

No. 887,369.

PATENTED MAY 12, 1908.

J. F. WILMOT.
KNOCKDOWN CASE.
APPLICATION FILED MAR. 13, 1908.

2 SHEETS—SHEET 1.

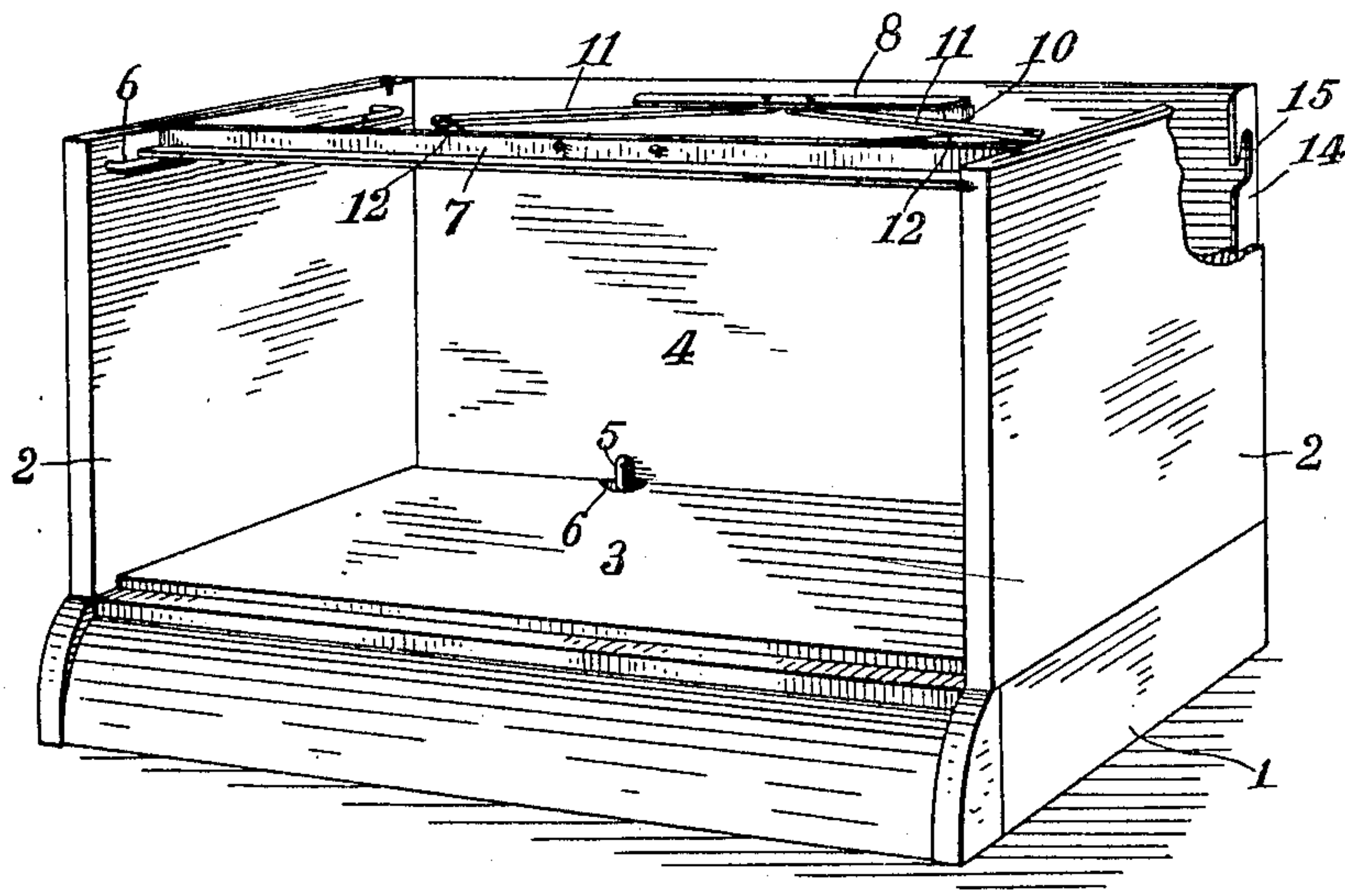


Fig. 1.

