

(No Model.)

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

No. 583,657.

Patented June 1, 1897.

Fig. 1.

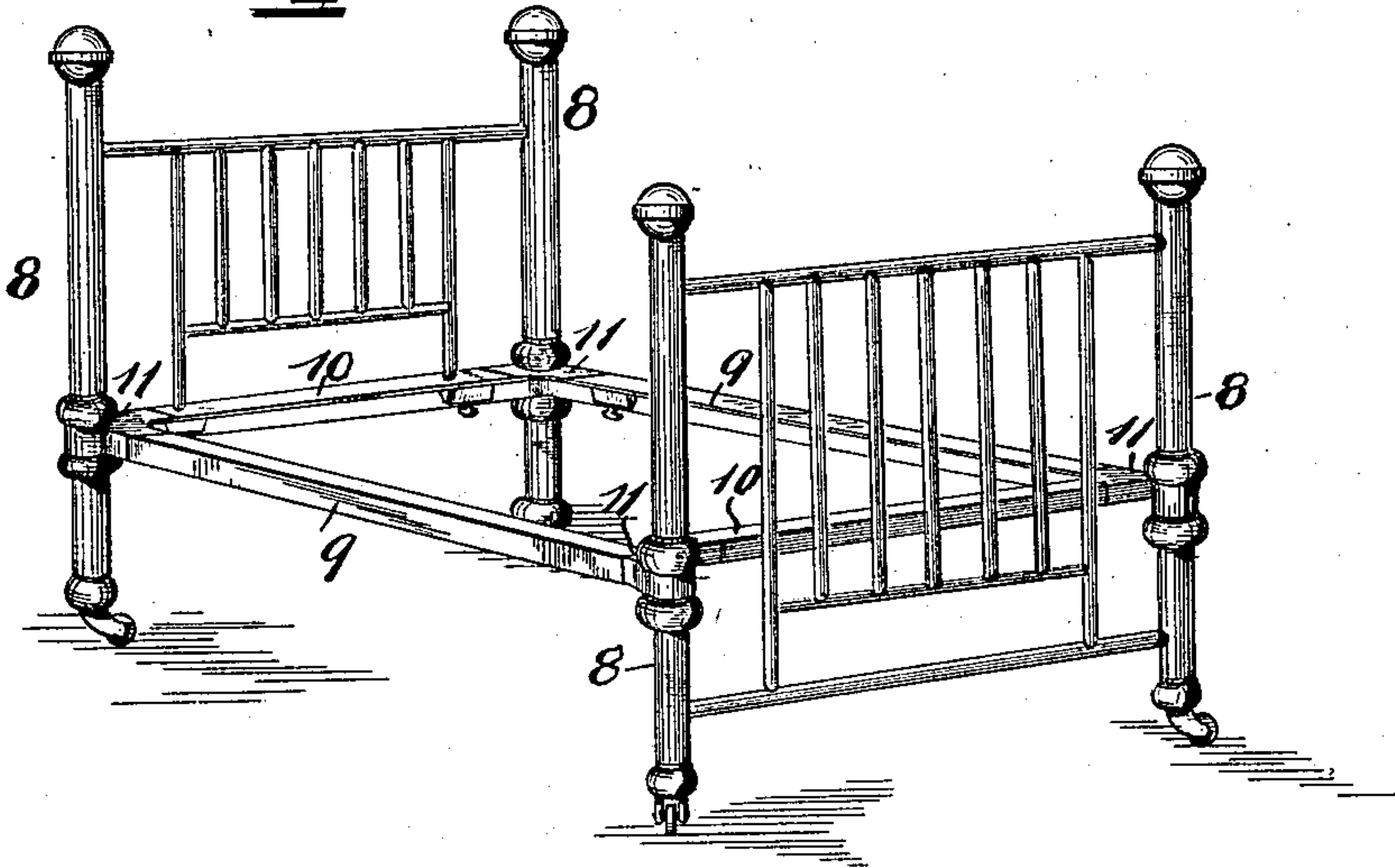


Fig. 2.

