

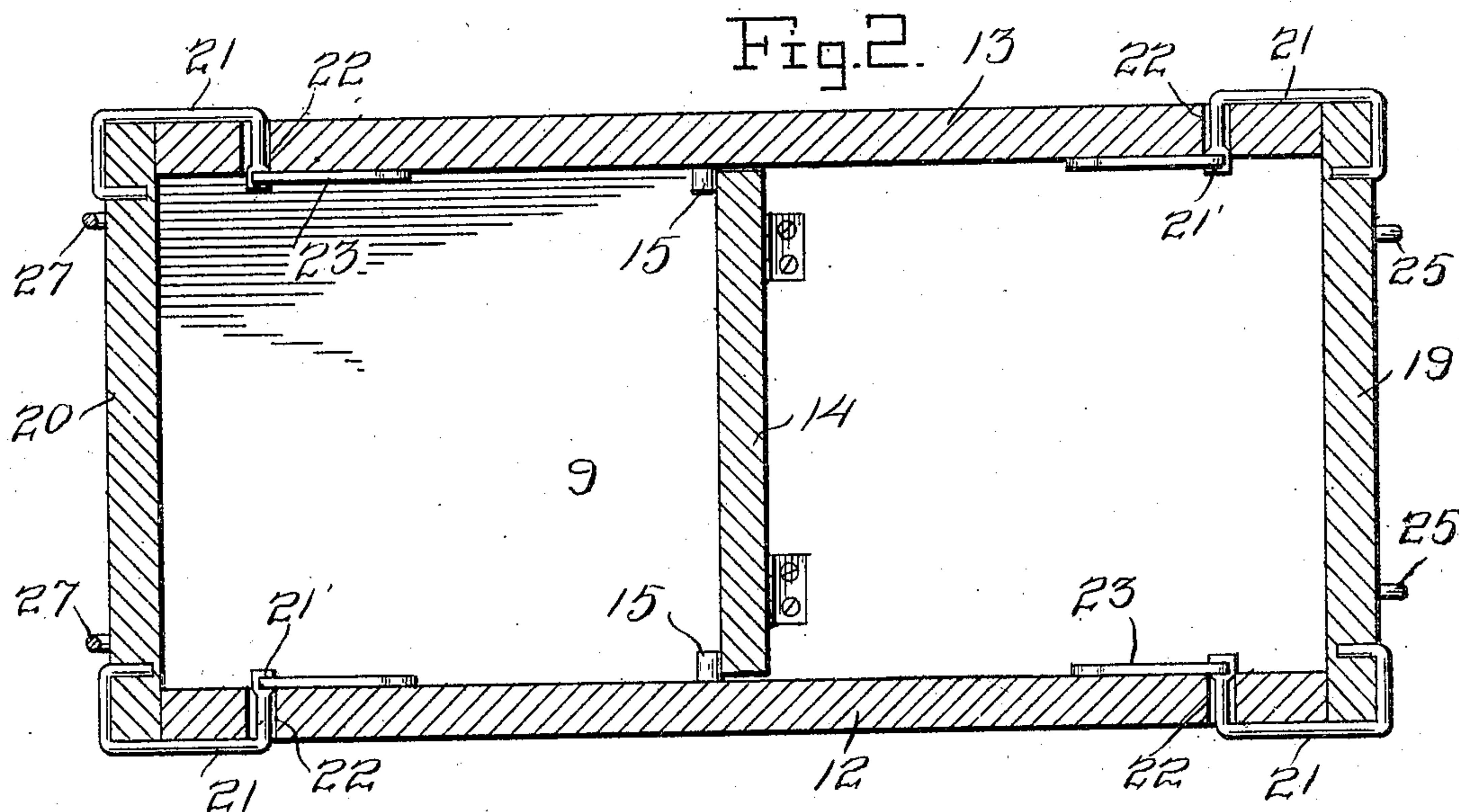
