W. SHANNON.

CORNER FASTENING FOR BEDS AND OTHER ARTICLES OF FURNITURE.

APPLICATION FILED NOV. 14, 1912.

1,230,333. Patented June 19, 1917.

Fig. 1.

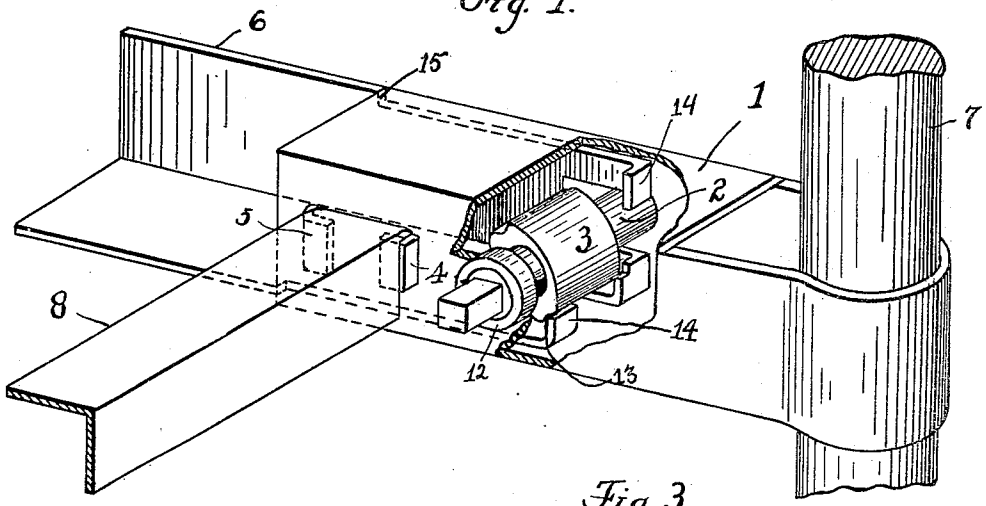


Fig. 2.

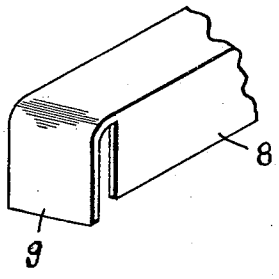


Fig. 3.

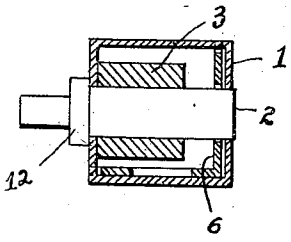
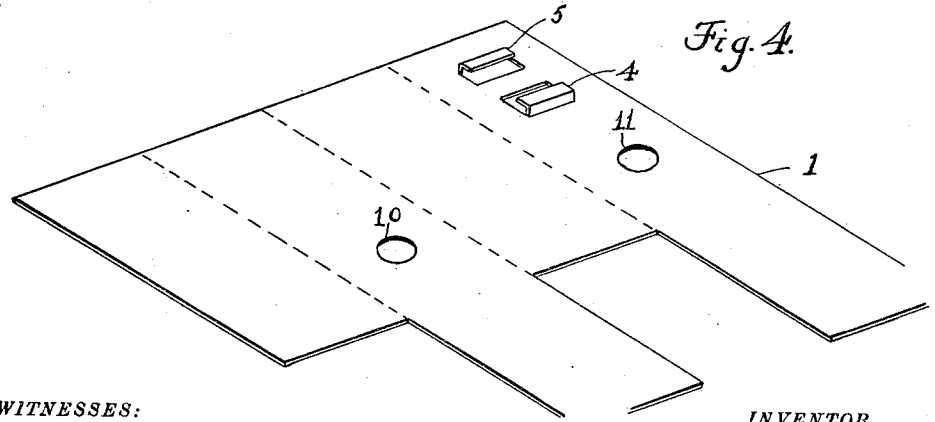


Fig. 4.



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UNITED STATES PATENT OFFICE.

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CORNER-FASTENING FOR BEDS AND OTHER ARTICLES OF FURNITURE.

1,230,333. Specification of Letters Patent. **Patented June 19, 1917.**

Application filed November 14, 1912. Serial No. 731,309.

To all whom it may concern:

Be it known that I, WOODFORD SHANNON, a citizen of the United States, and a resident of Louisville in the county of Jefferson and State of Kentucky, have invented a new and useful Corner-Fastening for Beds and other Articles of Furniture, of which the following is a full, clear, and exact description.

The particular object of my invention is to improve the means for fastening the angle rails to the posts or pillars of metal beds, but it may also be used for fastening together the frame work of other articles of furniture. It consists of novel features and parts and combinations of the same, which will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of my invention is shown in the accompanying drawings, in which similar characters of reference indicate corresponding parts in all the views. Figure 1 is a perspective view of my invention with a portion of the casing cut away to disclose the inner elements. Fig. 2 is a detail view of an end of a cross rail. Fig. 3 is a vertical cross section through the center of the eccentric shaft. And Fig. 4 is a perspective view of the casing blank before bending.

