

No. 688,323.

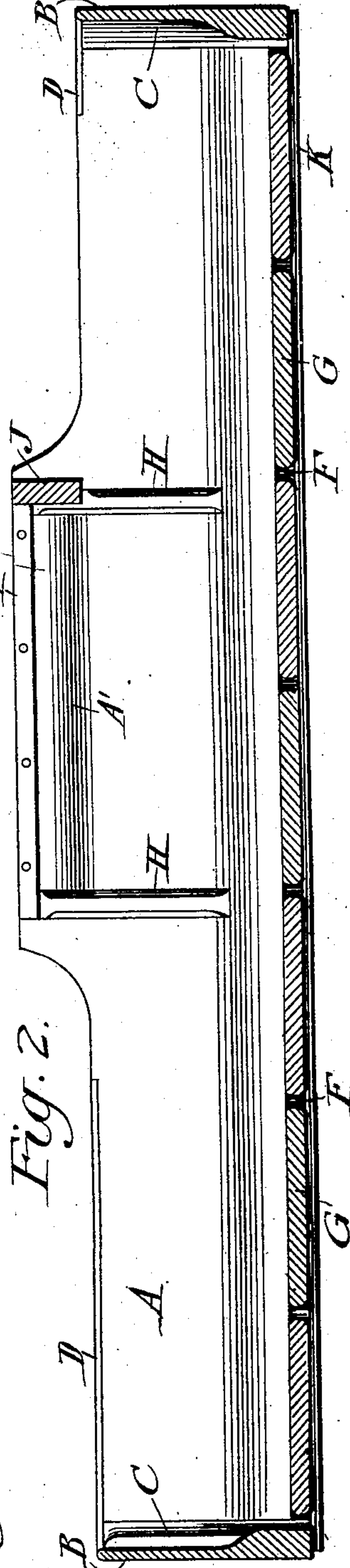
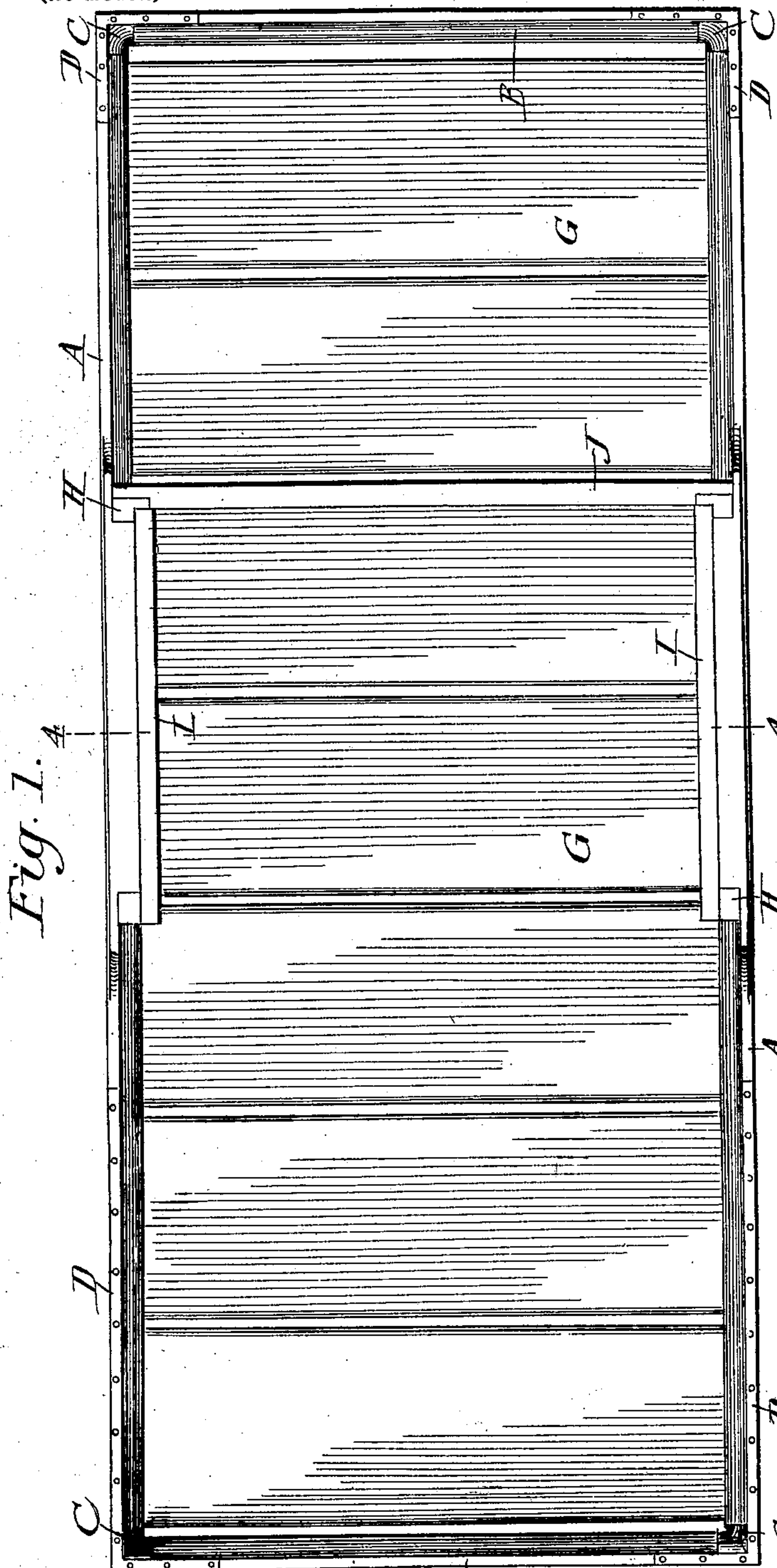
Patented Dec. 10, 1901.

