

(No Model.)

E. NORTON.
SHIPPING PACKAGE.

No. 602,466.

Patented Apr. 19, 1898.

FIG. 1.

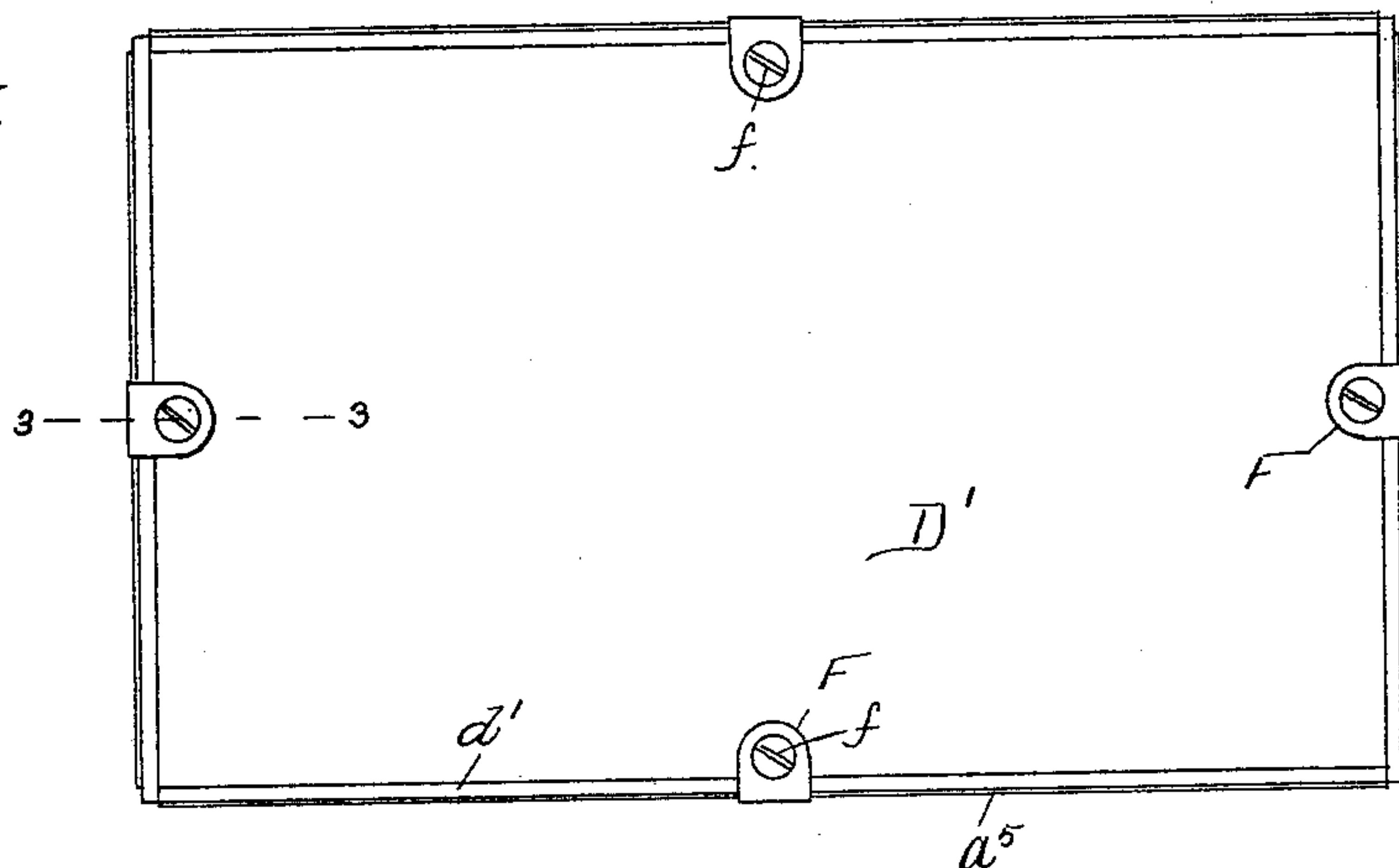


FIG. 2.

