

No. 848,156.

PATENTED MAR. 26, 1907.

B. G. BUCHANAN.

RAIL JOINT.

APPLICATION FILED MAR. 20, 1906.

2 SHEETS—SHEET 1.

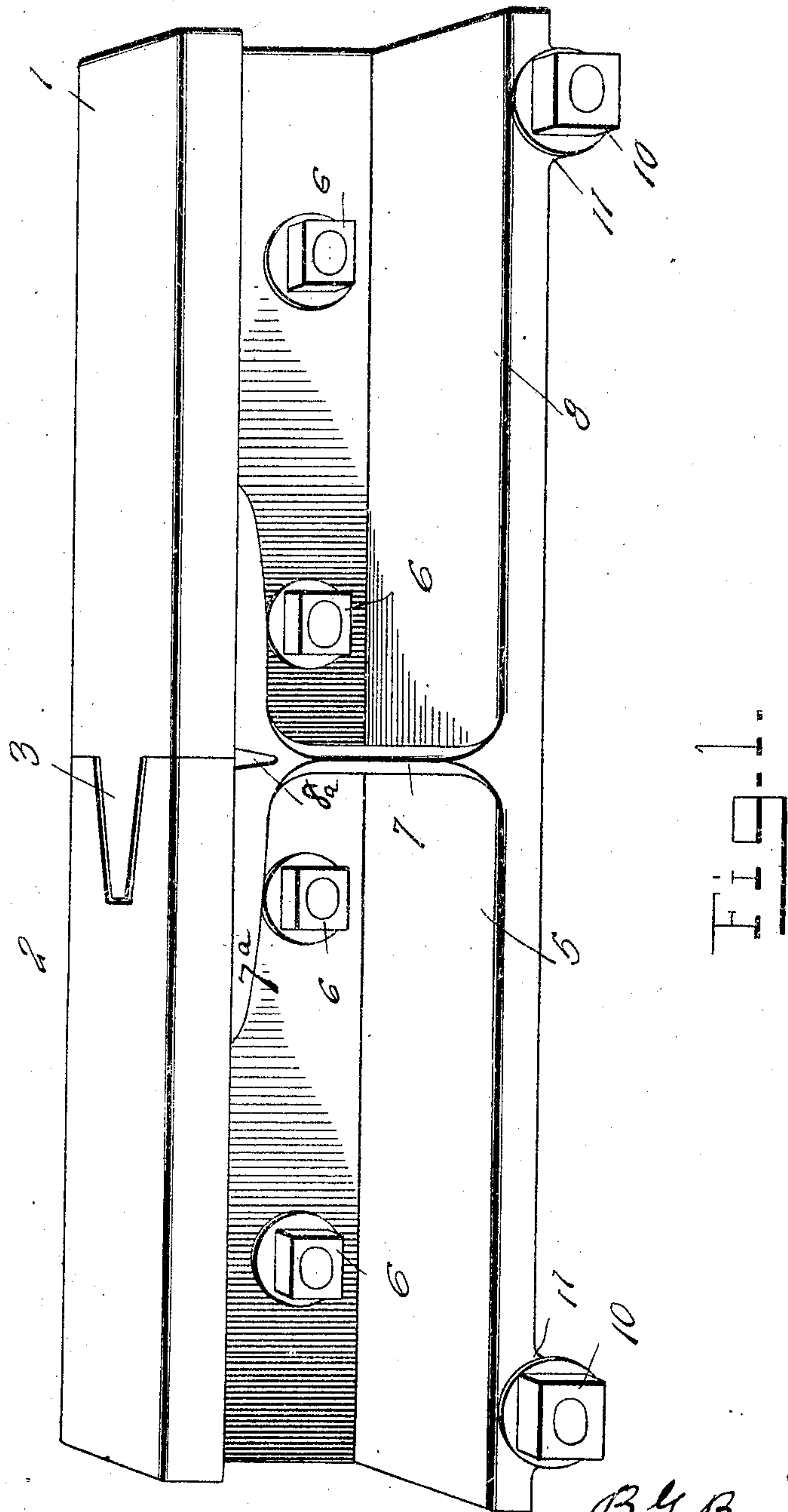


Fig. 1

Witnesses
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2 SHEETS—SHEET 2.

Fig. 2.

