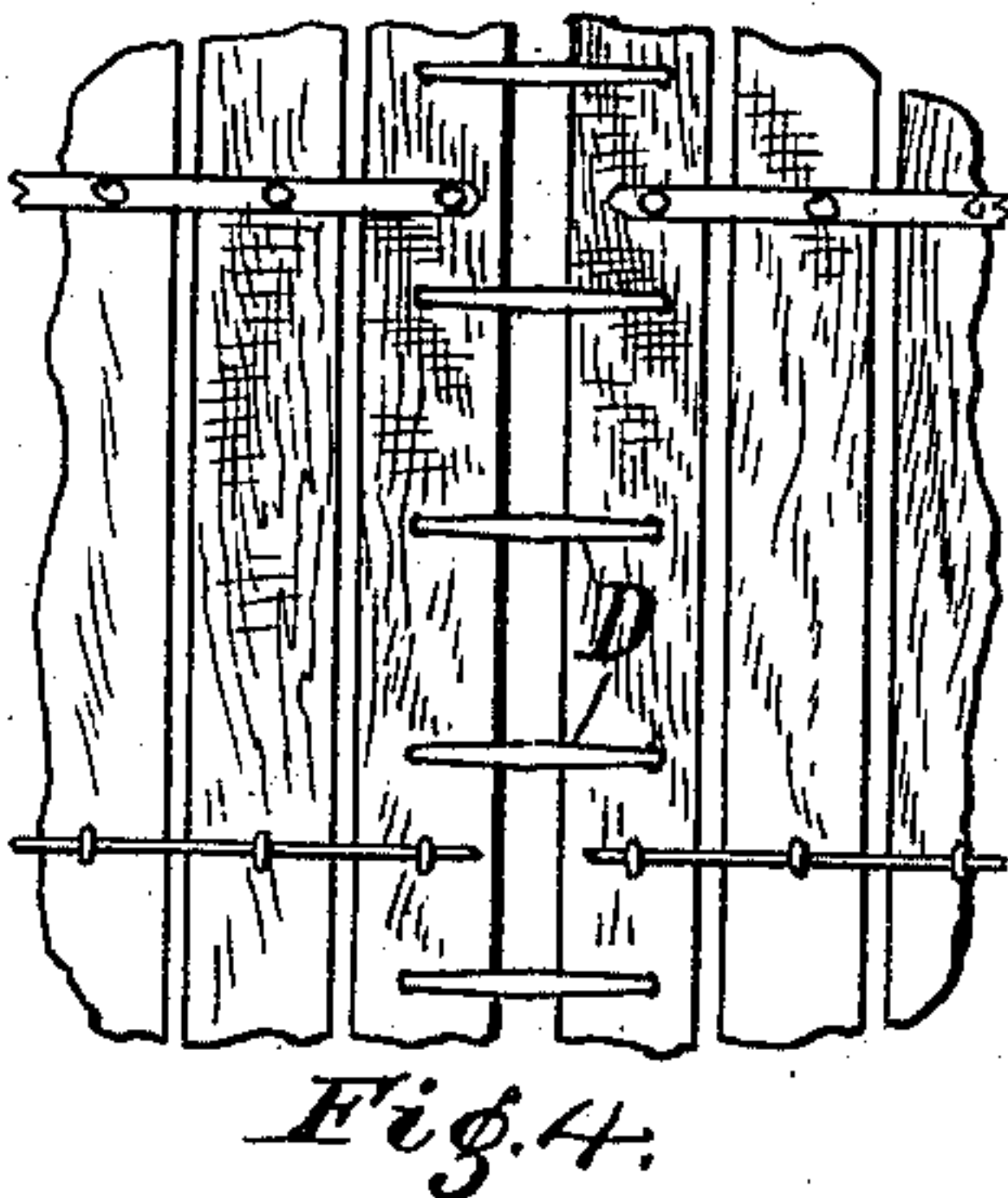
