O. BERGSTROM.

REVOLVING CASE CLAMP.

APPLICATION FILED OCT. 9, 1919.

**1,334,732.**

Patented Mar. 23, 1920.

2 SHEETS—SHEET 1.

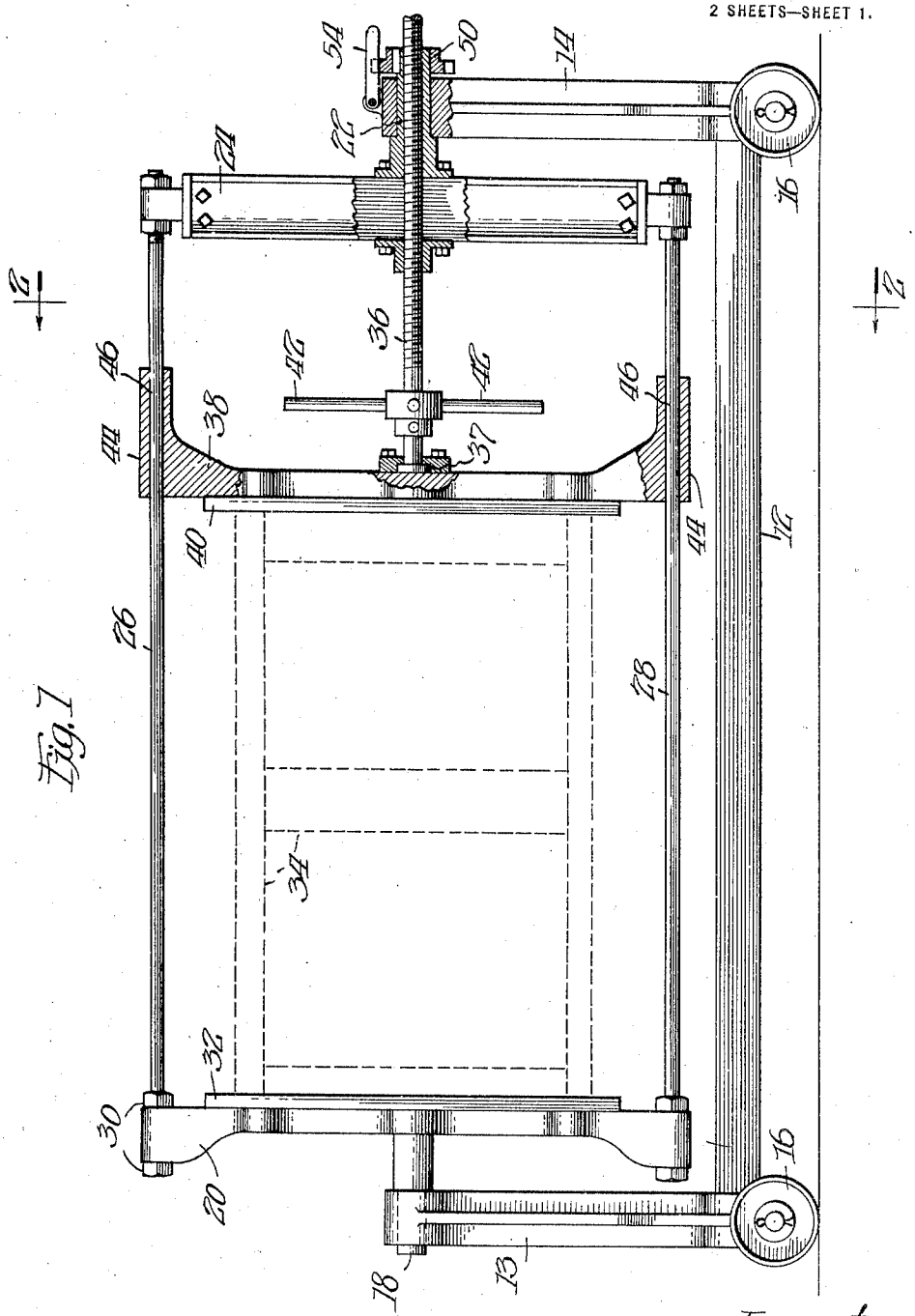


Fig. 1

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2 SHEETS—SHEET 2.

