

(No Model.)

E. J. BARCALO.
BEDSTEAD.

No. 536,368.

Patented Mar. 26, 1895.

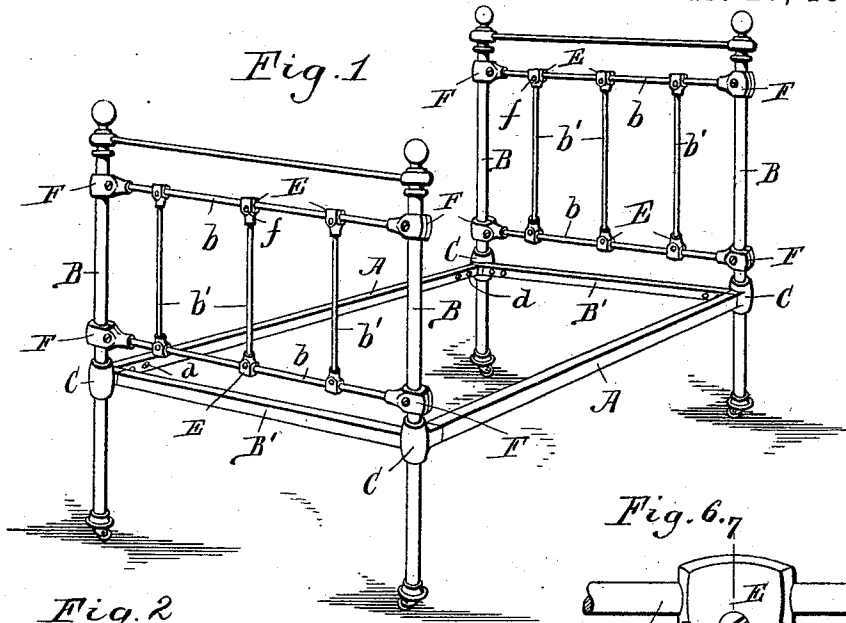


Fig. 2

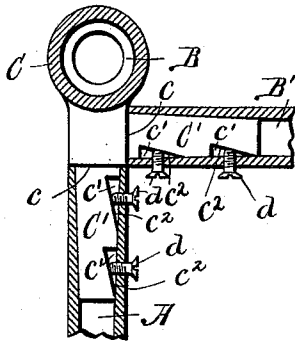
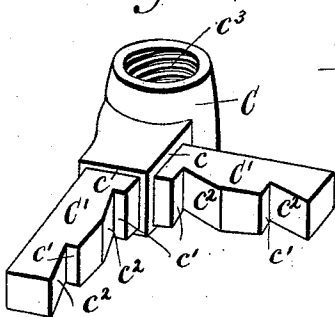


Fig. 4.



Witnesses:
Emil Neuhart.
Theo. L. Popp.

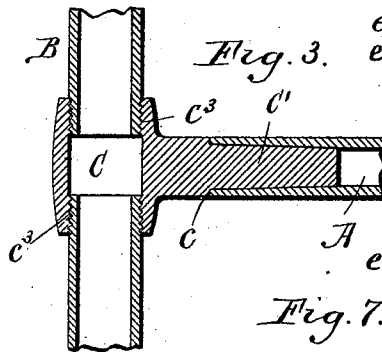
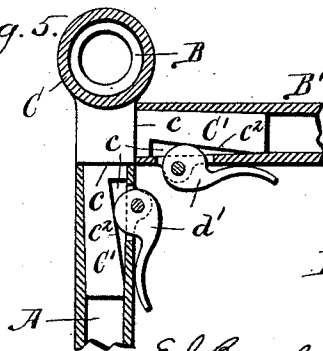


Fig. 5.



E. J. Barcalo.
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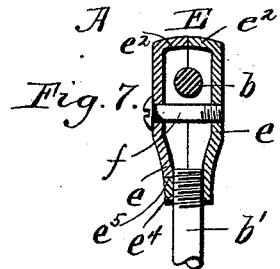
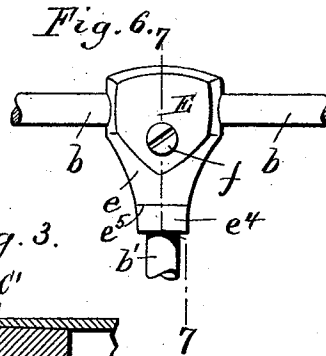


Fig. 8.

