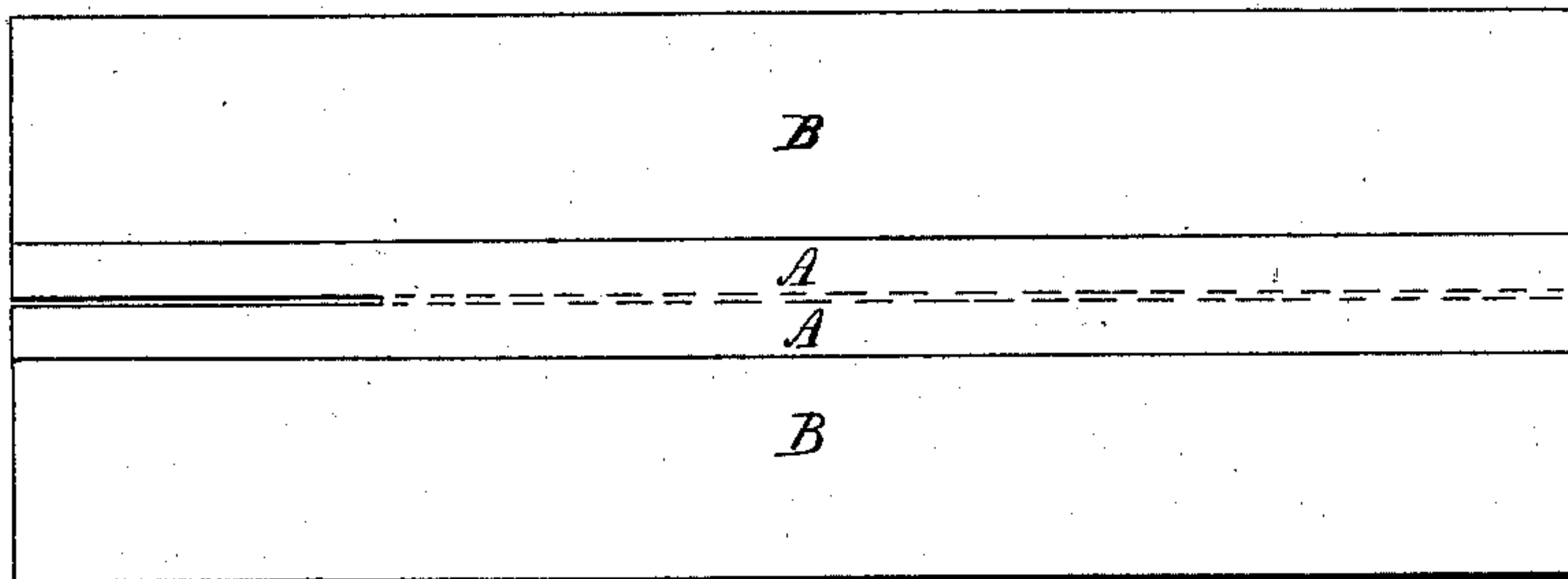


G. C. SETCHELL.  
Engraving-Blocks.

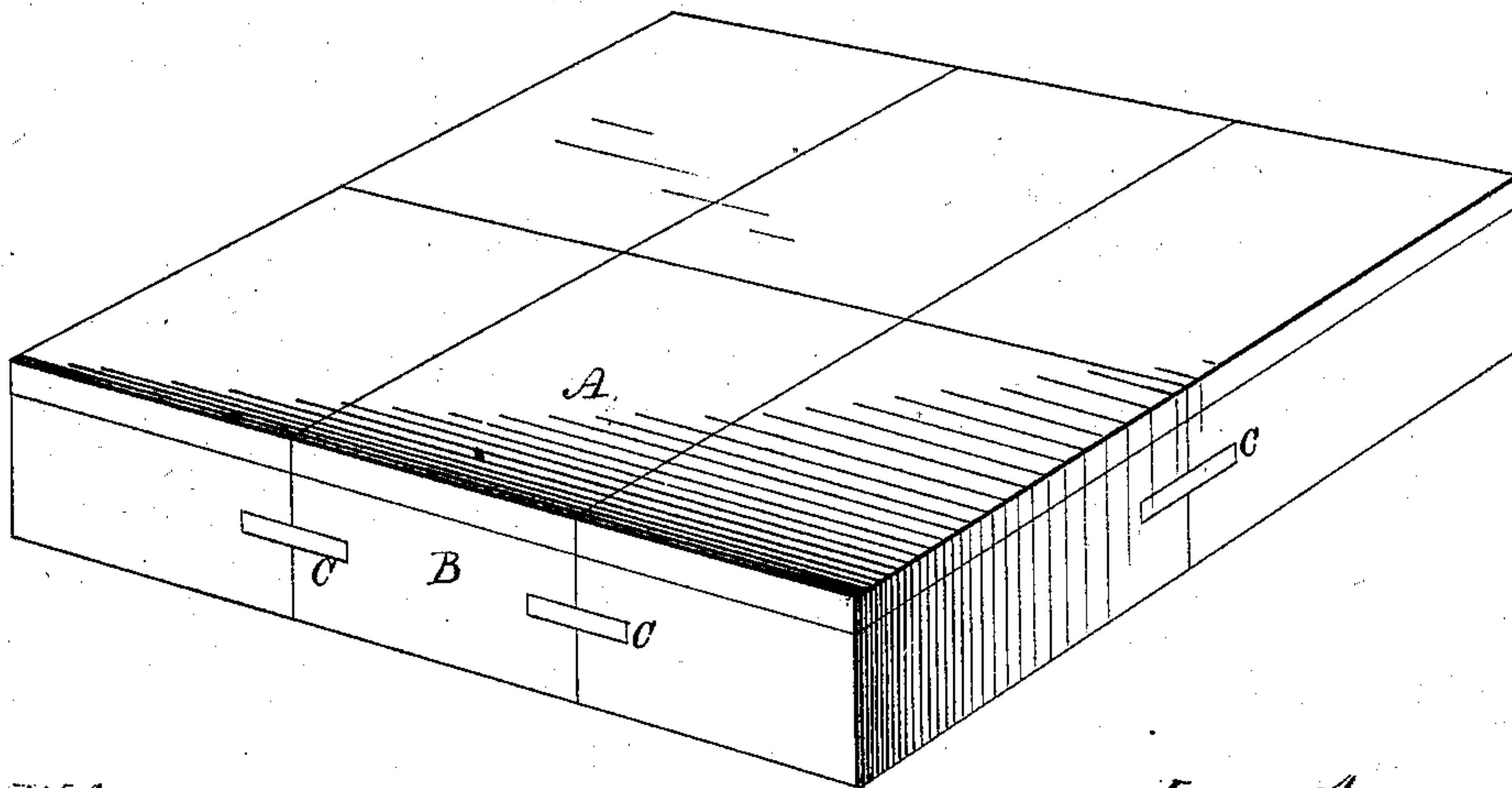
No. 203,856.

