

(No Model.)

L. DUVINAGE.
BOLSTER FOR BEAMS.

No. 468,062.

Patented Feb. 2, 1892.

Fig-1-

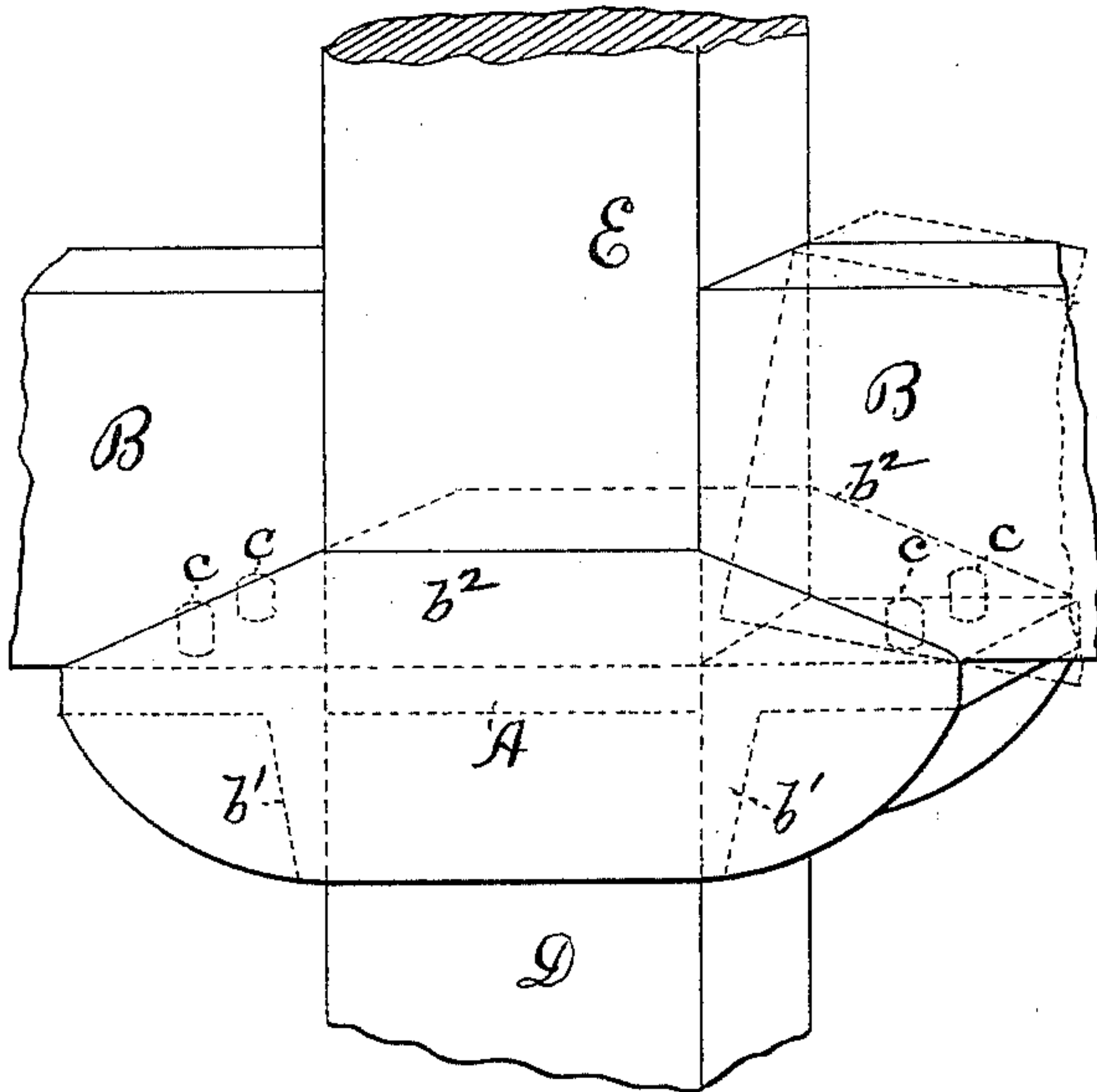


Fig: 2.

