

(No Model.)

H. C. REYNOLDS.  
FOLDING SHELF.

No. 495,910.

Patented Apr. 18, 1893.

Fig. 2.

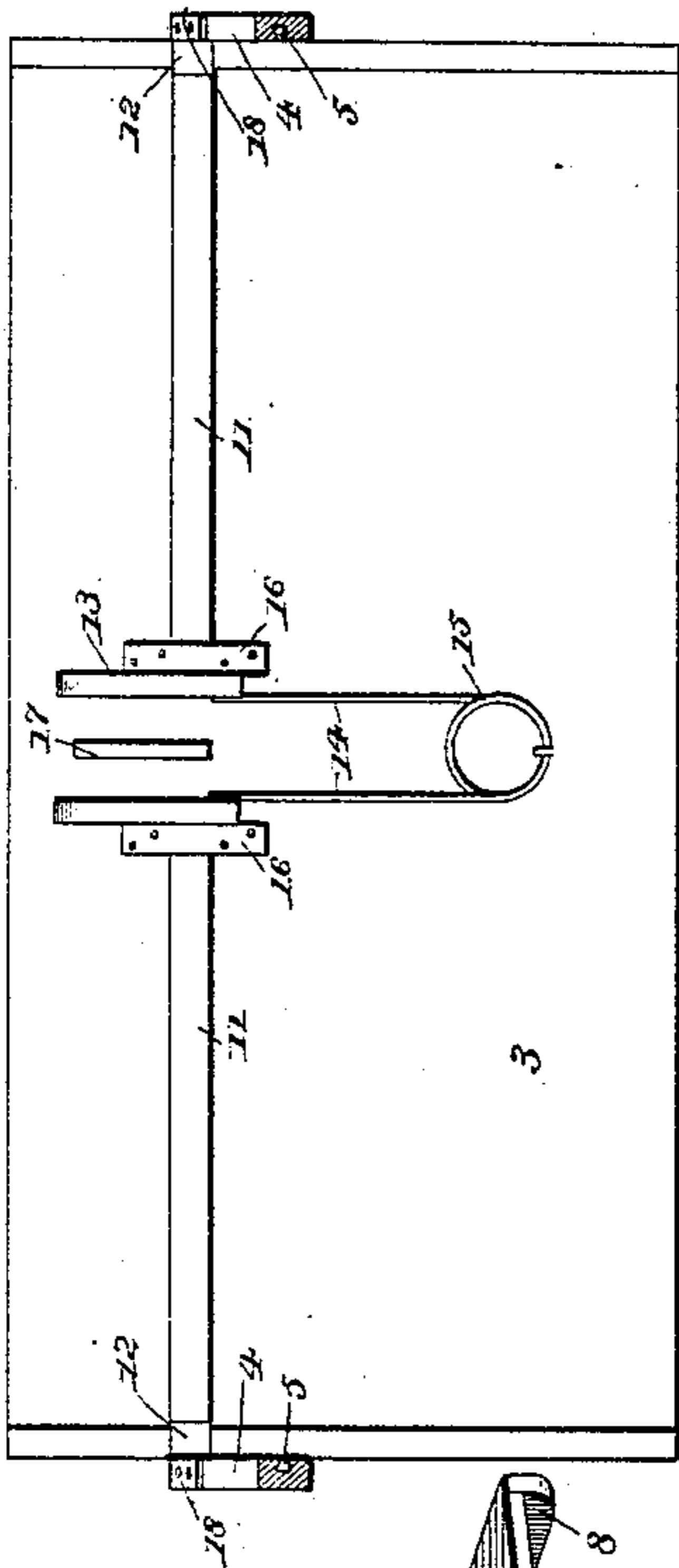


Fig. 3.