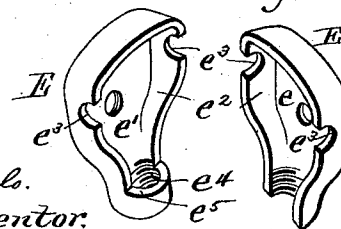


Fig. 9.

UNITED STATES PATENT OFFICE.

EDWARD J. BARCALO, OF BUFFALO, NEW YORK.

BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 536,368, dated March 26, 1895.

Application filed November 12, 1894. Serial No. 528,460. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. BARCALO, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Bedsteads, of which the following is a specification.

This invention relates to improvements in metallic bedsteads.

In the manufacture of such bedsteads, it has heretofore been a common custom to unite the rods or members of the head and foot frames by placing the same in a mold and casting couplings upon the adjacent or meeting portions of the members, thus forming the entire frame practically in a single piece. This practice is expensive, as it requires the employment of skilled labor, and the integral construction of the end frames is objectionable because in case a coupling or member becomes broken, the whole frame must be returned to the factory for repairing or renewing the broken part. This construction is furthermore, undesirable because the end frames cannot be dismembered or "knocked down" for compact shipment.

One of the objects of my invention is to provide an inexpensive clamp or coupling which permits the members of the end frames to be conveniently disconnected so that any broken parts can be renewed or sent to the factory for repairs, without the necessity of returning the whole frame.

Another object of my invention is the provision of a strong and simple coupling whereby the end and side rails of the bedstead are firmly connected to the posts or pillars.

In the accompanying drawings:—Figure 1 is a perspective view of a bedstead containing my improvements. Fig. 2 is an enlarged horizontal section of one of the side and end rail couplings and the adjacent portions of the rails. Fig. 3 is a vertical section of the same and the adjacent portions of the post. Fig. 4 is a detached perspective view of said coupling. Fig. 5 is a horizontal section of a modified construction of said coupling. Fig. 6 is a front view of one of the couplings which connect the members of the head and foot frames of the bedstead. Fig. 7 is a longitudinal section thereof, in line 7—7, Fig. 6. Figs. 8 and 9 are perspective views of the sections of said coupling.

Like letters of reference refer to like parts in the several figures.

A represents the side rails of the bedstead which connect the head and foot frames and which are preferably constructed of tubing having a rectangular cross section. Each of the head and foot frames is composed of the two posts or pillars B, the connecting end rail B', the transverse rods or members b, connecting the posts above the end rail, and the upright rods or members b' which connect said transverse members. The end rails B' are also preferably constructed of rectangular tubing. The side rails are detachably connected with the end rails by couplings, each of which consists of an upright socket or sleeve C secured to the adjacent post and provided with two horizontal shanks or stems C' projecting from said sleeve and arranged at right angles to each other. These shanks fit respectively into the end portions of the hollow side and end rails and are constructed of correspondingly rectangular cross section. The coupling shanks are formed with shoulders c against which the ends of the side and end rails abut and each shank is provided on one side, preferably on its inner side, with one or more notches c' having inclined sides c² which recede toward the inner ends of the shanks.

d represents clamping screws arranged in screw-threaded openings formed in the inner walls of the tubular end and side rails opposite the notches of the shanks C' and bearing with their inner ends against the inclined sides of said notches. Upon tightening these screws, they tend to move upon the inclined faces of the notches toward the deepest ends of the latter, thereby drawing the ends of the rails firmly against the shoulders c of the coupling and tightly clamping the rails to the coupling.

If desired other clamping devices may be employed in place of the screws d, for instance, clamping cams or cam levers d' may be substituted for the same, as shown in Fig. 5. These cam levers are pivoted horizontally in openings formed in the side and end rails and project through such openings so as to bear against the inclined faces of the shanks.