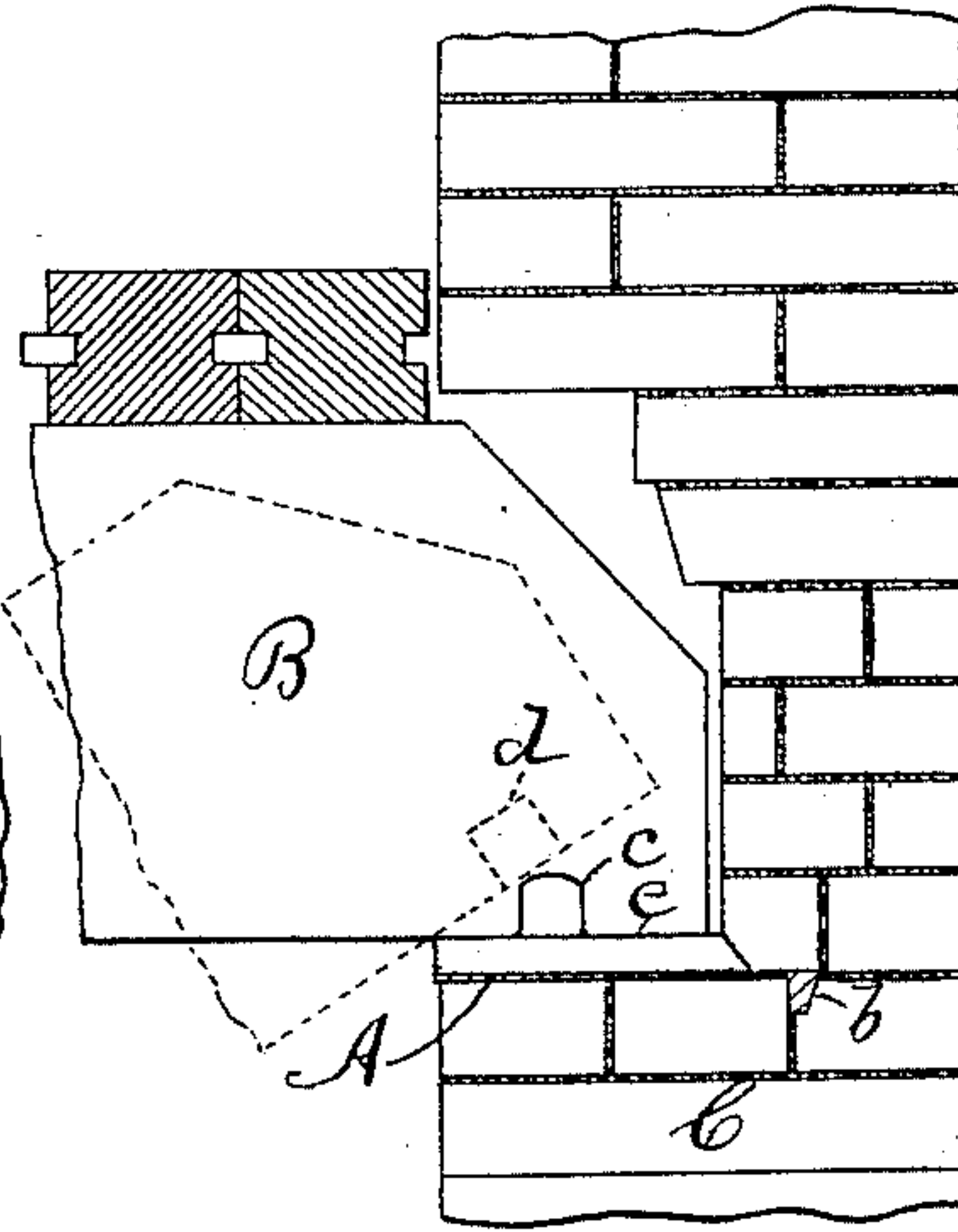


Fig. 3.

