

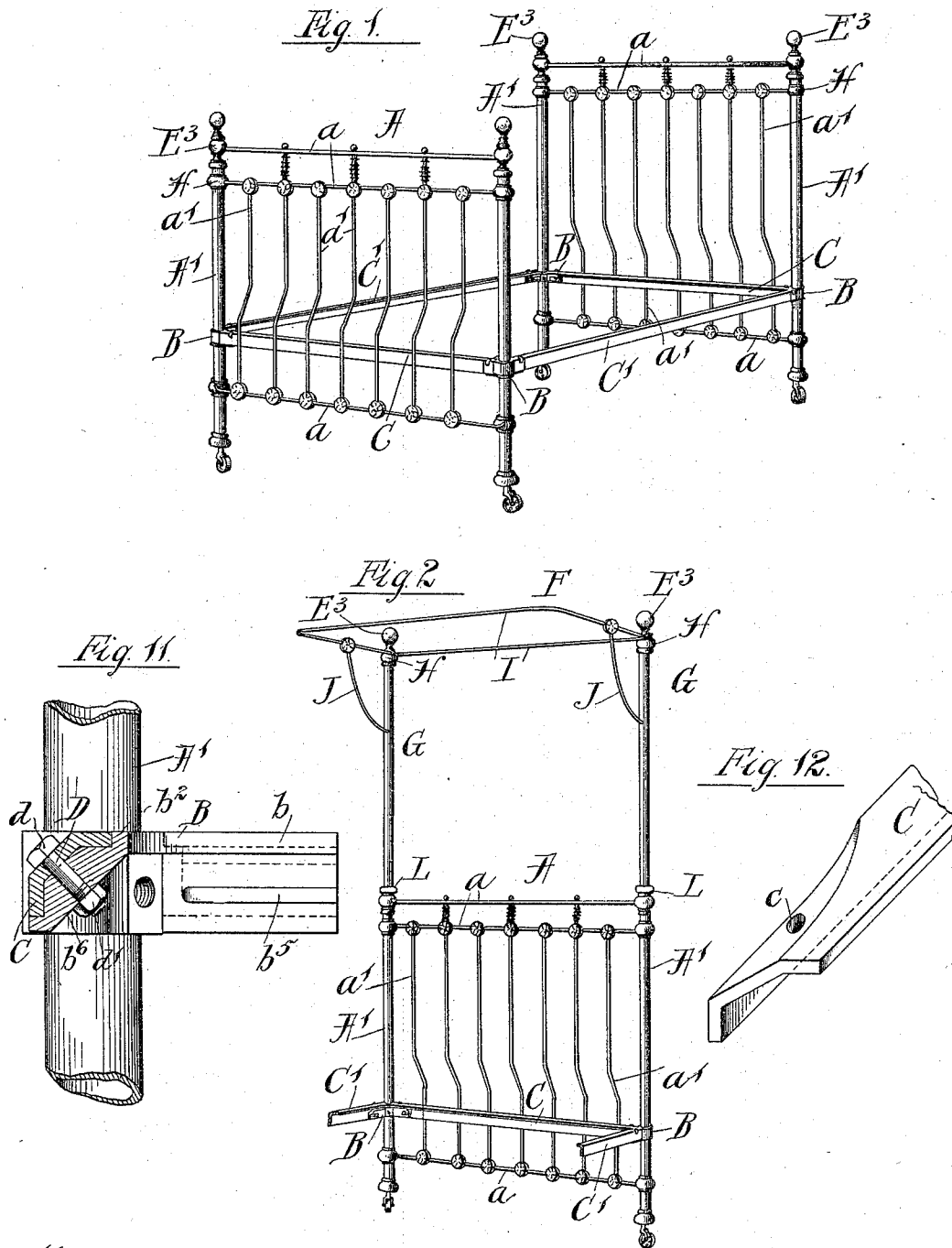
(No Model.)

2 Sheets—Sheet 1.

E. T. McKAIG.
METAL BEDSTEAD.

No. 552,770.

Patented Jan. 7, 1896.



Witnesses:-
Clifton Hauvink.
John W. Adams.

Inventor:-
Eddy T. McKaig.
by: Dayton, Peck & Brown
his Attorneys.

(No Model.)

