

D. S. ACKLEY.
FURNITURE CLAMP.
APPLICATION FILED MAR. 21, 1910

987,531.

Patented Mar. 21, 1911.

2 SHEETS—SHEET 1.

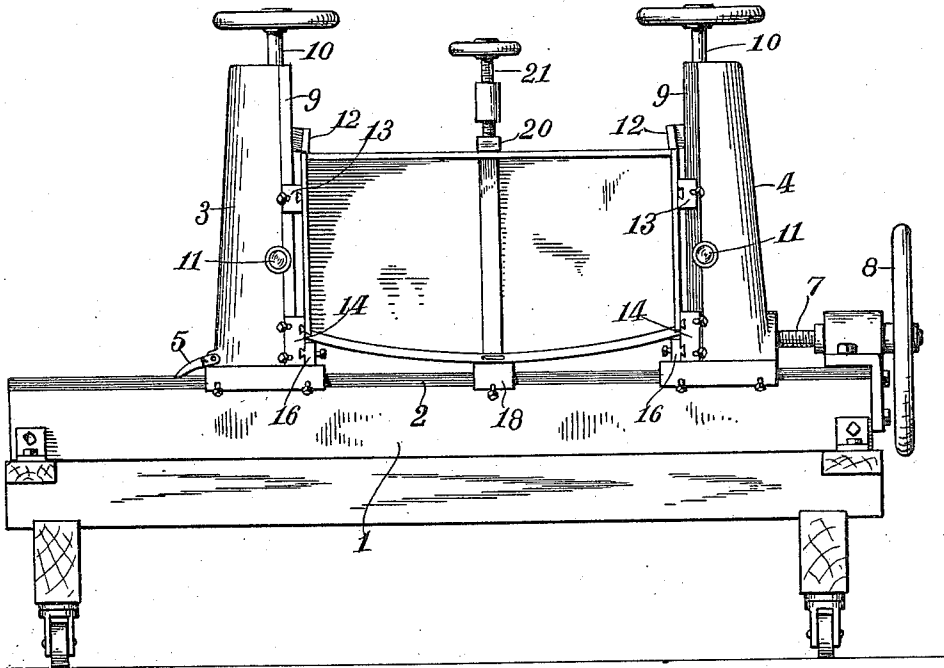


FIG. 1.

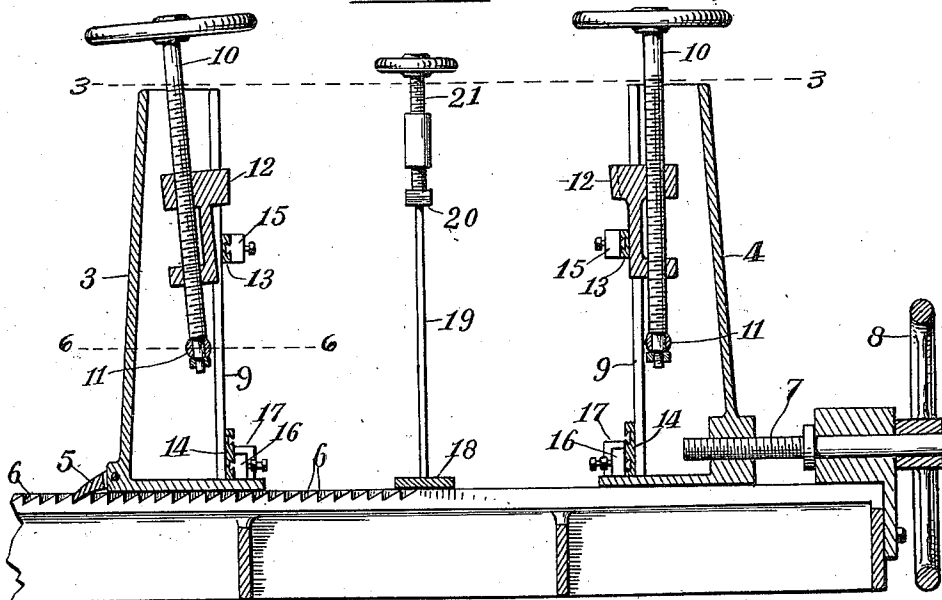


FIG. 2.

Witnesses
H. O. Van Antwerp.
Minnie Johnson.