Each post of the bedstead is preferably constructed of sections, as shown in Fig. 3, and these sections are provided at their opposing

ends with external screw threads which engage with internal screw threads c^3 formed in the end portions of the sleeve C. This construction permits the coupling to be renewed in case of breakage, without requiring the post to be sent to the factory, which is necessary when the coupling is cast upon the post.

The upright and horizontal members b of the head and foot frames are separably connected together by clamps or couplings E which are detachable from both the upright and horizontal members, instead of being cast upon these parts as hitherto constructed. Each of these clamps or couplings consists of two sections or halves e, e' applied to opposite sides of said members. These sections are each formed with an inwardly projecting marginal flange e^2 provided in its side portions with notches e^3 which fit against opposite sides of the horizontal member and which together form circular openings. The edges of the flanges of the two sections bear against each other so as to form a close joint and the sections are firmly united by a transverse screw f passing through the same below the horizontal member b . One of the coupling sections is formed at its contracted end with an internally screw threaded collar or socket e^4 which engages with an external screw thread formed on the end of the adjacent upright member b' . About one half of the screw socket e^4 projects beyond the flange of the coupling section so as to form a shoulder e^5 against which the lower end of the other section bears, the latter section being as much shorter than the first named section as the depth of the projecting screw socket, so as to form a flush joint at the upper ends of the sections, as shown. The ends of the horizontal members b of the head and foot frames are connected with the posts by couplings F constructed in all respects like the couplings E, but arranged horizontally instead of vertically and having the portion thereof which receives the posts enlarged correspondingly. These couplings can be cast at small cost and can be applied to the members by unskilled labor, thereby lessening the cost of producing the bedstead. The couplings, while securely connecting the members of the head and foot frames, permit such members to be readily disconnected by removing the screws of the couplings, thus enabling any of the couplings or members to be detached from the frame in the event of breakage and to be replaced by new parts, or sent to the factory for repairs, without the necessity of returning the whole frame, which must be done when the couplings are cast upon the members. This construction also enables the head and foot frames and the posts to be shipped compactly in "knock-down" form.

I claim as my invention—

1. The combination with the post of the bedstead and the side and end rails provided in their adjacent ends with sockets, of a coupling consisting of a sleeve which receives the

post and a pair of shanks arranged substantially at right angles to each other and fitted in the sockets of the side and end rails, respectively, and clamping devices arranged on said rails, and bearing against said shanks, substantially as set forth.

2. The combination with the side and end rails and a post of a bedstead, of a coupling consisting of a sleeve secured to the post and a pair of shanks or stems fitted respectively in the ends of said rails and each provided with an inclined clamping face, and clamping devices arranged on said rails and engaging against the inclined faces of said shanks, substantially as set forth.

3. The combination with the side and end rails and a post of a bedstead, of a coupling having a sleeve secured to the post and shanks or stems fitted in the ends of said rails and each provided with a notch having an inclined side, and clamping screws arranged on said rails and bearing against the inclined faces of said shanks, substantially as set forth.

4. The combination with the side and end rails, of a post composed of sections having externally screw threaded ends, a coupling composed of an internally screw threaded sleeve engaging with the threaded sections of the post and shanks or stems projecting from said sleeve fitted into the ends of said rails and each provided with an inclined face, and clamping devices arranged on said rails and bearing against the inclined faces of the rails, substantially as set forth.

5. In a metallic bedstead, the combination with an upright and a transverse member, of a detachable coupling, consisting of a pair of sections embracing opposite sides of said members and provided with horizontal notches in which the transverse member is seated and below said notches with a socket which receives the upright member, and a clamping screw connecting the two coupling sections and arranged between the transverse member and the adjacent end of the upright member, whereby the screw penetrates the coupling sections only, substantially as set forth.

6. In a metallic bedstead, the combination with an upright and a transverse member, of a detachable coupling consisting of a pair of sections embracing opposite sides of said members, said sections being provided with horizontal notches for receiving the transverse members and one of said sections being formed below said notches with a laterally projecting socket which receives the adjacent end of the upright member and against which the lower end of the opposing coupling section abuts, and a clamping screw connecting the coupling sections, substantially as set forth.

Witness my hand this 24th day of October, 1894.

EDWARD J. BARCALO.

Witnesses:

JNO. J. BONNER,
THEO. L. POPP.