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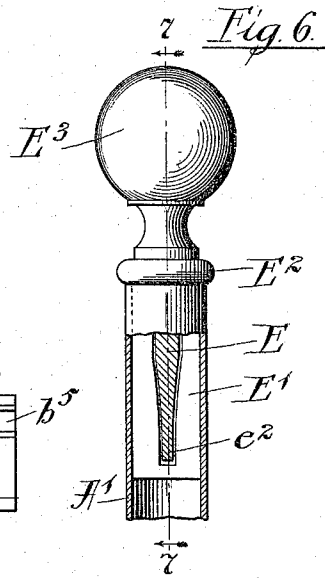
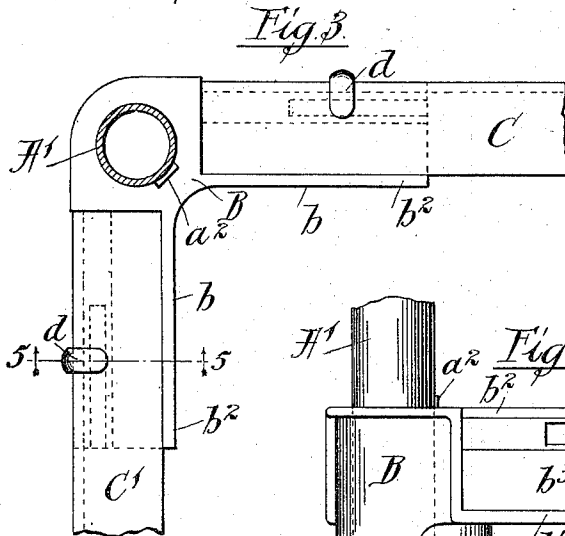


Fig. 5

Fig. 7

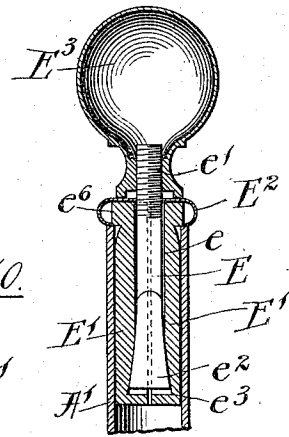
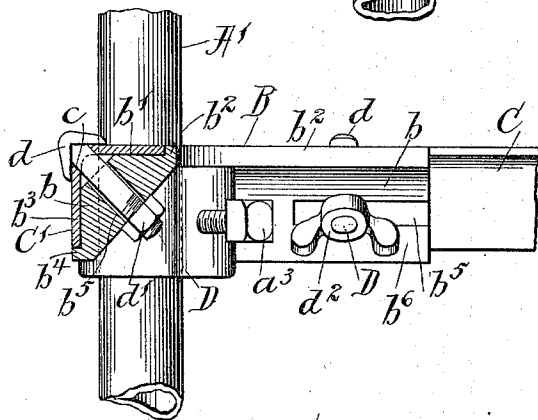


Fig. 10

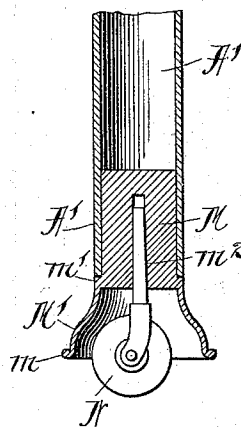


Fig. 8

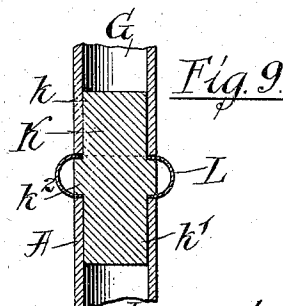
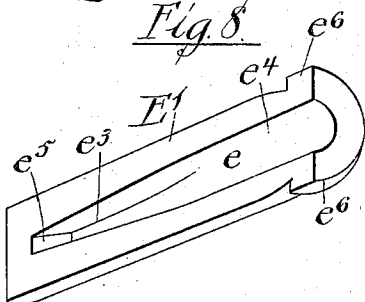


Fig. 9

Witnesses:-

John W. Adams.
Clinton Hamblin

Inventor:-
Eddy T. McKaig.
by: *Dayton & Sons*
his Attorneys.

UNITED STATES PATENT OFFICE.