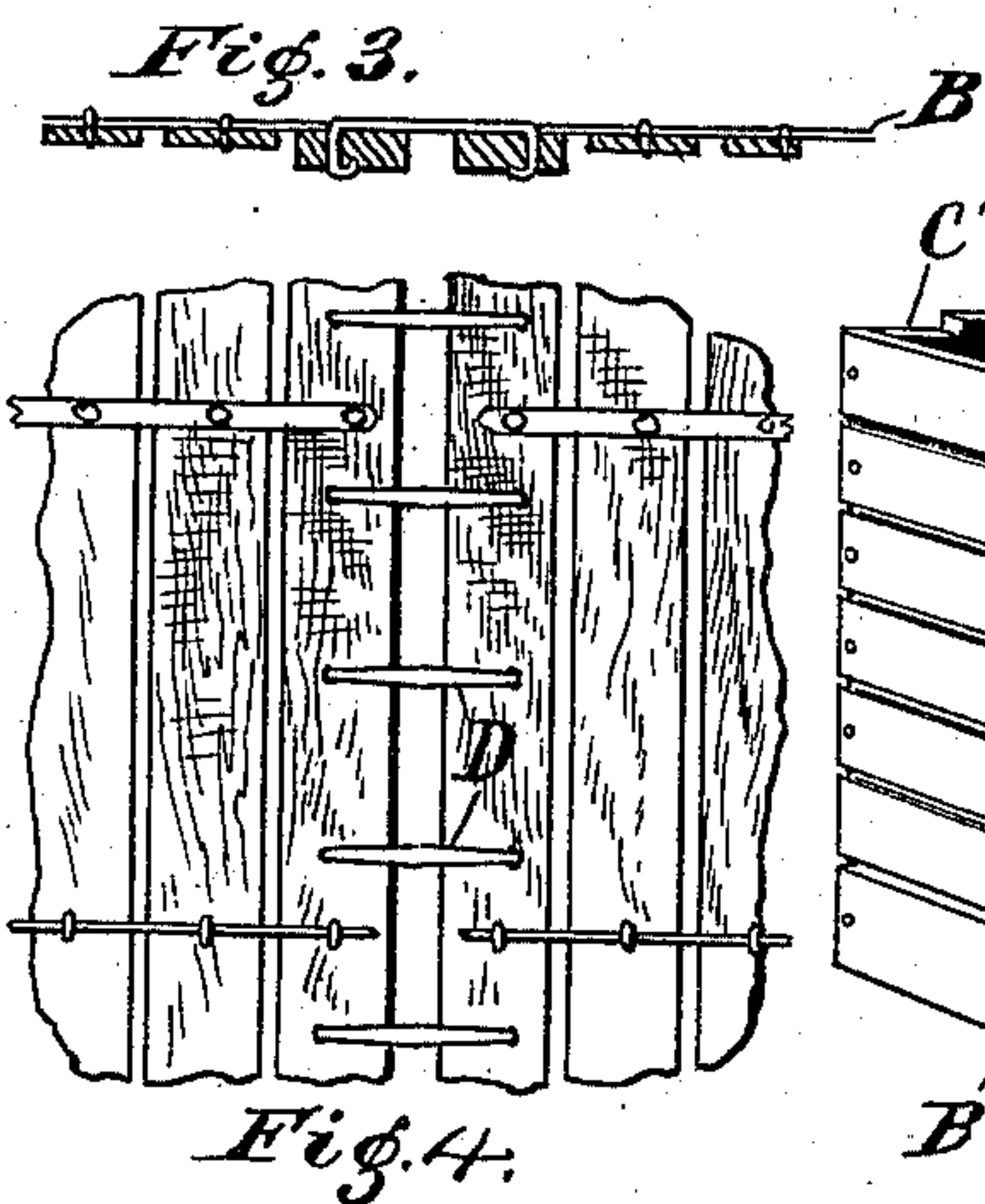
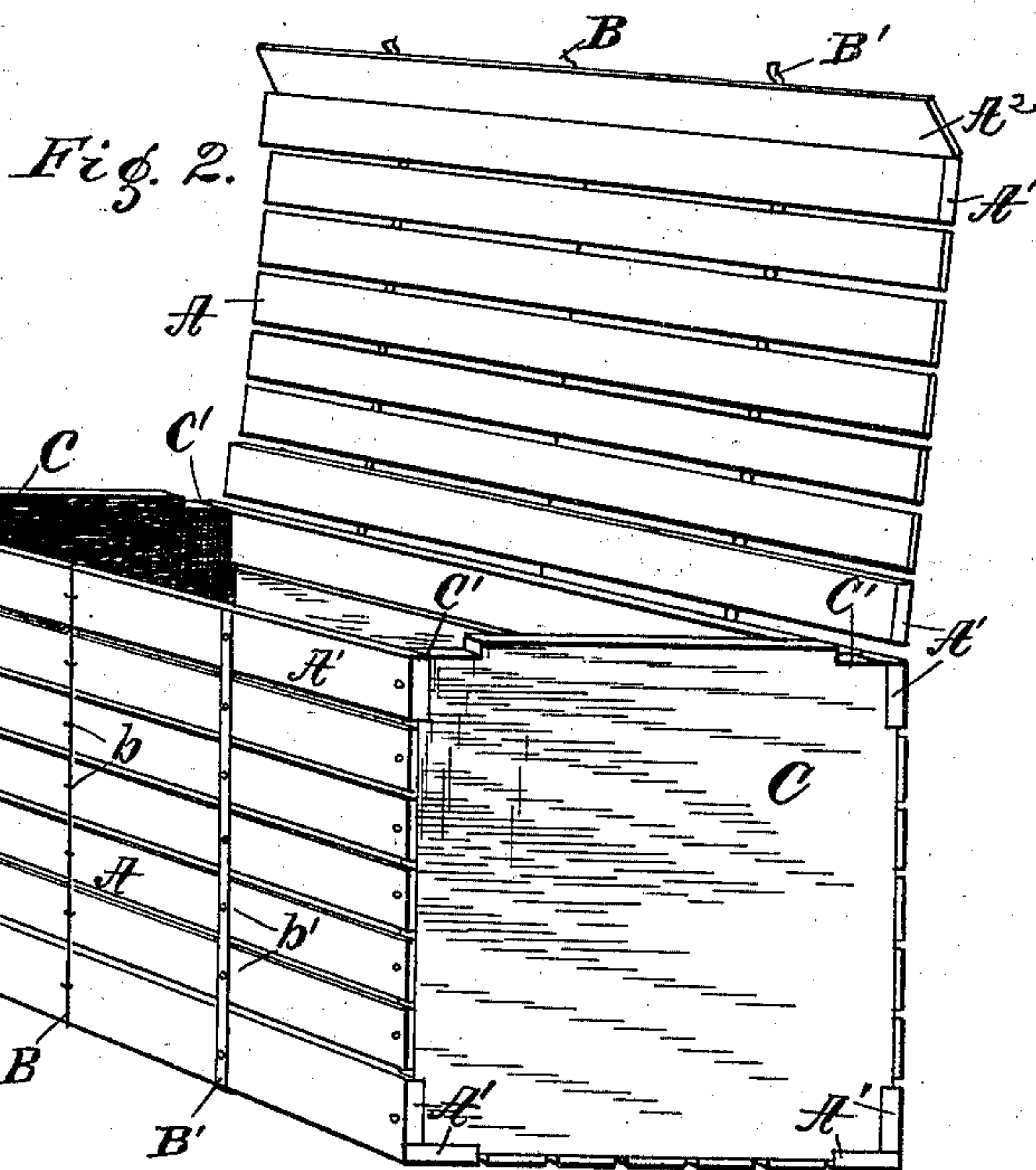