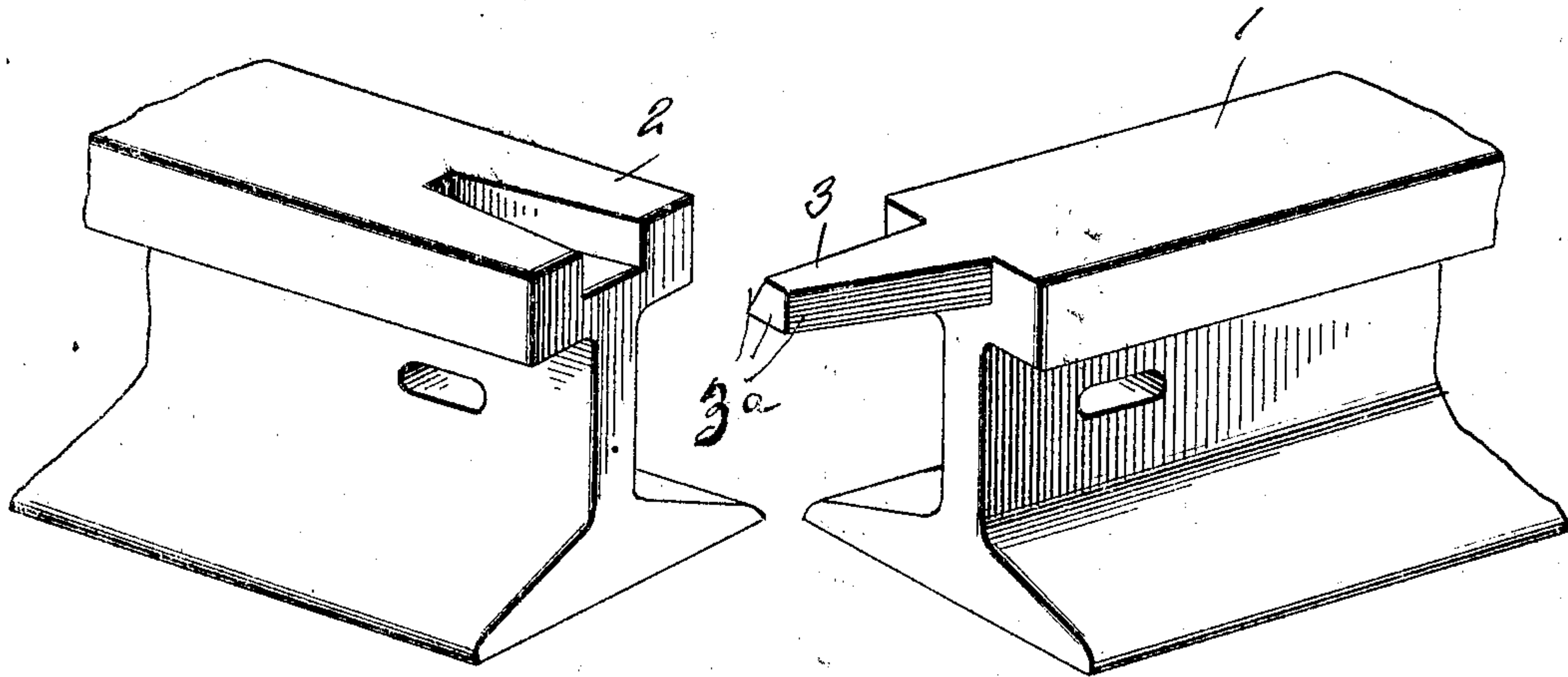
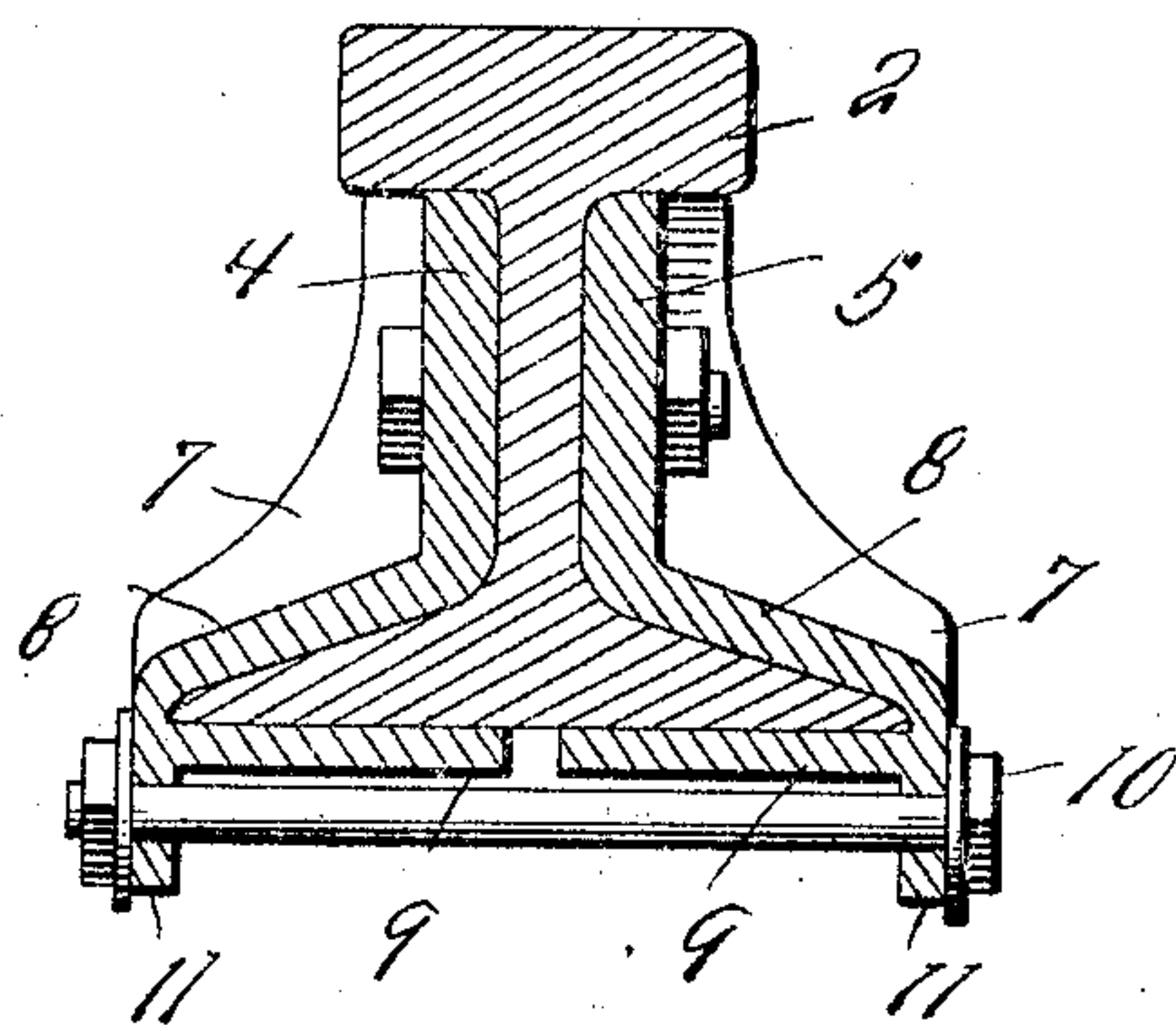