EDDY T. MCKAIG, OF CHICAGO, ILLINOIS.

METAL BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 552,770, dated January 7, 1896.

Application filed February 11, 1895. Serial No. 537,889. (No model.)

To all whom it may concern:

Be it known that I, EDDY T. MCKAIG, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Metal Bedsteads; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in the construction of metal bedsteads whereby many important advantages are attained over the present style of manufacture of such articles. For example, in the present manufacture of metal bedsteads the bed-frame is composed of four rails and four posts. These latter usually consist of metal tubes and each is provided with a cast-metal plate or bracket, usually cast thereon, to which the top, the bottom, and the two side rails are secured by a dovetail tongue on the end of the rail engaging with a corresponding groove in the bracket or corner-plate. This construction requires more or less fitting and hand labor, which increases the cost of manufacture proportionately. In some instances, to obviate this, it has been proposed to cast the top and bottom rails integral with said corner-brackets. While this was an advantage in that it left only the side rails to be united to said brackets, as aforesaid, it was found to be difficult, as well as expensive, to cast integral in one operation the two head (or foot) posts, a corner-bracket upon each, and the top (or bottom) rail that united them.

Metal bedsteads are usually made of iron and more or less ornamented with brass trimmings. Difficulty has been experienced in practice in uniting the ornamental brasswork to the bed in a mechanical and cheap manner, and at the same time preserving neatness of finish and ornamentation.

Among the objects of my invention, therefore, are improvements in the bracket on the corner-posts and the means of removably securing the rails thereto, improved means for removably securing the ornamental trimmings to the posts, means for converting an ordinary-sized bed to a canopy-top bed by removing said ornamental trimmings and

adding the canopy-top features thereto, and means for attaching casters to the posts, for the purpose of improving and beautifying the bed as a whole, and of simplifying and cheapening the cost of manufacture thereof.

The above and other features of the invention will be more particularly pointed out in the appended claims.

In the drawings I have shown, in Figure 1, a perspective view of a bedstead embodying my invention. Fig. 2 illustrates the same with the canopy-top added. Fig. 3 is a sectional view of one of the corner-posts, showing the bracket and bars in plain view. Fig. 4 is a side view of the latter. Fig. 5 is a cross-sectional view of the bracket and head-bar, taken on line 5 5 of Fig. 3, looking in the direction indicated by the arrows. Fig. 6 is an elevation of one of the post-tops partially in section. Fig. 7 is a vertical sectional view of the same, taken at right angles to the view in Fig. 6. Fig. 8 is a perspective view enlarged of one-half of the sleeve inserted in the top of the posts. Fig. 9 is a central vertical sectional view of the top of the post with the extension for the canopy-top attached thereto. Fig. 10 is a central vertical sectional view of the bottom of the post. Fig. 11 is a cross-sectional view of a modified form of bracket-arm. Fig. 12 is a perspective view of the end of a rail chamfered off to fit upon the bracket-arm shown in Fig. 11.

In said drawings the letter A represents the bed as a whole, comprising four posts A', each having a bracket B, head and foot rails C C, and two side rails C' C'. The posts A' are tubular and of any predetermined length, and the two foot-posts may be united in any suitable manner by horizontal and vertical rods $a a'$, as shown, the particular arrangement of which latter forms no part of my invention, and therefore need not be more fully described.

The bracket B is suitably apertured to receive the post A' and is secured thereon at a suitable distance from the lower end by any convenient means. It may be cast integral with the post or may be keyed thereon by a key a^2 , engaging a keyway in the post-aperture of the bracket, as shown in Figs. 3 and 4, or it may be secured by a set-screw a^3 , passed through a screw-threaded aperture in

the bracket into the post-aperture and engaging the post in a familiar manner, as shown in Fig. 5. Extending at right angles are two arms b b , integral with the body portion of the bracket B, each of which is generally triangular in cross-section. Two of the surfaces of each arm are arranged to receive the sides of the bar C C', formed of angle-iron. For this purpose the upper or horizontal surface b' is preferably provided with a longitudinally-extending flange or shoulder b^2 , while the vertical surface b^3 of the arm b of the bracket B may be provided with a similar flange or shoulder b^4 . These flanges b^2 and b^4 are shown as the preferred and more mechanical construction, but are not essential, as it will be obvious that the angle-bars C C' could be secured to the arm b with equal facility if the flanges were not present. The construction described, however, provides a more rigid connection.