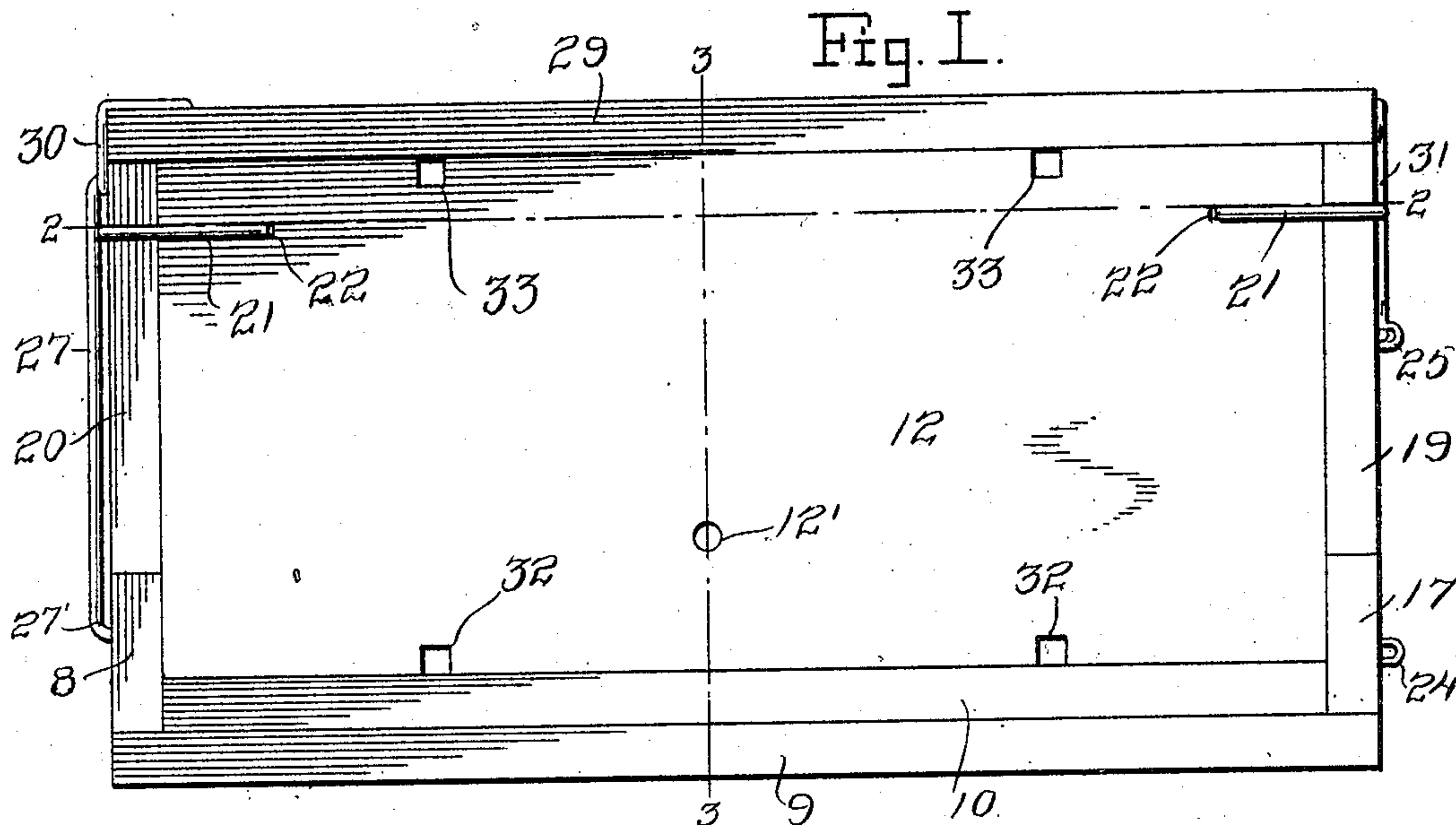
No. 835,921.

