

A. F. RIETZEL.

REEL.

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996,885.

Patented July 4, 1911.

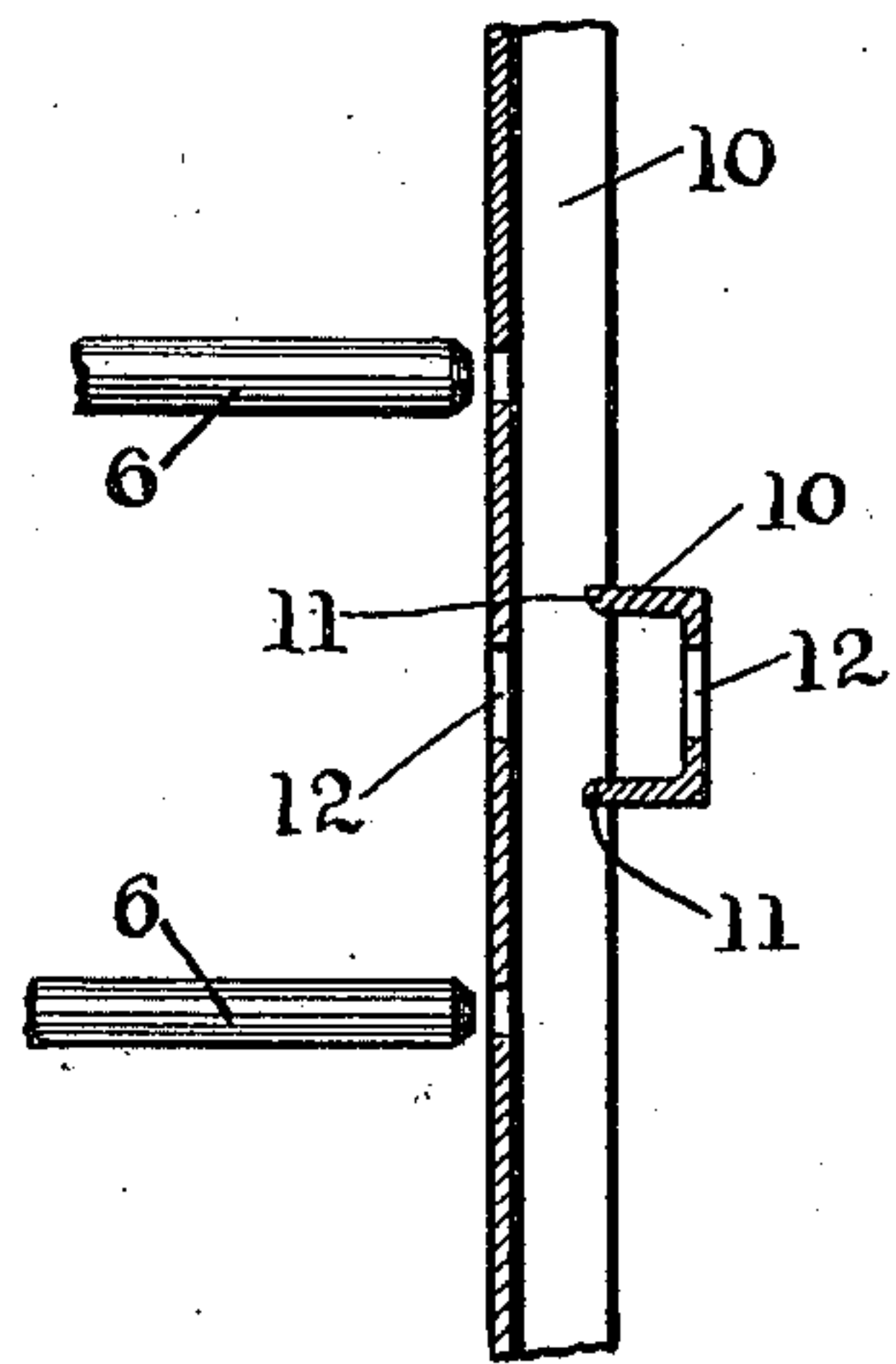