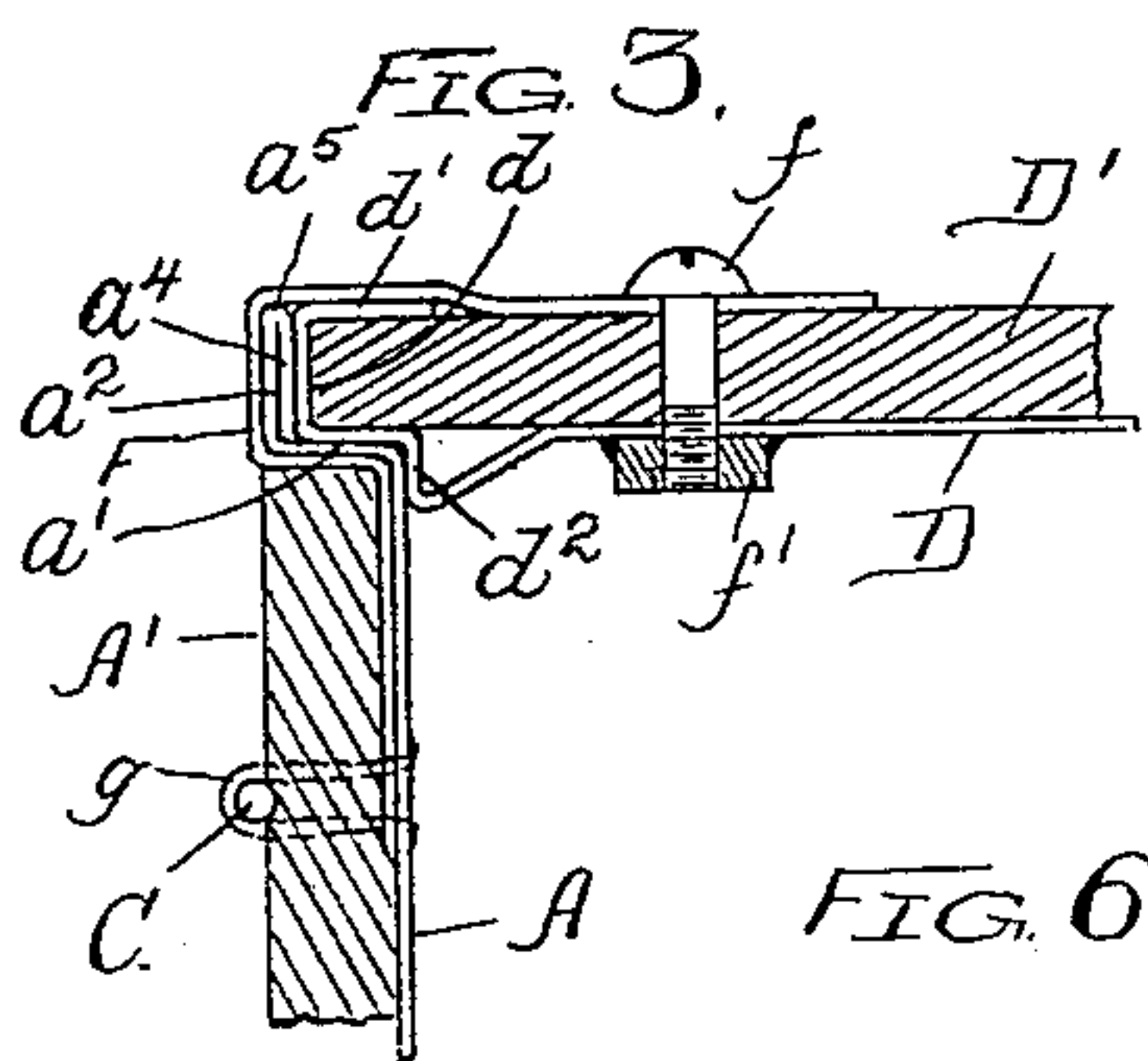
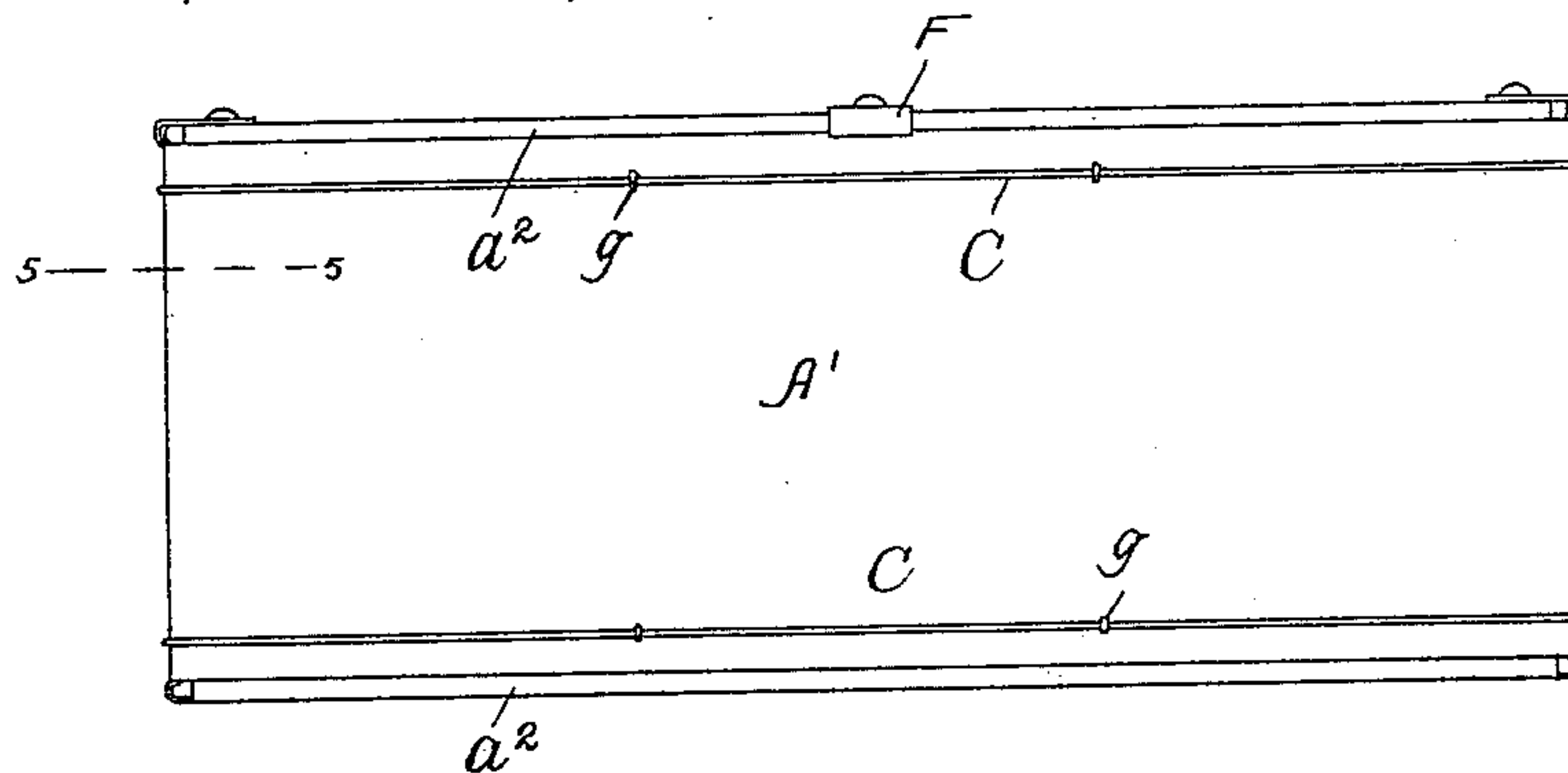


