

(No Model.)

S. NEWMAN & H. R. BOTHWELL.
RAIL JOINT FOR METAL BEDSTEADS.

No. 576,224.

Patented Feb. 2, 1897.

Fig. 1.

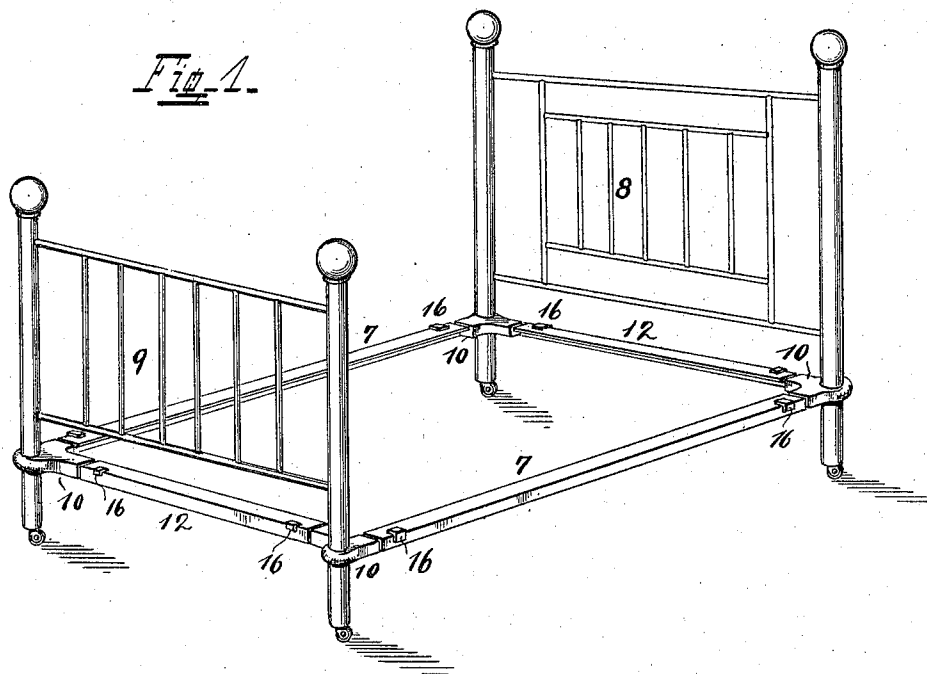


Fig. 2.

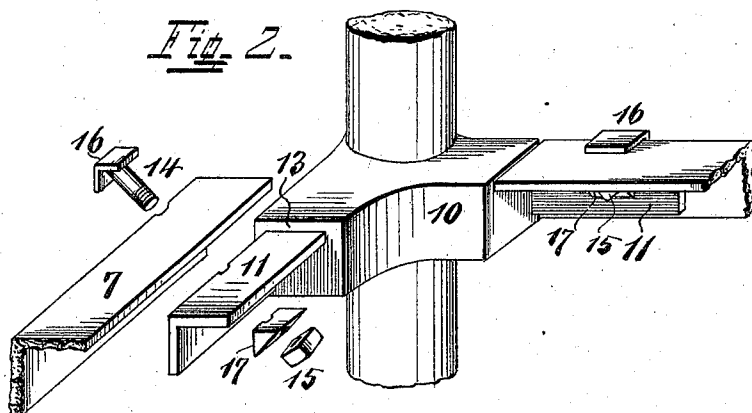


Fig. 4.

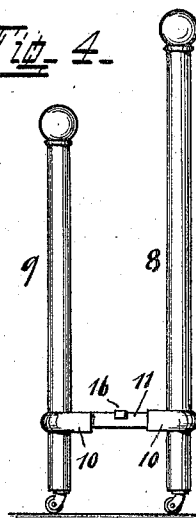
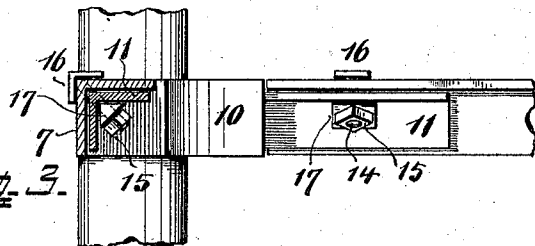


Fig. 3.



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SAMUEL NEWMAN AND HENRY R. BOTHWELL, OF CINCINNATI, OHIO;
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RAIL-JOINT FOR METAL BEDSTEADS.

SPECIFICATION forming part of Letters Patent No. 576,224, dated February 2, 1897.

Application filed January 9, 1896. Serial No. 574,798. (No model.)

To all whom it may concern:

Be it known that we, SAMUEL NEWMAN, a citizen of the United States, and HENRY R. BOTHWELL, a citizen of Canada, residents of Cincinnati, Hamilton county, and State of Ohio, have invented a certain new and useful Rail-Joint for Metal Bedsteads; and we do 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, attention being called to the accompanying drawings, with the reference-numerals marked thereon, which form a part of this specification.

This invention relates to improvements in metal bedsteads, and particularly to the joints thereof, whereby the side rails are connected to the end pieces. The joints as used at present are subject to many objections. They require a close fitting of the meeting parts and surfaces and are therefore expensive, necessitating careful workmanship. Owing to certain projecting parts they are bulky and inconvenient for packing and storing purposes.