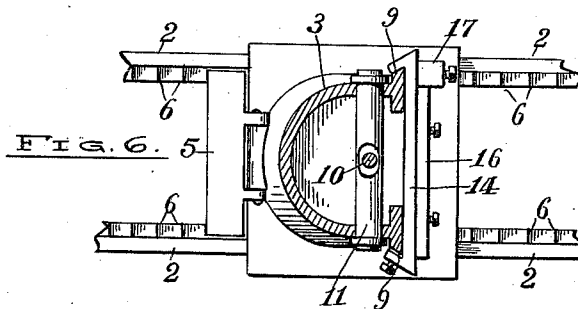
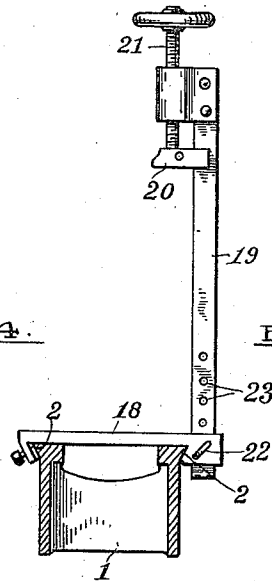
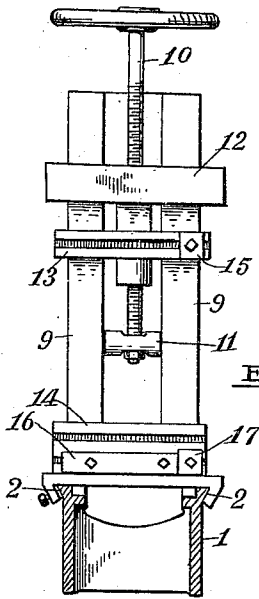
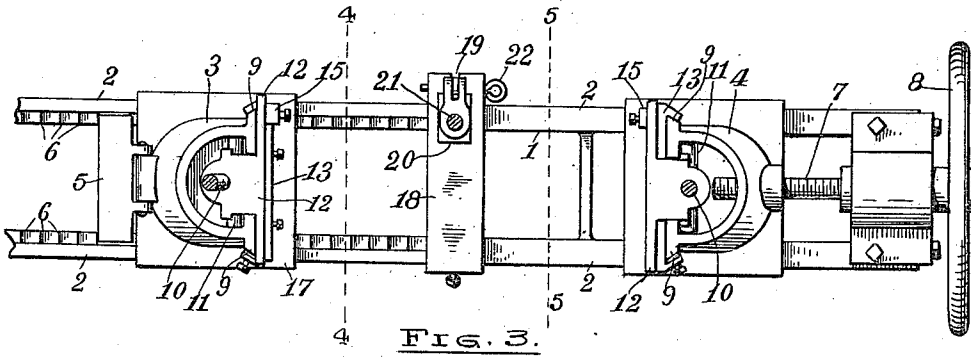
Inventor
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BY Luther V. Moulton
Attorney

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UNITED STATES PATENT OFFICE.

DAVID S. ACKLEY, OF GRAND RAPIDS, MICHIGAN.

FURNITURE-CLAMP.

987,531.

Specification of Letters Patent.

Patented Mar. 21, 1911.

Application filed March 21, 1910. Serial No. 550,648.

To all whom it may concern:

Be it known that I, DAVID S. ACKLEY, a citizen of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Furniture-Clamps; 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 furniture clamps and more particularly to clamps adapted to be used in assembling drawers for furniture, and its object is to provide convenient means for clamping drawers and other like articles of various sizes and shapes, and to provide the same with various new and useful features, hereinafter more fully described and particularly pointed out in the claims.

My invention consists essentially of two hollow posts vertically arranged upon a suitable bed, and adjustable thereon toward and from each other, screw clamps pivoted in the said posts and adapted to engage the work either vertically or horizontally, and various adjustable supports and clamping members mounted on the said posts, as will more fully appear by reference to the accompanying drawings, in which:

Figure 1 is a side elevation of the device embodying my invention; Fig. 2 a longitudinal vertical section of the same somewhat enlarged; Fig. 3 a plan view of the same broken away down to line 3—3 of Fig. 2; Fig. 4 an elevation of one of the posts and parts attached; Fig. 5 an elevation showing the middle clamp; and, Fig. 6 a plan view of one of the posts and parts attached shown in horizontal section with the upper part removed.

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

1 represents the bed of the machine of any convenient or preferred dimensions, provided with ways 2 on which are slidably mounted hollow semi-cylindrical posts 3 and 4, these posts being each provided on the plane side with vertically disposed ways 9. In each post is mounted a vertically disposed screw 10 pivoted at its lower end in a transverse rack shaft 11 and having thereon a vertically adjustable clamp member 12 having an inwardly projecting portion, which when the respective screw is adjusted sub-

stantially vertical, projects inward sufficient to engage the upper corner of a drawer or other similar structure, and when the screws are inclined away from each other, these members engage a face of the ways 9 and present vertical surfaces adapted to horizontally clamp the same, thus being adapted for use in either relation, as occasion requires. This horizontal movement of the members 12 also facilitates placing the work in the machine or removing the same therefrom, requiring but little movement of a post to horizontally engage or disengage the clamp with the work. On the ways 9 are also mounted vertically adjustable cross bars 13 to engage the ends of the work, each bar being provided with a back stop 15 to vertically adjust the back side of the work. Other cross bars 14 are also provided having back stops 16, and in conjunction with these last named bars, supporting members 17 are provided to engage the lower corners of a drawer or other like structure having a convex or "swell front."