FIG. 4.

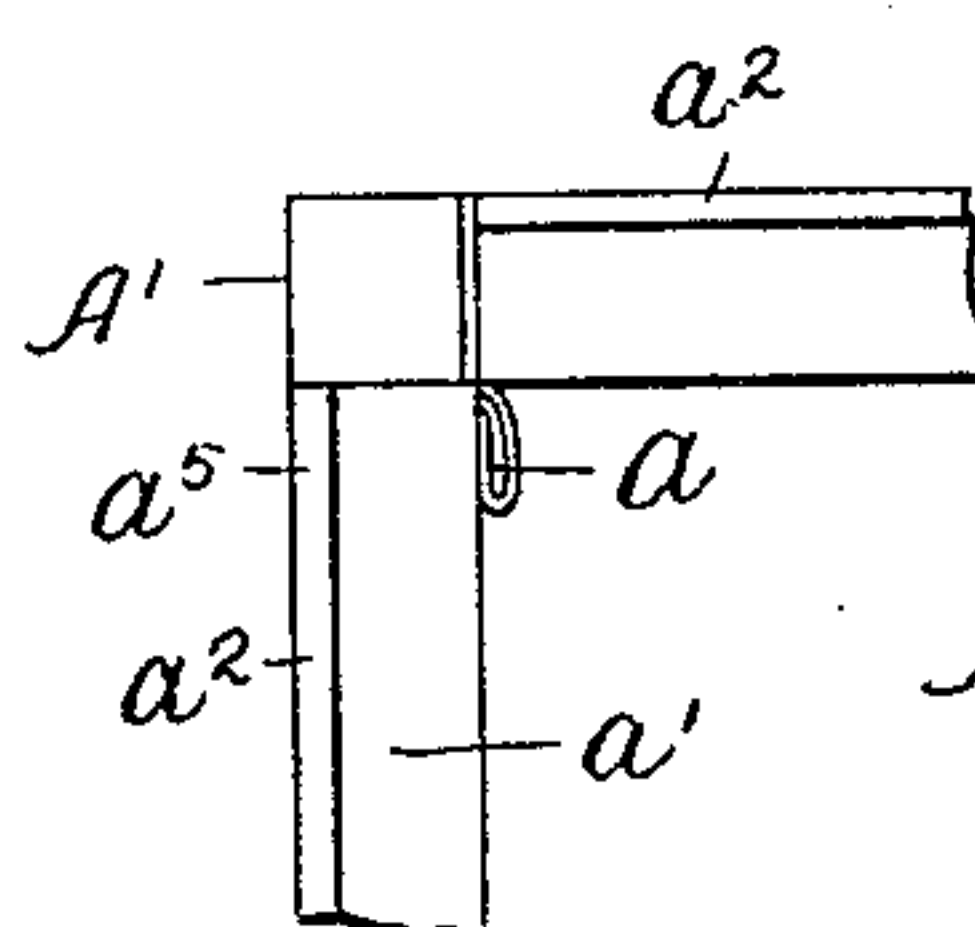


FIG. 5.