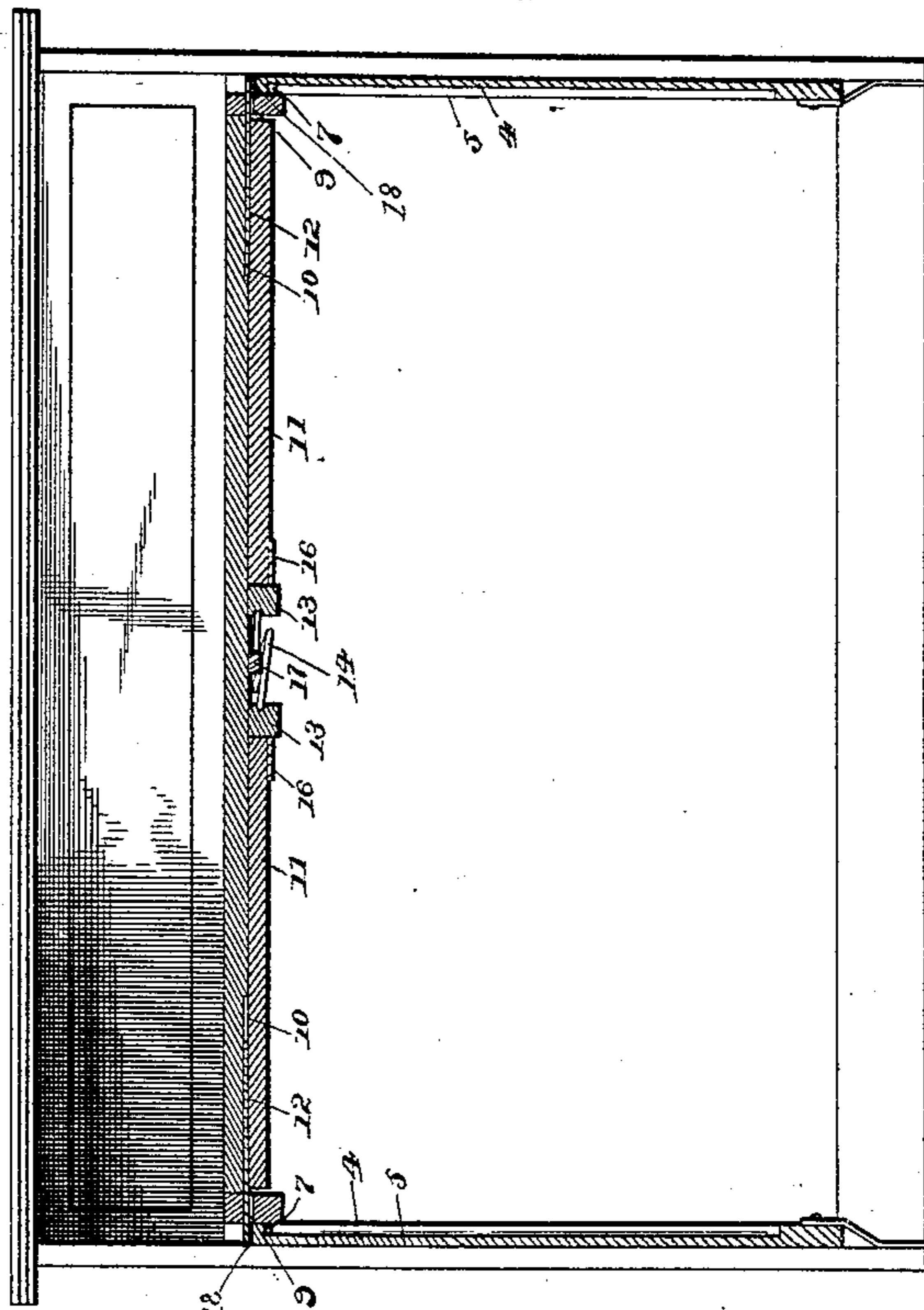


Fig. 1.