Patented May 21, 1878.

*Fig. 1.*



*Fig. 2.*



*Witnesses.*

*Webster Park*  
*H. S. Coit*

*Inventor*

*Geo. C. Setchell*

# UNITED STATES PATENT OFFICE.

GEORGE C. SETCHELL, OF NORWICH, CONNECTICUT.

## IMPROVEMENT IN ENGRAVING-BLOCKS.

Specification forming part of Letters Patent No. 203,856, dated May 21, 1878; application filed March 21, 1877.

*To all whom it may concern:*

Be it known that I, GEORGE C. SETCHELL, of Norwich, in the State of Connecticut, have invented certain Improvements in Engravers' Blocks, of which the following is a specification:

My invention has a twofold object—first, to construct new blocks in an improved manner, and, secondly, to utilize all engraved blocks, which, having been once cut, either are worn out or have become no longer valuable to preserve.

The accompanying drawings show clearly my improved block. The upper view represents my mode of constructing blocks, either out of new or old wood, of double thickness, and the lower view represents the finished block, which is produced by splitting the double-thick blocks through the middle of the box-wood, as shown by the dotted lines in the drawing, and joining the sections edge to edge.

A represents the box-wood upper portion of my improved block; B, the cheap wood backing, and C the splines which should be used to strengthen the joints between the sections of a finished block.

In utilizing old blocks I first dress off all the engraved portion, and also the back side of the block, until a smooth plane surface is reached on both sides of the box-wood; but in case new box-wood is used, it is first sawed about half the standard thickness of engravers' blocks, and dressed off in the same manner.

I next glue firmly upon each side of this box-wood center a cheap wood backing, of mahogany or other suitable wood, which has been previously dressed, so as to make strong glue-joints. After the glue-joints have become thoroughly set, these double-thick blocks are divided through their box-wood central layer, and then their edges are dressed off and grooves cut in the coarse wood backing for the insertion of splines, after which these sections are glued together in the ordinary manner, to form engravers' blocks of any required dimensions, it never before having been practicable to obtain large engravers' blocks without joining pieces together.

The great saving in expense by my improved blocks is manifest, for by the utilizing of old blocks, which hitherto have been worthless, when new box-wood is used only about one-quarter as much is required, and for the re-

mainder a comparatively very cheap wood back is used, thus very largely reducing the expense.

Again, my improved blocks are much stronger than the ordinary box-wood blocks now in use, for the glue-joint between the box-wood top and the cheap wood back, owing to the glue entering the end grain of the wood in both, and the large surface thereof, is abundantly strong, and therefore my block is quite as good as a block of solid box-wood; a great increase of strength is derived from the glue adhering more closely to the edge of the coarse wood back than to the edge of the box-wood; and, besides, the splines will adhere much stronger in the grooves of the backing than in the box-wood as ordinarily used. Thus finished engravers' blocks are produced which, besides the great advantage of cheapness, have also the additional advantage of much greater strength in all their joints than the ordinary blocks.

I have found it necessary to glue the box-wood face upon the end wood of the backing, because if it is put upon the side of a board the shrinkage of the box-wood face will inevitably spring up the ends of the board, so that it will become warped and wholly unfit for use; consequently this end wood backing becomes the valuable and distinguishing feature of my improvement.

I am aware that it has been a common practice to produce large blocks by joining small blocks edge to edge with glue and bolts, and also that a wood face has been used, secured upon the side of a board with glue or pins, for use in calico-printing, and therefore I make no claim of putting a face of wood upon the side of a board, nor for joining blocks edge to edge to produce larger ones; but

I do claim as my invention—

The blocks herein described, for the purpose of wood-engraving, for letter-press printing, when these blocks are made by gluing a box-wood face upon the end grain of cheap wood backing, so that the direction of the grain of the wood shall be the same through both the face and the backing, substantially as and for the purposes herein set forth.

GEO. C. SETCHELL.

Witnesses:

WEBSTER PARK,  
H. S. COIT.