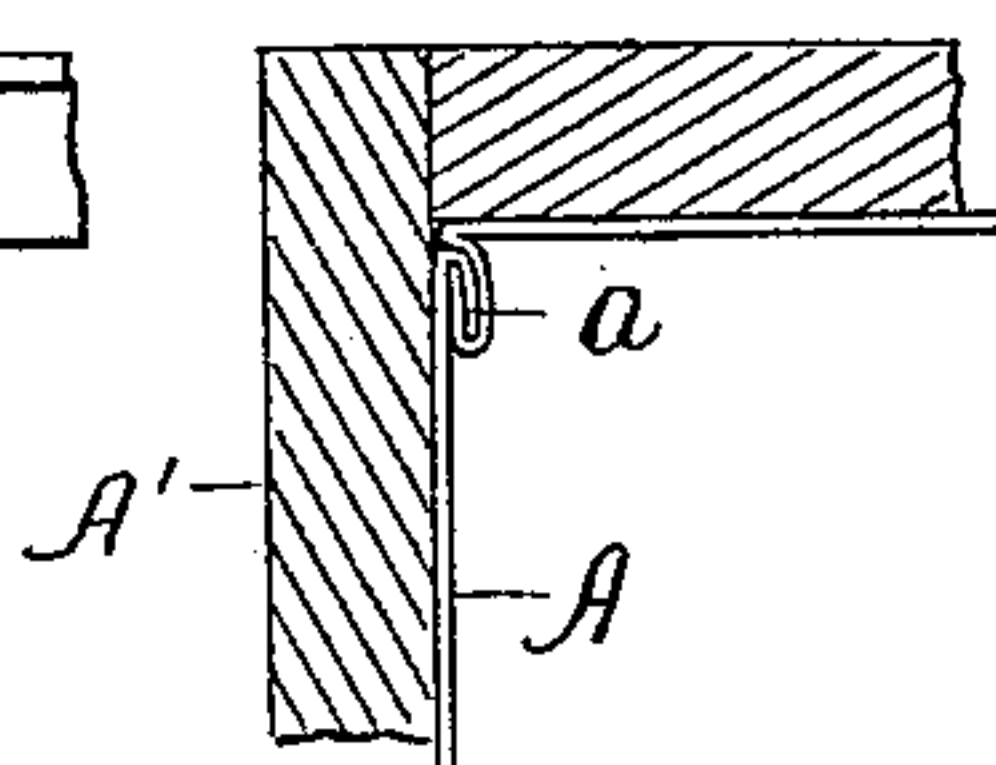
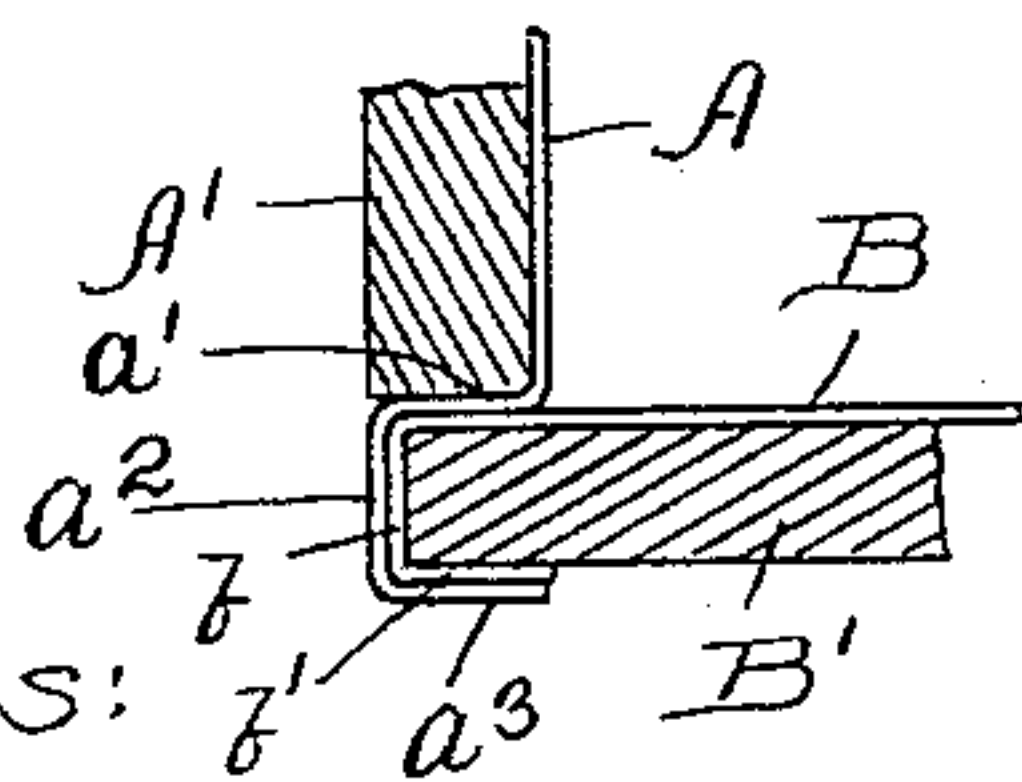