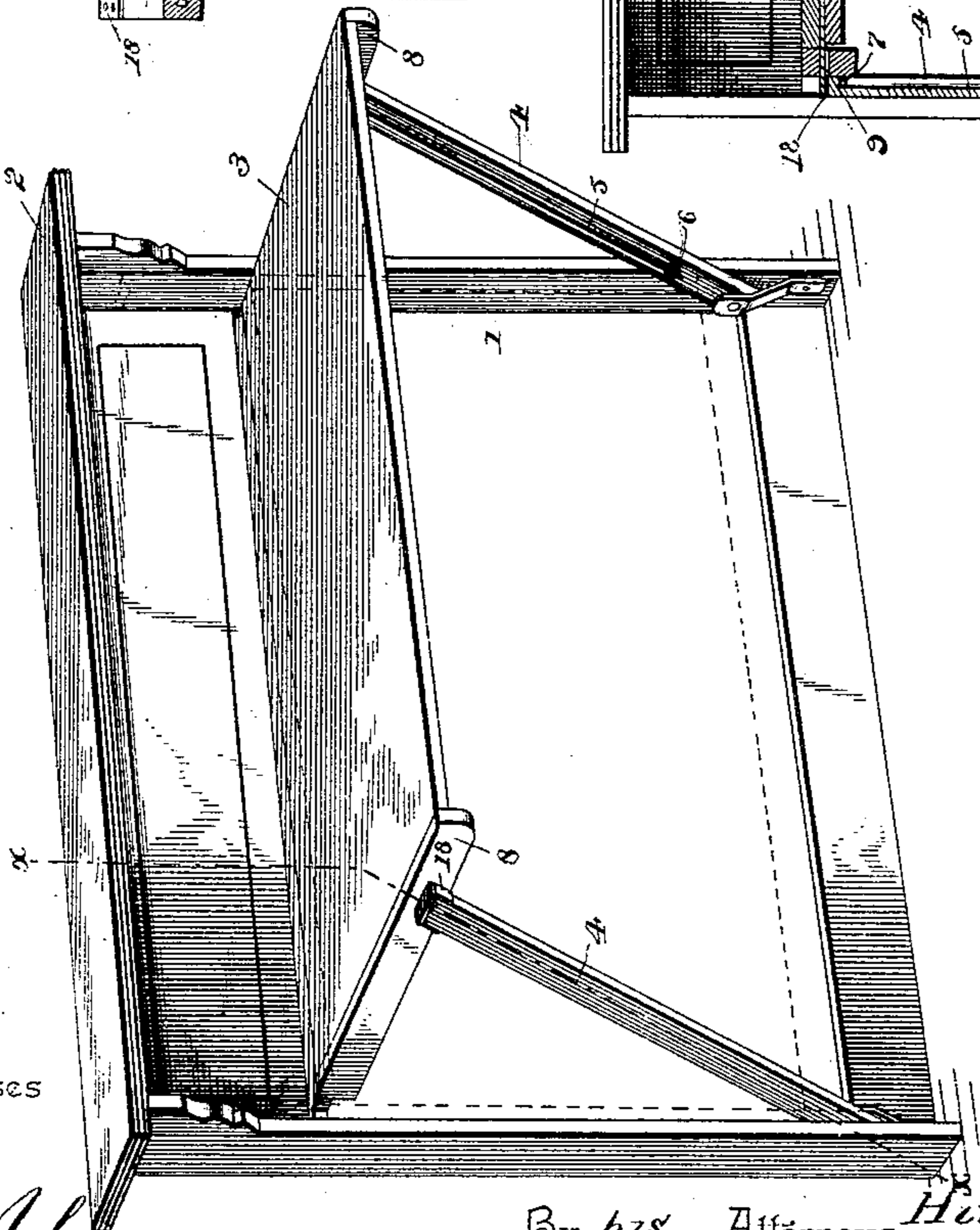
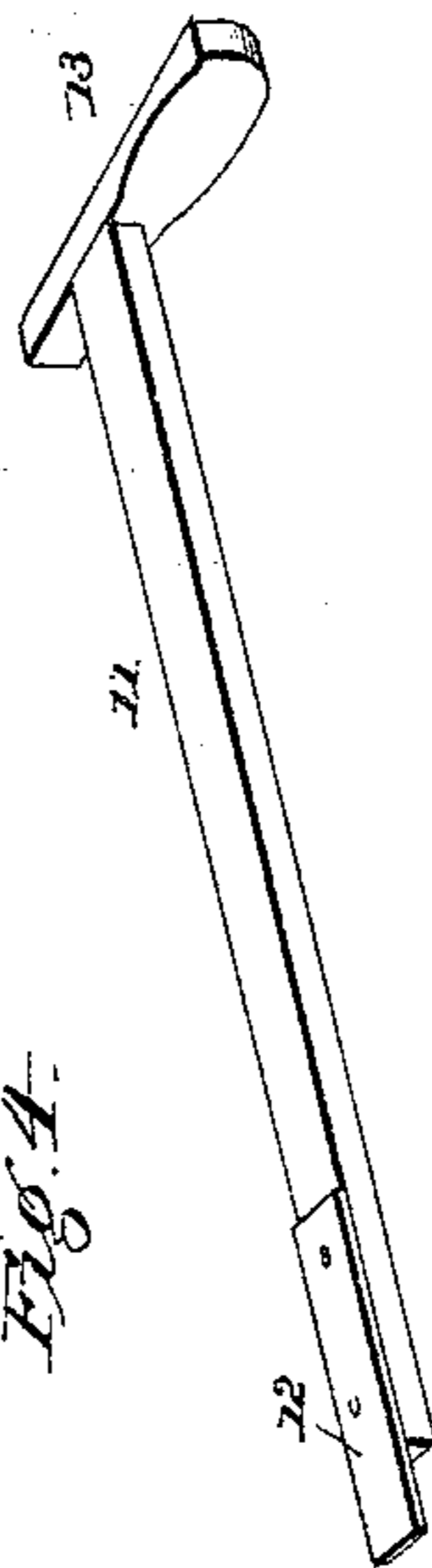