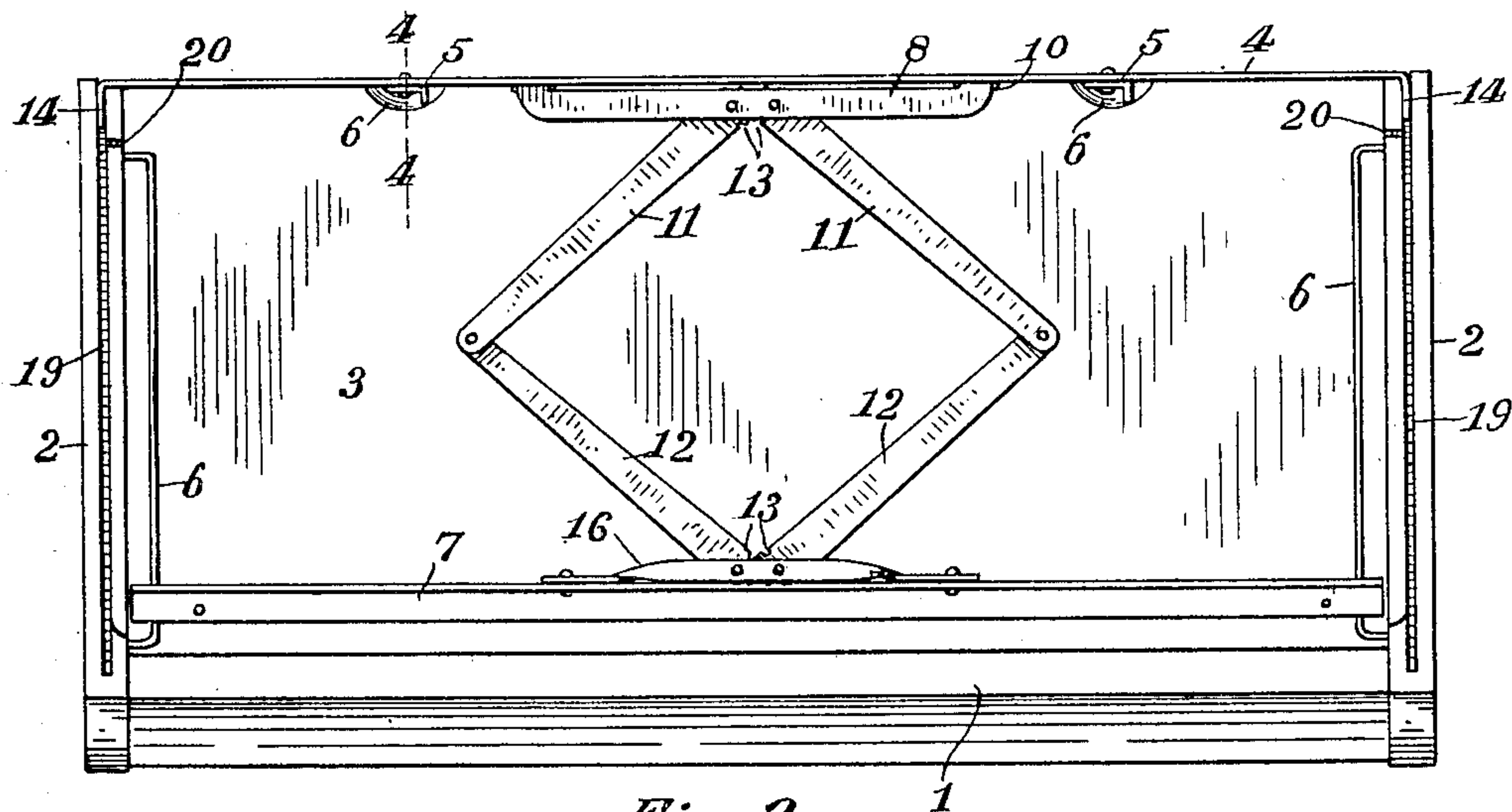


Fig. 2.