Each arm b is slotted from its end toward the main portion of the bracket, said slot b^5 being cut angularly with respect to the top and side surfaces b' b^3 of the arm and entirely through from the under surface b^6 .

D is a bolt provided with a suitable head d and a nut d' . The bolt passes through the slot b^5 and through an aperture c in the rail diagonal to its side surfaces, which latter the head d engages. The nut d' is screwed down on the bolt D until it firmly engages the under surface b^6 of the arm b . I prefer to use the ordinary square nut d' for those bolts that are used in connection with the head and foot rails C C, and thumb-nuts d^2 on the bolts D, that secure the side rails C' C' to the side arms of the brackets B; but while this is preferable it is obviously immaterial which style of retaining-nut be employed, except for convenience in handling the bed-frame. In practice I prefer, simply as a matter of convenience, to slip the head and foot rails with the head and foot posts, respectively, and, besides, a thumb-screw nut is more easily manipulated by hand in attaching the side rails.

I now proceed to describe the posts and means employed for removably securing the ornamental trimming or the canopy-top thereto, reference being had more particularly to Figs. 6, 7, 8, and 9 of the drawings. In the top of each post A' is a bolt E partially inclosed within grooves ee extending in from the adjacent face of the two parts of a jacket or sleeve E' (see Fig. 8) and having its upper projecting end e' exteriorly screw-threaded. The lower or shank end e^2 of the bolt E is flattened so as to be wider than the bolt when looking at it as in Fig. 7 and narrower when looking at right angles thereto, or as in Fig. 6. Each half of the sleeve E' has a flat surface e^3 and a convex surface e^4 , and when the flat surfaces e^3 are placed adjacent to each other the grooves e register and the external diameter of the sleeve is slightly less than the interior diameter of the posts A'. The groove

e does not extend the whole length of the sleeve, the lower portion e^5 of the groove being shaped to accommodate the wide and thin end e^2 of the bolt E. The bolt having been inserted within the sleeve, the latter is placed in position, as shown, within the post. An annular rim e^6 on each half of the sleeve, larger in diameter than the interior diameter of the post, forms a suitable shoulder to engage the top end of the post, whereby the sleeve and its bolt are prevented from falling down into the post. Any ornamental washer or head E² may be placed over the bolt E, as well as the usual brass knob E³, which latter is provided in its base with an interiorly screw-threaded aperture to engage the screw-threads on the end e' of the bolt E.

It will be observed that screwing the knob upon the bolt not only unites them firmly with the sleeve, but the bolt is drawn upwardly or out of the sleeve somewhat, and the wedge shape of its lower end e^2 acting upon the similarly-shaped lower end e^5 of the groove, the two halves of the sleeve E' are thus forced apart and caused to firmly impinge against the inner surface of the post. When it is desired to remove the knob and withdraw the bolt and sleeve from the end of the post, the knob is unscrewed, and then if the bolt does not readily drop down from its wedged position between the two halves of the sleeve, it may be tapped lightly on its upper end to loosen it.

Next describing the canopy top and the means of detachably connecting it to the bed, F, Fig. 2 designates the same as a whole, which may be of any desired and suitable form, provided with tubular standards G G, forming, when attached, practical extensions of the head-posts of the bed. As herein shown, the upper ends of the standards G G are provided with knobs H H uniform in appearance with those of the foot-posts, and the canopy-frame proper consists of a simple oblong rectangular frame I secured to the standards near the top thereof, and suitably sustained in horizontal position by means of brackets J J.

The detachable connection between the head-posts and the canopy-standards are constructed as follows: The knob E³, bolt E, and sleeve-section E' having been removed, a cylindrical core or dowel K of proper diameter throughout its end portions k k' to fit tightly within the ends of the posts and standards, respectively, is inserted at one end within the upper end of the post and the standard G placed thereon, thus forming a rigid union of said parts. The core K is provided with a central circumferential rib k^2 , which insures the retention of the core in proper position when the two parts to be united are forced thereon. Preferably an ornamental band or sleeve L will be arranged to cover the joint between the parts, that herein shown being provided at one of its margins with an inverted flange adapted to fit between the rib

7/2 and the end of one of the united parts, thereby holding said band in position to cover the union.

