

J. Gray.
Truss Bridge.

N^o 26,583.

Patented Dec. 27, 1859

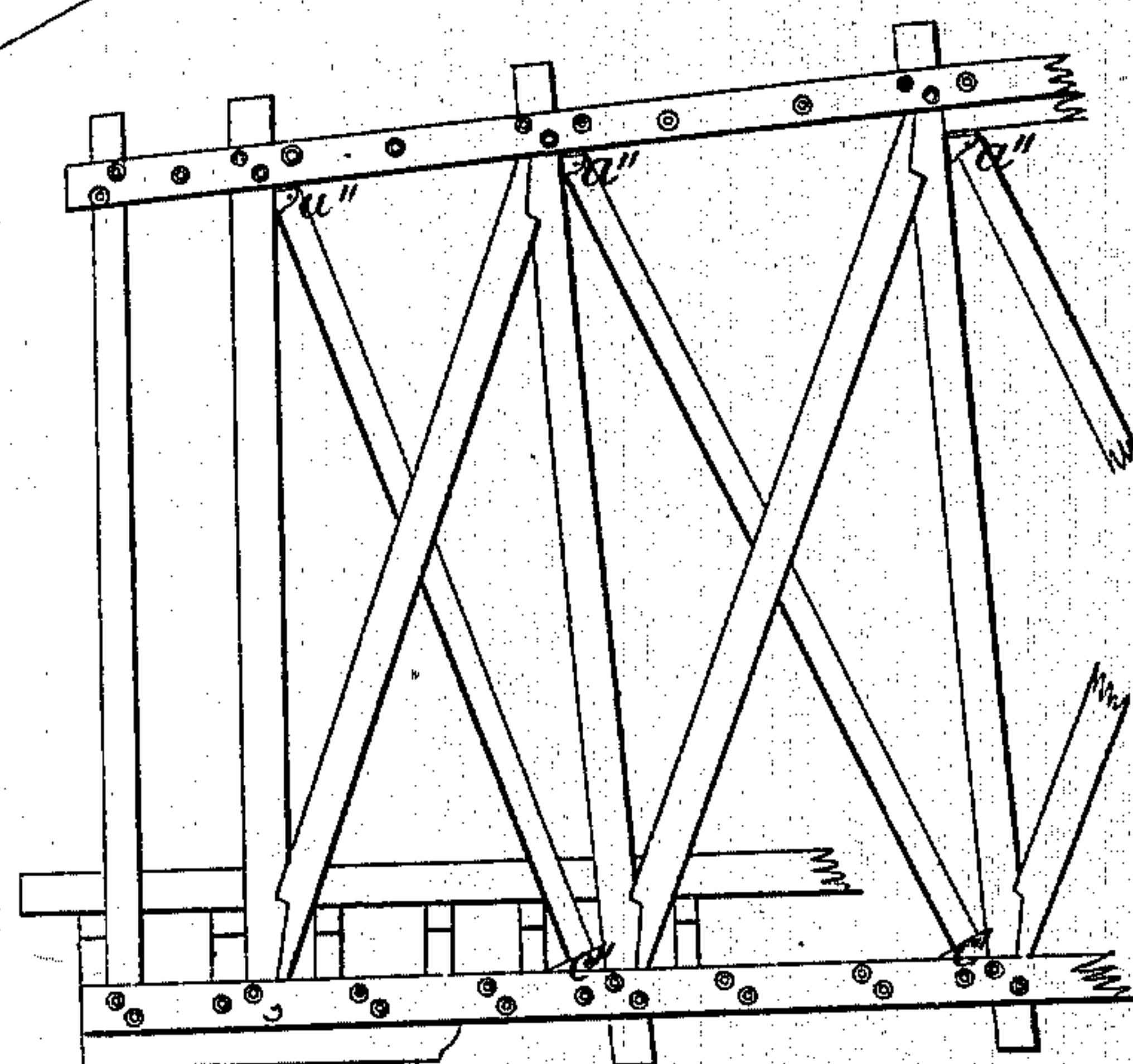
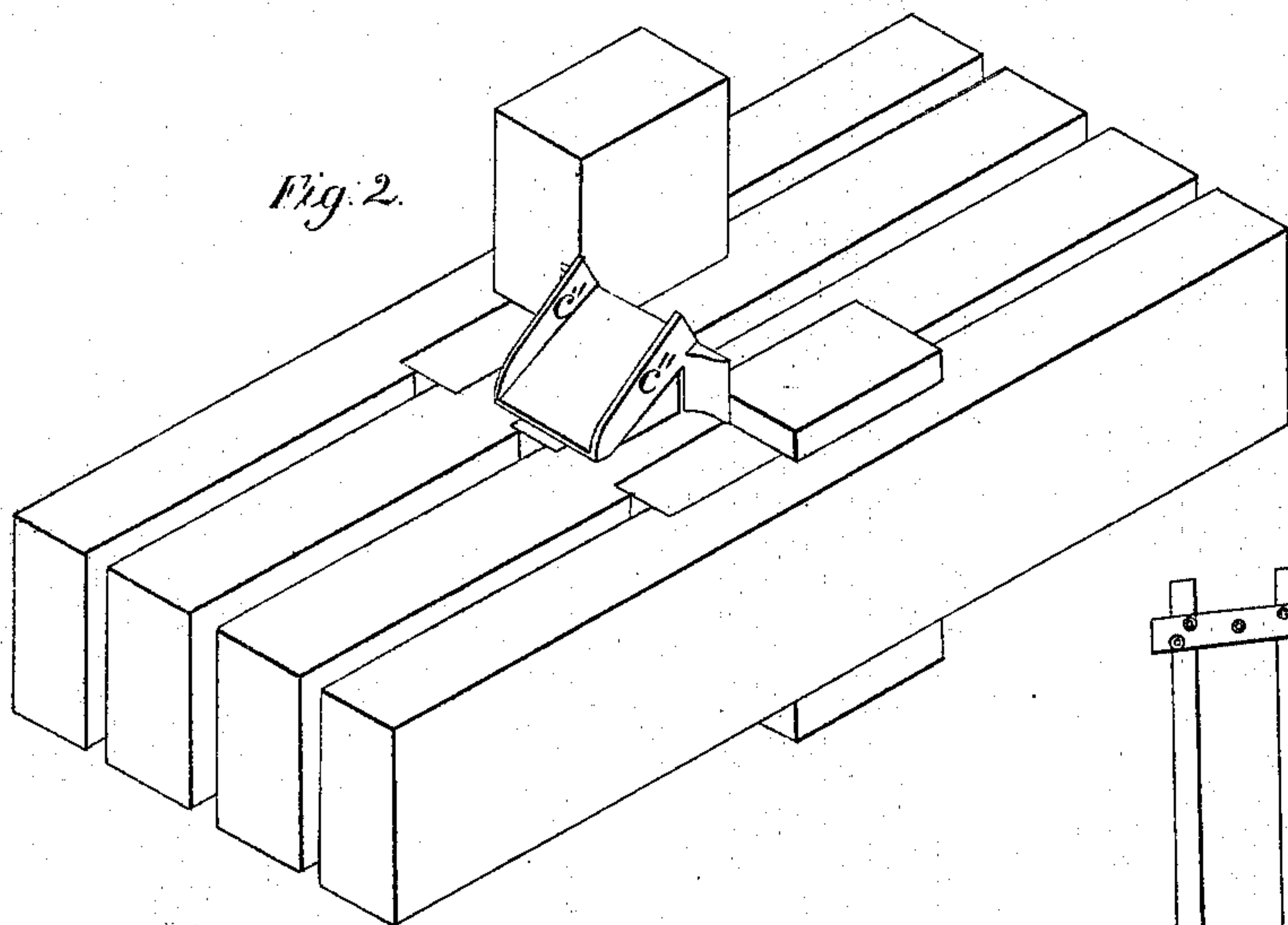