FIG. 6.



WITNESSES:

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UNITED STATES PATENT OFFICE.

EDWIN NORTON, OF MAYWOOD, ILLINOIS, ASSIGNOR TO HIMSELF, AND
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SHIPPING-PACKAGE.

SPECIFICATION forming part of Letters Patent No. 602,466, dated April 19, 1898.

Application filed February 6, 1897. Serial No. 622,252. (No model.)

To all whom it may concern:

Be it known that I, EDWIN NORTON, a citizen of the United States, residing in Maywood, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Shipping-Packages, of which the following is a specification.

My invention relates to improvements in shipping-packages.

The object of my invention is to provide a shipping-package which shall be light in weight, so as to save freight, and which at the same time shall be strong and durable and of a simple and cheap construction and also adapted to preserve and protect articles of such character as to be liable to injury or deterioration if shipped in ordinary wooden packages and which also shall be adapted to be readily opened and again closed without injury to the package.

To this end my invention consists in the novel construction and combination of parts herein shown and described, and specified in the claims, whereby the several parts of the sheet-metal interior and of the wood-veneer exterior of the package are combined together in such manner as to mutually cooperate and strengthen each other and to produce as a whole a package of great strength, lightness, and durability.

In the accompanying drawings, forming a part of this specification, Figure 1 is a plan view of a shipping-package embodying my invention. Fig. 2 is a side elevation. Fig. 3 is an enlarged detail vertical section on the line 33 of Fig. 1. Fig. 4 is an enlarged detail plan view of one corner with the cover removed. Fig. 5 is a horizontal section on the line 5 5 of Fig. 2, and Fig. 6 is a detail vertical section illustrating the means for securing the bottom to the body of the package.

In the drawings the same letter of reference is employed to designate the same part in all the different figures.

In the drawings, A represents the interior sheet-metal body of the package; A', the exterior wood-veneer body of the package; B, the interior sheet-metal bottom of the package; B', the exterior wood-veneer bottom of the package; C C, wire bands surrounding the body of the package; D, the interior sheet-

metal top or cover, and D' the exterior wood-veneer top or cover of the package.

The sheet-metal body A is furnished with side seams *a*, uniting the pieces of tin-plate or other sheet metal from which the body is formed, one such side seam being preferably at each corner of the package, if it is of a rectangular form, and the seam being preferably an interlocked or folded seam. The sheet-metal body A is provided with horizontal flanges or offsets *a'* at its upper and lower ends, equaling in width the thickness of the wood-veneer body A', and against which offsets or shoulders the ends of the wood-veneer body abut, and also with upright flanges *a*², equaling in width the thickness of the wood-veneer bottom B' and cover D'. The sheet-metal body A has also at its lower end a horizontal flange *a*³, embracing the bottom B B' all around its edge or rim, and at its upper end a downturned flange *a*⁴ to give a smoother upper edge *a*⁵ to the sheet-metal body and to strengthen the same.

The sheet-metal bottom B has its rim or edge folded over the rim or edge of the wood-veneer bottom B', so as to protect and embrace the same and to firmly bind the sheet-metal and wood-veneer bottoms together, this being done by providing the sheet-metal bottom B with an offset or flange *b* and an intumed flange *b'*, folded close upon the wood-veneer bottom B'.