Fig. 4.



Witnesses

Inventor

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By his Attorneys,

Hiram C. Reynolds

C. A. Snow & Co.

# UNITED STATES PATENT OFFICE.

HIRAM CYRUS REYNOLDS, OF ADDISON, ASSIGNOR OF ONE-HALF TO GEORGE W. MOURHESS, OF PRESNO, NEW YORK.

## FOLDING SHELF.

SPECIFICATION forming part of Letters Patent No. 495,910, dated April 18, 1893.

Application filed January 10, 1893. Serial No. 457,933. (No model.)

*To all whom it may concern:*

Be it known that I, HIRAM CYRUS REYNOLDS, a citizen of the United States, residing at Addison, in the county of Steuben and State of New York, have invented a new and useful Folding Shelf, of which the following is a specification.

This invention relates to a folding shelf adapted to be secured or positioned against a wall or other suitable vertical support, and has for its object to provide a simple and convenient device of the character set forth that is adapted to be quickly and readily placed in position and operated to raise and lower the same; and with this object in view, the invention consists of the construction and arrangement of the parts as will be hereinafter more fully described and claimed.

In the drawings: Figure 1 is a perspective view of the improved shelf, shown raised and ready for use in full lines and lowered in dotted lines. Fig. 2 is a bottom plan view of the table or shelf, showing some of the parts broken away and a portion of the supports or arms in connection therewith. Fig. 3 is a longitudinal vertical section on the line  $x-x$ , Fig. 1, and on a larger scale. Fig. 4 is a detail perspective view of one of the parts detached.

Similar numerals of reference indicate corresponding parts in the several figures.

Referring to the drawings, the numeral 1 designates a suitable frame, preferably formed with an opening at the bottom thereof, and an upper shelf 2, and at a suitable distance below said shelf is hingedly attached a shelf or table 3. To the lower portion of the sides of the frame 1 are pivotally connected the lower ends of supports or arms 4, having grooves 5 on the inner opposing sides thereof that terminate in lower circular openings 6. The opposite ends of the shelf or table 3 are provided with studs 7, that are movably fitted within the grooves 5, and when the said studs reach the openings 6, in folding the said shelf or table 3 downwardly, they automatically force the said supports or arms backward and within the ends of the frame 1 and form a compact structure that is without material exterior projection. The end portions of the shelf or table 1 are provided with depending