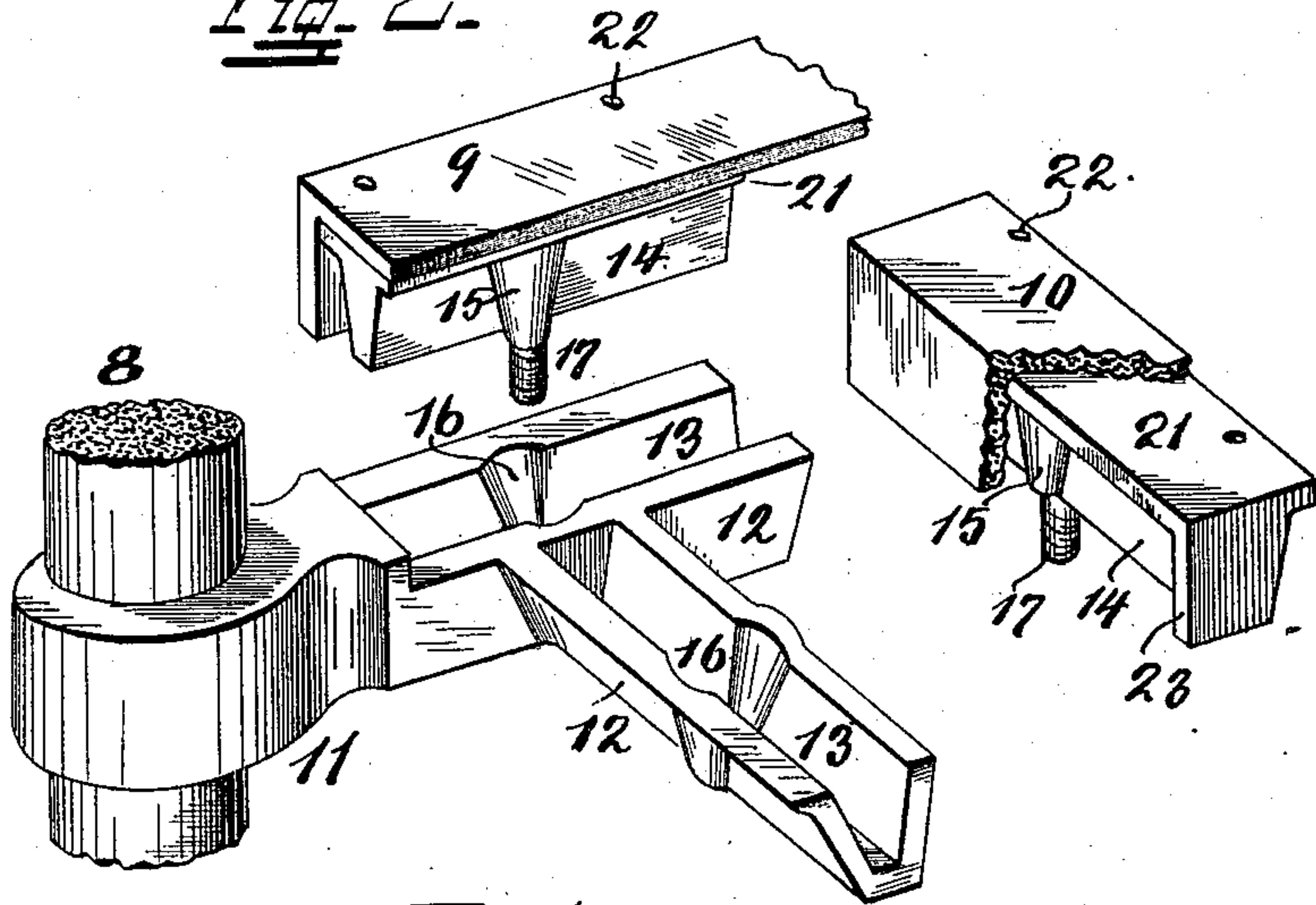


Fig. 3.