Fig. 1

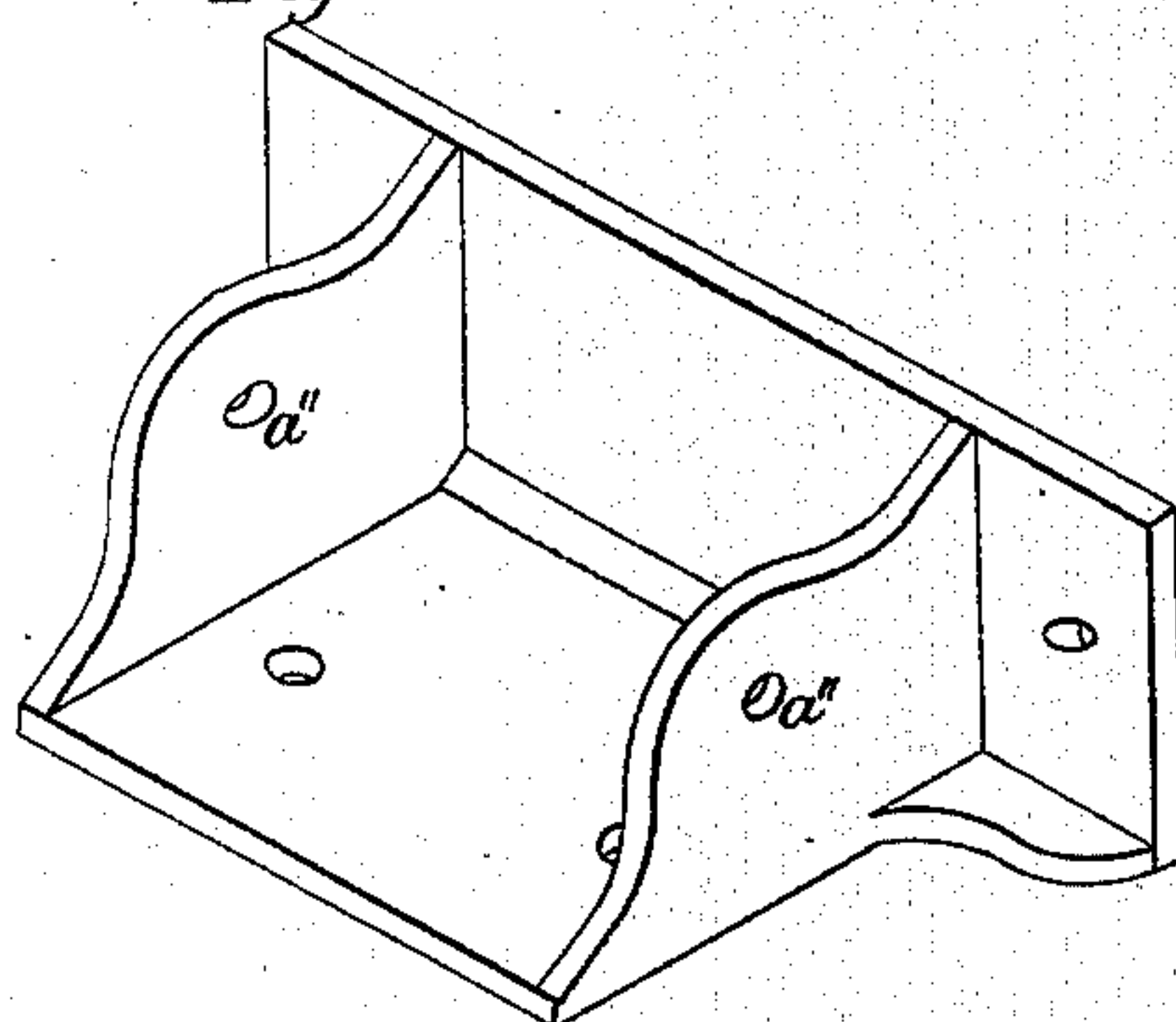
