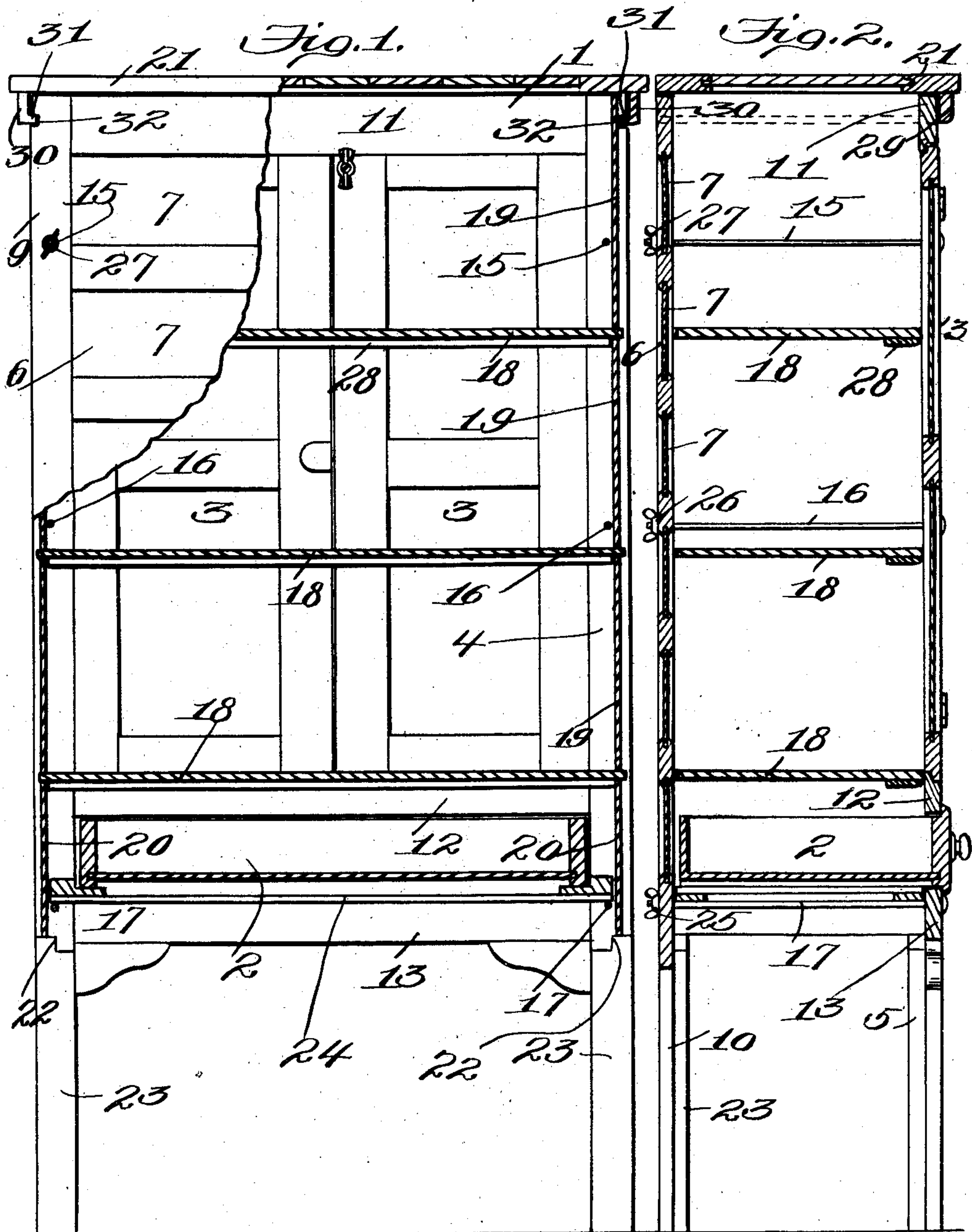


P. MORRISON.
 KNOCKDOWN ARTICLE OF FURNITURE.
 APPLICATION FILED JULY 14, 1908.

906,909.

Patented Dec. 15, 1908.

2 SHEETS—SHEET 1.



Witnesses:
Chas. Kesler
Norris Sundry.