Fig. 3

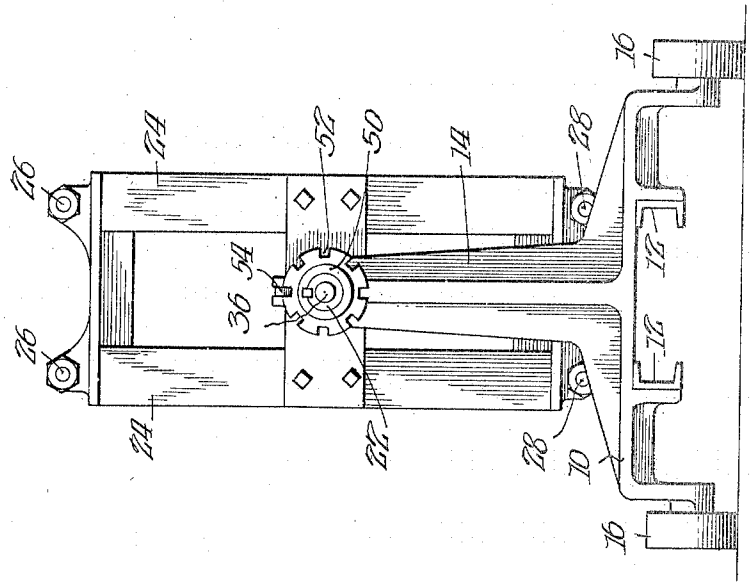
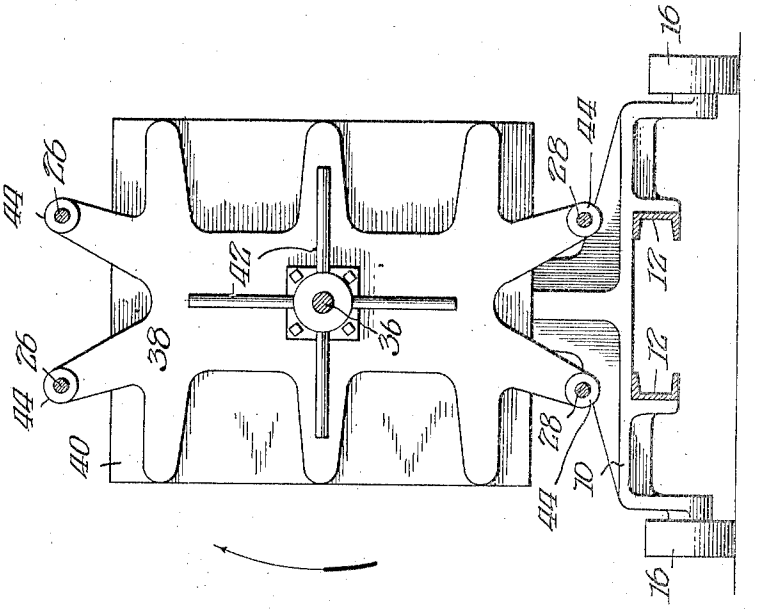



Fig. 7

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# UNITED STATES PATENT OFFICE.

OSCAR BERGSTROM, OF CHICAGO, ILLINOIS, ASSIGNOR TO HANDY MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

## REVOLVING CASE-CLAMP.

1,334,732. Specification of Letters Patent. Patented Mar. 23, 1920.

Application filed October 9, 1919. Serial No. 329,604.

*To all whom it may concern:*

Be it known that I, OSCAR BERGSTROM, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Revolving Case-Clamps, of which the following is a specification.

This invention is a mechanism for clamping the component parts of an article, such as a bed, cabinet, or case, made up of glued together parts, for the purpose of forcing them to and squaring them in assembled position in the operation of gluing them together and for rotating the finished article to enable the workman to conveniently and easily finish different sides of the article or otherwise work on it.

The object of the invention is to provide a mechanism of this class which is very compact in form, which is very strong and positive in its action, which is readily adjustable to different positions, for different sizes of work, which can be easily and comparatively cheaply constructed, which is generally satisfactory in operation and is not readily liable to get out of order.

The invention consists in means for carrying out the foregoing objects and particularly in many features and details of construction which will be hereafter more fully set forth in the specification and claims.

Referring to the drawings in which like numerals represent the same parts throughout the several views,

Figure 1 is a side elevation of mechanism illustrating this invention in its preferred form.

Fig. 2 is a sectional side detail view taken on the line 2—2, Fig. 1.

Fig. 3 is an end view taken from the extreme right hand side of Fig. 1.

In constructing a device of this kind, some sort of a supporting structure stationary or movable is provided. In the particular case here illustrated this includes a base casting 10 reinforced with channel irons 12 and having at opposite ends two upstanding brackets 13 and 14. In the particular case here illustrated this support is mounted upon small wheels 16, without novelty, for ready transportation around the workshop. Journaled in supports 13 and 14 is a rotatable work retaining frame. In constructing this a suitable stub shaft 18 carrying a frame end member 20 is journaled in bracket 13 while in the other support 14 and in alinement with said shaft 18 is journaled a hollow stub shaft 22 carrying a rotatable frame member 24, these two members 20 and 24 being connected together at their tops by two rods 26 and at their bottoms by two other rods 28 detachably secured in place by any suitable means, as for instance, the nuts 30. Rigidly attached to the member 20 is a smooth and true work engaging plate 32 of sufficient size so that the cabinet, case, bed, or the like, 34 to be clamped and squared may engage it at any point along its surface and be properly positioned with reference thereto.

