

C. E. BAUER.
BOLSTER.

No. 601,032.

Patented Mar. 22, 1898.

Fig. 1.

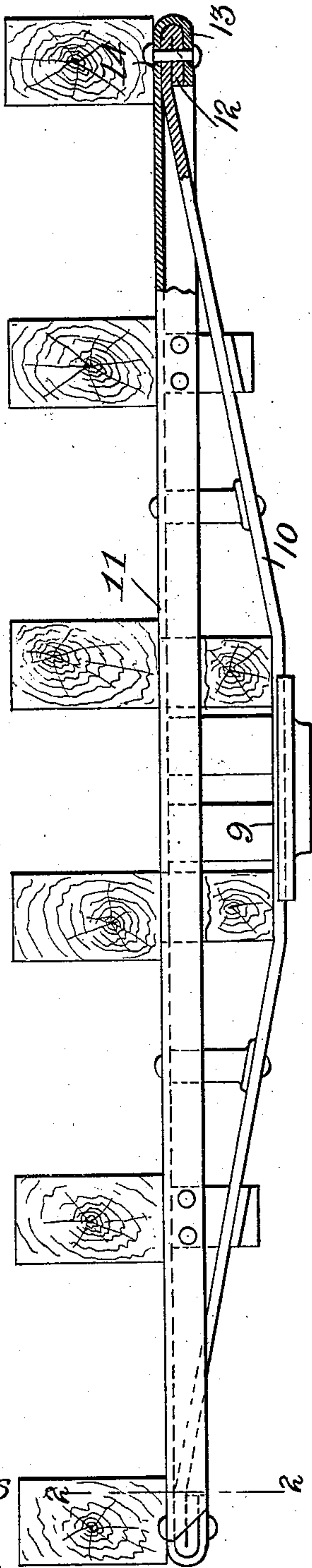


Fig. 3.