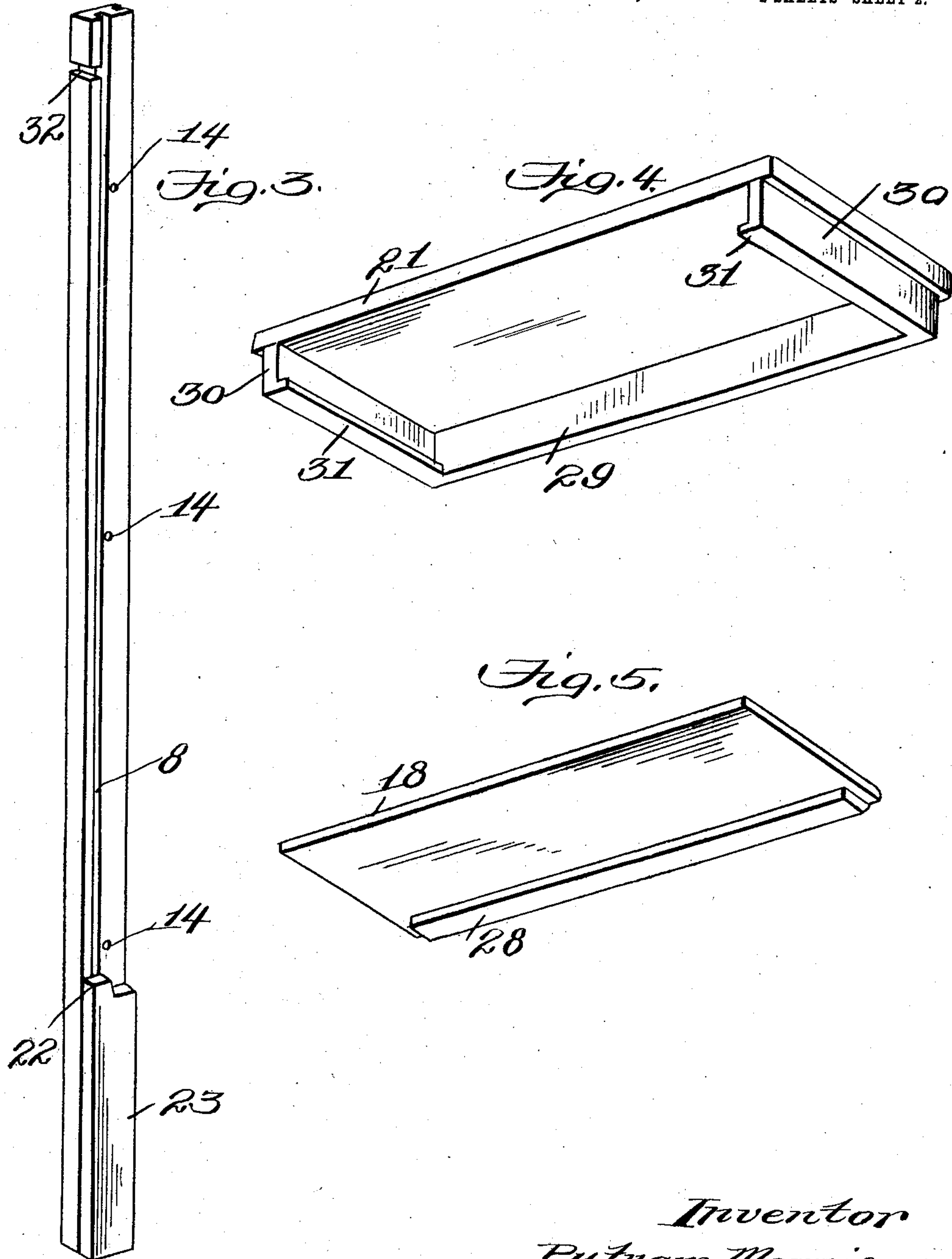
Inventor
Putnam Morrison
 By *James L. Norris.*
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UNITED STATES PATENT OFFICE.

PUTNAM MORRISON, OF CHATTANOOGA, TENNESSEE.

KNOCKDOWN ARTICLE OF FURNITURE.

No. 906,909.

Specification of Letters Patent.

Patented Dec. 15, 1908.

Application filed July 14, 1908. Serial No. 443,429.

To all whom it may concern:

Be it known that I, PUTNAM MORRISON, a citizen of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, have invented new and useful Improvements in Knockdown Articles of Furniture, of which the following is a specification.

This invention relates to knock-down articles of furniture and the like, such as kitchen safes, wardrobes, bookcases and other analogous structures, and the primary object of the same is to improve the structure disclosed by my Patent No. 894,033, granted July 21, 1908, and whereby the general organization of elements is more effective in the production of a strong and durable safe or like device.