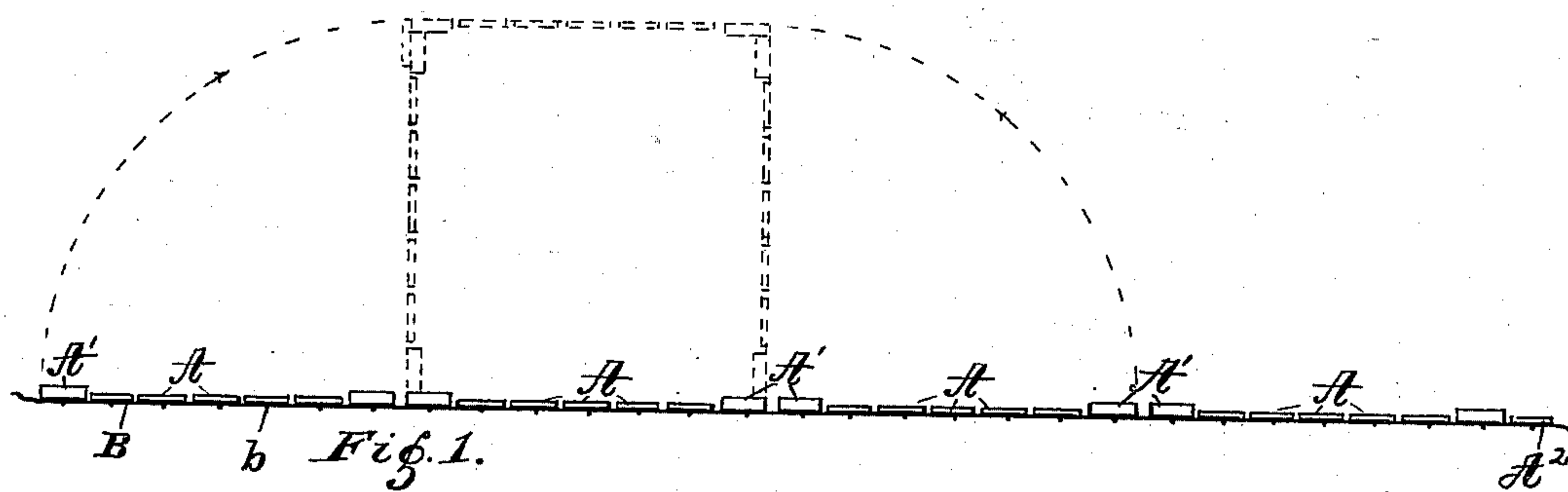