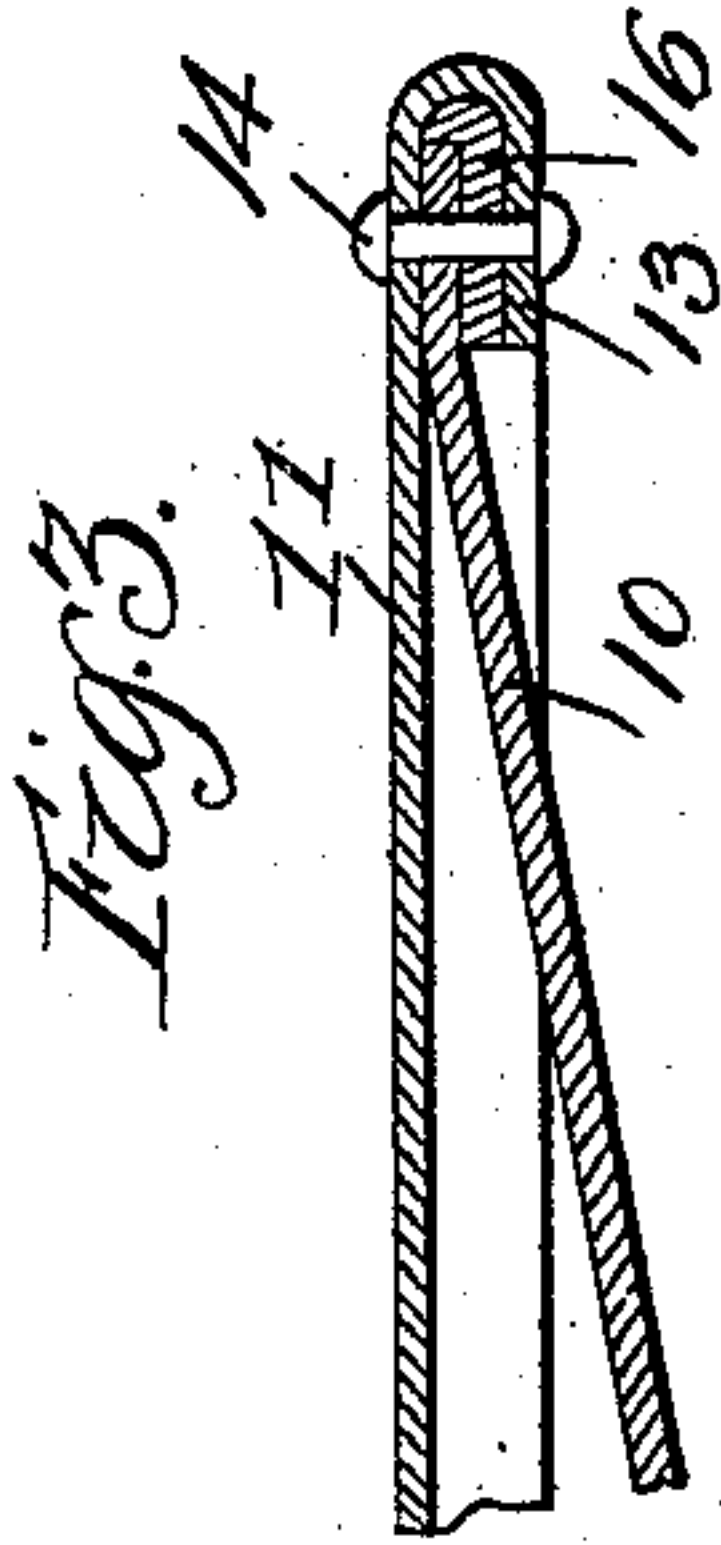


Fig. 4.

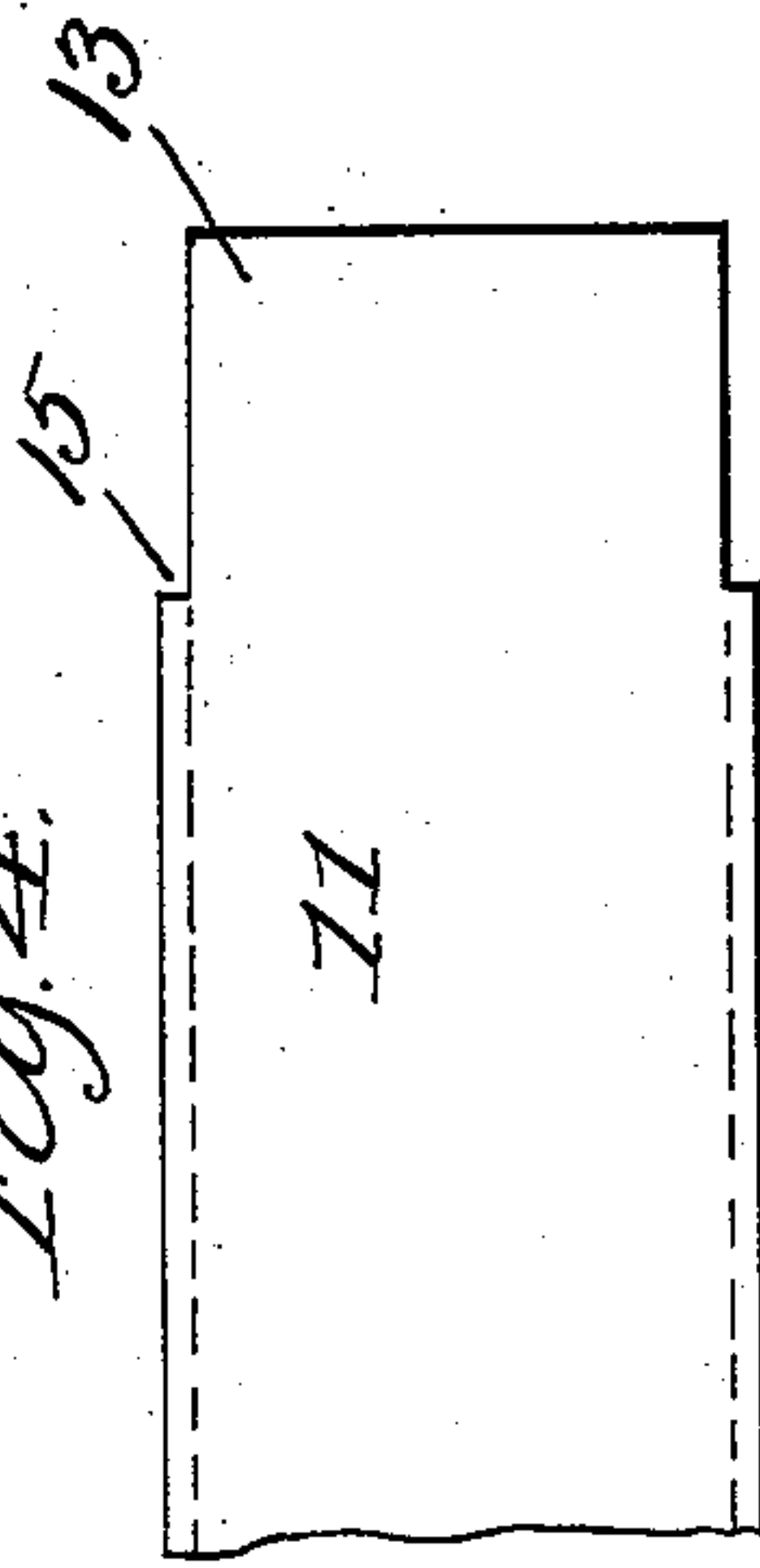
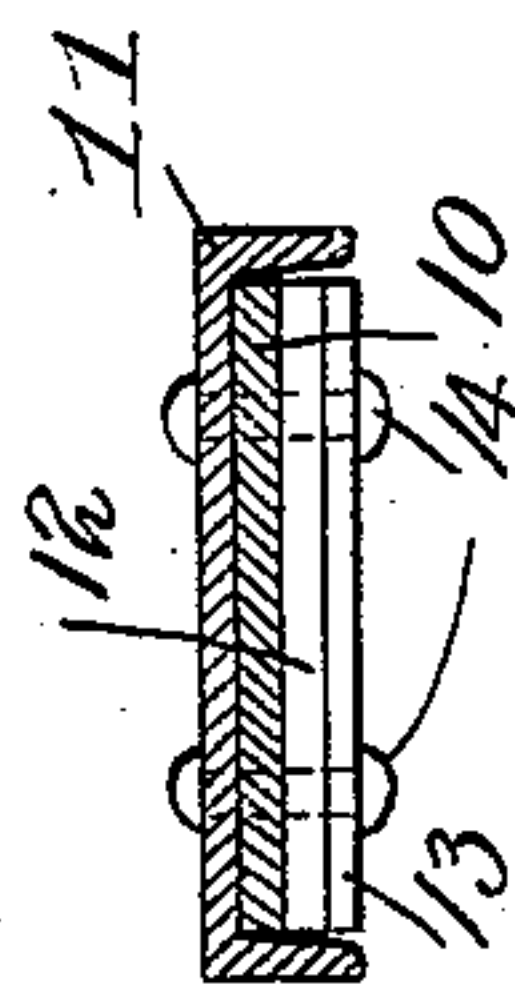