PATENTED NOV. 13, 1906.

C. W. STEVENS.
CRATE.

APPLICATION FILED FEB. 2, 1906.

3 SHEETS—SHEET 1.



WITNESSES:

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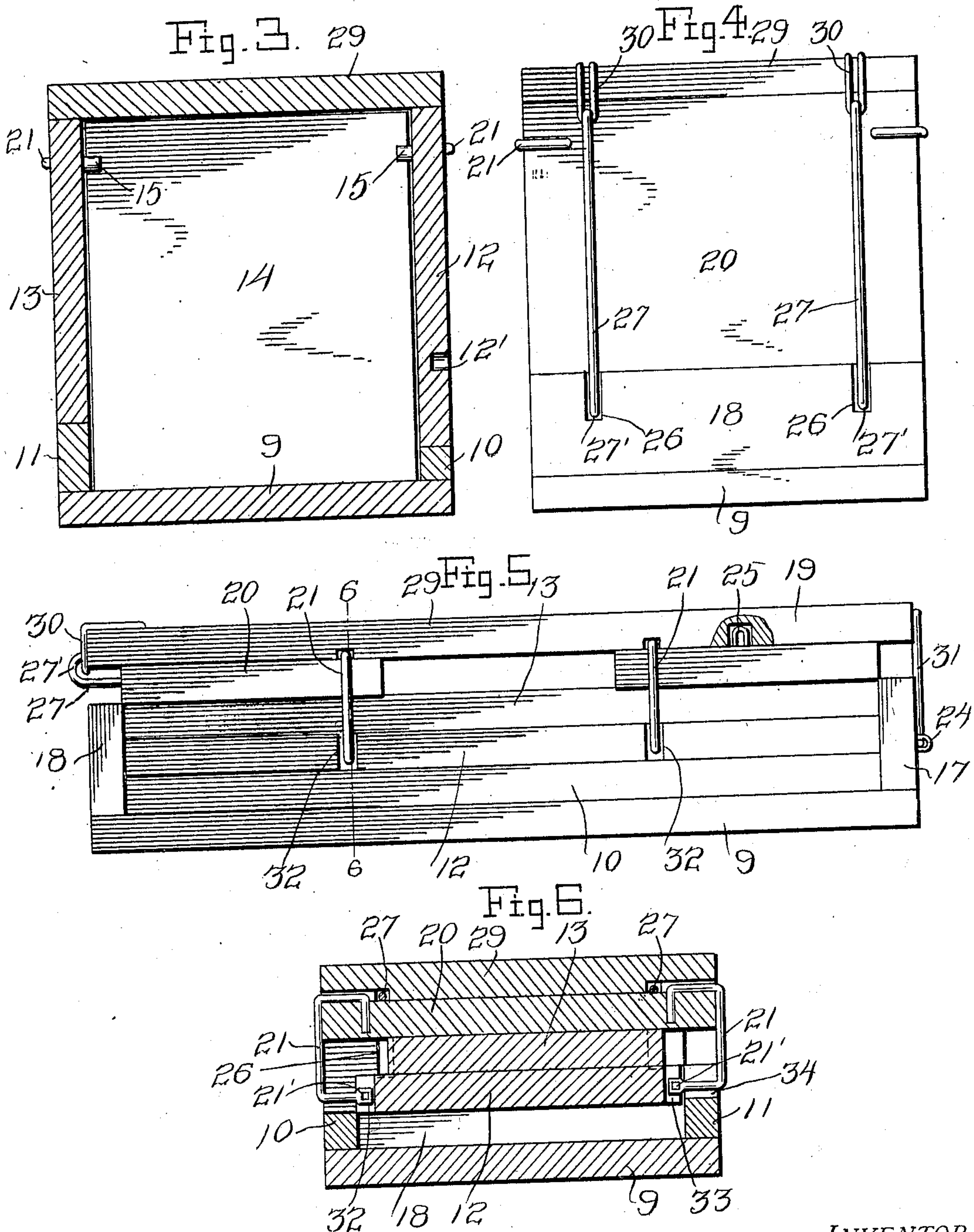
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3 SHEETS—SHEET 3.

Fig. 7.