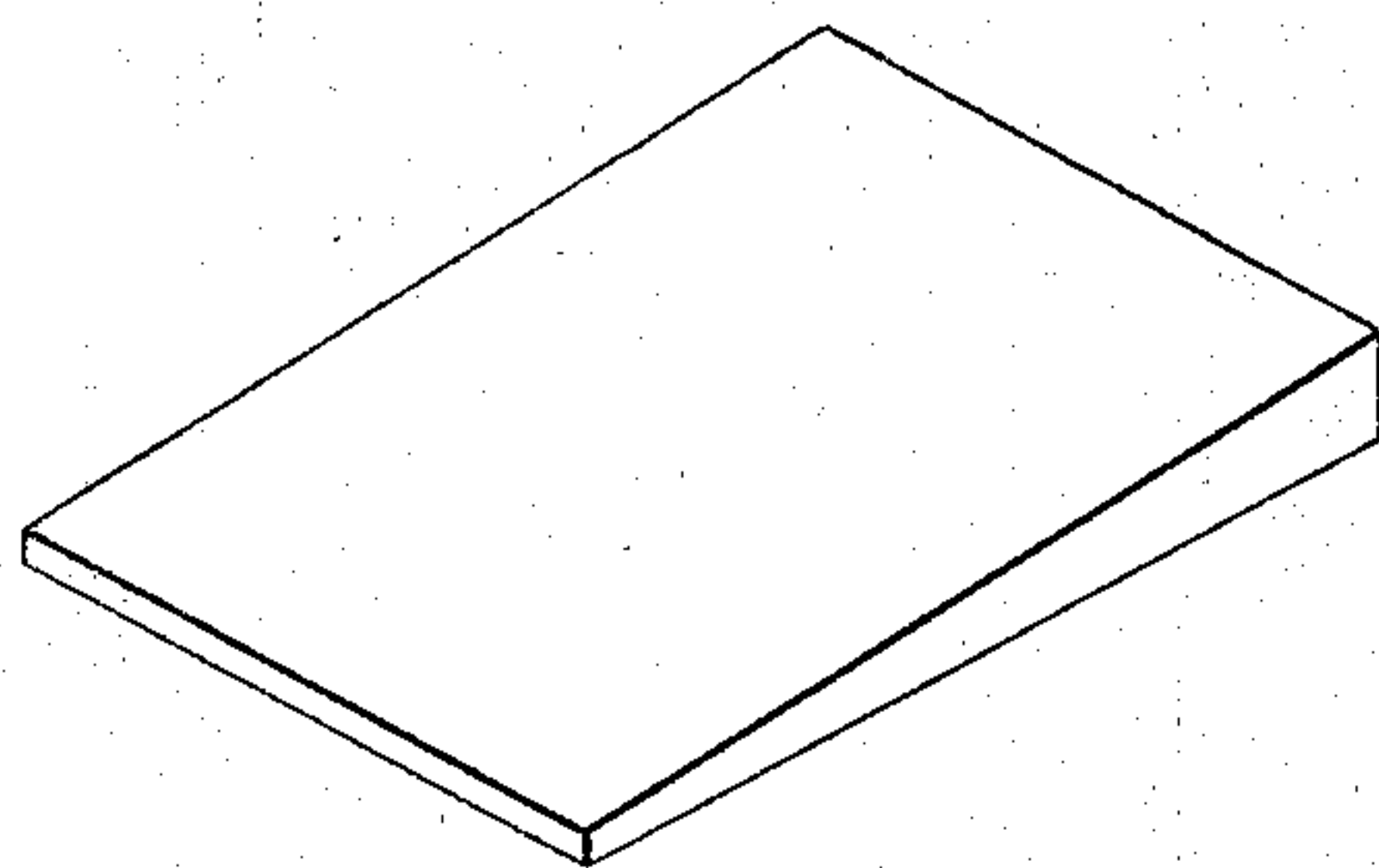
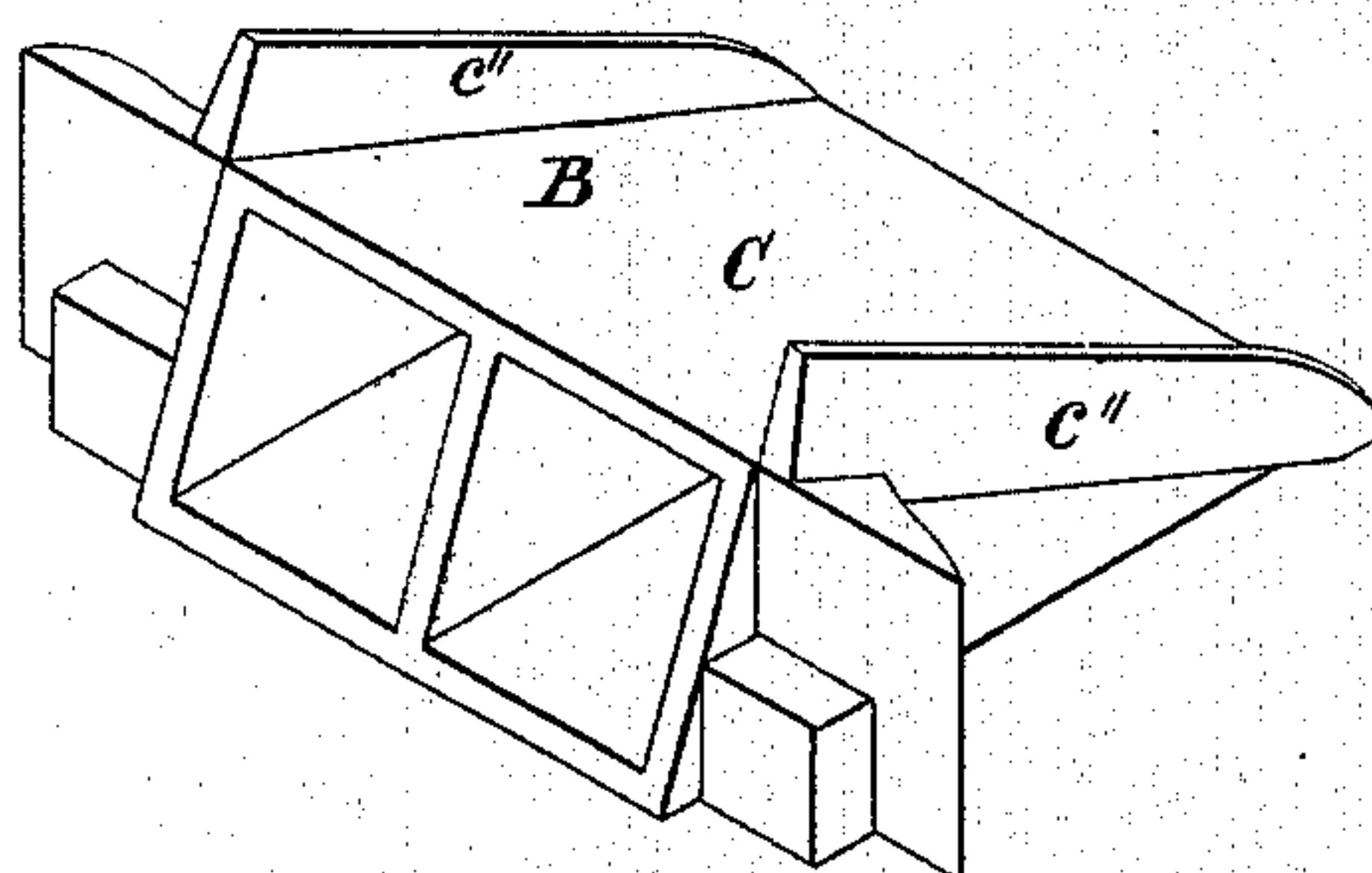