O. MORRILL & H. P. WELLS.  
VEHICLE BODY.

(Application filed May 27, 1901.)

(No Model.)

3 Sheets—Sheet 1.



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By J. F. Stebbins. Atty.

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Fig. 3.

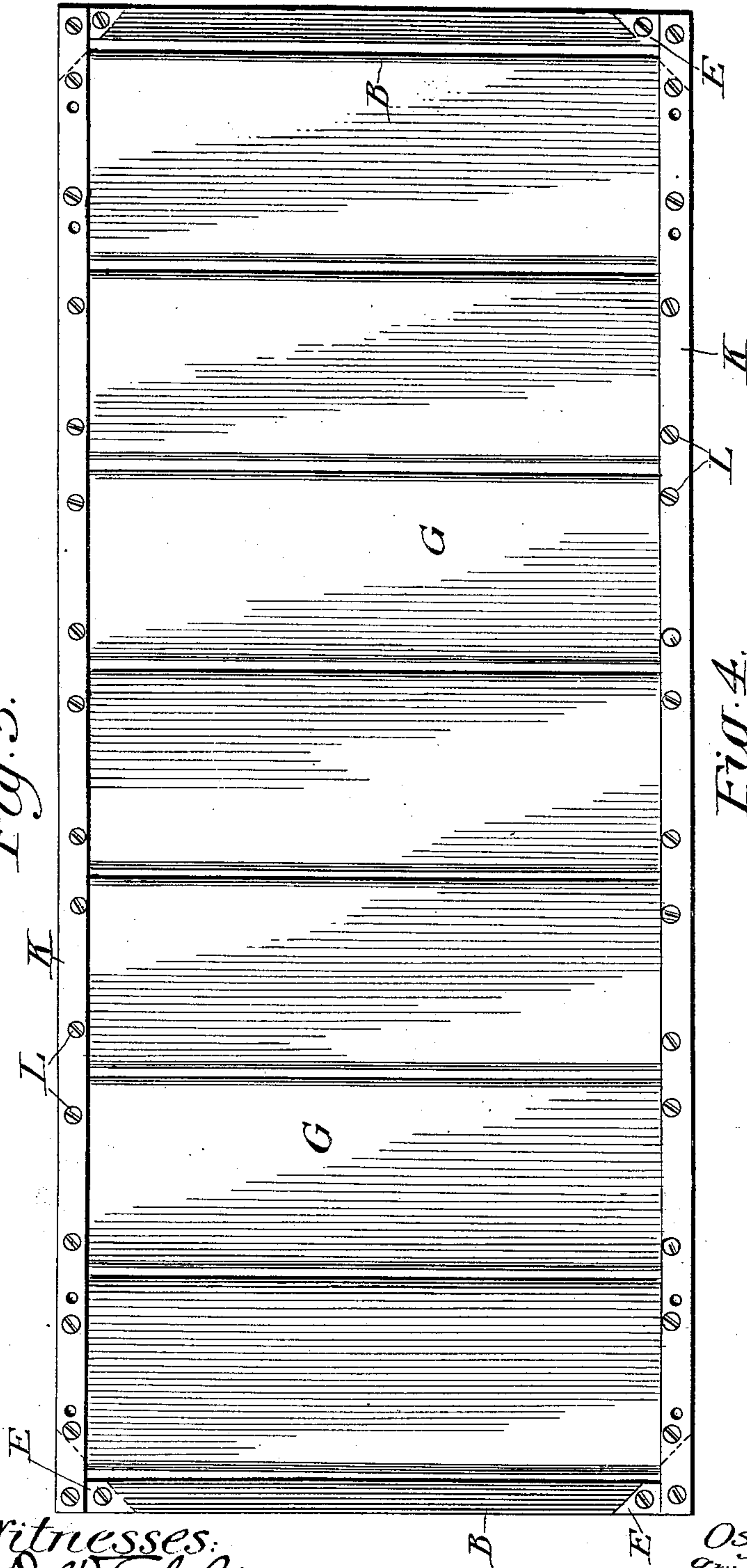
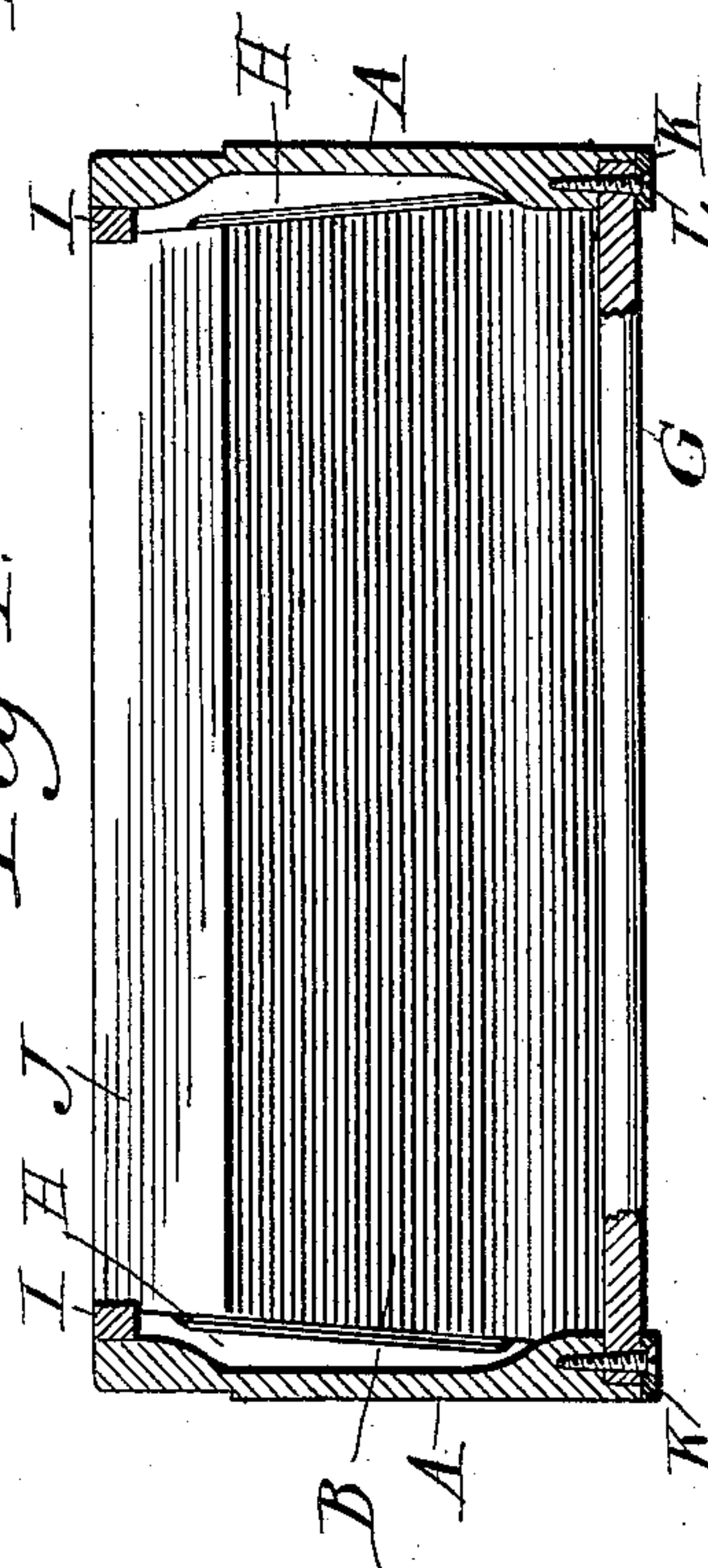


Fig. 4.