Fig. 2.



Witnesses

Wm. M. Rhum.

Geo. M. Anderson.

Inventor

Carl E. Bauer

by

Paul Symmestredt. atty.

(No Model.)

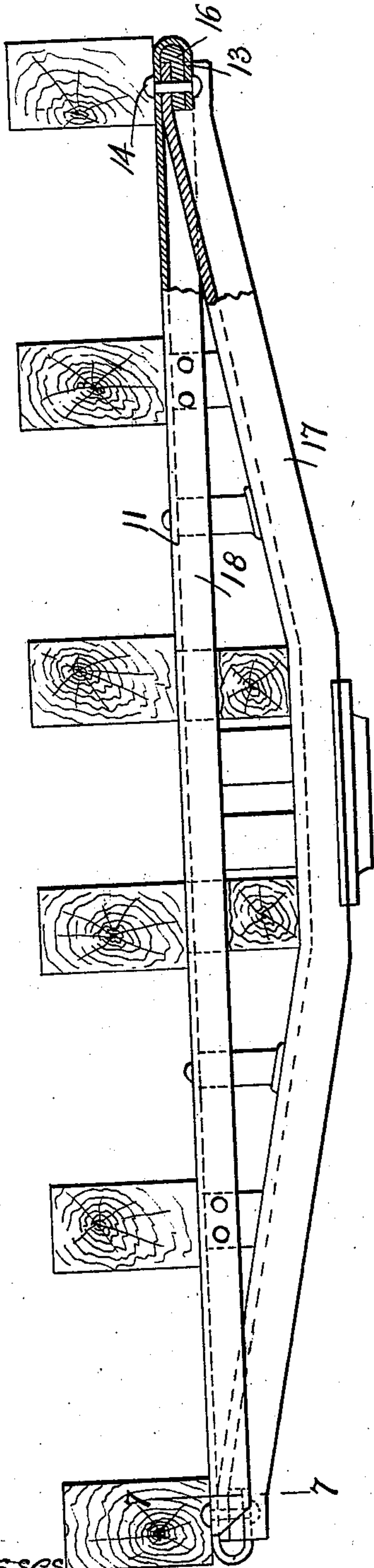
2 Sheets—Sheet 2.