For long drawers or other like articles, a middle clamp is sometimes used consisting of a transverse bed plate 18 adjustable on the ways 2, in which is mounted a vertically adjustable bar 19 by means of a pin 22 adjustable in holes 23 in the bar and extending through the plate 18. In the upper end of this bar 19 is mounted a screw 21 operating a vertically movable clamp 20 to engage the top or back of the drawer, and clamp the same between itself and the bed 18. To apply pressure longitudinally of the work and adjust the device to the length of the same, the post 3 is adjustable step by step by means of a pawl 5 thereon engaging ratchets 6 in the bed 1, and the post 4 is adjusted toward and from the other post by a screw 7 manually operated by a wheel 8.

I thus provide a convenient device for longitudinally and transversely clamping a great variety of shapes and sizes of drawers or other like articles, and one that securely holds the same in proper shape, as occasion requires.

What I claim is:—

1. A clamp, comprising a bed, vertical posts adjustable on the bed, lower clamping members adapted to engage the work both vertically and horizontally, and upper clamping members movable relative to the posts to a position opposite the lower clamping members to clamp the work vertically,

and movable away from opposite the same to release the work.

2. A clamp, comprising a bed, vertical posts adjustable on the bed, lower clamping members having vertical and horizontal faces to respectively engage the work, an upper clamping member having a vertical face and a horizontal face to alternately engage the work, means for shifting the upper member with its horizontal face opposite the same of the lower member, and means for vertically adjusting the upper clamping member.

3. A clamp, comprising a bed, vertically disposed posts adjustable on the bed, means for adjusting the posts, a vertically disposed screw in each post and pivoted thereto at its lower end, clamping members mounted on the screws and adjustable both vertically and horizontally thereby, and lower clamping members adapted to co-act horizontally with the members on the screws, and to oppose the same vertically.

4. A clamp, comprising a bed, vertically disposed posts adjustable horizontally on the bed, means for adjusting the posts, vertically disposed screws in the posts and pivoted thereto at the lower end, clamping members mounted on the screws and adapted to vertically or horizontally engage the work, and transverse bars on the posts below said members.

5. A clamp, comprising vertically disposed posts adjustable toward and from each other, means for adjusting the same, vertical ways on the adjacent sides of the posts, cross bars adjustable on the ways, vertically adjustable clamp members on the posts, and back stops on the bars.

6. A clamp, comprising vertically disposed posts adjustable toward and from each other, means for adjusting the posts, vertical ways on the adjacent sides of the posts, cross bars vertically adjustable on the ways, back stops horizontally adjustable on the cross bars, vertical screws in the posts, and vertical adjusting clamping members on the screws.

7. A clamp, comprising vertically dis-

posed posts adjustable toward and away from each other, means for adjusting the posts, vertical ways on the adjacent sides of the posts, cross bars adjustable on the ways, supporting members at the base of the supports, vertically disposed screws in the posts, and clamping members opposite the supporting members and vertically adjusted by the screws.

8. A clamp, comprising vertically disposed hollow semi-cylindrical posts adjustable toward and from each other, means for adjusting the posts, vertical ways on the adjacent faces of the posts, adjustable cross bars on said ways, back supports adjustable on the bars, vertically disposed screws in the posts, rock shafts in the posts in which the screws are pivoted, clamp members movable both horizontally and vertically mounted on the screws and adjusted thereby, and supporting members at the base of the posts opposite said clamping members.

9. A clamp, comprising vertically disposed posts adjustable toward and from each other, means for adjusting the posts, clamping means mounted on the posts, a bed on which the posts are mounted, a transverse bed plate on the bed, a vertically adjustable bar in the said plate, a screw mounted on the bar, and a clamping member on the screw.

10. A clamp, consisting of a bed having horizontal ways and a ratchet, hollow semi-cylindrical posts adjustable on the ways, a pawl on one post engaging the ratchet, a screw mounted on the bed and engaging the other post, a rock shaft in each post, a screw mounted in each rock shaft, a clamp member adjustable both vertically and horizontally by the respective screws, a supporting member on each post opposite the clamp member, cross bars on the posts, and back stops on the cross bars.

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

DAVID S. ACKLEY.

Witnesses:

NORMAN McCLAVE,
JOHN D. CASE.