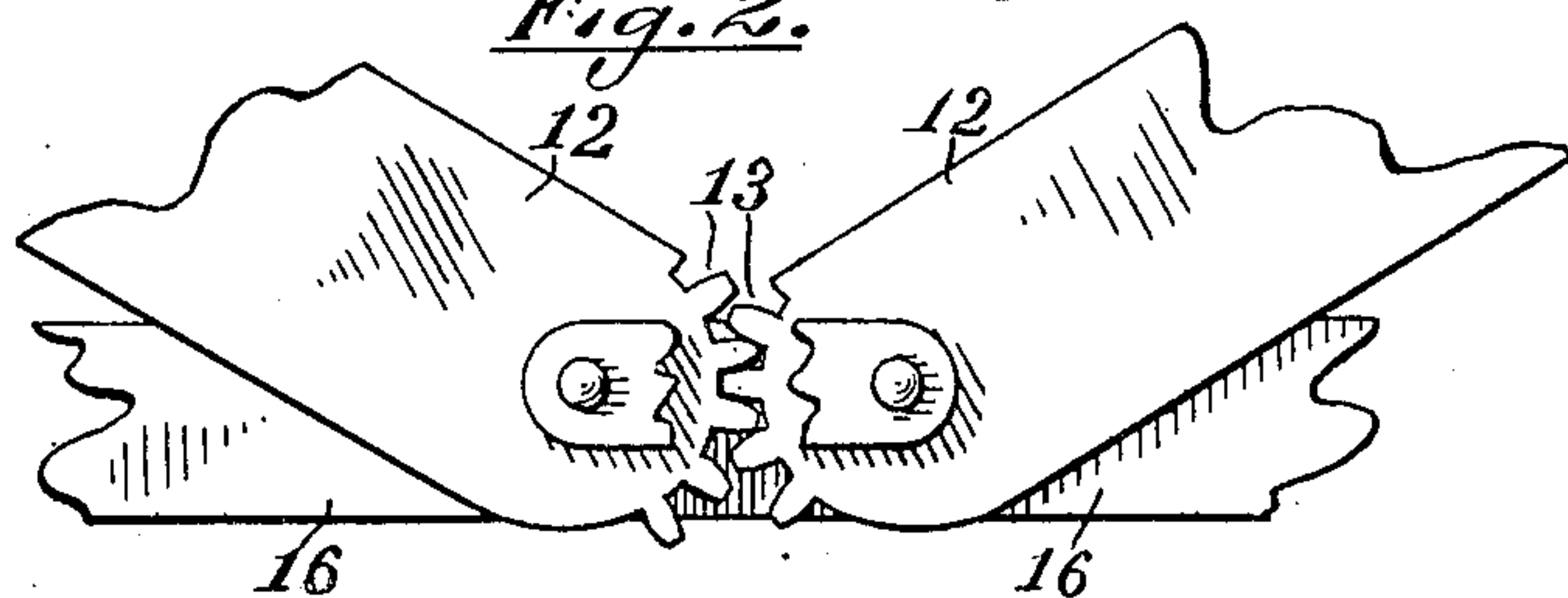


Fig. 3.

Witnesses
H. C. Van Antwerp.
Georgiana Chase

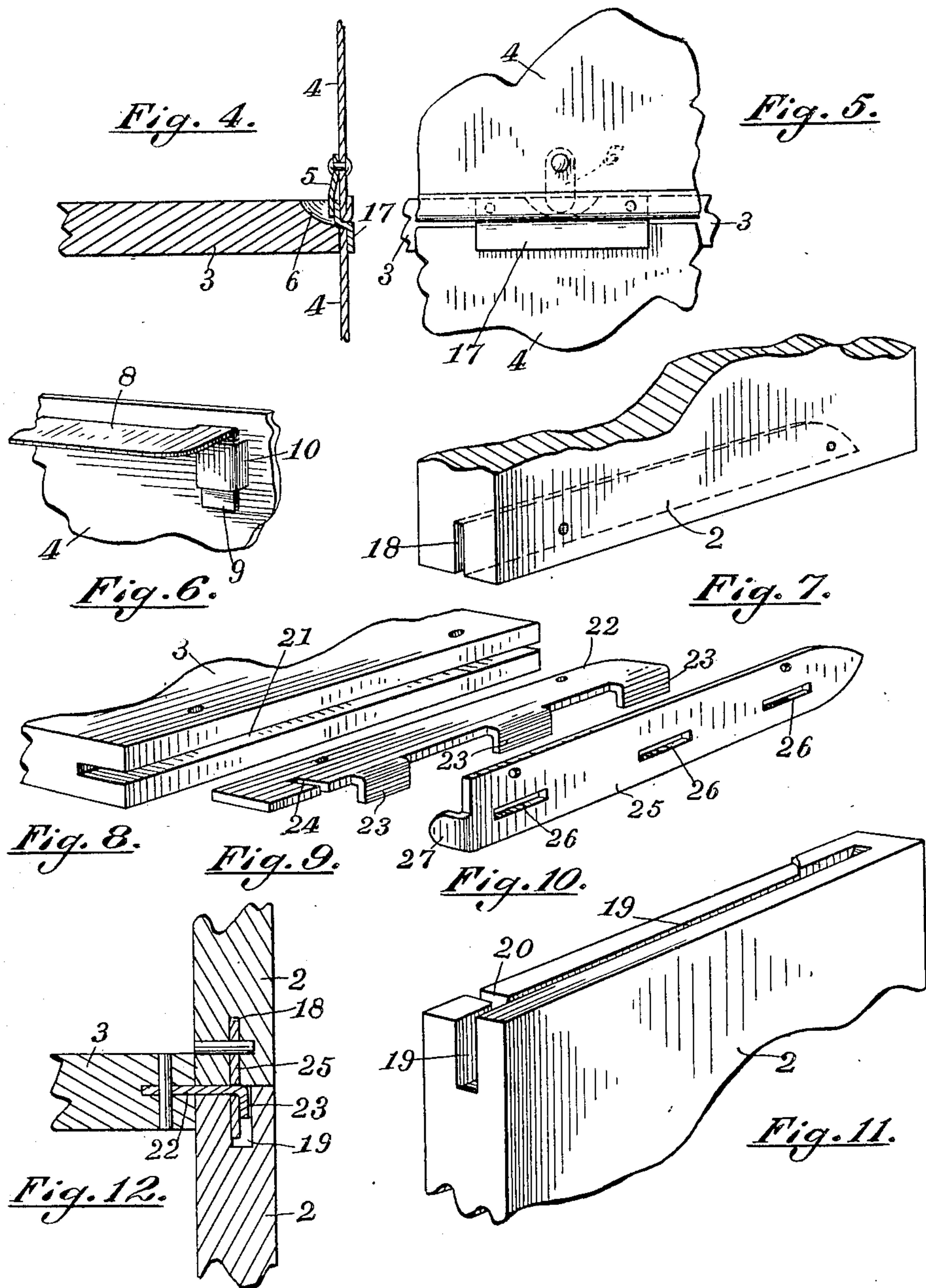
Inventor
John F. Wilmot
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Attorney