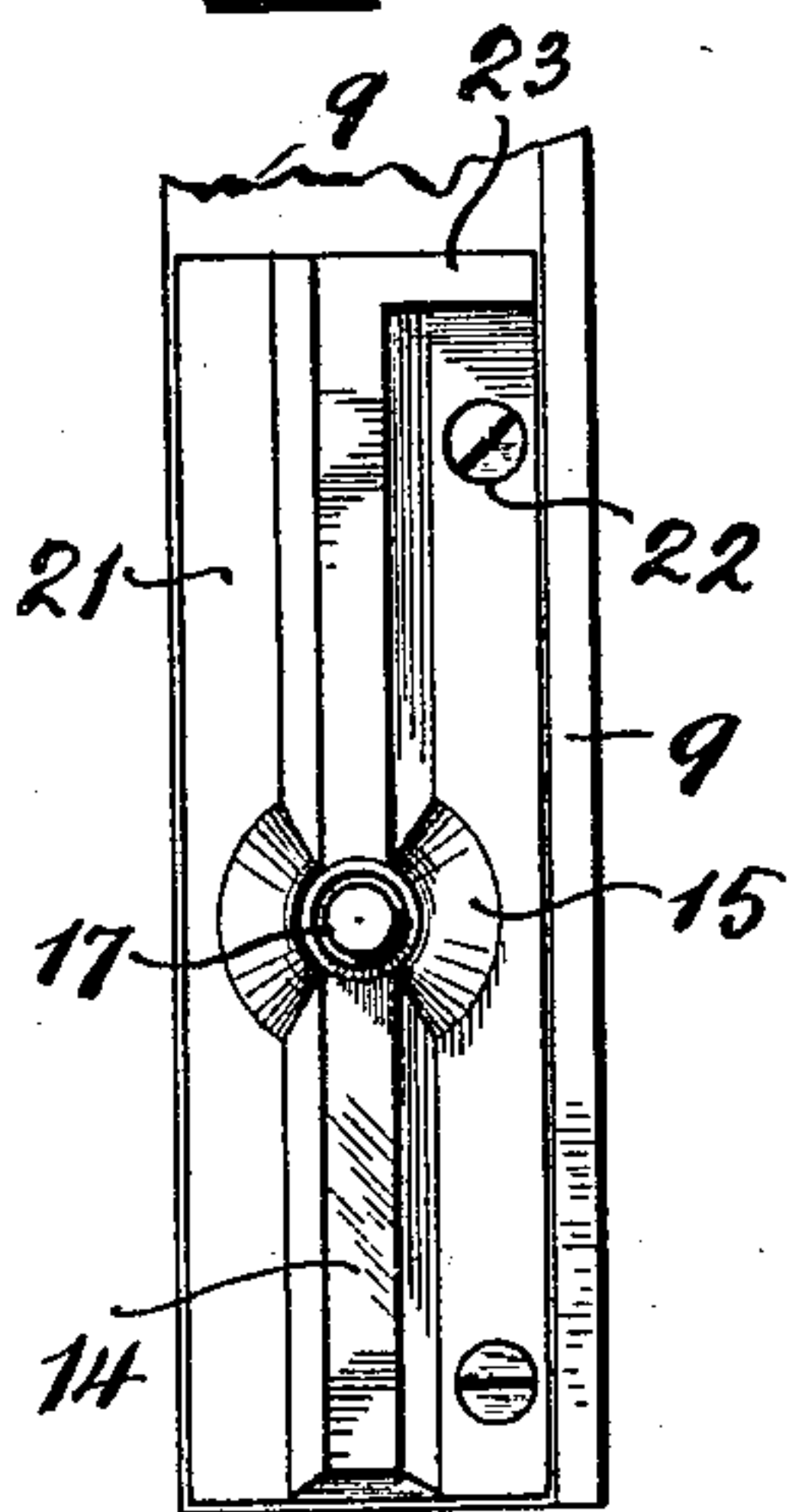


Fig. 4.