(No Model.)

J. H. GREENSTREET.  
SHIPPING CRATE.

No. 547,486.

Patented Oct. 8, 1895.



Witnesses;  
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H. B. Bassett

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# UNITED STATES PATENT OFFICE.

JASON H. GREENSTREET, OF INDIANAPOLIS, INDIANA.

## SHIPPING-CRATE.

SPECIFICATION forming part of Letters Patent No. 547,486, dated October 8, 1895.

Application filed May 6, 1895. Serial No. 548,279. (No model.)

*To all whom it may concern:*

Be it known that I, JASON H. GREENSTREET, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Shipping-Crates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to receptacles for the storage and transportation of articles of merchandise, and is specially adapted for the handling of meats, also of fruits, vegetables, and all manner of commodities requiring a free circulation of air to preserve them in a merchantable condition; and the object of the invention is to provide a crate, box, barrel, or other package, which shall be durable, inexpensive, and simple, and constructed in such manner that the parts can be made up at the factory and shipped in knockdown form to the consumer to be quickly and readily put together by him.

The object also is to provide a construction wherein the contents will be well ventilated, and a construction that will hold its shape under severe test without any bulging out of the sides caused by the weight of the contents or otherwise.

Referring to the accompanying drawings, in which like letters of reference refer to like parts, Figure 1 is an end view of the wood-metal material from which the top, bottom, and sides of my improved crate are constructed, the same being shown in this figure as spread out preparatory to being bent into the box form shown in the dotted lines. Fig. 2 is a perspective view of a complete crate or box, showing the solid wooden ends and that portion of the wood-metal material which forms the lid in a raised position. Fig. 3 is a detail in end view of a modified construction for a large-sized crate, in which the sides, ends, top, and bottom are made in separate pieces and are united to each other at their meeting edges by means of metal clasps or staples; and Fig. 4 is a view in top plan of Fig. 3.

