character to cut freely without spreading under the tool, or breaking off, the engraving is performed with great facility and beauty, and the electro-type or cast made from the said plate in any desired manner is to be used for printing from, its surface being a plane coinciding with the surface of the harder metal, on which the soft metal has been applied and engraved.

In the annexed drawing, *a* represents the surface to be engraved, formed of soft metal, upon the harder metal plate *c*, the incisions at *e e*, in the metal *a*, illustrating the mode of engraving through the metal *a* to the surface of *c*.

What I claim, and desire to secure by Letters Patent, is—

An engraving-surface, formed of type-metal, or its equivalent, fused upon the surface of a harder metallic plate, such as brass or steel, for the purposes and substantially as set forth.

In witness whereof, I have hereunto set my signature, this seventh day of December, A. D. 1867.

THOMAS BARDON.

Witnesses

GEO. DENNETT WALKER,  
CHAS. H. SMITH.