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Fig. 13.

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UNITED STATES PATENT OFFICE.

JOHN F. WILMOT, OF DETROIT, MICHIGAN.

KNOCKDOWN CASE.

No. 887,369.

Specification of Letters Patent.

Patented May 12, 1908.

Application filed March 13, 1908. Serial No. 420,809.

To all whom it may concern:

Be it known that I, JOHN F. WILMOT, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Knockdown Cases; 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.

My invention relates to improvements in knockdown sectional cases and its object is to provide the same with improved means for detachably connecting the various parts of the sections, whereby the same when assembled may be moved about without becoming detached; to provide improved means for guiding the door; and to provide the device with various new and useful features hereinafter more fully described and particularly pointed out in the claims, reference being had to the accompanying drawings, in which:

Figure 1. is a perspective of a device embodying my invention; Fig. 2. a plan view of the same; Fig. 3. an enlarged detail of the intermeshing or geared ends of the guide arms; Fig. 4. a sectional detail on the line 4—4 of Fig. 2.; Fig. 5. a rear elevation of the same; Fig. 6. a detail of the means for detachably securing the guiding mechanism to the back; Fig. 7. a perspective detail of the lower end of one of the ends of a section; Fig. 8. a perspective of one end of one of the shelves; Fig. 9. a perspective of the locking plate for a shelf; Fig. 10. the same of the locking plate for the ends of the sections; Fig. 11. perspective detail of the upper end of an end of a section; Fig. 12. a vertical section through a portion of a shelf and adjacent portions of two ends of the sections in assembled position; and, Fig. 13. a modification of the guide for the door.

Like numbers refer to like parts in all of the figures.

1 represents the base or lower member of a sectional bookcase; 2 ends of the sections of the same; 3 represents one of the shelves; and 4 the back. This back is secured at the bottom to the shelf by means of buttons 5 extending downward within recesses 6 in the shelf and engaging the upper edge of a metal strip 17, said strip being offset at the middle to extend outside of the upper edge of a back below and inside of the adjacent edge of the

next back above. This strip is secured to the rear edge of the shelf 3. The ends of the back are turned forward at right angles forming flanges as at 14, which flanges are inserted in vertical grooves in the rear of the opposite end of the section, and provided with hooks 15 to engage pins (not shown) in the grooves; but I do not confine myself to any particular means for attaching the back to the rear of the ends of the sections.

7 represents a bar slidable horizontally in the upper part of the case and supported upon ways 6, the door (not shown) being pivotally supported and carried by this bar. To guide the bar so that it will move uniformly at its respective ends, a strap 8 is detachably secured to the back by means of downwardly extended lugs 9 at the ends inserted in inwardly pressed loops in the back as illustrated in Fig. 6, or the strap may be a bar extending between the ends of the section. Pivoted at one end to this strap 8 are horizontally disposed diverging arms 11, their adjacent ends having gear teeth 13 forming intermeshing pinions whereby uniform and equal movement of the said arms about their pivots is secured. Another similar pair of arms 12 also provided with intermeshing gears 13 are pivoted at one end to a strap 16 secured to the bar 7, and the other ends of these arms 11 and 12 are pivotally attached to each other. By this means as the bar slides to and fro on the ways 6, these levers will move uniformly and thus guide the bar uniformly at its respective ends.

