To all whom it may concern:

Be it known that I, William L. Fredericks, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Rail-Joints for Iron Beds; and I do hereby declare the following to be a full, clear, and exact description of the invention, as such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide a simplified and generally-improved bed-rail joint for iron beds; and to this end it consists of the novel devices and combinations of devices hereinafter described, and defined in the claims.

The invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a view in side elevation with parts broken away, showing the improved joint applied to an iron bed. Figure 2 is a plan view of the parts shown in Figure 1, some parts being sectioned on the line A-A of said Figure 1 and the parts being shown on a larger scale. Figure 3 is a view corresponding to Figure 1, but with some parts sectioned on the line A-A of Figure 2. Figure 4 is a transverse section taken on the line B-B of Figure 3. Figure 5 is a view corresponding to Figure 3, illustrating a slightly-modified construction; and Figure 6 is a transverse section taken on the line C-C of Figure 5.

The numeral 1 indicates one of the cornerposts of the bed, the same being shown in the form of a metallic pipe or tube. The socket member of the improved joint is formed in a head or block portion 2, which, as shown and preferred, is rigidly secured to the leg 1 by being cast around the same. This coupling head or block 2 at its projecting end is formed with a pair of laterally-spaced jaws or prongs 3, which at their extremity are in turn formed with inwardly-extended laterally-spaced cam-acting lock-ribs 4. The inner surfaces of the lock-ribs 4 incline downward in a direction toward the post 1. The vertical passage formed in the head or block 2 between the prongs 3 and inward of the lock-ribs 4 is formed with outwardly-diverging vertical cam-surfaces 5, with respect to which, the inclined inner surfaces of the lock-ribs 4 diverge upward.

The side rails 6 of the bed are preferably formed of angle-iron, and one flange thereof near each end of the rail is provided with lock projections 7, that project from opposite sides thereof and adapted to engage with the inclined inner surfaces of the lock-ribs 4 of the coupling-head 2. These lock projections 7 are preferably formed by passing a steel pin through a perforation in the flange of the said rail and upsetting both ends thereof, so that it is rigidly secured in position. The projection of the rail-flange beyond the lock pins or projections 7 is such that when the ends of said pin engage the inclined inner surfaces of the lock-ribs 4 the end portion of the rail-flange will be forced and tightly wedged against the diverging surfaces 5 of the said coupling-head. The diverging surfaces 5 serve to positively align the vertical flange of the rail both in a vertical direction and in the direction of a radial line drawn from the center of the post 1 centrally between the lock-ribs 4. The wedging action of the pin 7 and the end of the rail-flange in a vertical direction between the diverging vertical surfaces 5 and the inclined inner surfaces of the lock-flanges 4 serves to rigidly secure the parts with the rail 6 extending in a right angle with respect to the bed-post 1—to wit, the said rail in a horizontal position and the said corner-post in a vertical position.

In the construction illustrated in the Figs. 1 to 4, inclusive, the rail 6 is rigidly secured to a transverse angle-bar 8. By this arrangement, two rails 6 and two transverse bars 8 may be rigidly secured together to form the frame of the bed-spring, so that the said rails 6 then serve the double function of side rails to the bed and side rails to the frame of the bed-spring.

In the construction illustrated in Figs. 5 and 6 the rail 6 constitutes only a side rail to the bed, and to make the same reversible one flange thereof is cut away at its ends at 6a, so as to clear the lock-flanges 4 in both positions of the rail. In Figs. 5 and 6 the said rail is shown as secured with its horizontal flange in a lowered position and by dotted lines in Fig. 6 is shown as secured with its horizontal flange in a raised position.

The device described is of very small cost,
but is nevertheless strong, durable, easily operated, and generally efficient for the purposes had in view.

What I claim is—

1. The combination with a bed-post, of a coupling-head secured thereto, and provided with laterally-spaced lock-flanges and outwardly-diverging clamping-surfaces, and a rail having on the opposite sides of its vertical flange lock projections that engage with said lock-flanges, and press the end of the rail against the said cooperating clamping-surfaces of said coupling-head, substantially as described.

2. The combination with a post and a coupling-head secured thereto, said coupling-head having jaws 3 formed with laterally-spaced lock-flanges 4 and outwardly-diverging clamping-surfaces 5, the inner surfaces of which lock-flanges diverge upward with respect to said clamping-surfaces 5, of a rail 6 provided near its end with a lock-pin 7 passed through its vertical flange and upset, the ends of the said lock-pin 7 being engageable with the inner surfaces of said lock-flanges 4 to press the inner end of the vertical flange of said rail against the diverging clamping-surfaces 5, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM L. FREDERICKS.

Witnesses:

MALIE HOEL,
F. D. MERCHANT.