This frame is rendered adaptable to different kinds and sizes of work by threading through the support 14, the stub shaft 22, and the member 24 heretofore referred to, a long screw shaft 36 whose threads react in support 14. Through the joint 37 at its inner end the screw bears loosely against slidable clamping member 38 preferably, but not necessarily, corresponding in shape with frame member 20 and carrying on its side adjacent to frame member 20, a work engaging plate 40 corresponding to plate 32, heretofore referred to. Screw 36 carries a conveniently disposed set of operating handles 42 adapted to be engaged by the operator to rotate screw 36 and consequently cause it to travel longitudinally of support 14 and thus drive clamping member 38 and attached parts backward and forward with reference to end member 20 and plate 32. In this movement clamping member 38 is guided on rods 26 and 28 through specially constructed and arranged guide members 44. Each member 44 is so arranged that the line of contact 46 between it and the adjacent rod is of considerable length, in practice about one quarter of the distance between the rods 26 and 28, the result being that notwithstanding the fact that only a single screw 36 is provided for operating the member 38 backward and forward, the member 38 and attached parts will move freely on the rods 26 and 28 without binding. In practice this bearing member 44 is preferably only provided on one upper rod 26 and one lower rod 28, thus reducing the chance for binding of the moving parts.

In order to secure the rotatable parts of

the mechanism described, to temporarily prevent rotation of the work 34 contained therein, a notched disk 50 is placed on the right hand end of shaft 22, clearing the screw 36. This disk is provided on its circumference with a plurality of notches 52 engageable by a locking latch or lever 54.

In the operation of the device the operator takes hold of handle 42 and rotates the screw 36 and moves the members 38 and 40 to the right a sufficient distance so that work 34, whatever it may be, may be placed in position between the plates 32 and 40. He then rotates handle 42 in the opposite direction until plate 40 bears on the adjacent end of work 34 and thus forces its opposite end into proper engagement with plate 32, thus causing the article which is to be assembled to be squared up between the plates 32 and 40 which are intended to be parallel to each other. In this condition the workman can do whatever he has to on the object 34 which is nearest him and can then, by taking hold of any convenient part, rotate the entire mechanism contained within the members 20, 38, 24 about the axis of the stub shafts 18 and 22 until a new portion of work is in the position where he wants it for convenient work thereon. He now positions the disk 50 and the latch 54 to temporarily hold the work in stationary position. When he desires to give the work 34 a further rotation, he repeats the operation of releasing the latch from the disk and proceeds as before or as desired.

By using only one screw 36 and letting it pass through the bearing in the upstanding bracket, a machine of greater work capacity is obtained than is possible where a plurality of screw devices are used. A further great advantage of the single screw with loose connection at 37 is that there is no possibility of the screws failing to force plate 40 up against all points on the work and thus square it.

A further advantage of this device is that the plate 32 while rotatable is otherwise unadjustable with reference to bracket 13, thus insuring its always remaining square with the axis of rotation of the frame, a condition which does not exist in prior devices where attempts are made to adjust both plates which engage the work.

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is:—

1. In mechanism of the class described, in combination with a base and upstanding supports, a load carrying frame journaled in said supports, said frame comprising two end members connected by rods, a clamping member between said end members slidably mounted on said rods, and a clamping member propelling device consisting of a screw passing through the journal connection of the frame to one upstanding bracket and bearing at its other end on the clamping member.

2. In mechanism of the class described, in combination with a base and upstanding supports, a load carrying frame journaled in said supports, said frame comprising two end members connected by rods, a clamping member between said end members slidably mounted on said rods, and a clamping member propelling device consisting of a screw passing through the journal connection of the frame to one upstanding bracket and bearing at its other end on the clamping member, and means for manually rotating said screw.

3. In mechanism of the class described in combination with two end supports, a load carrying frame journaled in said supports, a clamping member so reciprocatably mounted in said frame as to be constantly laterally supported by the frame and movable substantially the entire length of the frame toward one of said end supports, a clamping member, a propelling member about equal in length to the distance of travel of said clamping member engaging the clamping member and passing through the journal connection of the frame to one end support, and means reacting in said journal connection for forcibly moving said propelling member to reciprocate the clamping member.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.

OSCAR BERGSTROM.

Witnesses:
DWIGHT B. CHEEVER,
ANNA ROSENTHAL.