As the lower end of the sheet-metal body A, by reason of the flanges *a'*, *a*², and *a*³ thereon, is folded around and embraces the combined sheet-metal and wood-veneer bottom B B', said bottom is firmly and rigidly secured in and to the body of the package, and the bottom is thus caused to serve also as a means of bracing and strengthening the body at its lower end, while the combined sheet-metal and wood-veneer body A A' at the same time serves to strengthen and stiffen the bottom B B' by reason of said bottom fitting or abutting all around its margin or rim flat against the shoulder formed by the offset *a'* of the sheet-metal body A and by the lower end of the wood-veneer body A', which backs up said offset or flange *a'*.

The sheet-metal top or cover D has its rim or edge folded over the rim or edge of the

wood-veneer cover D', so that the same is completely bound around by the metal and protected and strengthened and stiffened by the flanges d and d' of the sheet-metal cover, which embraces the wood-veneer cover. The combined sheet-metal and wood-veneer cover D D' rests at its rim or margin flat upon the shoulder formed by the upper offset or flange a' of the sheet-metal body and by the upper end of the wood-veneer body A', which backs up and supports said offset or flange a' , and said cover fits within the seat formed by the upwardly and downwardly projecting flanges $a^2 a^4$ at the upper end of the sheet-metal body A, these two flanges $a^2 a^4$ being themselves braced and supported by the combined wood-veneer and sheet-metal cover D' D, fitting within the same. To further strengthen and brace the upper end of the body of the package from and by the cover, I provide or prefer to provide the sheet-metal cover D with a downwardly-projecting shoulder or flange d^2 , adapted to fit within the sheet-metal body A, as is clearly illustrated in Fig. 3. To rigidly and firmly secure the combined sheet-metal and wood-veneer cover D D' in and to the combined sheet-metal and wood-veneer body A A', I provide the sheet-metal body A with a number of clips F, preferably four, soldered thereto and extending up and around and over the upper end of the veneer body A', and then lapped down over the cover D D', to which they are secured by screws f , extending through the same and through the cover D D' and entering threaded nuts f' , soldered to the sheet-metal cover D, preferably upon the inside thereof. By means of these clips the cover D D' is firmly secured to the body A A', so that the body and cover mutually strengthen and brace each other and so as to effectually utilize the tensile or pulling strength of the sheet-metal body and cover in connection with the strength and stiffness afforded by the wood-veneer body and cover. To properly combine the sheet-metal and wood-veneer bodies A A' together, so that they will both act effectually to strengthen and stiffen the combined sheet-metal and wood-veneer bottom and cover, I provide the package with wire bands C C, surrounding the wood-veneer body and serving to bind the parts together, and blind-staples $g g$ are inserted over the wire bands C and through the wood-veneer and sheet-metal bodies A A' and clenched upon the inside, as indicated in Fig. 3, so as to firmly bind together the sheet-metal and wood-veneer bodies, so that the two will operate to properly strengthen and stiffen each other.

If desired, the sheet-metal bottom B may also be provided with an interior bracing-shoulder the same as the interior bracing-shoulder d^2 on the sheet-metal cover D.

The package thus produced, while very light in weight, simple in construction, and neat in appearance, is at the same time exceedingly strong and durable, as the sheet metal and

wood veneer mutually cooperate to strengthen each other, and each is so devised as to compensate for the peculiar weakness of the other while utilizing fully its own strength. Thus, for example, the rectangular folds $b b'$ in the sheet-metal bottom B and the similar folds $a' a^2 a^3$ in the sheet-metal body A not only serve to unite the parts together, but also to give great strength and stiffness to the structure by reason of the width and rectangular form in cross-section of these united flanges. It will also be observed that as the wood-veneer top and bottom are embraced or bound by the sheet-metal top and bottom by reason of the right-angle flanges thereon the wood-veneer top and bottom are prevented from splitting or separating and are supported throughout their whole surfaces by the full tensile strength of the sheet metal, coacting against the compressive strength or resistance of the wood veneer, and that in like manner the wood-veneer body A, by reason of the abutment of its upright meeting faces directly together, as shown in Fig. 5, and the wire bands C C on the outside thereof and the sheet-metal body A on the inside, is similarly strengthened and protected, while it at the same time affords a firm support for the rims or margins of the bottom and top, which rest upon the upper and lower ends thereof.

I claim—

1. In a shipping-package, the combination with a sheet-metal body of a wood-veneer body with a sheet-metal bottom, having a folded rim, a wood-veneer bottom embraced by the folded rim of the sheet-metal bottom, the lower end of the sheet-metal body being folded over and around and embracing the sheet-metal and wood-veneer bottom so as to secure the combined bottom to the combined body, a sheet-metal cover having a folded rim and a wood-veneer cover embraced by the folded rim of the sheet-metal cover, said sheet-metal body having at its upper end an offset or flange forming a seat for said cover, clips secured to the sheet-metal body and adapted to be folded down upon the cover, screws and nuts for securing the clips to the cover, and wire bands surrounding the wood-veneer body, substantially as specified.

