

R. GREGG.  
Joint-Holder.

No. 215,348.

Patented May 13, 1879.

Fig 1.

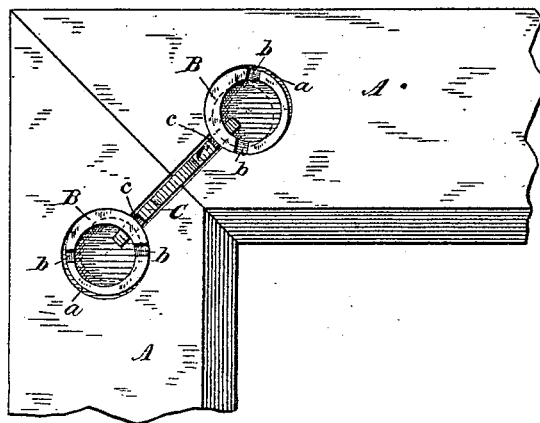


Fig 2.

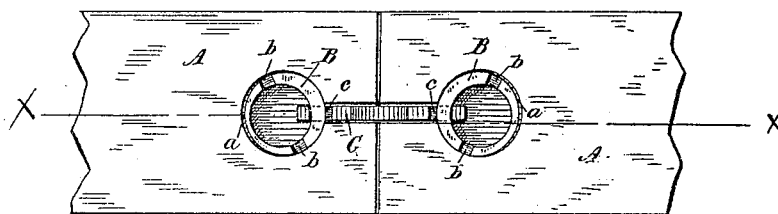


Fig 3.

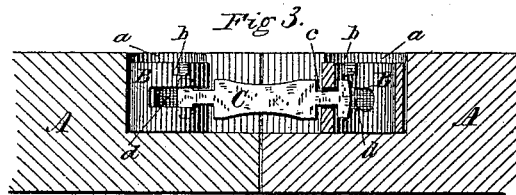
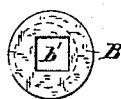


Fig 4.

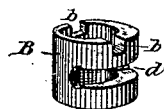


Fig 6.

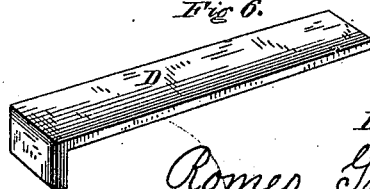
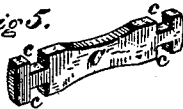


Fig 5.



Witnesses.

Harry King  
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# UNITED STATES PATENT OFFICE

ROMEO GREGG, OF COLUMBUS, OHIO, ASSIGNOR OF ONE-HALF HIS RIGHT  
TO RICHARD H. OSGOOD, OF SAME PLACE.

## IMPROVEMENT IN JOINT-HOLDERS.

Specification forming part of Letters Patent No. **215,348**, dated May 13, 1879; application filed  
February 10, 1879.

*To all whom it may concern:*

Be it known that I, ROMEO GREGG, of Columbus, in the State of Ohio, have invented certain new and useful Improvements in Joint-Holders; 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 letters of reference marked thereon, which form a part of this specification.

Figure 1 is a face view of a miter-joint united by my improved joint-holder. Fig. 2 is a bottom view of two sections of a hand-rail united by the same. Fig. 3 is a vertical section on line *x x* of Fig. 2. Fig. 4 is a perspective view of the eccentric thimble. Fig. 5 is a perspective view of the link or bar which unites the thimbles to form the bond. Fig. 6 is a view of the key for turning the eccentric thimbles. Fig. 7 is a top view of a thimble provided with a cap having a square opening to receive a square key to turn the thimble, being a modification of the form shown in the other figures.

The same letter indicates the same part in the various figures where it occurs.

The nature of my invention consists in uniting the two elements of a joint of any description, in any material, by means of a link or bar let into the pieces to be joined and caused to draw them together by means of eccentric rings or thimbles, which receive and hold the ends of the link or bar, and are turned in suitable recesses by a key, and thus exert the force of a double or single cam, to approximate the pieces forming the joint and hold them immovably in contact, all as hereinafter more fully set forth.

In the drawings, A A mark the two parts of a joint to be held together, those in Fig. 1 forming a miter-joint, and those in Figs. 2 and 3 an ordinary abutting joint. B B are the eccentric rings or thimbles, the form of which is clearly represented in Fig. 4. It will be observed that the bore of the thimble is eccentric, one side being considerably thicker than the other. Each thimble is provided with a slot, *d*, having an enlarged and rounded re-

cess at one end, for the introduction of one of the heads of the link or bar which joins the two thimbles together. Each thimble is also provided with square notches *b*, to receive the key D, which serves as a lever to turn it. If preferred, the upper end of the thimble may be closed by a cap with a square opening, *b'*, as shown in Fig. 7, and a key of corresponding shape be employed to turn it. The form of the bar or link C is most clearly shown in Figs. 3 and 5. It has two heads, back of which are the necks *c c*, equal in width to the slots *d*, which receive them.

To form the joint, the pieces, A A, to be united are provided with circular recesses *a a*, of suitable size to receive readily the thimbles B. These recesses are united by a mortise equal in width to the thickness of the link or bar. The length of the link regulates the distance the recesses *a a* are to be placed from each other.

The operation is as follows: The pieces of wood or other material to be joined having been provided with the recesses *a a* and the proper mortises to unite them, the ends of the links C are inserted edgewise in the slots *d* of the thimbles B, and then turned into the position shown in Fig. 3. The cylinders are then placed in their respective recesses, the link or bar C falling into the mortise between them, and the key D, inserted in the notches *b b*, is caused to turn the thimbles B, so as gradually to bring the thicker portion of their walls between the link-heads and the walls of their respective recesses. The effect is to draw together the pieces to be joined by the force of the eccentric action, and hold them immovably in contact. By the reverse action of the key the bond can be loosened and the parts released.

My improved joint-holder can be made of any desired size and used to unite any kind of material. I have found it particularly well adapted to the miter-joints of picture-frames, and to the uniting of sections of hand-rails, which applications I have illustrated in the drawings; but I do not confine myself to any particular application.

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

1. A joint-holder formed of two eccentric thimbles, united by a link or bar entering slots in their walls, as shown, and made to bind the parts of a joint together by the eccentric or cam action of the thimbles, in the manner described.

2. The combination of the eccentric thimbles B B, having the described form and structure, with a link or bar, C, constructed as set forth, to form a joint-holder operating by single or double eccentric action to unite the parts of a joint, all as specified.

3. A joint-holder in which the link uniting

the thimbles is placed in a mortise on a line connecting the centers of the thimbles, and is received and held by its heads in slots in the sides of the thimbles, all as and for the purpose set forth.

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

ROMEO GREGG.

Witnesses:

GEO. F. GRAHAM,

CHAS. F. STANSBURY.