(No Model.)

G. W. ZEIGLER.

ADJUSTABLE CLAMPING DEVICE.

No. 312,419. Patented Feb. 17, 1885.

Fig 1.

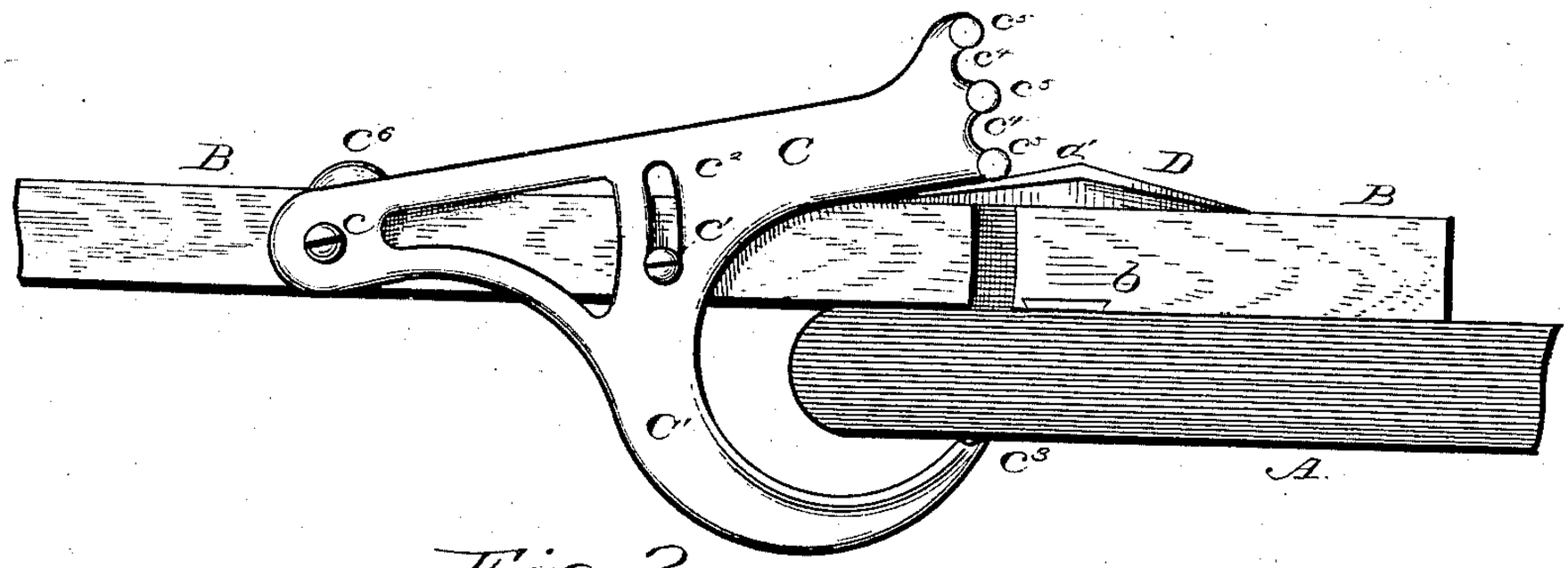


Fig. 2.