2. In a shipping-package, the combination with a double or combined sheet-metal and wood-veneer body of a double or combined sheet-metal and wood-veneer bottom, the lower end of the sheet-metal body being folded over and embracing the rim or margin of said combined bottom, thus securing the combined or double bottom to the combined or double body, the lower end of said wood-veneer body abutting against the projecting rim of said wood-veneer bottom, substantially as specified.

3. In a shipping-package, the combination with a double or combined sheet-metal and wood-veneer body of a double or combined sheet-metal and wood-veneer bottom, the

lower end of the sheet-metal body being folded over and embracing the rim or margin of said combined bottom, thus securing the combined or double bottom to the combined or double body, the sheet-metal body having also an offset or flange against which the lower end of the wood-veneer body abuts on one side and against which the rim or margin of the combined bottom fits or abuts on the other side, the lower end of said wood-veneer body abutting against the projecting rim of said wood-veneer bottom, substantially as specified.

4. In a shipping-package, the combination with a double or combined sheet-metal and wood-veneer body of a double or combined sheet-metal and wood-veneer bottom, the lower end of the sheet-metal body being folded over and embracing the rim or margin of said combined bottom, thus securing the combined or double bottom to the combined or double body, and bands surrounding the wood-veneer body, the lower end of said wood-veneer body abutting against the projecting rim of said wood-veneer bottom, substantially as specified.

5. In a shipping-package, the combination with a double or combined sheet-metal and wood-veneer body of a double or combined sheet-metal and wood-veneer bottom, the lower end of the sheet-metal body being folded over and embracing the rim or margin of said combined bottom, thus securing the combined or double bottom to the combined or double body, wire bands surrounding the wood-veneer body, the sheet-metal body having an offset or flange against which the lower end of the wood-veneer body abuts on one side and against which the rim or margin of the combined bottom fits on the other side, the lower end of said wood-veneer body abutting against the projecting rim of said wood-veneer bottom, substantially as specified.

6. In a shipping-package, the combination with a double or combined sheet-metal and wood-veneer body of a double or combined sheet-metal and wood-veneer bottom, the lower end of the sheet-metal body being folded over and embracing the rim or margin of said combined bottom, thus securing the combined or double bottom to the combined or double body, wire bands surrounding the wood-veneer body and staples securing said bands and said sheet-metal and wood-veneer bodies together, the lower end of said wood-veneer body abutting against the projecting rim of said wood-veneer bottom, substantially as specified.

7. In a shipping-package, the combination with a double or combined sheet-metal and wood-veneer body of a double or combined sheet-metal and wood-veneer bottom, the lower end of the sheet-metal body being folded over and embracing the rim or margin of said combined bottom, thus securing the combined or double bottom to the combined or double body, and a double or combined sheet-metal

and wood-veneer cover, said sheet-metal body having clips secured thereto and adapted to be folded down upon the cover and secured thereto, the ends of said wood-veneer body abutting against the projecting rims of said wood-veneer bottom and wood-veneer cover, substantially as specified.

8. In a shipping-package, the combination with a double or combined sheet-metal and wood-veneer body of a double or combined sheet-metal and wood-veneer bottom, the lower end of the sheet-metal body being folded over and embracing the rim or margin of said combined bottom, thus securing the combined or double bottom to the combined or double body, and a double or combined sheet-metal and wood-veneer cover, said sheet-metal body having clips secured thereto and adapted to be folded down upon the cover and secured thereto, said cover having nuts soldered thereto, and screws for securing said clips to said cover, substantially as specified.

9. In a shipping-package, the combination with a double or combined sheet-metal and wood-veneer body of a double or combined sheet-metal and wood-veneer bottom, the lower end of the sheet-metal body being folded over and embracing the rim or margin of said combined bottom, thus securing the combined or double bottom to the combined or double body, and a double or combined sheet-metal and wood-veneer cover, said sheet-metal body having an offset or flange near its upper end against which the upper end of the wood-veneer body abuts and upon which the rim of said cover rests, the ends of said wood-veneer body abutting against the projecting rims of said wood-veneer bottom and wood-veneer cover, substantially as specified.