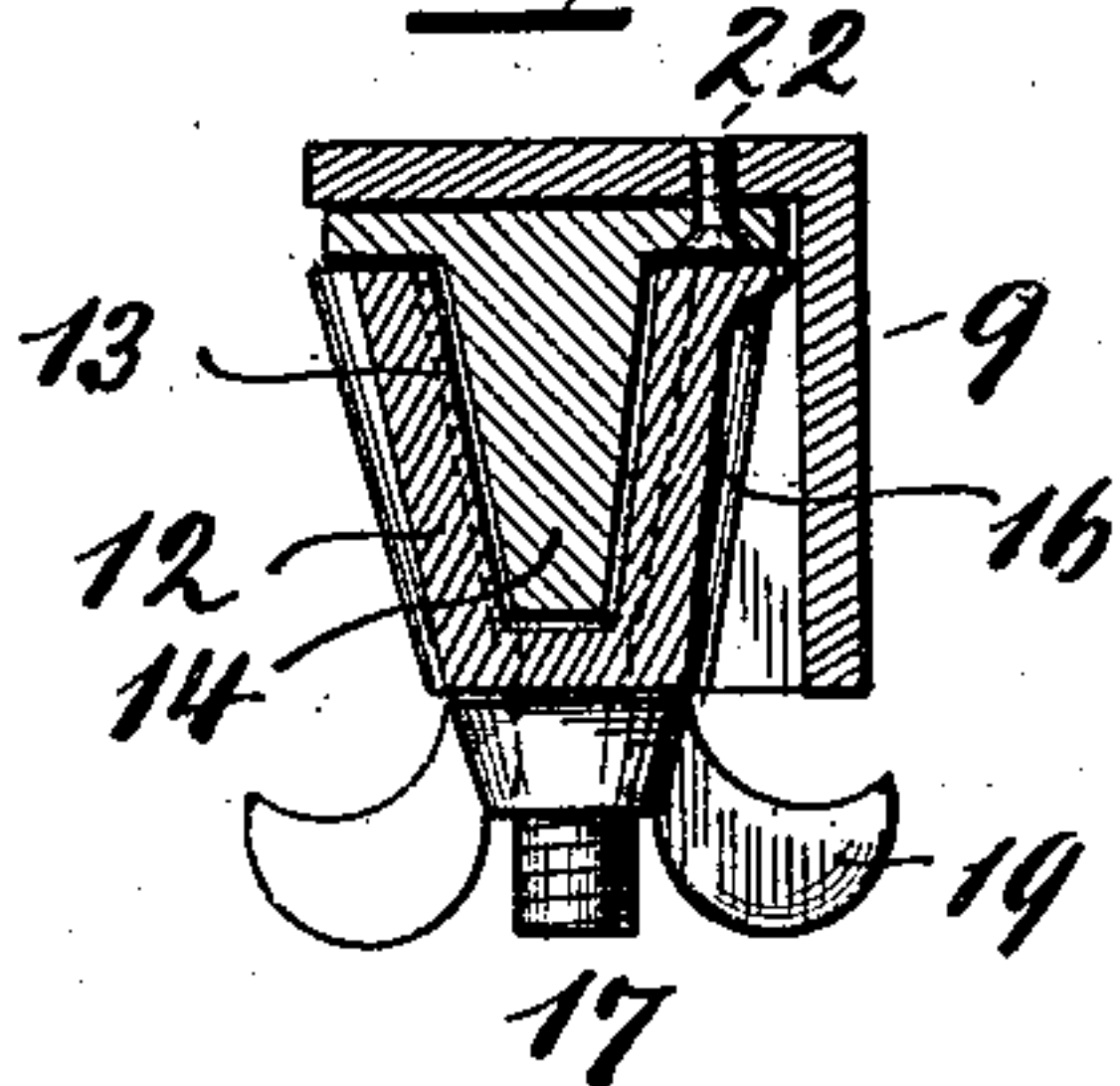
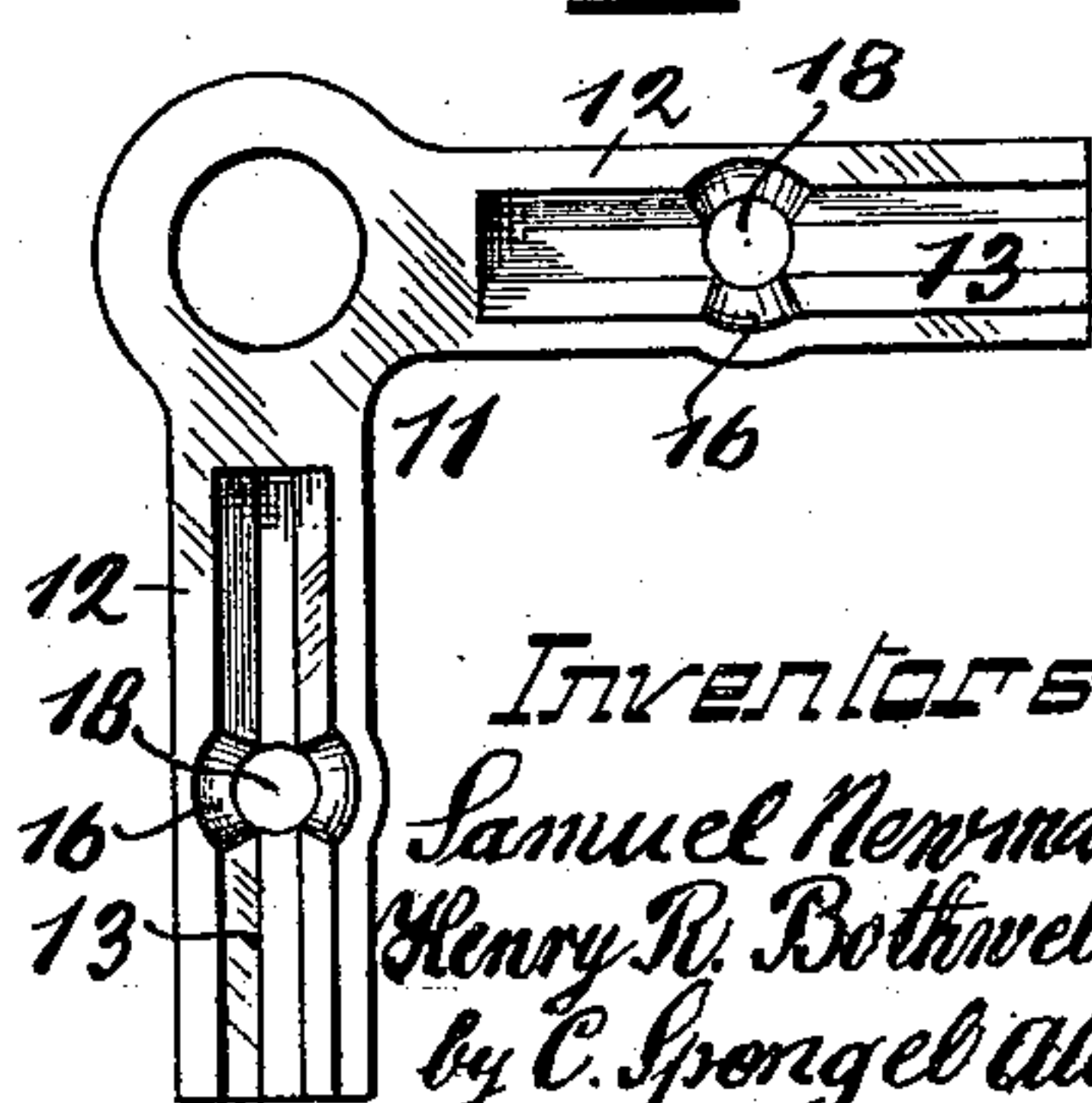