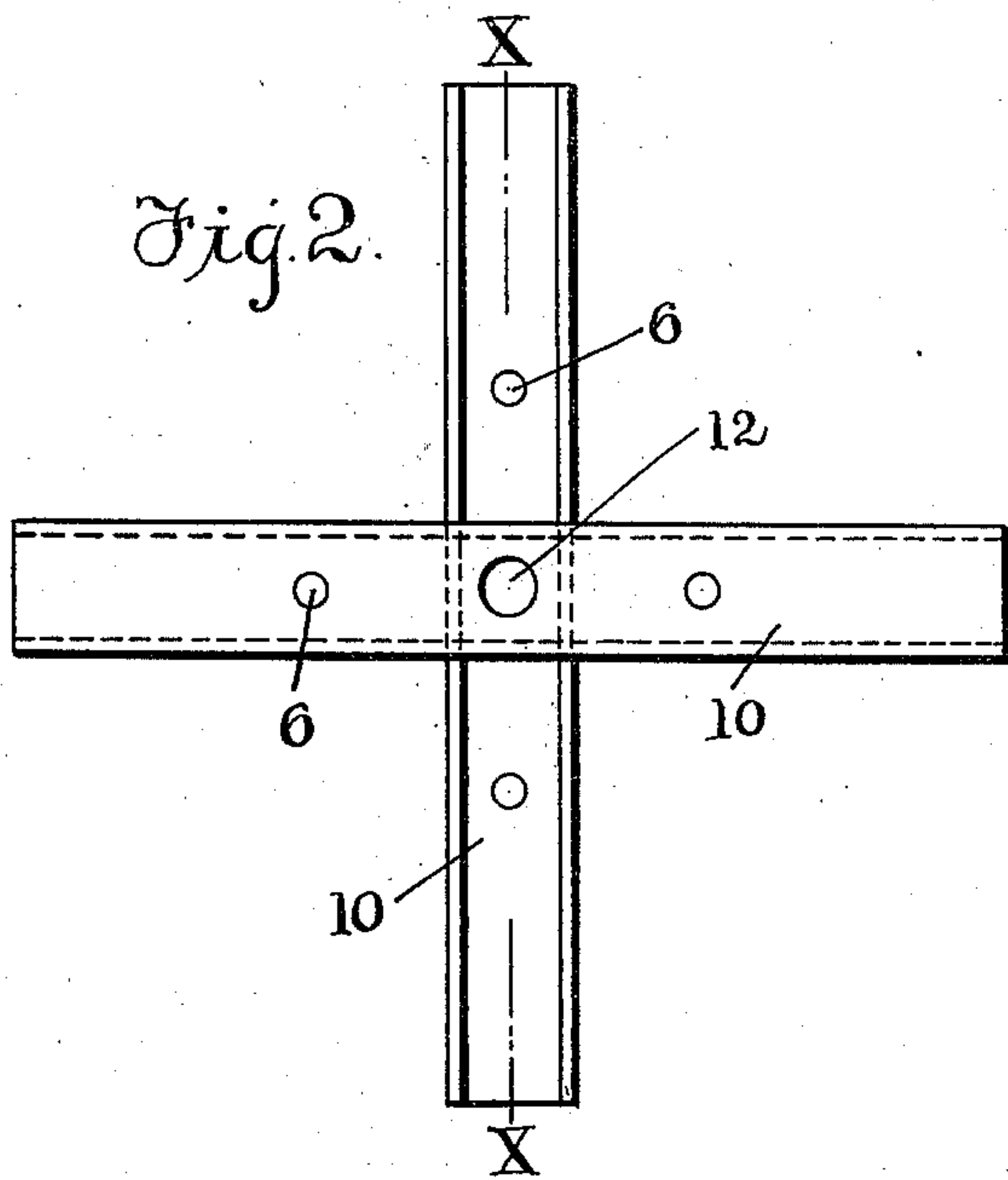
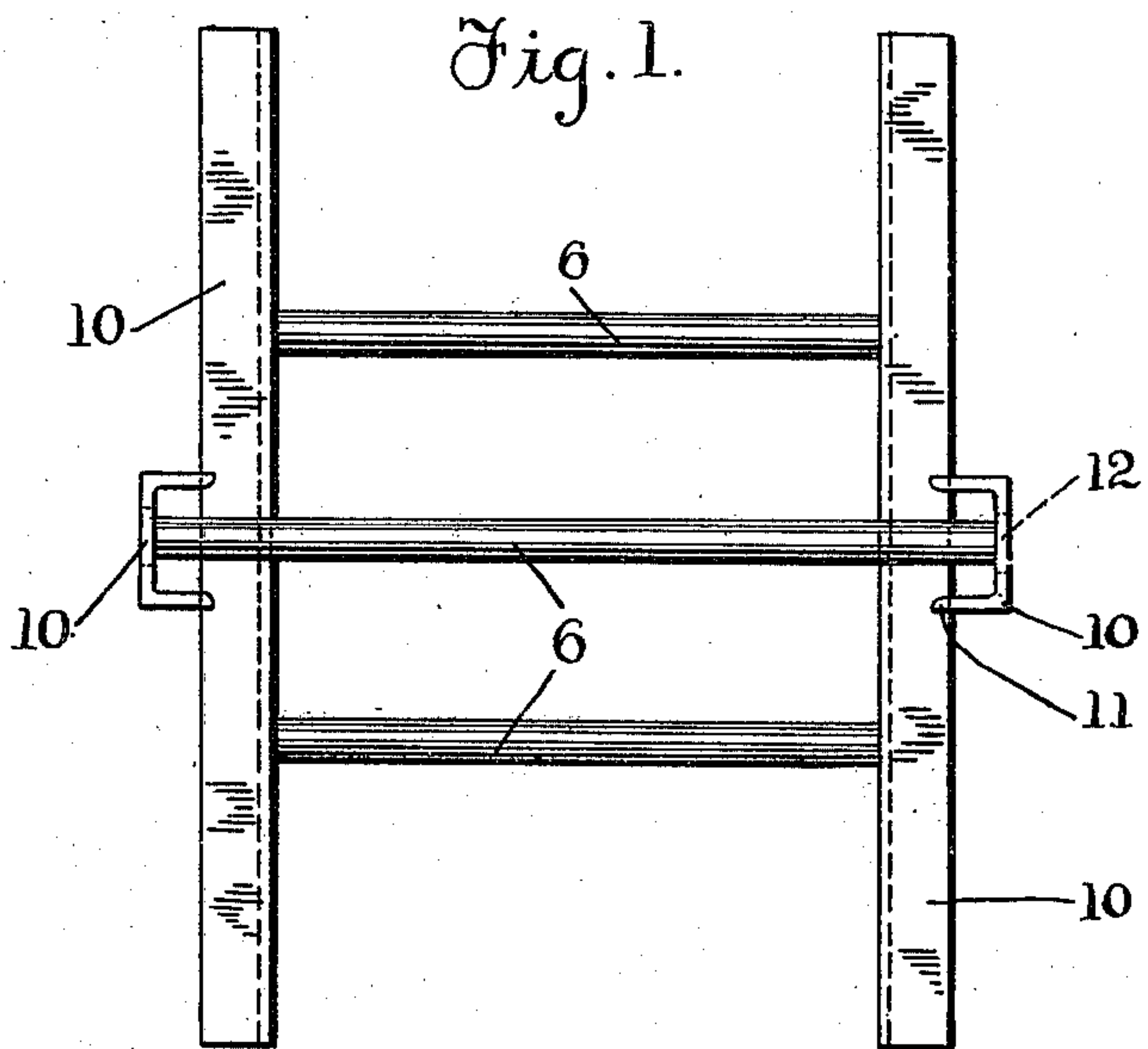