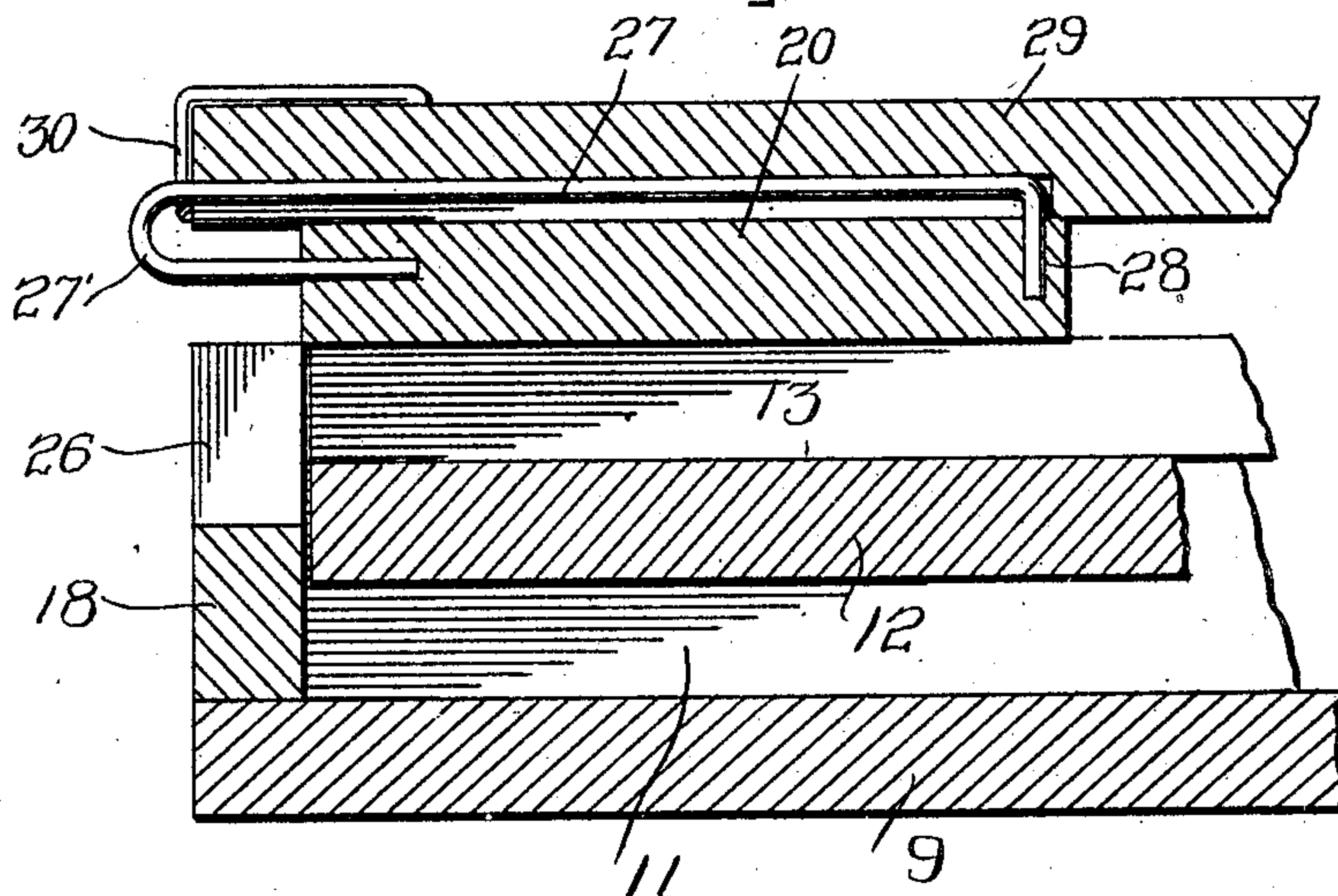
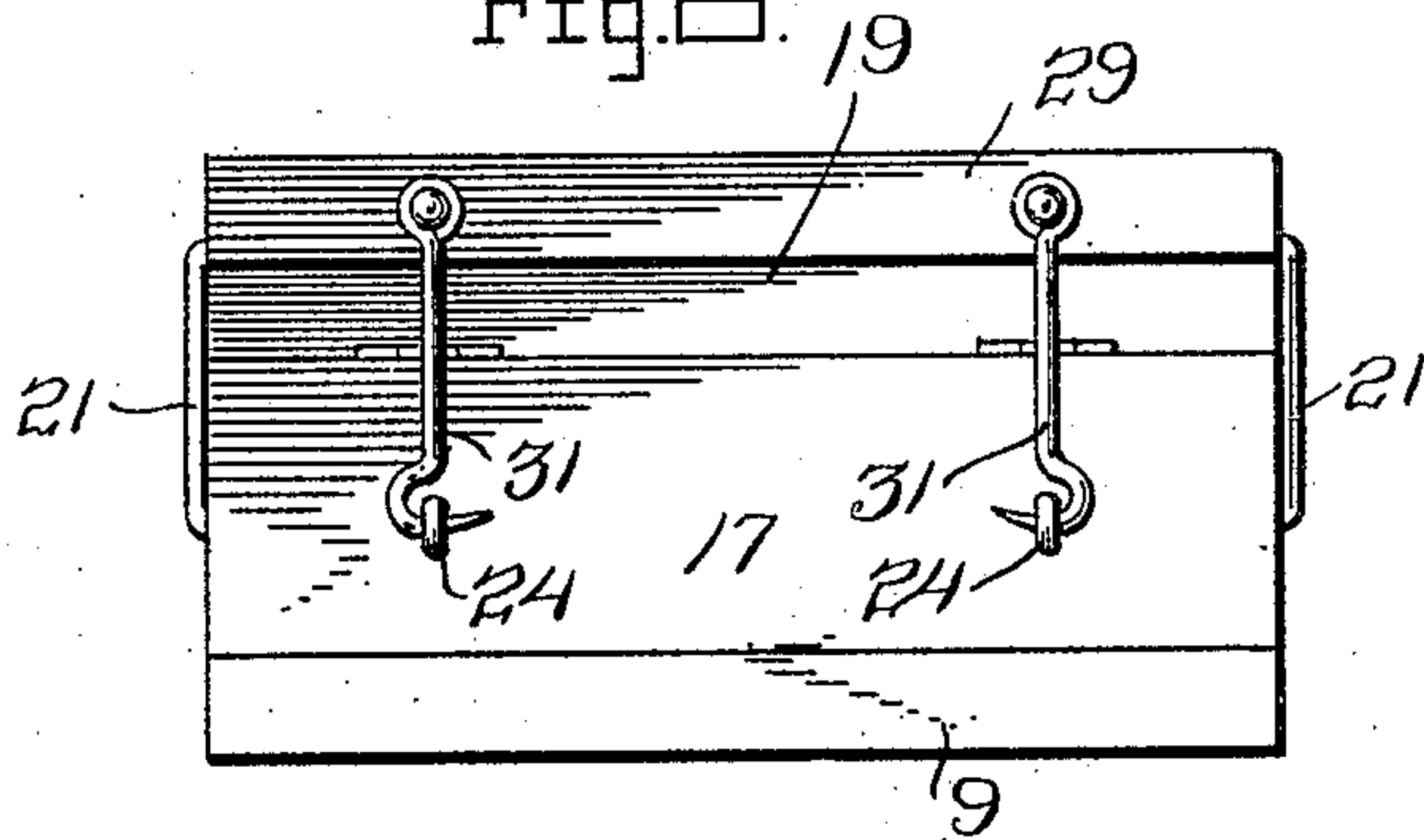