As a further improvement I provide a novel foot or pedestal for the bed-posts, which comprises a mandrel or plug M adapted to fit within the tubular lower end of the post, and a bell-shaped base or skirt M' formed on or secured to the lower part of the plug M and forming, when the bed is not equipped with casters, the base proper, which rests directly upon the floor. As a desirable finish said base M' is shown as provided with a marginal bead *m*. At its lower end the plug M is enlarged to form an annular shoulder *m'*, which limits the extent to which the plug may enter the end of the post. The mandrel M is provided with an axially-arranged aperture or recess *m*² for the reception of an ordinary caster N, as shown clearly in Fig. 10. A foot or pedestal thus constructed has the advantage of presenting a neat finished appearance, of being extremely simple and convenient of application, and of providing a relatively-large foundation, which will in the absence of casters prevent injury to the floor or carpet, and when used with casters, form a housing and protection for the latter which will in a great measure conceal their presence.

It will be obvious that with the form of bracket shown in Figs. 3, 4 and 5 the head *d* of the bolt D will necessarily project somewhat above the top plane of the rail. This is in some cases objectionable, and I have therefore in Figs. 11 and 12 shown a modified form of bracket arm and rail by which this objection is obviated. As shown in said figures the corner of the bracket-arm is chamfered off sufficiently to permit the head of the rail-securing bolt, when resting in contact with the exterior of the angle-iron rail, to be flush with or below the top plane of the rail, the end of the rail being also flattened at its exterior angle at each end to conform to the shape of the bracket-arm. Preferably this flattening or chamfering of the rail will extend only a short distance beyond the end of the bracket-arm and will taper out gradually, so as to form a neat appearance, as shown clearly in Fig. 12.

I claim as my invention—

1. The combination, with the corner posts of a bedstead, of a bracket secured thereto and provided with integral arms extending at right angles to each other, said arms being triangular in cross section with the upper and outer faces horizontally and vertically arranged respectively, a slot in said arm formed at right angles to the third face and diagonally with relation to the first two mentioned faces, and a bolt adapted to pass through said slot and engage an angle iron rail to secure the latter to the arm, substantially as described.

2. In a metal bedstead, the combination, of a tubular corner post, a tubular bracket, a

set screw passing through said bracket to secure the same to said post, horizontally arranged integral arms on said bracket extending at right angles to each other, one for supporting one end of the head rail and the other for supporting one end of the side rail, angle iron heads on said rails adapted to rest upon the said bracket arms, each of said bracket arms being substantially in the form of a right angled triangle in cross section, the right angled upper and outer sides of which are arranged in horizontal and vertical planes respectively, an elongated slot diagonally extending through each bracket arm at an angle with its horizontal and vertical surfaces, a bolt adapted to pass through said slot and through a suitable aperture in the angle iron rail, and a securing nut on said bolt, substantially as described.

3. The combination with a tubular post of an iron bedstead, of means for securing a fixture to the end thereof comprising a two-part split plug inserted within the end of said tubular frame piece, a tapered recess in the adjacent margins of each part of said plug, a wedge shaped bolt interposed between the parts of said plug and adapted to force them apart with their outer surfaces in engagement with the interior of the tubular frame piece, and a securing device on the end of said bolt, substantially as described.

4. The combination, with a frame piece having a tubular opening therein, of means for securing a fixture to the end thereof comprising a two-part split plug inserted within said tubular opening, each part having a recess or groove in its adjacent margin, a screw threaded bolt having its head end wedge shaped and resting within the recess of said plug, and extending at its other end without the frame piece, a nut engaging the screw threaded outer end of the bolt, and means for securing a fixture to said plug, substantially as described.

5. In a metal bedstead, the combination with a tubular post, of a bell shaped base portion as M', provided with an upward cylindric extension integral therewith and of such diameter as to fit snugly within the end of the tubular post, an annular shoulder as *m'* on said base portion, an elongated cylindric recess, as *m*², in the said extension communicating at its lower end with the interior of the bell shaped base portion, and a caster and stem adapted for engagement in said recess substantially as and for the purpose specified.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

EDDY T. MCKAIG.

Witnesses:

TAYLOR E. BROWN,
WILLIAM L. HALL.