The material of which my improved box, crate, or barrel is made is composed of wooden slats of suitable length, which are joined

in parallel series by means of a plurality of metal strands, (wires or flat metal strips,) which are made to pass transversely across the slats and are secured at each intersection by means of staples or by means of tacks or nails. A mixed construction, using part wire and part strips, may be used to advantage, the wire, being cheaper than the strips, effecting a saving in cost, and the strips being secured by tacks or nails driven through them into the staves, prevent any slipping or movement of the staves longitudinally along the wires. It is not desired, however, to limit this invention to the use of wires or strips, as either may be used alone or both together without departing from the spirit of this invention. It is important, however, that all wires and strips be on the same side of the slats and on that side of the slats which will be outermost when the wood-metal material thus produced is formed into the sides, top, and bottom of the box.

In the drawings, A represents the slats, B the wires secured by means of the staples *b*, and B' the strips secured by means of the nails *b'*. In order to produce a stronger and more rigid box, those of the slats which come next to the corners of the completed box will preferably be of extra thickness, as shown at A'. In making up the material before the same is bent into the form of a box the space between the slats A' will be equal to the thickness of the said slats, so as to admit of their being brought into position at right angles to each other in forming the corners.

C represents the ends of the box, and for small and medium sizes will be of wood in one piece or a plurality of pieces fastened together with battens. The corners will be notched, as at C', to accommodate the extra thickness of the corner-slats A'. This notched construction, in combination with the heavy corner-slats, greatly adds to the strength of the finished box. The top of the box or package will be left unnailed until after the box is filled, and the metal strands will form hinges, whereby the cover will be secured to the box. When the box is properly filled, the cover will be closed and secured by nailing the ends of the slats to the box ends. To securely fasten the front edge, a lap or curtain, consisting of an extra slat A<sup>2</sup>, will be provided, which will



be bent down against the front of the box and nailed to the same. The bending down of the curtain will serve to stretch the wood-metal material of the top.

5 In extra-large crates or boxes the top bottom, sides, and ends may all be made in separate pieces from wooden slats connected by metal strands in the manner as described and the several parts united at the corners of  
10 the box or crate by means of the metal fasteners D, of usual construction, or in any convenient and secure manner. Where only minimum strength is required, it will not be necessary to make the corner-strips extra thick,  
15 and a slat of uniform thickness may be used for the entire construction, and the ends of course will not be notched at the corners. I am aware that packages have been made of a fabric formed of wooden slats woven between  
20 strands of wire. The woven nature of the fabric in which the wires are interlaced or woven back and forth from the outer face of one of the slats to the inner face of the next, and so on, makes the fabric elastic in its nature and gives a package constructed from  
25 such material the power to stretch equal to the extent of the loose tension and to assume undesirable shapes from the weight of the contents. This interlacing (weaving) is wholly  
30 absent in my construction. All of the metal strands are on the same (outside) face of the slats. The strands are drawn taut and are fastened immovably to the slats, enabling me to produce from such a material an iron-

bound firm package, which will under severe 35 test hold its proper shape and form. By nailing or riveting the slats to the metal band I greatly increase the strength of the packages formed. In the woven construction two small wires, which can be broken separately, are 40 used, while in my construction the same weight of metal, being in a single integral strand, affords greater strength and security. Instead of a single wire strand a cable consisting of two or more wires might be used 45 without departing from the spirit of this invention.

What I claim as my invention is—

A crate or package constructed of wooden slats and metal strands crossing said slats approximately at right angles and secured to 50 the face of the said slats at each intersection, said material comprising the top, bottom, and sides of the box or package, those slats of the said piece which come next to the corners of 55 the box being of greater thickness than the other slats, for the purpose described, and said crate or package having ends in separate pieces secured to the rest of the box and said ends having notched corners to receive the 60 extra thick corner slats, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JASON H. GREENSTREET.

Witnesses:

JOSEPH A. MINTURN,  
W. B. BASSETT.