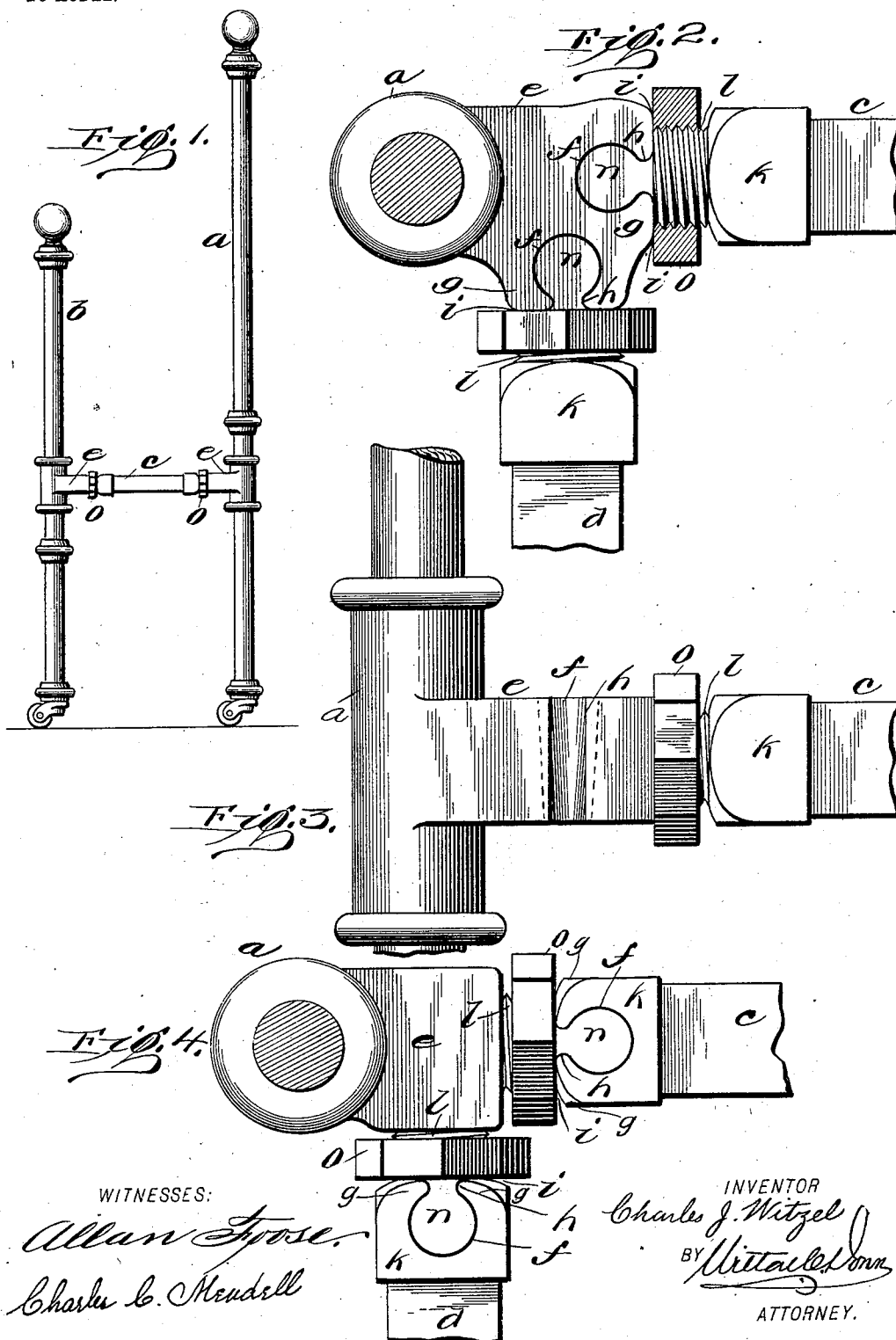


No. 723,569.

PATENTED MAR. 24, 1903.

C. J. WITZEL.
RAIL JOINT FOR METALLIC BEDSTEADS.
APPLICATION FILED MAY 27, 1902.

NO MODEL.



UNITED STATES PATENT OFFICE.

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RAIL-JOINT FOR METALLIC BEDSTEADS.

SPECIFICATION forming part of Letters Patent No. 723,569, dated March 24, 1903.

Application filed May 27, 1902. Serial No. 109,233. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. WITZEL, a citizen of the United States, residing at New York, borough of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Rail-Joints for Metallic Bedsteads; and I do hereby 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.

My invention relates to means for preventing motion or play between the rails and corner-posts of brass and other metallic bedsteads. Heretofore these rails have been connected with the post by means of a fixed joint or connection, and in case the joint is imperfectly made or becomes loose from any cause there is no way by which it can be tightened or the wear or play taken up and the rigidity of the joint restored. This is a serious defect in the old construction of metallic bedsteads on account of the difficulty of keeping them firm and immovable, especially because when the bedsteads are set up in warehouses for storage or display where short side rails are used there is danger when the joints are loose of their falling and being damaged.

The object of my invention is to provide means for taking up the play or motion and the wear and tear between the parts that form the joints, and thereby enable the bedstead to be set up properly and to restore the rigidity of the parts if they become loose.

To this end the invention consists in an adjustable contrivance inserted between the rails and the corner-posts for preventing play or motion and taking up the wear of the joints.