cleats 8, that have slots 9 extending there-through, and adjacent to and aligning with the said slots 9, and located on the under side of the said shelf or table are grooves or recesses 10, that extend longitudinally of the said shelf or table inward toward the center thereof. A pair of longitudinally-disposed catch-bars 11 are slidably mounted against the under side of the shelf or table 3 and have metallic catch-strips 12 fixed to the upper sides thereof and projecting into the grooves or recesses 10, the said catch-strips 12 having their ends normally projecting through the slots 9 in the cleats 8. The inner ends of the said catch-bars 11 have transversely-disposed operating arms 13 secured thereto, and are slightly recessed on their outer faces adjacent to their front ends so that they may be readily engaged by the fingers of the hand of the operator, and at their rear ends the said arms have the two free ends of an elongated U-shaped spring 14 secured to the inner opposing sides thereof, the said spring having a coil 15 in the bend thereof and secured at said point to the under side of the said shelf or table 3. The action of the spring 14 is to normally throw the catch-bars, together with their catch-strips, outward equally toward the opposite ends of the said shelf or table 3, and to hold the said catch-bars in proper position they are passed through metallic looped guides 16, against which the said arms 13 are adapted to press and limit the outward movement of the said catch-bars against the tension of the spring 14. Centrally between the said arms 13, and extending in the same direction as the latter, is a stationary stop-strip 17, that is fixed to the under side of the table and limits the inward movement of the said arms when operated to draw the said catch-bars and their catch-strips inwardly, and also serve to indicate that the said catch-strips are sufficiently drawn inward to permit the shelf or table 3 to be lowered. The upper ends of the supports or arms 4 are covered with a metallic sheathing or wear-strip 18, and on top of the said arms or supports the said catch-strips are adapted to bear and support the shelf or table 3 in elevated position.

In operating the catch-bar to release the catch-strips from the top portions of the arms

or supports 4, the arms 13 are simultaneously compressed toward each other, or drawn inward, by the hand of the operator and against the action of the spring 14, when the said shelf or table 3 may be lowered and folded closely down against the front of the frame, and simultaneously move the supports or arms 4 backward within the ends of the frame, as heretofore set forth. In raising the shelf or table the catch-strips are held against the inner opposing sides of the arms or supports 4, until the top portions of the latter are reached, when the said catch-strips are automatically forced outward over and rest upon the upper ends of the said supports or arms 4, and thereby support the shelf or table 3.

While it will be understood that the device heretofore set forth may be used wherever desired, and for any purpose for which it may be practically adapted, it is intended to be preferably employed in kitchens, and in view of its convenient arrangement and operation it will be particularly useful in this locality. It will be further understood that the support or frame 1 may be varied in its nature at will and to suit the position in which the shelf or table is mounted.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having described the invention, what is claimed as new is—

1. In a device of the character set forth, the combination of a frame or support, a shelf or table hingedly connected thereto, supports or arms pivotally attached to the opposite ends of said frame or support, and a pair of spring-actuated catch-strips projecting from the opposite ends of the said shelf or table and adapted to engage the top portion of the said supports or arms, substantially as described.

2. In a device of the character set forth, the combination of a frame, a pair of supports or arms pivotally connected to the opposite ends of said frame and having grooves on the inner faces thereof, a table or shelf hingedly connected to said frame, and having studs to

engage said grooves a pair of catch-bars slidably mounted against the under side of said table or shelf, catch-strips attached to the outer ends of said catch-bars and normally projecting beyond the ends of the table or shelf, said catch-strips conjointly acting with the catch-bars and arranged to bear on the upper edge of said supports or arms and a spring for normally holding the said catch-bars and catch-strips carried thereby forced outwardly, substantially as described.

3. In a device of the character set forth, the combination of a frame, a pair of supports or arms pivotally connected to the opposite ends of said frame, a shelf or table hingedly connected to said frame a pair of spring-actuated catch-bars with transversely-extending arms secured to the inner ends thereof and having catch-strips at the outer ends of the same, and a stationary stop-strip secured to the under side of the said shelf or table, substantially as described.

4. In a device of the character set forth, the combination of a frame, a shelf or table hingedly connected thereto, supports or arms pivotally attached to the opposite ends of said frame and having grooves on the inner faces thereof, the said table having pins or studs projecting from the opposite ends thereof that engage the said grooves of the said supports or arms, a pair of catch-bars slidably attached to the under side of the said shelf or table having arms attached to the inner ends thereof and at right angles thereto, and catch-strips secured to the outer ends thereof adapted to take over the top ends of the said supports or arms when the shelf or table is raised, a spring having the ends thereof secured to the rear inner opposing ends of the said arms on the catch-bars, and a stationary stop-strip located centrally between the said arms on the catch-bars, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HIRAM CYRUS REYNOLDS.

Witnesses:

G. C. MANLEY,  
E. P. SEAMAN.