Fig. 5.



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UNITED STATES PATENT OFFICE.

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. 583,657, dated June 1, 1897.

Application filed August 10, 1896. Serial No. 602,283. (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 subject of Canada, and residents of Cincinnati, Hamilton county, State of Ohio, have invented a certain new and Improved Rail-Joint for Metal Bedsteads; and we do declare the following to be a clear, full, 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 the joints of metal bedsteads whereby the rails are connected to the corner-posts. Our improved joint is particularly well adapted where the rails are formed of angle-iron and similarly-shaped iron rails found ready in the markets.

The advantage of this improved joint is simplicity, whereby the parts are caused to enter into proper and firm connection by an inexpensive construction which does not require such a close fit and careful workmanship as now needed in most cases.

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

Figure 1 is a perspective view of a metallic bedstead with its rails connected by our improved joint. Fig. 2, in an enlarged perspective view, shows separated the parts entering into connection to form one of the joints. Fig. 3 is an under side view of one of the rail ends. Fig. 4 is a vertical cross-section through one part of the joint when the parts of the same have entered into connection, and Fig. 5 is a top view of one of the brackets which form part of the joint.

In Fig. 1 a bedstead is shown complete, indicating the corner-posts to which the side rails 9 and the end rails 10 are connected with our improved joint. For the purpose of connecting the rails brackets 11 are provided, preferably of cast metal, and of which

one is connected to each of the posts, all being at even height from the floor. Each of the brackets consists substantially of two arms 12, of which each is provided with a groove 13, cut in their upper surface lengthwise parallel with them and open at the free end of the arms. These grooves preferably taper inwardly toward their bottom, as shown. At each of the ends of the rails are downwardly-depending keys 14 provided, which are wedge-shaped, corresponding in taper to the tapering grooves 13, which form bearings for them, so that the two come readily to a close-fitting engagement when one of the former enters the latter.