C. E. BAUER.
BOLSTER.

No. 601,032.

Patented Mar. 22, 1898.

Fig. 5.



Witnesses

Wm. M. Rheum.
Geo. M. Anderson.

Fig. 6.

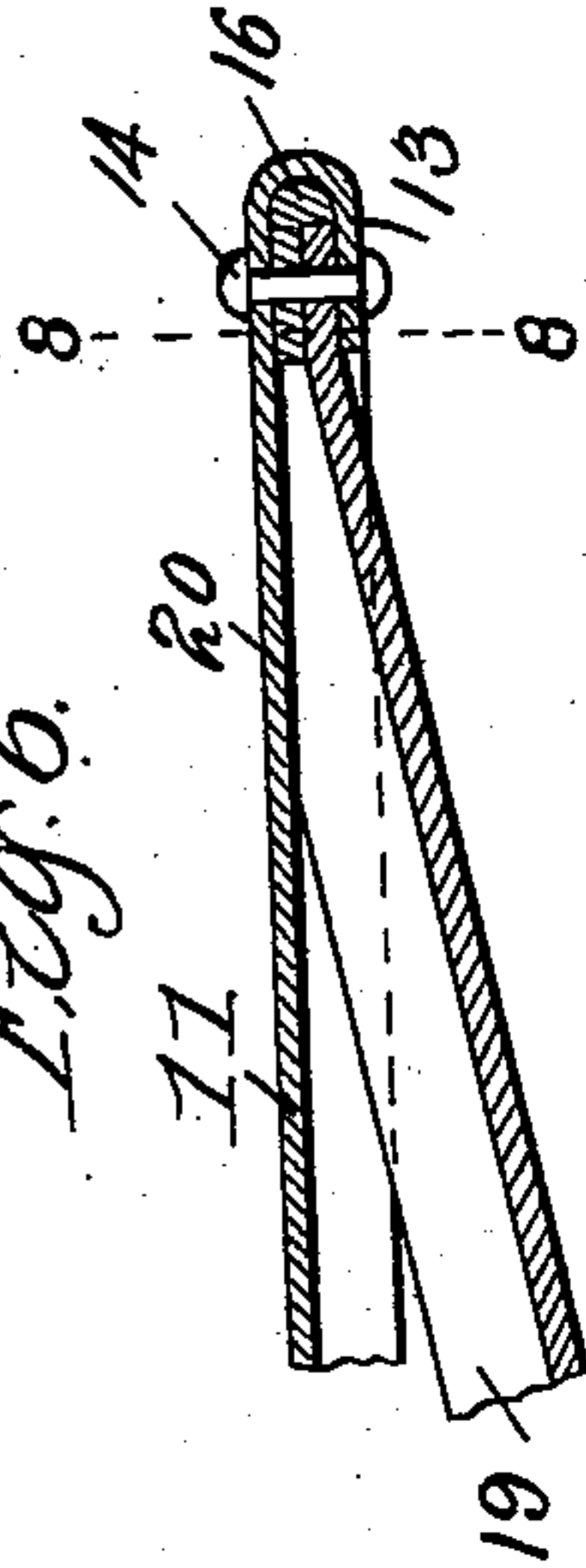


Fig. 8.