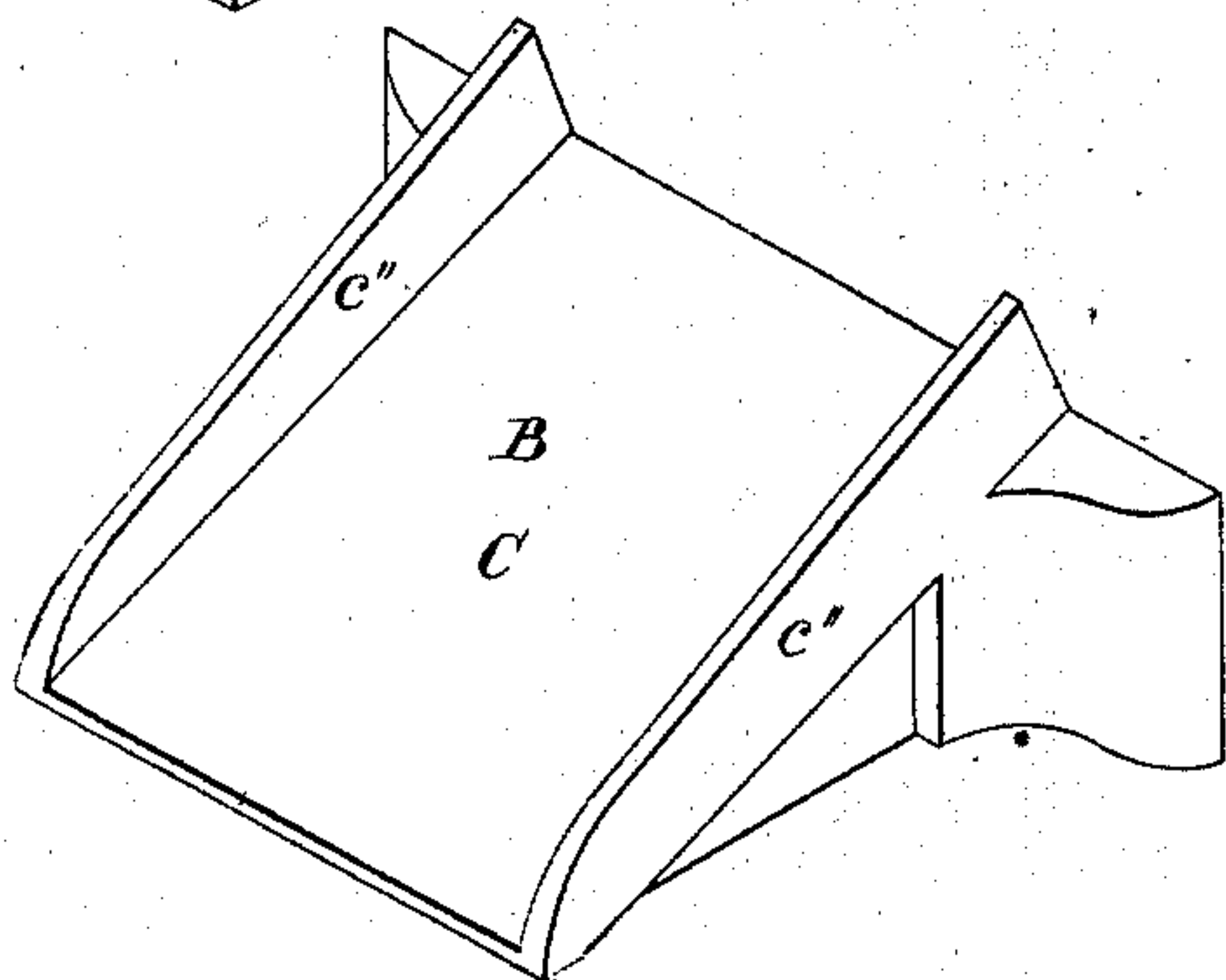