A further object of the invention is to so arrange the different elements or members that they will be reinforced more positively against shrinkage and maintained against displacement when assembled. The several parts are also replaceable at small cost and may be originally produced at a minimum expense with commercial advantages and without detracting from their necessary practical service in performing the several functions for which they have been devised.

The drawings illustrate an embodiment of the invention in the form of a knock-down kitchen safe, but it will be understood that the same principle and features of construction may be embodied in other analogous devices.

The particular improved features of construction will be more fully hereinafter specified.

In the drawings: Figure 1 is a rear elevation of a safe broken away in parts and shown in section and illustrating the features of the invention. Fig. 2 is a transverse vertical section of the same. Figs. 3, 4 and 5 are detail perspective views of parts of the safe.

Similar characters of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a front frame having suitable openings for a drawer 2 and doors 3, these openings and the drawer and doors being arranged to suit the taste and convenience of the maker and in accordance with the design of safe desired to be produced. The particular arrangement of the front frame is not essential and may be va-

ried at will. The front frame includes corner posts 4 which extend the full height of the safe and are projected below the bottom of the latter to provide front legs 5. Associated with the front frame 1 is a back 60 consisting of a frame of the same dimensions as the front frame and made up of a plurality of panels 7 and suitable intersecting mullions as may be desired and also including corner posts 9 which are duplicates 65 in construction of the posts 4, one of these posts being shown by Fig. 3 in detail. The posts 9 are projected at their lower extremities below the bottom of the safe to form rear legs 10. The panels 7 in the back frame, the doors 3, and the cross strips 11, 12 and 13 in the front frame 1 are preferably united to the posts 4 and 9 and the cooperating parts 75 by means of grooves, one groove 8 being shown in the post illustrated by Fig. 3, the panels being pushed downwardly through the grooves from the upper ends of the posts, as will be readily understood by those skilled in the art. The grooves in the posts are so 80 arranged that they are directly opposite each other and parallel. The posts are also transversely bored as at 14, the several bores 14 being in alinement in the pairs of posts to removably receive tie rods 15, 16 and 17 85 arranged at intervals and serving to draw and secure the parts of the safe or other device together in firm assembled relation.

At regular intervals throughout the vertical extent of the safe, or at different distances apart, as may be desired, shelves 18 90 are disposed and rendered accessible through the medium of the doors 3, and between the shelves panels 19 are arranged. Below the lowermost shelf 18 are supporting panels 95 20, one at each end of the safe, the said panels 20 serving as the basic pressure receiving means of the superimposed shelves and panels above the same. The uppermost panels 19 extend to and terminally cooperate 100 with a cap or top closure 21 which in the present instance has a particularly advantageous structure. The lower ends of the panels 20 engage offsets or shoulders on the inner sides of the legs 5 and 10, as at 22, 105 the said offsets or shoulders being formed by securing strips 23 to the legs or lower extremities of the posts, as shown by Fig. 3, the said strips extending down to the lower terminals of the legs or lower extremities of 110 the posts and providing an additional rest means or support for the safe and serving

also as a reinforcing means for the lower extremities of the posts or legs 5 and 10. The lower tie rods 17 of the safe at each end in this instance support a rack or frame 24 for the drawer 2, the said rack or frame 24 terminating inside of the panels 20, as clearly shown by Fig. 1.

The ends of the shelves 18 project outwardly between and are snugly engaged by adjacent ends of the panels 19, the front and back frames, together with the posts 4 and 9, being first assembled by having the tie rods 15, 16 and 17 inserted through the bores 14 in the posts and the lowermost tie rods 17 tightened up by nuts 25. The final tightening of the rods 17 is not effected, however, until the lowermost supporting panels 20 are pushed downwardly into place between the posts into close engagement with the offsets or shoulders 22. The lowermost shelf 18 and the panels 19 directly engaging the opposite extremities thereof are then placed in position and the intermediate shelf 18 is fitted over the lowermost panels 19. The intermediate panels 19 are next pushed downwardly into position and caused to positively engage the opposite ends of the intermediate shelf 18, and after this assemblage has been completed the intermediate tie rods 16 are tightened up through the medium of nuts 26 similar to the nuts 25 of the rods 17. The uppermost panels 19 are then pushed firmly against the uppermost shelf 18 and the upper tie rods 15 are then tightened up to secure all of the panels and shelves in close contacting relation and with such degree of pressure as to prevent the shelves and panels from warping. It will be understood that the corner posts, by reason of the disposition of the supporting panels 20 on the shoulders or offsets 22, receive the maximum or aggregate pressure of all the shelves and panels, and as the shoulders or offsets 22 are formed at the upper ends of the strips 23 which extend fully down to the base support of the safe the pressure strain is largely removed from the members of the safe and centered in the corner posts with advantages in producing a solid support and a more effective association or assemblage of the several members.