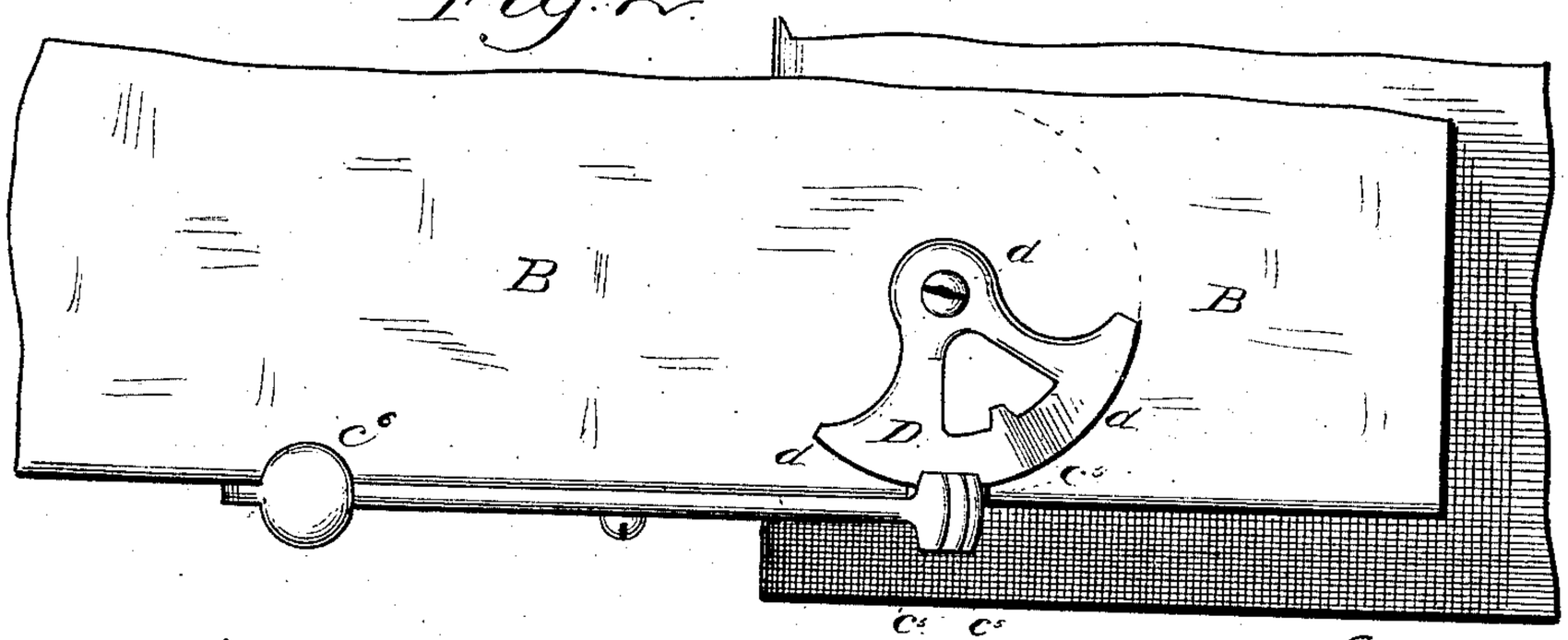


Fig. 4.

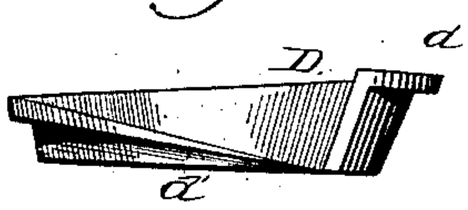
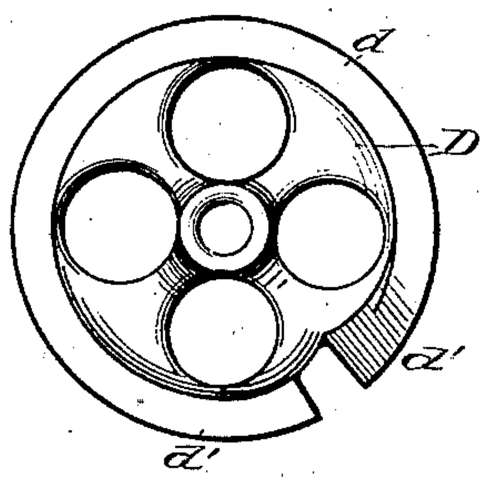


Fig. 3.



WITNESSES:

J. W. Reynolds

C. Everett Ellis

INVENTOR

George W. Zeigler

BY

O. & G. Duff

ATTORNEY

UNITED STATES PATENT OFFICE.

GEORGE W. ZEIGLER, OF WASHINGTON, DISTRICT OF COLUMBIA.

ADJUSTABLE CLAMPING DEVICE.

SPECIFICATION forming part of Letters Patent No. 312,419, dated February 17, 1885.

Application filed October 28, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. ZEIGLER, of Washington, in the District of Columbia, have invented certain new and useful Improvements in Adjustable Clamping Devices; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The object of my invention is to furnish a clamp for general purposes, especially applicable to ironing-boards, step-ladders, writing-desks, dental and other brackets, shelves of all kinds, and in fact to any device which is to be temporarily or permanently clamped or secured to a ledge, shelf, projection, table, desk, or chair, which clamp will securely hold the article in position, and at the same time permit of its ready removal, being capable of adjustment to fit any size of shelf, board, &c., within a reasonable range, and being of such simple construction that it can be applied or removed by any person in an instant, and may be produced at a nominal expense, is not liable to be easily broken, and will last a lifetime with ordinarily fair usage. With these objects in view I have constructed the device which I shall now proceed to fully describe, both as to construction and operation, the specific points of novelty being set forth in the claims hereto appended.