In the accompanying drawings, Figure 1 represents a side elevation of the head and foot corner-posts on one side of a metallic bedstead connected together by means of the short side rails employed for setting up these bedsteads in warehouses. Fig. 2 is a horizontal section of a corner-post and a plan of the bracket connected therewith and of a side and head (or foot) rail, showing the joints between the ends of these rails and the brackets, also showing the contrivances for tightening up the joints. Fig. 3 is a side eleva-

tion of the part shown in Fig. 2. Fig. 4 is a plan of the parts shown in Fig. 2, but illustrating another mode of forming the joint.

Referring to the drawings, the head and foot corner-posts of one side of the bedstead are designated by the letters *a b*, a side rail by *c*, a section of an end rail (either foot or head) by *d*, and the corner-post brackets by *e*. The side and end rails are each connected with the bracket *e* by means of a dovetail joint in this style of bedstead. In the bracket there are sockets *f f*, which are tapered or splayed and which open through the faces *g g* of the bracket, the openings forming slots *h h*, having parallel sides. The sides of the brackets containing the slots are faced off more or less squarely, and thus abutments *i i* are formed. The side and end rails are each provided with square enlargements *k k*, and from these project screw-threaded necks *l l*, and on the ends of the necks the tenons *n n* of the dovetail joints are formed, which taper or are splayed to correspond to the sockets in the bracket. On the screw-threaded extensions take-up nuts *o o* are mounted. When the bedstead is set up, the tenon on the rail is inserted in the socket in the bracket and pushed down until its top is flush with the upper surface of the bracket, the take-up nut being first turned back far enough to allow the dovetail connection to be made without interference from it; but when this connection is made the said nut is screwed up tight against the abutment to make the tenon immovable in the socket and prevent any motion of the head or foot, as the case may be. In this way a rigid joint or connection is made between the rails and the corner-posts when the bedstead is first set up and the liability of the joints becoming loose is materially reduced; but if from any cause the joints should become loose and the head or foot should tend to lose its perpendicularity this can be corrected by tightening the nut against the abutments of the bracket, thereby taking up any motion of the rail or rails or the head or foot posts caused by the enlargement of the socket, or from any other cause, and thus the original rigidity of the joint or joints of the rails with the head and foot posts can be restored. Both ends of

each of the rails are provided with these take-up nuts, so that both ends of the bedstead can be prevented from becoming loose.

This invention is applicable to the regular side rails and also the short side rails used to set up these bedsteads in warerooms for displaying them, and when used with the latter the accidents that occasionally happen by the falling of the head or foot, owing to loose joints, will be prevented.

In the modification of the invention shown by Fig. 4 the parts of the dovetail joints and the position of the take-up nuts are reversed, the screw-threaded necks *l l* and the tapered tenons *n n* being formed on the bracket *e* itself, while the sockets *f f* and slots *h h* are formed in the square enlargements *k k* on the ends of the rails, the ends of the said squared enlargements forming the abutments *i i* in this case.

The specified form of the bracket and the ends of the rails shown and described herein may be varied more or less, and the invention is not limited to the take-up contrivance described and shown, as equivalent devices for taking up wear and play in joints may be substituted for it without departing from the scope of the invention.

While this invention is described as an improvement applicable to metallic bedsteads, it is not intended to limit its use to that class of bedsteads only, as it may be adapted to wooden bedsteads having rail-joints of similar construction.

I claim—

1. In rail-joints for bedsteads the combination of a corner-post, a rail, a bracket projecting from the corner-post, a separable connection between the bracket and the end of the rail, and an adjustable means between the end of the rail and the face of the bracket for locking the rail and bracket together for taking up wear and play, substantially as specified.

2. In rail-joints for bedsteads the combination of a corner-post, a rail, a bracket projecting from the corner-post, a dovetail socket in the bracket which opens through the face thereof, a dovetail tongue on the end of the

rail that fits into the socket in the bracket and connects the rail and bracket together by a separable joint, and an adjustable means between the end of the rail and the face of the bracket for locking the rail and bracket together for taking up wear and play, substantially as specified.

3. In rail-joints for bedsteads the combination with the corner-posts the rails and the joints between the posts and the rails, of screw-threaded necks on the ends of the rails, and take-up nuts mounted on the said necks, substantially as specified.

4. In rail-joints for bedsteads the combination of a corner-post, a bracket connected therewith having a socket formed therein and a slot opening from the socket through the face of the bracket, a rail provided with a neck and a tenon formed on the end of the neck, and an adjustable means between the end of the rail and the bracket, substantially as specified.

5. In rail-joints for bedsteads, the combination of a corner-post, a bracket connected therewith having a socket formed therein and a slot opening from the socket through the face of the bracket and abutments on each side of the slot, a rail having a screw-threaded neck on its end and a tenon on the end of the said screw-threaded neck, and a take-up nut mounted on said screw-threaded neck, substantially as specified.

6. In rail-joints for bedsteads the combination of a corner-post, a bracket connected therewith having a tapered or splayed socket formed therein a slot opening from the socket through the face of the bracket and abutments on each side of the slot, a rail having a screw-threaded neck on its end and a tapered or splayed tenon on the end of the neck, and a take-up nut mounted on the said neck, substantially as specified.

In testimony that I claim the invention above set forth I have affixed my signature in presence of two witnesses.

CHARLES J. WITZEL.

Witnesses:

ADAM WIENER,

CHARLES C. MENDELL.