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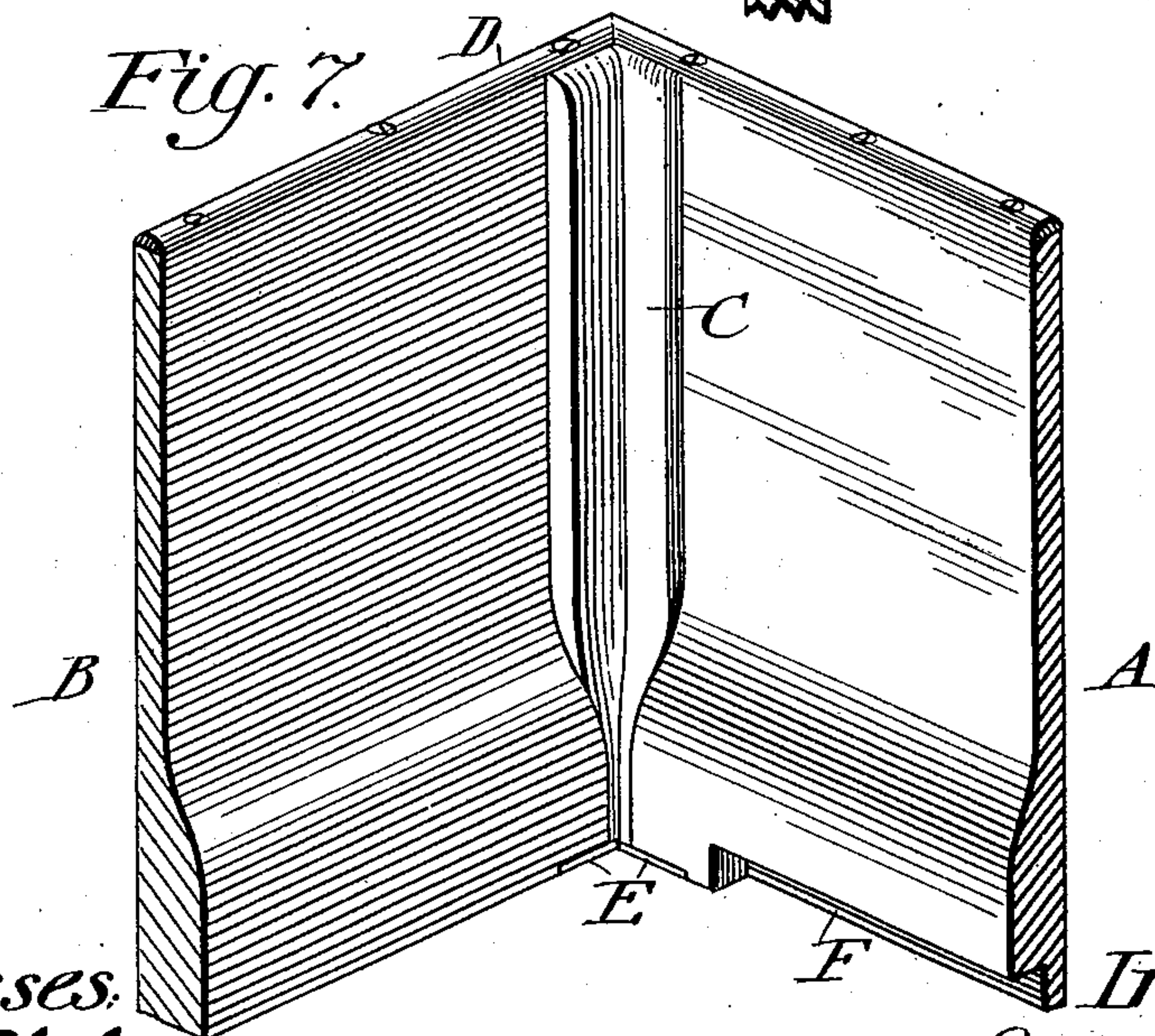