Fig. 8.



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UNITED STATES PATENT OFFICE.

CHARLES W. STEVENS, OF SIDNEY, IOWA.

CRATE.

No. 835,921.

Specification of Letters Patent.

Patented Nov. 13, 1906.

Application filed February 2, 1906. Serial No. 299,145.

To all whom it may concern:

Be it known that I, CHARLES W. STEVENS, a citizen of the United States, residing at Sidney, in the county of Fremont, State of Iowa, have invented certain new and useful Improvements in Folding 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 crates, and more particularly to folding crates, and has for its object to provide a simple and comparatively inexpensive crate which may be used in the shipment of eggs or other products and which may be folded to occupy little space when not in use.

Another object is to provide a crate including a novel means for holding the parts in operative and inoperative position.

Other objects and advantages will be apparent from the following description.

In the drawings forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views Figure 1 is a side elevation of the present crate in use. Fig. 2 is a horizontal section on line 2 2 of Fig. 1. Fig. 3 is a vertical section on line 3 3 of Fig. 1. Fig. 4 is an end view. Fig. 5 is a side elevation of the crate folded. Fig. 6 is a cross-section on line 6 6 of Fig. 5. Fig. 7 is a detail sectional view of one end of the crate in folded position, the end being that shown in Fig. 4 and showing the loops engaged with the bight ends of the rods. Fig. 8 is a view of the opposite end of the crate from that shown in Fig. 4 with the parts in folded position.

Referring now to the drawings, the present invention comprises a bottom 9, having upwardly-extending strips 10 and 11 at its side edges, the strip 11 being substantially twice the height of the strip 10. Side walls 12 and 13 are hinged to the strips 10 and 11, respectively, for movement to extend upwardly therefrom or to extend inwardly over the bottom 9, and, as will be seen, when in inwardly-extended folded position the wall 12 lies beneath the wall 13 and upon a division-piece 14, hinged upon the bottom 9 transversely thereof and movable to extend upwardly therefrom or to lie thereupon. The walls 12 and 13 have inwardly-projecting pins 15, which receive the division-piece 14 when the latter is in operative position, and

the wall 12 has a recess 12' in its upper face, which receives the pin 15 of the wall 13 when the walls are folded.