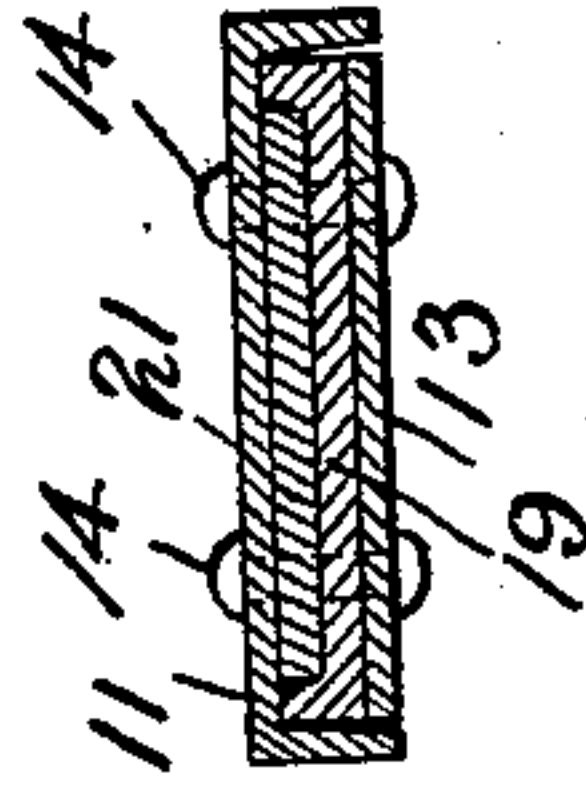


Fig. 10.

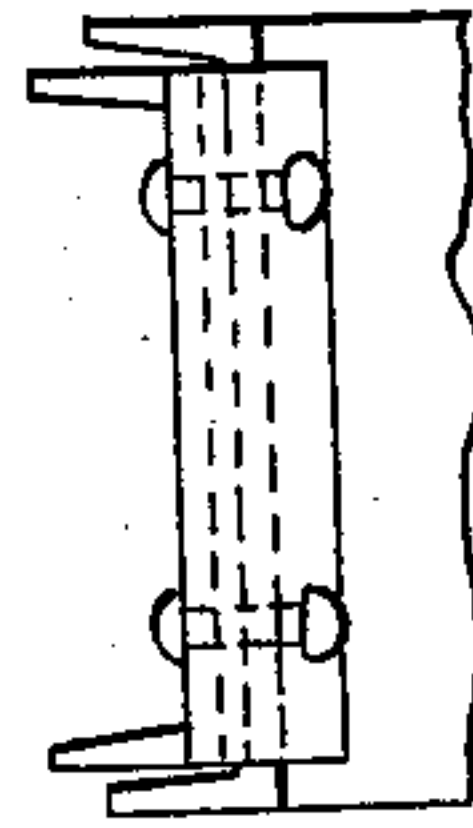


Fig. 9.