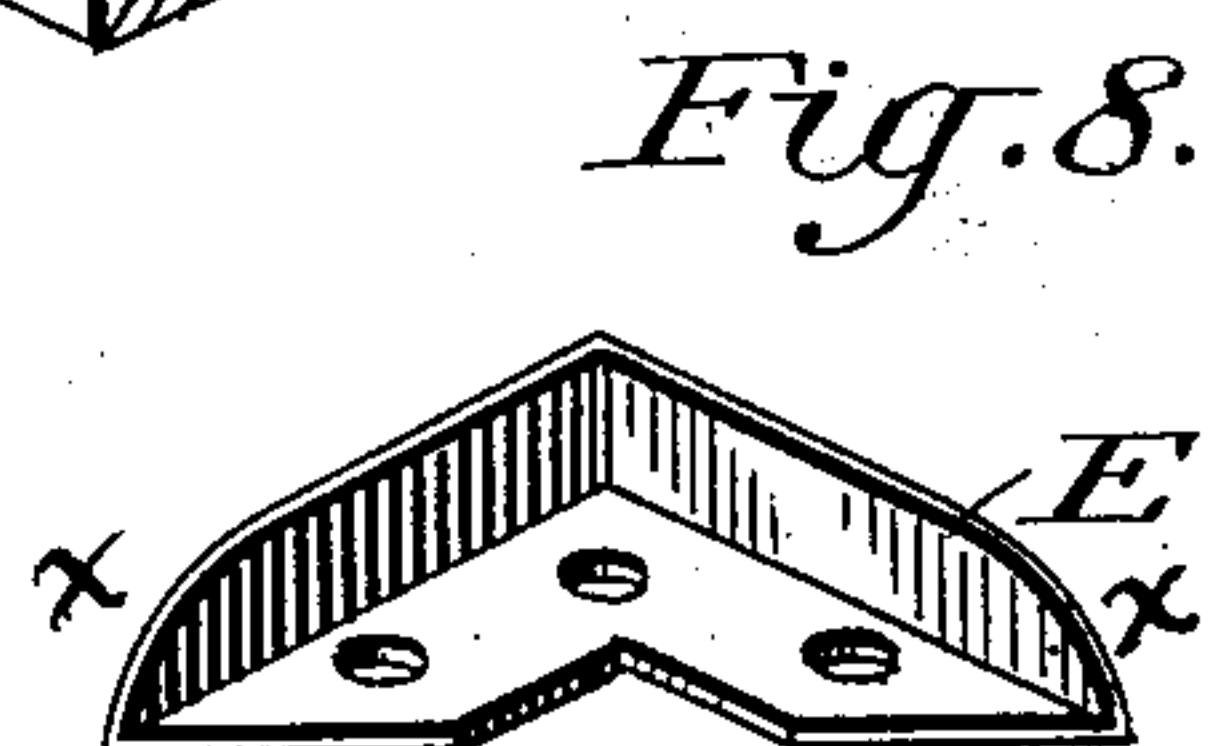
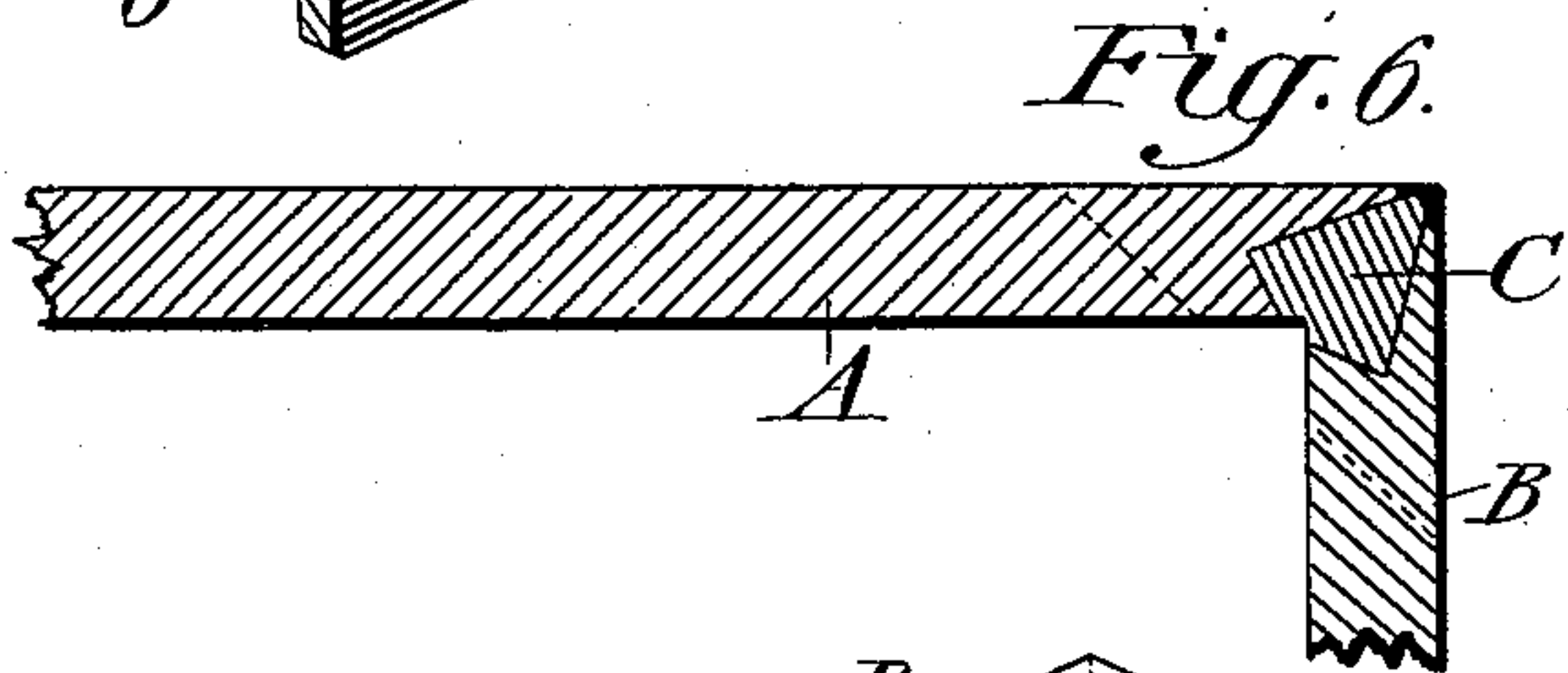
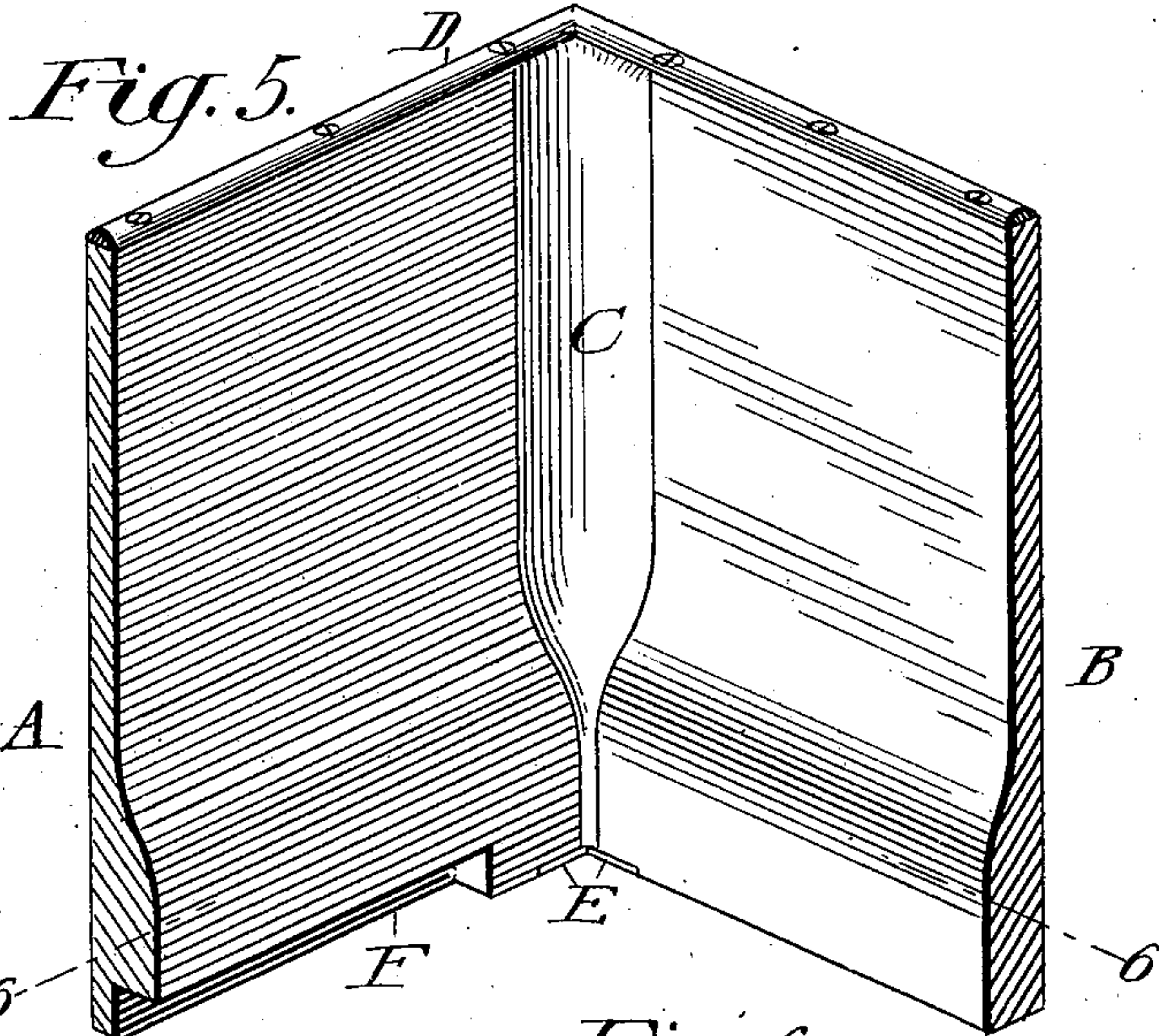
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# UNITED STATES PATENT OFFICE.