Our improved joint, which overcomes these objections, is particularly intended for such metal bedsteads where the side rails are formed of so-called "angle-iron," and are supported at their ends on similarly-shaped wrought-iron brackets secured to and extending out from the corner-posts. The advantages of this shape, particularly as to the brackets projecting out from the corner-posts, are a stronger construction of these members, permitting also the parts of the bedstead to be packed close for shipping and storage purposes, all of which results in great convenience by the material reduction of the bulk.

In the following specification, and particularly pointed out in the claim, is found a full description of the invention, its application, parts, and construction, which is also illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a metallic bedstead, its rails connected by our improved joint. Fig. 2 is an enlarged perspective view showing the parts of the joint disconnected. Fig. 3 is an enlarged sectional view of the

joint complete. Fig. 4 shows application of our joint to hold head and foot ends of the bedstead erect and in position when not in use as a bedstead—as, for instance, when exposed in show-windows or for storage purposes, when it becomes desirable to reduce the bulk of the bedstead.

Fig. 1 of the drawings shows the position of the joints, they being at the ends of the side rails 7, whereby they connect to the head and foot ends 8 and 9 of the bedstead. The corner-posts of these ends have secured to them at equal heights from the floor brackets 10, each having two extensions 11, reaching out at the same level and ninety degrees apart. These parts are constructed by casting brackets 10 and by embedding extensions 11, which are of wrought angle-iron, during the casting of the former, whereby the two become rigidly connected and form practically one piece, which is, however, much stronger, as if it all were cast in one. The side rails 7 and the end rails 12 rest on the extensions of said brackets, as will be readily understood from the drawings. These rails are of wrought-iron and the shape or profile is the one as shown and which permits the use of angle-iron, as found ready in the market for the purpose. Projections 11 necessarily fit inside of these angle-iron rails, which latter overlap the former, whereby considerable surface-contact is obtained between the joining parts, by reason of which, when the connection is completed, the parts are prevented from yielding either in a horizontal or in a vertical plane, and a firm and immovable joint is the result.

Projections 11 are lower than brackets 10, the difference being equal to the thickness of the iron of rails 7, so that when these latter are in place the upper surfaces of all the rails all around and those parts of the brackets between them are all of even height and in line to provide a level support for the mattress. At the same time this offset (indicated at 13) and resulting by this difference in height between projections 11 and brackets 10 forms a stop for the ends of the rails to butt against, whereby their exact position is indicated and the square form of the bedstead defined.

The final connection between the overlapping parts is best made by bolts 14, which pass through them and are secured by nuts 15. One bolt is used, and our mode of applying it is best shown in Figs. 2 and 3, the same passing in from the corner and diagonally through the two thicknesses of the overlapping members, of which each has a round hole to admit the bolt. The head 16 of the bolt is shaped as shown, whereby it equally and at the same time engages with the top as well as with the side of rail 7. An even surface for the nuts 15 is obtained by interposing washers 17, which at one side fit into the inner corners of projections 11 and present at the other side a flat surface at right angles to the bolt and against which the nut bears. It is evident that by the tightening of this latter all engaging parts are firmly drawn into each other and a rigid joint is obtained. Disengagement is readily obtained by simply unscrewing the nuts. To facilitate this when the bed is to be taken apart, the nuts securing the longer rails 7 may be thumb-nuts to permit manipulation by hand, while those securing the shorter rails 12, the removal of which is not required, may be secured by nuts, as shown, which are tightened by a wrench or other tool.

When the bedstead is not in use, as, for instance, when stored away or during shipping or when on exhibition in stores, salesrooms, or show-windows, the head and foot ends may be held in their relative positions by placing them against each other with the projections 11 of one lapping over the corresponding projections on the other, their profile readily permitting such, and connecting them by bolts 14, the same as in the case of rails 7 and as shown in Fig. 4, whereby the bulk of the bed-

stead is very much reduced. This method does away also with the short extra rails now required for this purpose, because in the bedsteads as at present constructed the projections 11 cannot overlap those of the opposite ends.

As will be seen, the shape of the joining members and surfaces is such as to come readily to a close fit without requiring any delicate workmanship for the purpose of fitting them together, whereby cheapness of manufacture is obtained, while the mode of connecting these joining members of the shape mentioned is such as to permit a maintenance of a close fit, as first obtained.

Having described our invention, we claim as new—

In a joint for connecting the side rails to the corner-posts of the ends of a metal bedstead, the combination of brackets secured to said posts having angle-shaped projections 11, angle-shaped side rails which fit and lap over these projections, a bolt passing diagonally through the overlapping parts of which each is provided with a hole for such purpose and a triangular washer which fits into the angle of projections 11 and provides with its outwardly-turned side, a surface for the nut of the bolt to rest against, projections 11 of one end adapted to fit into the corresponding projections of the opposite end, whereby such ends become capable of direct connection as and for the purpose described.

In testimony whereof we hereunto set our signatures in presence of two witnesses.

SAMUEL NEWMAN.

HENRY R. BOTHWELL.

Witnesses:

M. RAFECHY,

C. SPENGEL.