In the drawings, Figure 1 is a view in side elevation, showing my improved clamp applied to secure a board to the edge of a table. Fig. 2 is a top plan view thereof. Fig. 3 is a view of a modified form of the eccentric or wedge clamping plate, and Fig. 4 is a side elevation of the same.

Like letters indicate the same parts in all the figures.

Referring to the drawings by letters, A represents the edge of a table or a shelf, ledge, or projection, to which the board, bracket, or other article (shown at B) is to be clamped.

At *b* is shown a piece of rubber or other flexible substance, secured in this instance to the board B, to insure proper contact between the table A and board B and prevent the one from slipping upon the other and marring its surface.

C is a bracket arm or lever pivoted, by means of a screw, *c*, to the board B. This arm C is capable of a pivotal movement on the screw *c*, and this movement is controlled by a screw, *c'*, which passes through a curved slot, c^2, in the arm C and into the edge of the board B. The arm C is further provided with a curved projection, C', which passes under and engages the under side of the table A, and may be furnished at its extremity, c^3, with any suitable pad or cushion, if desired, to insure proper contact with the table and prevent any bruising or marring the surface thereof. The arm C also has at its upper outer extremity one or more notches, c^4, formed therein, and one or more pins, c^5, which project laterally on both sides of the arm.

D is a pivoted cam or wedge plate, secured to the board B by means of a screw, *d*, and which may be turned about said screw by any suitable thumb-piece, handle, or hand-hold. I have shown two constructions of cam or wedge plate in Figs. 2 and 3 and 4, respectively, the only difference being that the one shown in Figs. 3 and 4 is a complete circle, while that in Fig. 2 is only a segment. The operation of the two devices is precisely the same. In each construction the plate has a wedge or cam flange, *d'*. The board B is notched on one or both sides, to allow the projecting pins c^5 to move freely up and down, and at the same time permit the attachment of the arm C close against the side of the board. All the parts of the clamp are attached to the movable article, (represented in this instance by board B,) so that no boring, cutting, or marring of the stationary article is necessary. The parts being attached to the board, it is always ready, and may be attached by simply placing the board on the table, which will bring the curved arm C' with its point under the table. It is only necessary now to turn the cam-plate D, bringing its flange *d'* under one of the pins c^5, and, by a suitable amount of pressure, securely clamp the board and table together. A reversal of the motion instantly loosens the clamp, so that it can be readily removed. If so desired, the flange of the plate D can be made to engage in the notches c^4; but the ar-

rangement of lateral pins is to be preferred. By projecting the pins c^5 on both sides of the arm C the arm may be attached, and will operate equally well on either edge of board B. The arm C may be made, as may the plate D, independently, and sold separately, as desired, thus forming new articles of manufacture. The arm C has also a knob, c^6, which projects laterally on each side thereof, and prevents the arm from falling below a proper position to cause the flange d' to engage the pins c^5.

If preferred, a simple notch may be made instead of a series of notches; but to do this there would have to be an abrupt cam, which would be hard to turn; but with the present arrangement the notches and pins are adjusted to suit the grip, and thus the clasping-plate may be a very gradual incline plane, very easily worked.

The pins may project beyond the vertical line of the lower gripping-arm, so that a more extended hold may be had, whereby ordinary leg-supports may be done away with.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. As a new article of manufacture, an adjustable clamp or lever provided with a curved projection to engage the under side of a table or shelf, and a straight arm projecting over the top of the article to be clamped, formed at its extremity with lateral pins and intermediate notches for engaging a clamping-wedge, substantially as described.

2. The pivoted clamp arm or lever C, having in its side the curved slot c^2, and formed with curved projection C′, lateral pins c^5, and intermediate notches, c^4, in combination with a plate having a wedge-flange, substantially as described.

3. The pivoted adjustable arm or lever C, having laterally-projecting pins c^5 and notches c^4, knob c^6, extending on each side thereof, curved projection C′, and curved slot c^2, as set forth.

4. The pivoted clamp having in its side a curved slot, by which it is adjustable on a pin, and formed with curved projection C′ and pins c^5, in combination with pivoted plate D, having wedge-flange d', substantially as described.

5. The combination, with board B, of arm C and plate D, pivoted to said board at c and d, respectively, the arm C having slot c^2, projection C′, and pins c^5, and the plate D being provided with wedge-flange d', to engage pins c^5, as set forth.

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

GEORGE W. ZEIGLER.

Witnesses:
E. EVERETT ELLIS,
O. E. DUFFY.