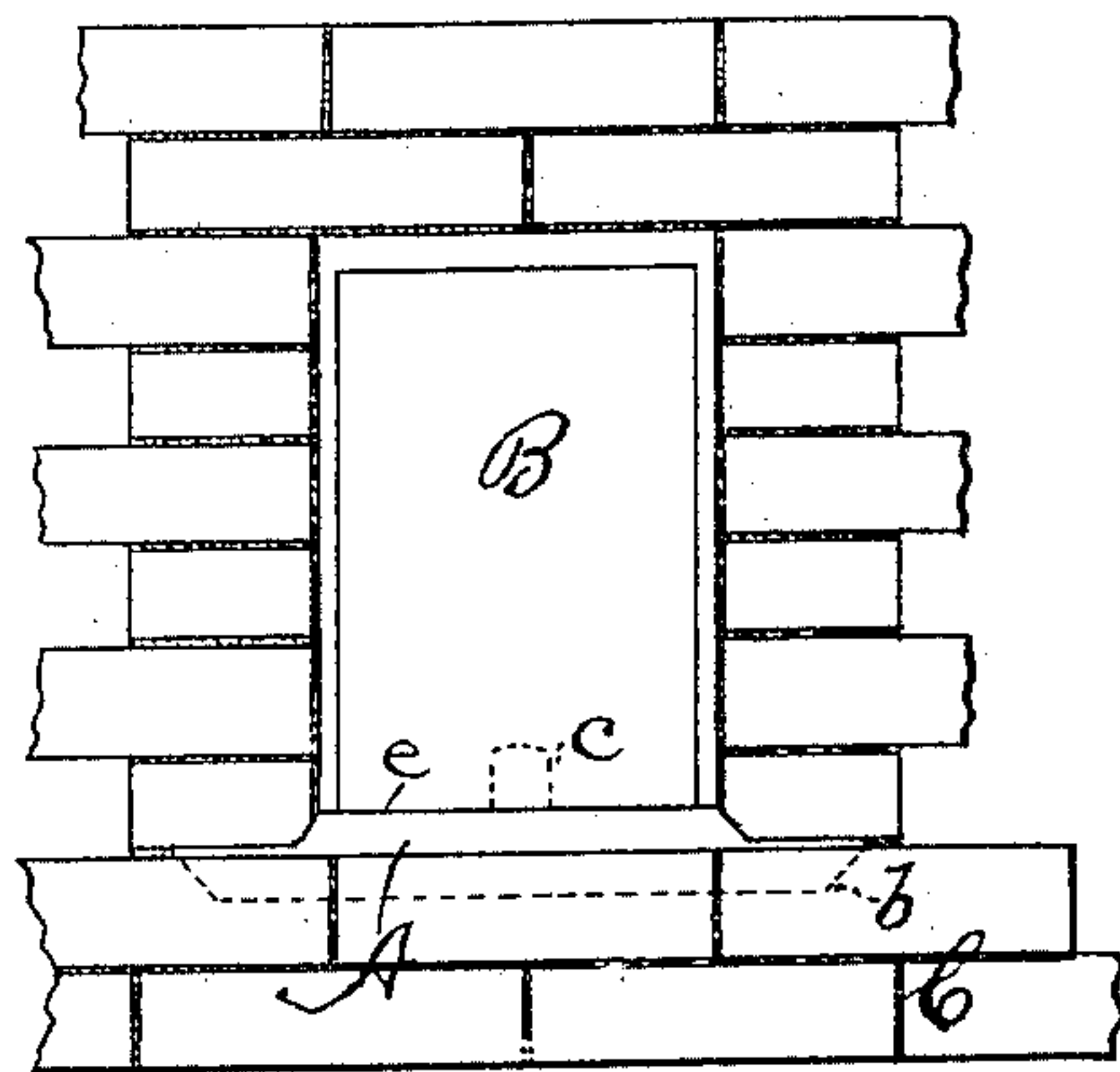


Fig-4-

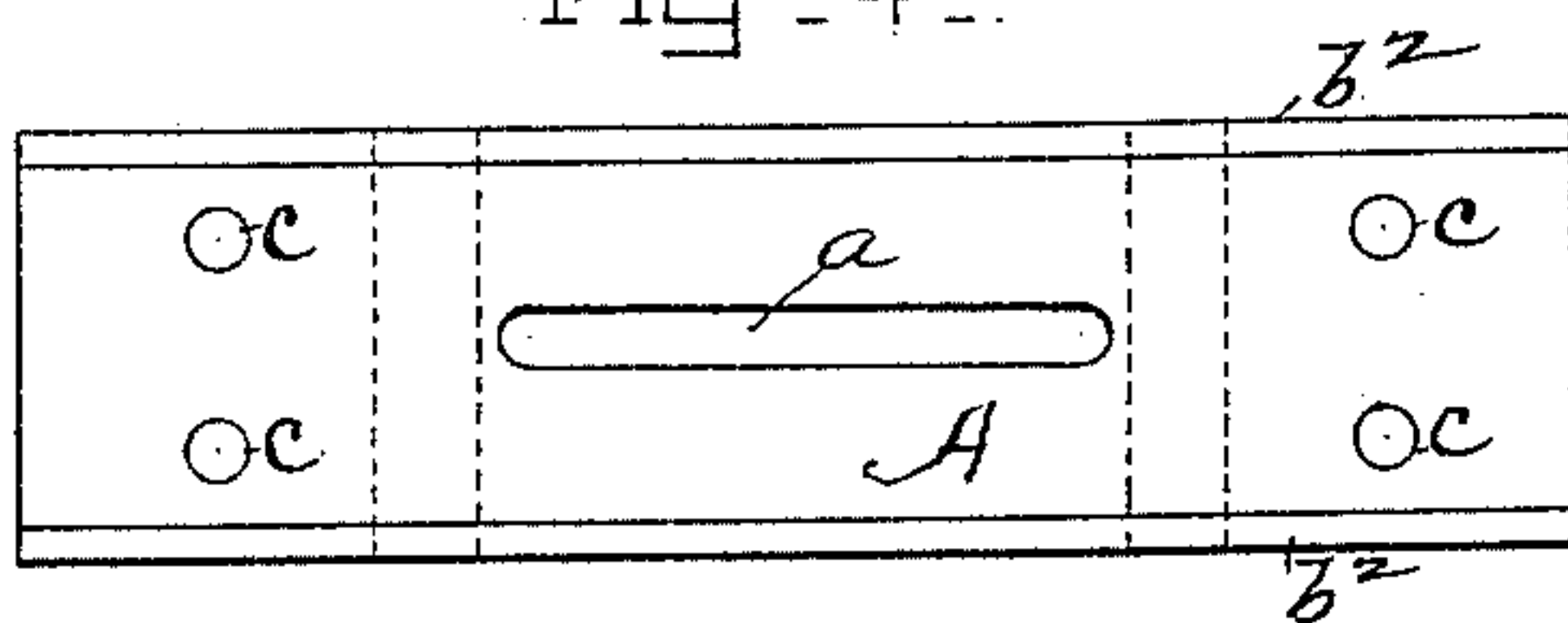


Fig. 5.

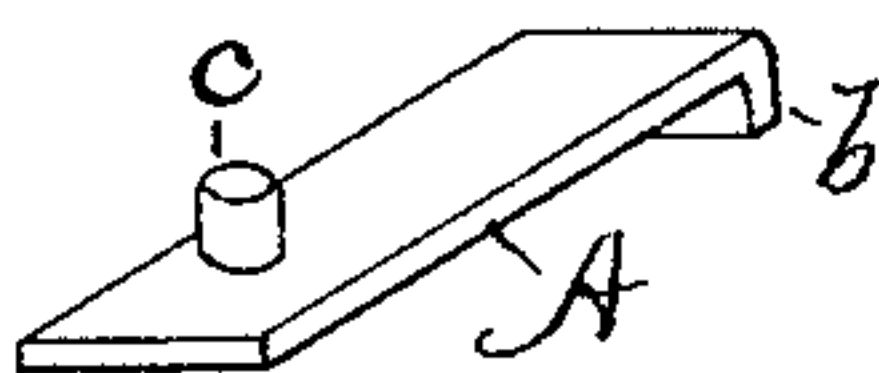


Fig-6.