OSGOOD MORRILL AND HARLAN P. WELLS, OF AMESBURY, MASSACHUSETTS.

## VEHICLE-BODY.

SPECIFICATION forming part of Letters Patent No. 688,323, dated December 10, 1901.

Application filed May 27, 1901. Serial No. 62,061. (No model.)

*To all whom it may concern:*

Be it known that we, OSGOOD MORRILL, a citizen of the United States, and HARLAN P. WELLS, a subject of the King of Great Britain

5 and Ireland, both residing at Amesbury, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Vehicle-Bodies, of which the following is a specification.

10 Our invention relates generically to vehicle-bodies, and especially to the piano-box type. In common practice side and end sills, generally framed together, are employed, and to which the bottom or floor boards are secured

15 in a variety of ways. Upon the sides of these sills the longitudinal and end panels are supported. The meeting ends of the panels are united to form corner-joints by the application of blocks or posts of wood or metal, which

20 blocks or posts are usually secured at the bottom ends to the side and end sills. While many different details of construction are employed, the sills are regarded as necessary elements in the formation of this and other

25 types of bodies. It is a universal complaint that the corners of bodies so made become distorted and sprung apart and disjointed, owing mainly to the unequal expansion and contraction of the several component ele-

30 ments of the body, and especially of the side and end sills when the same are subjected to extremes of heat or cold or moisture. The purpose of our invention is to obviate this objection and likewise produce a body which

35 shall be of very light weight, simple in construction, cheap in first cost, strong and durable, and which withal shall possess other and desirable features and characteristics constituting it a superior structure for the

40 uses intended.

With these objects in view our invention consists in a vehicle-body without sills, having the bottom boards secured directly to the panels and the corner-joints of the body

45 formed by posts interposed between the adjacent ends of the panels.

It further consists in a vehicle-body having panels so fashioned that the lower portions thereof are of greater thickness than the top

50 portions either throughout the entire length of the panels or in those parts which are at the front or rear of the seat.

It further consists in a vehicle-body having corner-joints each consisting of a post interposed and glued in position between the ends

55 of adjacent panels.

Finally, it consists in certain other novelties of construction and certain combinations and arrangements of parts, which will be set forth and specified in the claims.

60

The accompanying drawings illustrate an example of the physical embodiment of our invention, which is constructed according to the best mode we have so far devised for the practical application of the principles.

65

Figure 1 is a top plan view of a vehicle-body embracing our novel features of construction. Fig. 2 is a longitudinal sectional elevation view taken on a line through the center of Fig. 1. Fig. 3 is a bottom plan view

70 of Fig. 1. Fig. 4 is a section taken on line 4 4 of Fig. 1. Fig. 5 is a perspective view of a rear corner. Fig. 6 is a section of Fig. 5, taken on line 6 6. Fig. 7 is a perspective view of a front corner. Fig. 8 illustrates one of the

75 corner-plates.

Referring to the several figures of the drawings, the letter A designates the side panels; A', the seat-risers; B, the end panel; C, the corner-joints; D, the corner-irons; E, the corner-plates; F, rabbets on the lower or thickest portions of the side panels; G, the bottom or floor boards; H, pillars or standards for the seat; I, bars on the risers.

80

J is a cross-bar or seat-rail.

85

K designates iron battens, and L designates screws.

The panels are fashioned or constructed in any suitable way, so that the lower portions will be thicker than the upper portions. They

90 may be integral or built up. The passage from the thick lower portion to the thinner upper portion may be on a curved line, as shown, or otherwise. We prefer to make the outer face or surface of the panel in a perpendicular plane and have the thickened

95 lower portion on the inside. The lower portion should be thick enough to afford the requisite strength and to form a substantial bearing for the floor, whether the said floor

100 is secured in the rabbets F or directly to the lower edges of the panels. In the example illustrated we have shown the seat-risers integral with the panels and having relative



thick portions beneath the seat. When desired, the seat-risers may be separately constructed and secured in position, or the panel adjacent the seat may be strengthened or thickened in any well-known way.

The corner-joints C are each formed as shown. The ends of adjacent panels are grooved and a post glued in position between them. In Fig. 6 the post is shown angular in cross-section and the panels grooved to fit the post and worked down to approximately a feather-edge at the external meeting-points. On the inside the post is preferably cut away, so that its thickness will correspond with the thickness of the panels, the same being thinner at the top than at the bottom. The front corner-posts may be made comparatively heavy, if desired, so as to serve as supports for the dash. Corner-irons D are applied to the top edges of the panels and corner-plates, secured by screws to the lower and thicker edges of the panels, as shown, and over the bottom ends of the posts. The corner-plate has two flanges, which are beveled to a feather-edge at  $x x$  and curved, so that the flanges can be set into the body of the corner without forming angular recesses, which would render the wood liable to chip off or split.