10. In a shipping-package, the combination with a double or combined sheet-metal and wood-veneer body of a double or combined sheet-metal and wood-veneer bottom, the lower end of the sheet-metal body being folded over and embracing the rim or margin of said combined bottom, thus securing the combined or double bottom to the combined or double body, and a double or combined sheet-metal and wood-veneer cover, said sheet-metal body having an offset or flange near its upper end against which the upper end of the wood-veneer body abuts and upon which the rim of said cover rests, and bands surrounding said wood-veneer body, the ends of said wood-veneer body abutting against the projecting rims of said wood-veneer bottom and wood-veneer cover, substantially as specified.

11. In a shipping-package, the combination with a double or combined sheet-metal and wood-veneer body of a double or combined sheet-metal and wood-veneer bottom, the lower end of the sheet-metal body being folded over and embracing the rim or margin of said combined bottom, thus securing the combined or double bottom to the combined or double body, and a double or combined sheet-metal and wood-veneer cover, said sheet-metal body

having an offset or flange near its upper end against which the upper end of the wood-veneer body abuts and upon which the rim of said cover rests, and clips uniting the body and cover, the ends of said wood-veneer body abutting against the projecting rims of said wood-veneer bottom and wood-veneer cover, substantially as specified.

12. In a shipping-package, the combination with a double or combined sheet-metal and wood-veneer body of a double or combined sheet-metal and wood-veneer bottom, the lower end of the sheet-metal body being folded over and embracing the rim or margin of said combined bottom, thus securing the combined or double bottom to the combined or double body, and a double or combined sheet-metal and wood-veneer cover, said sheet-metal body having an offset or flange near its upper end against which the upper end of the wood-veneer body abuts and upon which the rim of said cover rests, said sheet-metal body having also an upright flange forming a seat surrounding the edge of said cover, the ends of said wood-veneer body abutting against the projecting rims of said wood-veneer bottom and wood-veneer cover, substantially as specified.

13. In a shipping-package, the combination with a double or combined sheet-metal and wood-veneer body of a double or combined sheet-metal and wood-veneer bottom, the lower end of the sheet-metal body being folded over and embracing the rim or margin of said combined bottom, thus securing the combined or double bottom to the combined or double body, and a double or combined sheet-metal and wood-veneer cover, said sheet-metal body having an offset or flange near its upper end against which the upper end of the wood-veneer body abuts and upon which the rim of said cover rests, said sheet-metal body also having an upright flange forming a seat surrounding the edge of said cover, and clips secured to the body and adapted to be folded down upon the cover, and screws and nuts for removably securing the clips to the cover, the ends of said wood-veneer body abutting against the projecting rims of said wood-veneer bottom and wood-veneer cover, substantially as specified.

14. In a shipping-package, the combination with a double or combined sheet-metal and wood-veneer body of a double or combined sheet-metal and wood-veneer bottom, the lower end of the sheet-metal body being folded over and embracing the rim or margin of said combined bottom, thus securing the combined or double bottom to the combined or double

body, and a double or combined sheet-metal and wood-veneer cover, said sheet-metal body having an offset or flange near its upper end against which the upper end of the wood-veneer body abuts and upon which the rim of said cover rests, said sheet-metal body having also an upright flange forming a seat surrounding the edge of said cover, and clips secured to the body and adapted to be folded down upon the cover and screws and nuts for removably securing the clips to the cover, and wire bands surrounding the wood-veneer body, substantially as specified.

15. In a shipping-package, the combination with a double or combined sheet-metal and wood-veneer body of a double or combined sheet-metal and wood-veneer bottom, the lower end of the sheet-metal body being folded over and embracing the rim or margin of said combined bottom, thus securing the combined or double bottom to the combined or double body, and a double or combined sheet-metal and wood-veneer cover, said sheet-metal body having clips secured thereto and adapted to be folded down upon the cover and secured thereto, said sheet-metal cover having a bracing shoulder or flange fitting inside the upper end of said body, the ends of said wood-veneer body abutting against the projecting rims of said wood-veneer bottom and wood-veneer cover, substantially as specified.

16. In a shipping-package, the combination with a double or combined sheet-metal and wood-veneer body of a double or combined sheet-metal and wood-veneer bottom, the lower end of the sheet-metal body being folded over and embracing the rim or margin of said combined bottom, thus securing the combined or double bottom to the combined or double body, and a double or combined sheet-metal and wood-veneer cover, said sheet-metal body having an offset or flange near its upper end against which the upper end of the wood-veneer body abuts and upon which the rim of said cover rests, said sheet-metal body having also an upright flange forming a seat surrounding the edge of said cover, and clips secured to the body and adapted to be folded down upon the cover and screws and nuts for removably securing the clips to the cover, and wire bands surrounding the wood-veneer body, said sheet-metal cover having a bracing shoulder or flange fitting inside the upper end of said body, substantially as specified.

EDWIN NORTON.

Witnesses:

EDMUND ADCOCK,
H. M. MUNDAY.