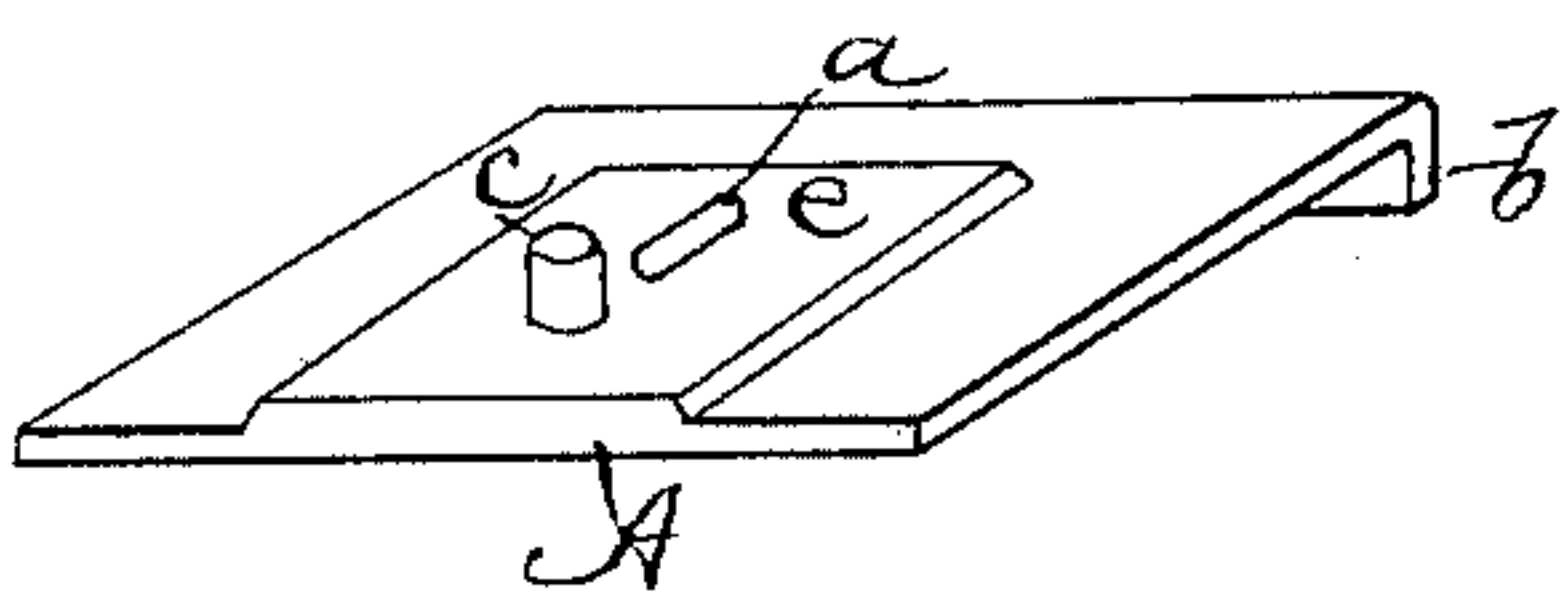
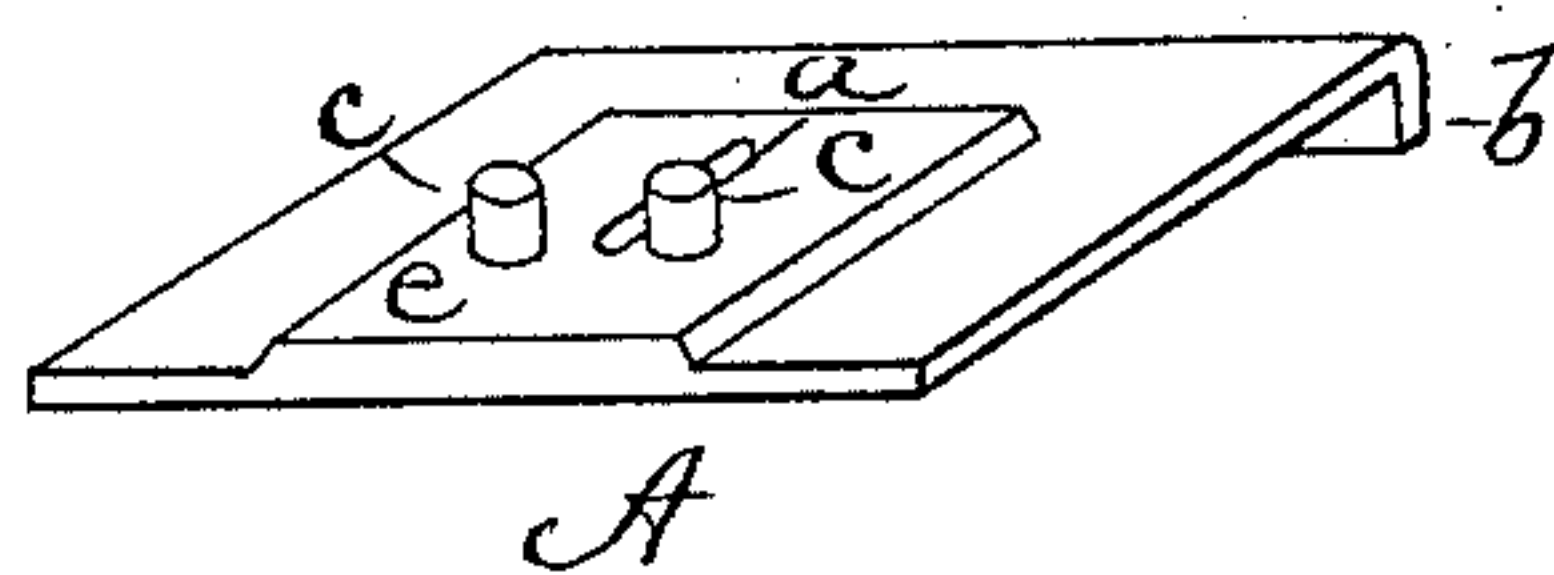