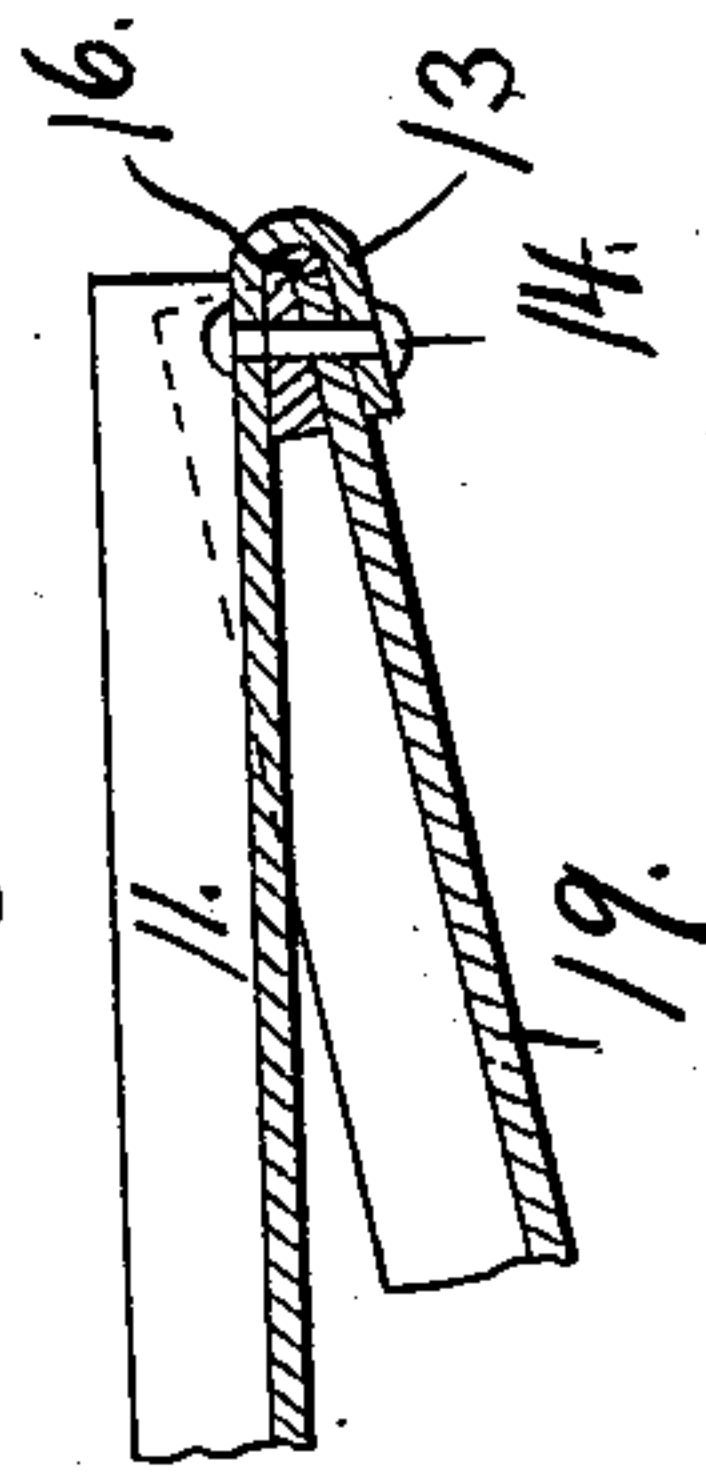
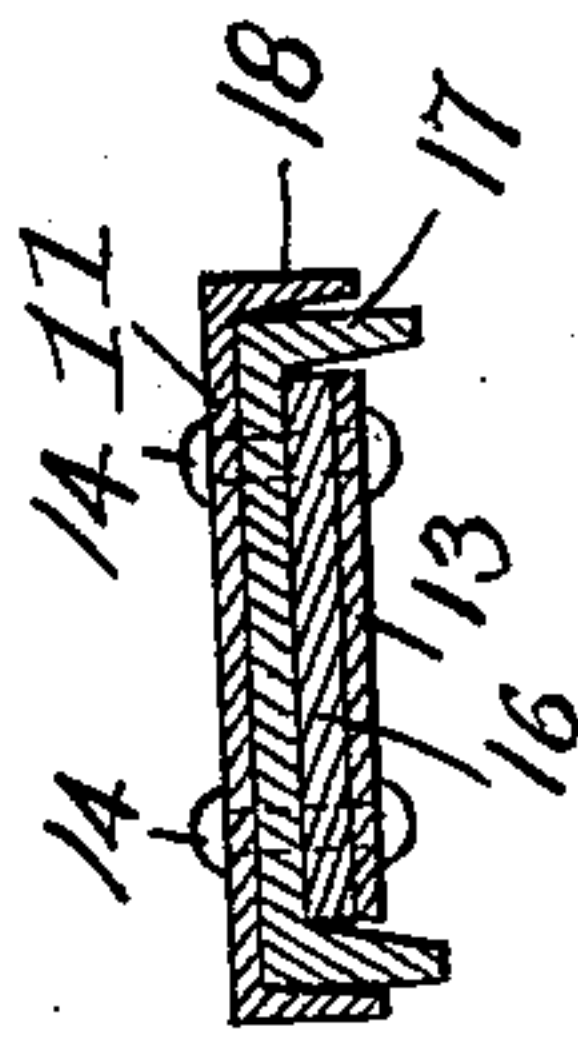


Fig. 7.



Inventor

Carl E. Bauer

by

Paul Symmestad & Co.

UNITED STATES PATENT OFFICE.

CARL E. BAUER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE SIMPLEX RAILWAY APPLIANCE COMPANY, OF SAME PLACE.

BOLSTER.

SPECIFICATION forming part of Letters Patent No. 601,032, dated March 22, 1898.

Application filed February 4, 1898. Serial No. 669,155. (No model.)

To all whom it may concern:

Be it known that I, CARL E. BAUER, a citizen of the United States, residing in Chicago, county of Cook, and State of Illinois, have
5 invented certain new and useful Improvements in Bolsters, of which the following is a specification.

My invention relates to bolsters formed of metal such as are used in car construction,
10 and while it is particularly designed for service as a body-bolster it may also, if desired, be utilized as a truck-bolster.

In the construction of my improved bolster I preferably employ the common forms of
15 what is known as "commercial rolled iron;" but as the essence of my invention embodies features of merit independent of the particular kind or description of iron used in the construction it is of course to be understood
20 that I do not limit myself to a bolster formed of the class of iron specified, but would include all known equivalents as within the scope of my claims.