Fig. 3.



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UNITED STATES PATENT OFFICE.

BENJAMIN G. BUCHANAN, OF ASHLAND, WISCONSIN.

RAIL-JOINT.

No. 848,156.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed March 20, 1906. Serial No. 307,072.

To all whom it may concern:

Be it known that I, BENJAMIN G. BUCHANAN, a citizen of the United States, residing at Ashland, in the county of Ashland and State of Wisconsin, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawing.

The invention relates to rail-joints, and has for its object to provide a device of this character that can contract and expand and at all times present a smooth, continuous, and comparatively noiseless tread to the car-wheel passing over the same.

A further object of the invention is to provide a rail-joint which will keep each end of the rail forming the joint in exact registration.

These and other objects will appear from the hereinafter description and illustration in the accompanying drawings, in which—

Figure 1 is a perspective view of a rail-joint constructed in accordance with this invention. Fig. 2 is a detail perspective view of the ends apart. Fig. 3 is a cross-sectional view of the two sections of the chair.

Referring to the drawings, 1 and 2 designate the ends of the rails forming the improved joint. The rail end 1 is provided with a wedge-shaped tongue 3, which extends half-way to the bottom of the tread and is received in the recess of like configuration in the adjacent rail 2. The end of the tongue 3 is inclined to the vertical for the purpose of forcing dirt or small pebbles out when the joint contracts and expands, as will be readily understood.

The joint is seated in a strong chair having two sections which cooperate with the tongue in keeping the two rails in exact registration. The tongue 3, in addition to being inclined or beveled at the end, is also beveled on each side, as shown at 3^a in Fig. 2 of the drawings. This tongue enables the tread of the joint to present a smooth continuous face to the wheels passing thereover, and the beveled sides, in addition to forcing sand and

pebbles out which may be washed therein, provide a safeguard against the tongue from being battered, as will likely result from long use.

The two sections 4 and 5 of the chair are bolted together by bolts 6, which pass through the web of the rails. The two sections of the chair have each a strong integral brace 7, which is also integral with a shoulder 7^a, which engages the tread of the rail from beneath and which gives added strength to the two sections aforesaid at the joint of the rails. Each section of the chair is composed of a side 8 and a base portion 9, formed integral with each other. Depending from the base portions 9 are depending ears 11, which are integral with the chair and are pierced by bolts 10, which firmly clamp the base portions together.

In order to enable the joint to perfectly free itself from pebbles and sand automatically, recesses 8^a are provided in the shoulders 7^a, which will cause the said sand or pebbles to drop down instead of clogging up the joint when the rails are contracted.

What I claim is—

1. A rail-joint chair composed of two sections, said sections engaging the base and sides of the rails, a longitudinal shoulder formed integral with each section and engaging the tread of the rails at the joint, said shoulders having a recess for the escapement of matter falling into said joint.

2. A rail-joint comprising a pair of abutting rails, one of said rails, having a groove provided with vertical walls, and said other rail, having a tongue engaging said groove, the side and end walls of said tongue being convergent toward the top, whereby foreign matter will be forced out, when the rails expand.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

BENJAMIN G. BUCHANAN.

Witnesses:

C. M. ARCHIBALD,
W. G. KOHL.