Fig -7 -



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LOUIS DUVINAGE, OF BROOKLYN, NEW YORK.

BOLSTER FOR BEAMS.

SPECIFICATION forming part of Letters Patent No. 468,062, dated February 2, 1892.

Application filed August 13, 1891. Serial No. 402,576. (No model.)

To all whom it may concern:

Be it known that I, LOUIS DUVINAGE, of Brooklyn, county of Kings, and State of New York, have invented certain new and useful
5 Improvements in Bolsters for Beams, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

10 My invention relates to bolsters for beams in buildings and other structures, and has for its principal objects the production of a simple and effective bolster which may be easily and cheaply made, which may be easily, accurately, and securely mounted and held in
15 place; to produce a reliable support and anchor for the ends of the beams (or such timbers) upon masonry walls or upon posts, upon which support the timber may be fitted
20 without damaging the wood and with little and inexpensive labor; to provide for a circulation of air around the ends of the timbers; to insure against damage to the walls or standing parts by the falling of any of the
25 supported timbers, and to tie the walls or standing parts by the intermediate timbers.

To accomplish these objects and to secure other and further advantages in the matters of construction, operation, and use, my improvements involve certain new and useful
30 arrangements or combinations of parts and peculiarities of construction, all of which will be herein first fully described, and then pointed out in the claims.

35 In the drawings, Figure 1 is a view in perspective showing my improvements applied on a bolster intended to rest upon a post; and Fig. 2 a view, partly in section and partly in elevation, showing their application to a plate
40 intended to rest upon a brick or similar wall, the dotted lines indicating the manner in which the timbers clear the holding studs or projections and the bolster in case they break or fall. Fig. 3 is a front view of the form
45 shown in Fig. 2, and Fig. 4 is a plan of that shown in Fig. 1. Figs. 5, 6, and 7 are perspective views illustrating bolsters for various sizes of timbers, all constructed and arranged for operation in accordance with my
50 invention and involving my improvements.

In all the figures like letters of reference,

wherever they occur, indicate corresponding parts.

The bolster for solidity and cheapness is preferably of cast metal in one piece; but of
55 course it may be made in other ways. Of this A is the main piece or base, which rests upon the wall or other support and receives the end of a beam or timber, as B. When the base A is intended to rest upon a wall,
60 as C, it is supplied with a downwardly-projecting flange *b*, acting as an anchor to insure a firm union with the masonry, and when intended to rest upon a post, as D, it has flanges, as *b'* *b'*, between which the supporting-post,
65 as D, is received, and it may have other flanges, as *b*² *b*², between which another post, as E, is received and held, and, generally speaking, the bolster is properly adapted for any location, my improvements being appli-
70 cable as well to one form as another, whether for use upon a wall or upon a post.