The objects of my invention are to provide
25 a bolster of great strength which will be light in weight; cheap to manufacture, easy to repair, and which will have a secure and unyielding form of connection at its ends.

A further object of my invention is the provision of a tension member composed of a
30 piece of metal having a web and flanges and the flanges cut away at the ends to form a tongue adapted to be bent around the ends of the compression member. The above, as
35 well as such other objects as may hereinafter appear, I obtain by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation with one end
40 partly in section showing a bolster in which I have incorporated my improvements in preferred form. Fig. 2 is a section on the line 2 2 of Fig. 1. Fig. 3 is a section of one end of the bolster, showing a modification of the
45 construction. Fig. 4 represents one end of the channel tension member which I prefer to use, showing how the flanges of the same are cut away at the end, for a purpose which will be hereinafter more particularly de-
50 scribed. Fig. 5 is a side view, partly in section, of a modification of my improvement, in

which, in place of the plate which I prefer to use as a compression member, I have substituted a channel with its flanges pointing outwardly. Fig. 6 illustrates the channel with
55 the flanges pointing inwardly. Fig. 7 is a section on the line 7 7 of Fig. 5. Fig. 8 is a section on the line 8 8 of Fig. 6. Fig. 9 shows the tension member with its flanges turned outwardly and embraced between the flanges
60 of a compression member which is wider than the tension member, and Fig. 10 is an end view of the same.

In the preferred form of my invention (shown in Fig. 1) I provide a middle support
65 or casting 9, a plate compression member 10, and a tension member 11, having a web and flanges. The end of the plate compression member I bend back upon itself, as shown at
70 12, forming a double thickness, which affords a better and rounder bearing for the tongue 13 of the tension member, which is wrapped around it in hook shape and secured by rivets
75 14 in the manner shown. The tongue 13 is formed upon the tension member 11 by cutting away the flanges of the same for a short distance from the ends, as shown at 15 in Fig.
80 4. At each end of the bolster the plate is arranged to pass between the flanges of the tension member, as shown in Fig. 2, thus making the structure more secure against lateral displacement of the parts.

In Fig. 3 I have shown the end of the compression member 10 cut off square and a filling-
85 block 16 inserted, the tongue 13 of the tension member 11 being formed as before and bent around the filling-block. Fig. 5 illustrates the same form of tension member 11, but has combined therewith a channel 17, the flanges of which are directed outwardly and the end
90 of which is secured, as in the former construction, by bending around it a tongue which is formed upon the end of the tension member in the manner already described. In Fig. 7 I have illustrated the manner in
95 which the channel 17 at its ends is inclosed or embraced by the flanges 18 of the tension member 11, by which I have secured, as in the prior construction, great strength against lateral displacement of the parts.

Fig. 6 shows a channel compression member with its flanges 19 directed inwardly and

cut away, as shown at 20, to permit the joint to be formed upon the end, the tension member 11, with the tongue 13 upon it, being substantially the same as that already described.

5 In this construction I have inserted a second filling-piece 21, adapted to assist in holding the parts together when the rivets 14 are set in place. This is clearly shown in Fig. 8.

10 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

15 1. In a bolster the combination with a compression member and middle support, of a tension member formed of a piece of metal having a web and flanges, the flanges of the same being cut away at the ends to form a tongue which is bent around said compression member in a manner substantially as shown and described.

20 2. In a bolster the combination with a middle support and a tension member hooked upon its ends, of a compression member having its end doubled back upon itself and engaging the hooked end of the tension member, substantially as described.

25 3. In a bolster the combination with a mid-

dle support and a compression member having its end doubled back upon itself, of a channel-iron tension member constructed with a tongue at its end, said tongue being 30 wrapped about the end of said compression member, substantially as described.

4. In a bolster the combination with a middle support and a plate compression member, of a channel tension member constructed 35 with a tongue upon its end bent around the end of said compression member in a manner substantially as shown and described.

5. In a bolster the combination with a middle support and a plate compression member 40 having its end doubled back upon itself in the manner shown, of a channel tension member formed with a tongue upon its ends engaging the ends of said compression member, and having flanges directed inwardly so as to 45 embrace the ends of said compression member, substantially as described.

CARL E. BAUER.

Witnesses:

WM. V. KELLEY,

PAUL SYNNESTVEDT.