Fig. 3.

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UNITED STATES PATENT OFFICE.

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REEL.

996,885.

Specification of Letters Patent.

Patented July 4, 1911.

Original application filed June 11, 1909, Serial No. 501,505. Divided and this application filed November 26, 1909. Serial No. 529,847.

To all whom it may concern:

Be it known that I, ADOLPH F. RIETZEL, a citizen of the United States, and a resident of Charlestown, in the county of Washington and State of Rhode Island, have invented certain new and useful Improvements in Reels, of which the following is a specification.

My present invention relates to the construction of reels for holding barbed or other wire or for other purposes and more particularly relates to reels made up entirely of metal.

The object of my invention is to provide a metal reel for holding and shipping barbed or other wire which will be stronger, cheaper and lighter in weight than the skeleton reels heretofore commonly employed and which will also be proof against fire and capable of rough handling and heavy loading without collapse.

The invention consists in the novel construction of metal reel and parts hereinafter more particularly described and then specified in the claims.

In the accompanying drawings, Figure 1 is a plan of a completed reel constructed in accordance with my invention. Fig. 2 is an end elevation of the same. Fig. 3 is a section taken on the line XX Fig. 2 and shows the bars forming the reel body before being welded to the arms.

The body portion of the reel upon which the wire is wound preferably consists of a number of rods of any desired cross-section and disposed parallel with each other about the axis of the reel, the ends thereof being firmly secured to the arms of the reel in any desired manner.

The arms are constructed of metal strips provided with ridges or flanges which by preference take the shape of channel-shaped iron or steel 10. The strips of ridged metal 10 are placed to intersect each other at or about the axis of the reel with the ridges or flanges of one bearing against the ridges or flanges of the other and in this position are welded to each other. The points of intersection of the flanges form points of localized area, at which points the arms 10 are welded to each other by passing an electric current from one to the other and simultaneously applying pressure as will be readily understood by those skilled in the electric

metal working art. The said welded portions are indicated at 11, the flanges of one strip biting to a greater or less extent into the flanges of the other due to the softening of the metal and the application of pressure in welding. By this construction a very strong union between the arms is attained, each strip being welded to the other at four separated points around the axis of the reel. The plates or arms 10 are also provided with an opening 12 through the base of each channel where the two intersect each other. These openings are brought into alinement with each other and provide for the insertion of the usual supporting spindle commonly employed to sustain the reel when winding or unwinding the wire therefrom. By the employment of channeled arms as described a comparatively long bearing is provided for the spindle at each end of the reel owing to the spacing apart of the openings 12, due to the depth of the channels and the reel will more readily turn on the spindle without undue wear and friction.

The rods or bars forming the body of the reel are firmly secured to the arms 10 in any desired manner, but are preferably welded thereto. This may conveniently be accomplished by tapering the ends of the rods 6 and providing holes in the base of the channel iron arms 10 in which holes the tapered end of the rods 6 seat. The welding may be effected by passing an electric current through the arms 10 and rods 6 at the points of contact, the tapered ends of the rods being forced into the holes in the base of the channel on the softening of the metal and application of pressure and become welded therein in a manner well understood by those skilled in the art.

The arms are preferably composed of channel iron or steel on account of the convenience with which these can be formed or obtained, but it will be understood that other strips might be employed wherein ridges or flanges are provided for readily welding the arms to each other. The term channel iron or channel shaped is herein used to include any strip of metal provided with suitable ridges or flanges projecting therefrom, and by which the crossing arms may be electrically welded to one another at a number of points around the axis of the reel.

My present application constitutes a division of my prior application filed June 11, 1909, Serial No. 501,505.

What I claim as my invention is:

- 5 1. In a metal reel, reel arms comprising channel-shaped strips of metal crossing each other with their flanges in contact and welded to each other by said flanges, said strips being each provided with an opening
10 and said openings arranged in alinement with each other but spaced apart to form a bearing for a supporting spindle and a reel body secured to said arms.
- 15 2. In a metal reel, reel arms consisting of ridged metal strips intersecting each other with their ridges in contact and welded to each other by said ridges at a number of points around the axis of the reel and a reel body secured to said arms.
- 20 3. In a metal reel, reel arms consisting of channel-shaped strips intersecting each

other with their flanges in contact and welded to each other by said flanges and a reel body comprising rods or bars welded to said arms at points removed from the intersection. 25

4. In a metal reel, reel arms consisting of metal strips provided with ridges intersecting each other with their ridges in contact and welded to each other by said ridges at a
30 number of points around the axis of the reel and a reel body comprising rods or bars welded at their ends to said arms whereby an integral structure is obtained.

Signed at Lynn in the county of Essex 35
and State of Mass. this 23rd day of Nov.
A. D. 1909.

ADOLPH F. RIETZEL.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."