In the central part of the base A is a perforation *a*, except in the smallest or narrowest size, as shown in Fig. 5, wherefrom this
75 may be omitted, if desired.

In mounting the bolsters upon walls it is necessary to bring them to the required level, and for the leveling grout or cement is generally employed. It is spread upon the last course of ma-
80 sonry and the bolster rested thereon, the material entering the said perforation and enabling the workman to settle the plate fairly without interference by the air, which would otherwise be entrapped by the plate and cement.
85 In the smaller size, as in Fig. 5, the plate is so narrow that by simply adjusting it a little from side to side it may be made to assume its proper level without much difficulty, and therefore the perforation is not necessary in
90 this size. The cement, &c., which enters the perforation adds security to the union between the plate and the wall. When used upon posts, the perforated plate permits the passage of air for ventilating purposes, as
95 will be referred to hereinafter. Upon the upper face of the plate, of whatever form it may be, are one, two, or more studs or projections *c*, of general cylindrical form and adapted to enter cylindrical perforations, as
100 at *d*, provided for them in the under sides of the beams or timbers. These perforations *d*

are easily and quickly made with a common bitt or auger, thus diminishing the expense of fitting the timbers, as well as obviating the cutting of a groove across the width of the timber, as is required in other constructions. The timber is liable to check and split, and with a groove the holding-piece may become detached or weakened, so as to entirely destroy the efficiency of the tie between the walls or standing parts; but with the short cylindrical perforations above described no such weakening can take place, as will be readily understood. The studs being removed from the face or edge of the bolster, as shown, should the timber fall (as in case of burning or breaking or from other cause) then it must turn about the front edge of the bolster, as on a fulcrum, raising the perforations *d* clear of the studs *c*, when the timber may fall without in any way disturbing the bolster or unduly straining the walls. The ends of the timbers should of course be inclined to admit of this movement.

As is indicated, provision is made for the circulation of air completely around the end of the timber, thereby obviating damage and decay from moisture, to which the timber is liable when its ends are inclosed, as is commonly done.

As shown in Figs. 2, 3, 6, and 7, the base-plate is formed with a portion *e* thicker than the margins at the sides or ends and back. This portion *e* is a trifle wider than the timber which rests upon it, and the timber being cut so as not to project quite to the back of the raised portion then when the walls are built up the masonry rests upon the thinner portions of the plate, holding it firmly to its seat and leaving an air-space between the walls and sides and end of the timber.

By making the plates thin at the edges, as shown, they are diminished in weight (and thereby in cost) without impairing their strength in the directions required, and, being thin, they may be used with the ordinary split bricks to bring the courses to proper line, and they may be between the courses and can occupy a portion of the space otherwise intended

for cement. When the timbers are in place, they operate with the bolsters to tie the standing parts of the structure, as will be readily seen. The bolsters with the improvements above described will be found in practice to admirably answer the purposes and objects herein referred to.

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

1. In a bolster of the character herein set forth, the combination, with the base-plate, of one or more cylindrical studs upon its upper surface removed from its front edge and adapted to enter corresponding perforations in the timbers, and a depending flange on the under side and at the rear, substantially as and for the purposes set forth.

2. In a bolster of the character herein set forth, the base-plate having the thin margins at the ends and back, the raised portion between the projecting stud or studs for engagement with the timber, and a depending flange on the under side and at the rear, substantially as and for the purposes set forth.

3. In a bolster of the character herein set forth, the combination, with a base-plate having a central perforation, of one or more cylindrical studs upon its upper surface, constructed and arranged substantially as shown and described.

4. The herein-described bolster, having an anchor-flange on the under side and at the rear, the thin margins at the ends and back and raised perforated portion between, and the projecting cylindrical studs on the upper surface, removed from the front edge for engagement with the perforated timber to tie the walls, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

LOUIS DUVINAGE.

Witnesses:

W. J. MORGAN,
WORTH OSGOOD.