As shown in Figs. 5 and 7, we preferably do not extend the rabbets to the ends of the panels, and the bottom boards are not secured to the end panels in the example illustrated. The iron battens serve a twofold purpose: they strengthen the panels and also receive the screws L, which are passed up through the battens and the ends of the bottom boards into the thick portion of the panel. If desired, the battens may be threaded for the purpose of more securely retaining the screws in position. We have shown the pillars or uprights H with their ends located and glued within seats formed in the thick portions of the side panels, and regard such construction as preferable.

From the foregoing description it becomes obvious that we have produced a vehicle-body which fulfils all the conditions set forth as the objects of our invention and which possesses other desirable and characteristic features.

We dispense with the ordinary sills and unite the adjacent ends of the panels independent of other portions of the body, and thus there are no elements to contract or expand and displace the corner-joints. The thickened portions of the panels embody sufficient material to support the bottom boards and retain the screws or bolts which may be employed to unite them. The iron battens reinforce the sides, so that they become, in fact, plate-girders and adapted to support a great weight. Lightness is secured by cutting away the surplus material of the panels at the top portions, and simplicity and cheapness of construction are likewise attained.

While we have illustrated and described

only one example of the physical embodiment of our invention, we do not thereby intend to exclude from the scope thereof other examples and embodiments involving unsubstantial modifications and alterations. We have shown the upper portions of the side panels adjacent the seat ends thickened; but the top portion of these panels may be of a uniform thickness throughout. The panels may be of a composite nature, built up of layers, or a strip of wood can be glued along the bottom edge of the panel and worked to shape to form the thickened portion, thus constituting a chord of the girder and providing the requisite support for the bottom boards. Changes may also be introduced in the formation of the corner-joints. These and other changes, and additions even, may be introduced at the will of the manufacturer, which we shall regard as unsubstantial.

What we claim is—

1. The combination in a vehicle-body, of side panels; end panels; and bottom boards; the side and end panels being united by corner-joints, and the panels being thicker at their lower edges than at their top edges.

2. The combination in a vehicle-body of side panels; end panels; and bottom boards; the side and end panels being united by corner-joints, the panels being thicker at their lower than at their top edges, and one face of a panel lying in a perpendicular plane.

3. The combination in a vehicle-body, of side panels; end panels; and bottom boards; the end panels and side panels being united to form corner-joints, and the side panels each side of the seat or seat-riser being thicker at their lower than at their top edges.

4. The combination in a vehicle-body of side panels; end panels; and bottom boards; the side panels and end panels being united to form joints, and the end panels having their lower edges thicker than the top edges.

5. The combination in a vehicle-body, of side panels; end panels; and bottom boards; the said side panels having their lower edges each side of the seat or seat-riser thicker than their top edges, and the bottom boards secured to the said thicker edges of said side panels and uniting the said side panels.

6. The combination in a vehicle-body, of rabbeted side panels; end panels; and bottom boards; the ends of the bottom boards being seated within the rabbets of the side panels and secured in place by metallic battens.

7. The combination in a vehicle-body, of rabbeted side panels; end panels; and bottom boards; the said side panels being thicker at their lower than at their top edges, and the bottom boards being seated within the rabbets and uniting the side panels.

8. The combination in a vehicle-body, of side panels thicker at their lower edges than at their top edges; end panels; and bottom boards; the said side and end panels being



united at adjacent edges by corner-posts, and the said bottom boards uniting the said side panels.

5 9. The combination in a vehicle-body, of side and end panels having thickened lower edges; corner-posts uniting the ends of the panels; and bottom boards secured to and uniting the said panels at their thickened lower edges.

10 10. The combination in a vehicle-body, of end panels; side panels with thickened lower edges provided with rabbets extending only part of the length of the panel; bottom boards; and metallic battens.

15 11. The combination in a vehicle-body, of side panels having thickened lower edges; end panels having thickened lower edges; corner-posts forming with the panels corner-joints; and bottom boards; the said bottom  
20 boards secured to the side panels and out of contact with the corner-joints.

12. The combination in a vehicle - body

formed without side and end sills, of side panels having the lower edges thickened; end panels; means uniting the adjacent ends of 25 the side and end panels to form a corner-joint; and bottom boards secured to the edges of opposite panels and out of contact with the corner-joints.

13. A vehicle - body constructed without 30 side and end sills, having the adjacent ends of the panels united to form corner-joints, and the bottom boards secured to the side panels and out of contact with the corner-joints; whereby the expansion and contrac- 35 tion of the several elements will not affect the corner-joints.

In testimony whereof we affix our signatures in presence of two witnesses.

OSGOOD MORRILL.  
HARLAN P. WELLS.

Witnesses:

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HATTIE T. MORRILL.