Strips 17 and 18 are secured to the ends of the bottom 9 and extend upwardly beyond the walls 12 and 13 when the latter are in folded position, and these strips 17 and 18 have end walls 19 and 20, respectively hinged thereto for movement to extend upwardly therefrom or inwardly over the wall 13 when the crate is folded, and these end walls 19 and 20 have secured thereto rods 21, which extend over the outer faces of the walls 12 and 13 when the crate is unfolded and are then turned inwardly to form hook members, the inwardly-turned portion extending through openings 22, formed in the side walls and having vertical perforations 21' at their inner ends, which lie inwardly of the side walls for the reception of the bills of hooks 23, pivoted to the inner faces of the latter. It will thus be seen that when the hooks 23 are engaged in the perforations 21' the several walls are held in operative position, the end walls 19 and 20 resting against the ends of the side walls 12 and 13.

Staples 24 project outwardly from the end strip 17, and similar staples 25 are carried by the end wall 19. The end strip 18 has a recess 26 adjacent to each end, these recesses opening through the upper edge and outer face of the strip, and a pair of spring-rods 27 are engaged at one end in the lower edge of the end wall 20 and extend downwardly into the recesses 26 when they are turned outwardly and upwardly to form lower bight ends 27', the upwardly-extending portions of the rods being turned inwardly at their extremities to enter perforations 28, formed in the end wall 20 adjacent to its upper edge.

A top 29 is provided having loops 30 at one end, which extend downwardly over the end wall 20 and which receive therethrough the inwardly-turned end portions of the spring-rods 27, these loops 30 being also of a size to receive the bight ends 27' of the rods therethrough. Hooks 31 are pivoted to the opposite end of the top 29 and when the crate is in operative position engage in the staples 25 to hold the top in position.

When the crate is to be folded, several fasteners are disengaged and the wall 12 is moved inwardly, the division-piece 14 having been previously moved into inoperative position. The wall 13 is then moved into inoperative position and the end walls are

subsequently moved to rest thereupon. The lower edge of the wall 12, which now is the outer edge thereof, is provided with notches 32, which receive the ends of the hook members 21 at one side of the crate, while the corresponding edge of the wall 12 and the upper edge of the strip 11 are provided with notches 33 and 34, respectively, which receive the ends of the hook members at the opposite side of the plate. After the parts have been thus disposed the top 29 is disposed thereupon, the loops 30 being engaged with the bight ends of the rods 27, while the hooks 31 are engaged in the staples 24. The under face of the top is recessed to receive the upwardly-projecting members carried by the end walls.

What is claimed is—

1. In a crate, the combination with a bottom, of foldable walls connected therewith, a spring-rod carried by one of said walls, said rod extending downwardly, then outwardly, and then upwardly to form a lower bight end and having its upper end bent at an angle to form a hook, a top disposed upon the walls, and a loop carried by the top, said loop being engaged with the laterally-bent end of the rod and being arranged for engagement of the bight end of the rod therethrough.

2. A crate comprising a bottom, upwardly-extending side and end strips secured to the bottom, side walls hinged to the side strips and extending upwardly therefrom, said walls being movable to extend inwardly over the bottom and one above the other, a division-piece within the crate and movable into and out of operative position, end walls hinged to the end strips and extending upwardly therefrom, said end walls being movable to extend inwardly over the side walls, hooked members carried by the end walls and extending over the outer faces of the side walls, the bills of said hooked mem-

bers being engaged through the side walls and having perforations therethrough lying within the crate, removable fastening devices engaged in the perforations, a top disposed upon the walls, means for holding the top in operative position, and means for holding the top upon the end walls when the several walls are in folded position, said side walls and one of the side strips being notched for the reception of the bill portions of the hooked members when the crate is in folded position.

3. In a crate, the combination with a bottom, of upwardly-extending side and end walls foldably connected with the bottom, hooked members carried by the end walls and extending over the outer faces of the side walls, the bills of said hooked members being engaged through the side walls, said side walls being movable with respect to the bottom into and out of said relation to the hooked members, and means cooperating with the hooked members for holding the side walls against such movement.

4. In a crate, the combination with a bottom, of foldable walls connected therewith, a rod carried by one of the walls and having a lower bight portion extending downwardly beyond said wall and having an angular upper portion, a top disposed upon the walls, and a member carried by the top and slidably engaged with the rod for movement to lie at times at the angular portion thereof, and at times at the bight portion thereof, said rod being movable to disengage it from the member.

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

CHARLES W. STEVENS.

Witnesses:

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JOHN P. EGELKE.