In the brackets of the posts at the head end arms 12 project in line with the posts, as shown in Fig. 5, while in those at the foot ends one arm is carried by and projects out from the other one, as shown in Fig. 2, which is by reason of the arms which support the end rail at the foot end being set back to provide room back of the foot end for the overhanging bedclothes. To prevent the keys from slipping endwise out of these open grooves forming their bearings, they are laterally increased in thickness at one or more points, as shown at 15, the bearings being correspondingly increased, as shown at 16. These increased parts, both in keys and bearings, are also tapering, so as not to interfere with the keys coming to a full seat within their bearings. While the weight of the parts would keep them now readily in position, it is nevertheless preferable to make the connection more secure, particularly against vertical displacement, for which purpose downwardly-projecting stud-bolts 17 are provided, preferably in line with the increased portions 15. They may form a part of the castings which constitute the keys 14 and project through and beyond openings 18 provided in the bottom of grooves 13. Beyond these openings they are screw-threaded and become adapted to receive nuts 19, whereby the connection is completed, as shown in Fig. 4.

To secure keys 14 in position, they are provided with a flanged base 21, by which they are attached to the under side of the upper or horizontal flange of the angle-iron rails by means of screws or rivets 22. At one end

another flange 23 is provided vertical to base 21 and with one of its edges at right angles to such base, the object of it being to enable the keys to be fitted properly within the two
5 flanges of the angle-iron rails, which flanges are at right angles to each other.

The manner of connecting brackets 11 with arms 12 to the corner-posts does not form a part of our invention and may be accom-
10 plished in any suitable manner.

Having described our invention, we claim as new—

1. In a rail-joint for metal bedsteads, the combination of a bracket 11 adapted to be se-
15 cured to the corner-post, having projecting arms 12 arranged at right angles, a rectangular groove 13 sunk in from the upper surface of each arm starting from near where the latter connects to the corner-post and extending out
20 to the end of the arms and downwardly-projecting rectangular keys 14 adapted to fit grooves 13 and provided at the ends of the rails which ends rest on arms 12 while said keys enter the grooves on the latter.

2. In a rail-joint for metal bedsteads, the combination of brackets 11 having arms 12 ar-
25 ranged at right angles, projecting from them and secured to the corner-posts, grooved bearings 13 provided on said arms sunk in from their upper surface and keys provided at the
30 ends of the rails which ends rest on arms 12 while said keys enter the bearings on the latter and which keys are enlarged laterally between their ends which enlarged parts enter a
35 corresponding enlargement of the bearings, thereby preventing the keys from sliding end-
wise out of their bearings.

3. In a rail-joint for metal bedsteads, the

combination of brackets 11 having arms 12 ar-
ranged at right angles, projecting from them 40 and secured to the corner-posts, a groove 13 cut in the upper surface of each arm length-
wise parallel with it and open at the free ends of the arms and downwardly-projecting keys
provided at the ends of the rails which ends 45 rest on arms 12 while said keys enter the grooves in the latter, stud-bolts projecting from the lower side of the keys adapted to pass into and through openings provided in the
bottom of the grooves and nuts for the pro- 50 truding ends of the stud-bolts.

4. In a rail-joint for metal bedsteads, the combination of brackets 11 having arms 12 ar-
ranged at right angles, projecting from them and secured to the corner-posts, grooved bear- 55 ings 13 provided on said arms sunk in from their upper surface and tapering inwardly toward their bottom and wedge-shaped keys of a taper corresponding to the taper of the grooved bearings provided at the ends of the 60 rails, which ends rest on arms 12 while said wedge-shaped keys enter the tapering bearings on the latter, lateral enlargements 15 on said keys and enlargements 16 in the bear- ings adapted to receive the former, stud-bolts 65 17 projecting from the lower side of the keys adapted to pass into and through openings provided in the bottom of the bearings and nuts for the protruding ends of the stud-bolts.

In testimony whereof we hereunto affix our 70 signatures in presence of two witnesses.

SAMUEL NEWMAN.

HENRY R. BOTHWELL.

Witnesses:

C. SPENGEL,

J. M. HUNTER.