Fig. 2



Witnesses;
E. P. Tarron
Chas. Fremont

Inventor;
J. Gray.

UNITED STATES PATENT OFFICE.

JOHN GRAY, OF NASHVILLE, TENNESSEE.

SELF-ADJUSTING COUNTER-BRACE FOR TRUSS-BRIDGES.

Specification of Letters Patent No. 26,583, dated December 27, 1859.

To all whom it may concern:

Be it known that I, JOHN GRAY, of Nashville, in the county of Davidson, in the State of Tennessee, have invented a new and Improved Mode of Adjusting Counter-Braces in Truss-Bridges; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters
10 of reference marked thereon.

The nature of my invention consists in applying a cast iron socket at the top of each counter brace in a truss bridge in such a manner as to lift it up, and also providing the
15 bottom of the brace with a cast iron heel and key, which latter slips forward and under when the counter brace is drawn up.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.
20

I construct my truss in the ordinary way with top and bottom chords; upright or radiating posts and truss braces and counter braces. To prevent the counter braces from
25 becoming loose and to increase tightness when the bridge is put into use I spike the iron socket, Fig. 1, to the under side of the top chord and to the posts, making it exactly fit the angle formed by the two latter, as shown
30 by the letters $a'' a'' a''$. I then fit and insert the end of the counter brace, and then through the holes $a'' a''$ in the sides of the socket, Fig. 1, I drive two spikes into the counter brace. These hold the counter
35 brace up firmly in position. Then I set un-

der the end and on top of the bottom chord, as shown at "front view," Fig. 2, the cast iron heel against the posts.

In Fig. 2 "back view" B C is the inclined surface upon which the adjusting key is
40 placed and slides. When the heel, Fig. 2, is set under the brace it leaves a space the size and shape of the key. This key and the surface B C at Fig. 2 are made smooth so that when the counter brace is lifted up the
45 key slides under and fills the space just as much as it is increased by lifting the brace.

To hold the counter brace in its proper position at the bottom I have side flanges $c'' c''$
50 in Fig. 2 cast on the heel. These keep the key, as well as brace, in its proper position.

When one end or portion of a bridge near the end is depressed by a weight and the similar portion of the other end is correspondingly elevated the counter braces are
55 drawn up and the key being relieved it slips under and fills up the increased space and holds the brace tight when the bridge comes to repose again.

What I claim as my invention, and desire
60 to secure by Letters Patent, is—

The application to counter braces in truss bridges of a socket at the top; a heel and key at the bottom by which the counter braces in
65 truss bridges are made self tightening and adjusting as herein described.

JOHN GRAY.

Witnesses:

ISAAC LITTEN,
SAML. SENY.