The general practice in making corner fastenings for metal beds has been and is to make them of metal castings. My invention provides a structure in which sheet and wrought metal can be used entirely in place of cast metal; and machine work and autogenous or electric welding in place of melting and casting. Great economies in both material and manufacture are thus effected, and a more accurate, durable, and convenient fastening is provided.

Fig. 4 shows the flat piece of which the casing 1 is made with the lips 4 and 5 and the holes 10 and 11 punched and formed in one operation from one piece of sheet metal. The piece shown in Fig. 4 is bent into the form of a tube, preferably rectangular in section as shown in Figs. 1 and 3. The edges brought into contact are preferably fastened together by welding, with the lips 4 and 5 disposed outwardly, the holes 10 and 11 being thereby so positioned as to afford bearings for the shaft 2, Fig. 1. This shaft 2 is provided with an operating head or socket as may be preferred, and with a positioning collar or shoulder 12. The particular function of the shaft 2 is to carry and operate the eccentric 3.

The angle rail 6 is preferably provided with the inturned ends 14, and such ends are preferably provided with recesses as shown to permit the passage of said ends beyond the shaft 2, and are also preferably provided with the shoulders 15. It is also apparent that the eccentric 3, by further rotation may be brought into positive pressure against the inner face of the horizontal flange of the angle rail 6, if it should be desired to omit the inturned ends 14.

The operation of my corner fastening is as follows:

In its initial position, the eccentric 3 is so turned that its greatest diameter lies in a plane horizontal or parallel with the upper and lower walls of the casing 1. The end of the angle rail 6 is inserted into the casing 1, one flange of said angle rail being horizontal. Thus it lies in a plane parallel with that of the eccentric 3 in its initial position. In what is known as the reverse position of the angle rail, the horizontal flange thereof will lie underneath the eccentric 3, and its vertical flange will be disposed upwardly at the outer end of said eccentric. In what is known as the regular position of the angle rail 6, the horizontal flange thereof will lie above the eccentric 3, and its vertical flange will be disposed downwardly at the outer end of said eccentric.

When said angle rail 6 has been inserted into the casing 1 in the position desired, either regular or reverse, the inturned ends 14 are carried beyond the shaft 2 of the eccentric 3 far enough to permit the revolution or rotation of said eccentric. In the course of revolution of said eccentric 3, one of the two points of greatest eccentricity will engage the inturned end 14 on the horizontal flange of the angle rail 6, and carry such angle rail farther into the casing 1 until the shoulders 15 engage the ends of said casing 1. The inturned ends 14 have sufficient resilience to permit the continuation of the revolution of the eccentric 3 until the groove 13 receives such end 14. The engagement and pressure between the eccentric 3 and the inturned end 14 is then such that the angle rail 6 is positively locked against removal from the casing until further revolution of the eccentric 3. The revolution of said eccentric 3 is effected by the use of any suit-

able means upon the operating head of the shaft 2.

To prevent lateral displacement of the corners of the bedstead, I employ the angle rail 8, with the down-turned end 9, which engages the casing 1 by means of the lips 4 and 5.

I do not limit myself further than is indicated in the claims which follow.

I claim:

1. In a corner fastening, a supporting element, a tubular female element adapted to receive said supporting element in either one of two positions, and eccentric rotatable means associated with one of said elements, for locking said supporting element in said female element.

2. In a corner fastening, a tubular female element adapted to receive a male element in either of two positions, a primary male supporting element adapted to enter said female element bodily and directly to position of lodgment by motion in one direction along the common axes of said elements, and means within said female element for locking it therein.

3. In a corner fastening, a female element, an eccentric therein, and a male element provided with bearings adapted to engage said eccentric and recessed to permit its passage beyond the shaft of said eccentric.

4. In a corner fastening, a female element, a male element having a resilient inward extension, and an eccentric in said female element adapted, after resilient displacement of said extension, to engage it and detachably lock said male element to said female element.

5. In a corner fastening, a female element, an eccentric therein, and a male element provided with bearings adapted to engage said eccentric and provided with stops adapted to operate against the walls of said female element.

6. In a corner fastening, a male supporting element, a tubular female element adapted to receive such male supporting element, and also provided with a secondary female element integral therewith adapted to receive and lock a bracing element, and means associated with the male and female elements for locking them together.

7. In a corner fastening, a female element, a supporting element and means for locking such elements together, said supporting element recessed to permit passage of its extremities beyond the means for locking in such manner that after placement its recess shall lie within said female element.

WOODFORD SHANNON.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."