Fig. 13 shows a modification in which the bar 16^a to which the arms 12 are pivoted is provided with journals at its ends inserted in bearings 28 attached to the front 29 of the case, whereby I am able to dispense with the bar 7 and attach the guide directly to the front of the case. The lower edge of each end of the section is provided with a groove 18 in which is inserted and secured the upper edge of a coupling plate 25 arranged in a vertical plane, the lower edge of which plate is detachably inserted in a groove 19 in the upper edge of the next adjacent end section, or in the upper edge of the base 1.

20 is a lateral recess to receive the lug 27 on the plate 25 to insure proper front alignment of the end sections. The plate 25 is also provided with a series of horizontal slots 26 in which are inserted downwardly turned hooks 23 on the shelf plate 22, and the slot 19 is made wider than the slot 18 to receive both

the plate 25 and the hooks 23. The plate 22 is inserted horizontally in a slot 21 in the end of the shelf 3 and secured therein, and also projects therefrom sufficient to extend between the end sections and properly engage the hooks with the plate 25. This plate 22 is also provided with a recess 24 to receive the lug 27 and thus permit assembling of the parts. When assembled in conjunction with the back, it forms a very substantial structure, and if desirable, it may be retained in its assembled relation, detached from the section below and the contents thereof remain within the same, it being sufficiently rigid and strong to be carried about as an integral structure if so desired.

What I claim is:

1. In a knockdown sectional case, superposed ends to the sections, grooves in the adjacent ends of the sections, a coupling plate inserted in said grooves, a shelf, a plate secured to the end of the shelf and means for detachably securing said plate to the coupling plate.

2. In a knockdown sectional case, superposed ends to the sections, grooves in the adjacent ends of the sections, a coupling plate inserted in said grooves and provided with openings, a shelf, a plate secured at the end of the shelf and hooks on the plate adapted to be inserted in the openings in the coupling plate.

3. In a knockdown sectional case, sections having ends provided with grooves in their upper and lower edges, the upper groove being wider than the lower groove, a coupling plate secured in the lower groove and projecting downward therefrom to enter the upper groove of the adjacent section below, a shelf, a plate secured to the end of the shelf, outward and downwardly projecting hooks on the plate inserted in the slots of the coupling plate and extending downward within the upper groove of the end section.

4. In a knockdown sectional case, superposed ends having grooves in their adjacent edges, the groove in the upper edge being wider than the groove in the lower edge and a lateral recess communicating with said groove, a vertically disposed plate secured in one groove and extending into the other groove, a shelf having a groove in its end, a horizontally disposed plate secured in said groove, outwardly and laterally extended hooks on said plate and extending through openings in the vertical plate and within the

other groove, and a lug on the vertical plate engaging the lateral recesses.

5. In combination with the ends, a shelf of a sectional case, a vertically disposed plate having slots therein and a laterally projecting lug at one end, and a horizontally disposed plate having outwardly and downwardly projecting hooks to engage the slots, and a recess to receive the lug.

6. In a knockdown sectional case, superposed ends, a shelf and superposed backs detachably secured to the ends, a strip attached to the shelf and offset to extend downward outside of one back and inside of the other back, and means on the back to engage the inner side of the strip.

7. In a knockdown sectional case, superposed ends to the sections having vertical grooves in their rear edges, superposed backs having flanges in their ends inserted in said grooves, a shelf opposite the adjacent edges of the back and connecting the ends, a strip offset at the middle and interposed between the backs and also attached to the rear of the shelf and a button on the upper back extending within the recess and engaging the inner surface of the strip.

8. In a knockdown sectional case, a back having loops extending inward, a strap having downwardly bent ends inserted in said loops, diverging arms pivoted at their adjacent ends to the strap and having intermeshing gear teeth between their pivots, a bar adapted to carry a front to the case, a strap attached to the bar, a second pair of diverging arms pivoted to the strap at their adjacent ends and pivoted to the first named arms at their other ends.

9. In a knockdown sectional case, a sheet metal back having inwardly pressed loops, a strap having downwardly turned ends detachably inserted in said loops, diverging arms pivoted to said strap near each other, intermeshing gear teeth on said arms, a strap pivotally attached to the front of the case, a second pair of diverging arms having intermeshing gear teeth, and pivoted to said strap at their adjacent ends, and also pivoted to the first named arms at their other ends.

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

JOHN F. WILMOT.

Witnesses:

L. V. MOULTON,
GEORGIANA CHACE.