The shelves 18 in the present instance are prevented from slipping out of place, particularly in opposite longitudinal directions by stop means 28 secured to the under sides thereof and consisting of strips extending longitudinally adjacent to one edge, as shown by Fig. 5, the said strips being shorter than the shelves so that the opposite ends of the latter may be projected between the contiguous ends of the panels. Furthermore, the panels in this instance will be preferably made up of strips of wood having the grain running at right angles so as

to avoid warping or preventing distortion of the panels in a manner which will be readily understood.

The cap or top closure 21 fully covers the top of the safe and has a front closing strip 29 depending over the front frame, as clearly shown by Fig. 2 and illustrated in detail by Fig. 4. This cap or top closure also has end closing strips 30 intersecting the strip 29 in planes at right angles and provided with inturned securing flanges 31 at their lower ends to slidably engage grooves 32 in the corner posts. The cap or top closure 21 is fully open at its rear side and is slid over the top of the safe from the front towards the rear of the latter and bears on the upper ends of the uppermost panels 19 as well as the upper edges of the front and back frames. This mode of assembling the cap or top closure 21 is materially advantageous in that the use of fastening devices is unnecessary and the upper extremity of the safe is rendered effective and solid in its structure.

In the event that any of the parts of the safe become broken or injured they may be readily replaced at a minimum expense. The form of safe described is also advantageous in that it may be shipped or stored in knocked down condition and assembled when desired with convenience and facility without requiring the services of a skilled mechanic.

It is obvious that changes in the dimensions and proportions may be adopted at will, and the same knock-down structure may be embodied in many devices other than those enumerated.

Having thus described the invention, what is claimed as new, is:

1. A knock down article of furniture comprising front and back members including posts having offsets at the inner opposing sides of their lower extremities, shelves, end panels, and transversely extending tie devices, the lowermost panels engaging the offsets of the posts and the opposite extremities of the panels and shelves being held in tight engaging relation solely by pressure and prevented from moving by the tie devices so that warping of one is obstructed by the other.

2. A knock down article of furniture comprising front and back members including corner posts, shelves, end panels and transversely extending tie devices engaging the frame members, the contiguous edges of the panels bearing against opposite sides of the extremities of the shelves and the ends of the panels embraced by portions of the frame members, the lowermost panels being directly supported by the end posts and the latter having the aggregate weight and pressure of the shelves and panels centered therein.

3. A knock down article of furniture comprising front and back frame members including posts having strips secured to the inner opposing sides of the lower extremities thereof and providing offsets or shoulders, shelves, end panels and transversely extending tie devices engaging the frame members, the lowermost panels bearing on the offsets formed by the strips and the panels and shelves having contiguous extremities snugly assembled and in intersecting relation, portions of the panels being also embraced by portions of the frame members.

4. A knock down article of furniture comprising front and back frame members, shelves having stop means adjacent to opposite extremities, end panels and securing devices for the frame members, the side edges of the panels bearing against opposite sides of the extremities of the shelves and the latter projecting outwardly between the contiguous edges of the panels, the stop means on the shelves preventing longitudinal movement in opposite directions of the said shelves with relation to the panels.

5. A knock down article of furniture comprising front and back frame members having inner opposing offsets at the lower part of portions thereof, shelves having stop

means thereon adjacent to opposite extremities, end panels and securing devices for the frame members, the lowermost panels directly engaging the offset means and the side edges of the panels bearing against opposite sides of the extremities of the shelves and the ends of the panels embraced by portions of the frame members, the stop means of the shelves preventing the latter from moving in opposite longitudinal directions with relation to the panels.

6. A knock-down article of furniture comprising front and back frame members having grooves in the outer upper portions thereof below the upper terminals of the same, shelves, end closing means, securing devices for the frame members, and a cap or top closure having end closing strips which extend downwardly over the upper portions of the front and back frame members and end closing means and provided with lower projections to slidably engage the said grooves.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

PUTNAM MORRISON.

Witnesses:

PAUL W. SHEPHERD,
ROBT. MORRISON.