

No. 859,849.

PATENTED JULY 9, 1907.

P. D. SKAHEN.

PULLEY.

APPLICATION FILED DEC. 11, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

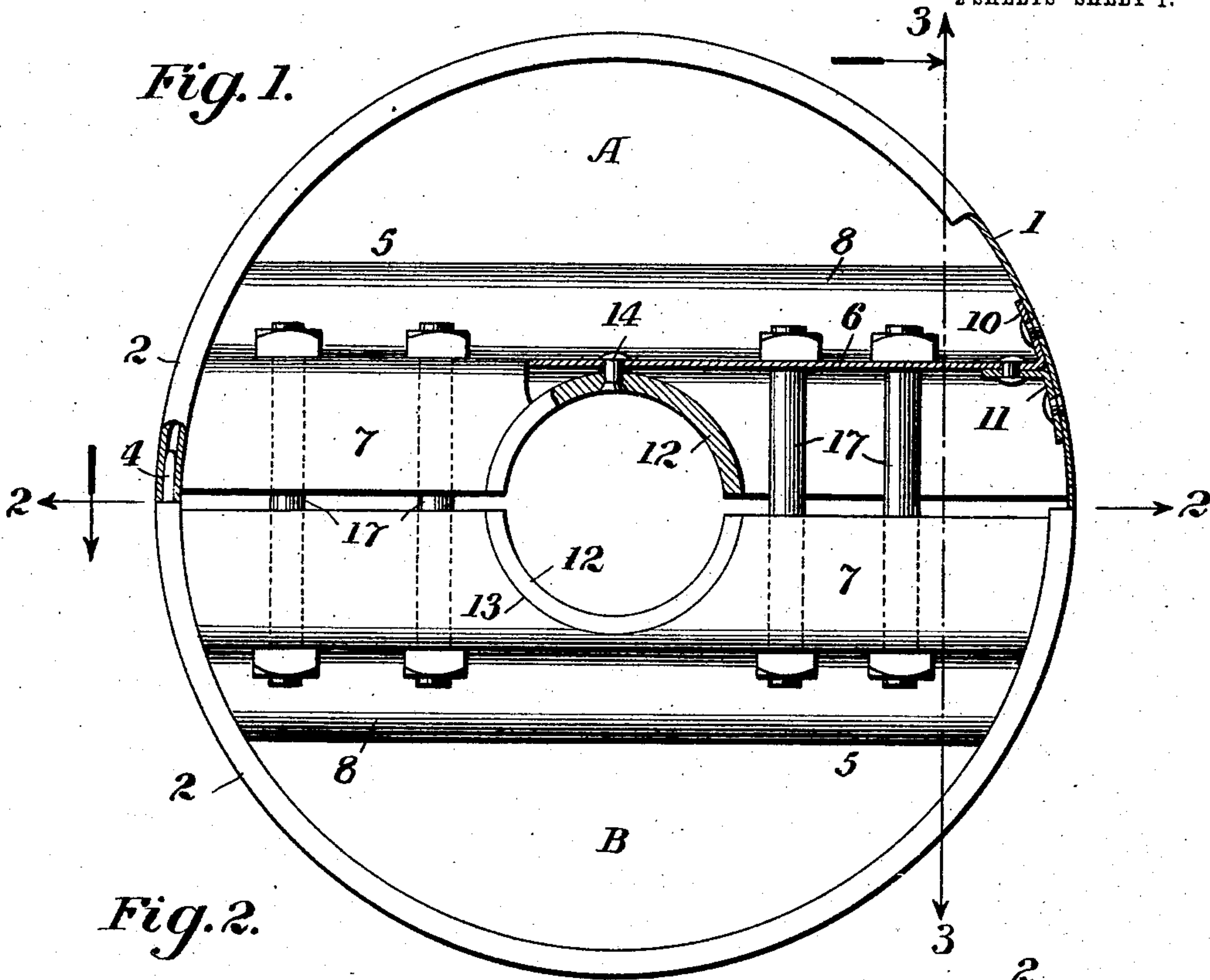
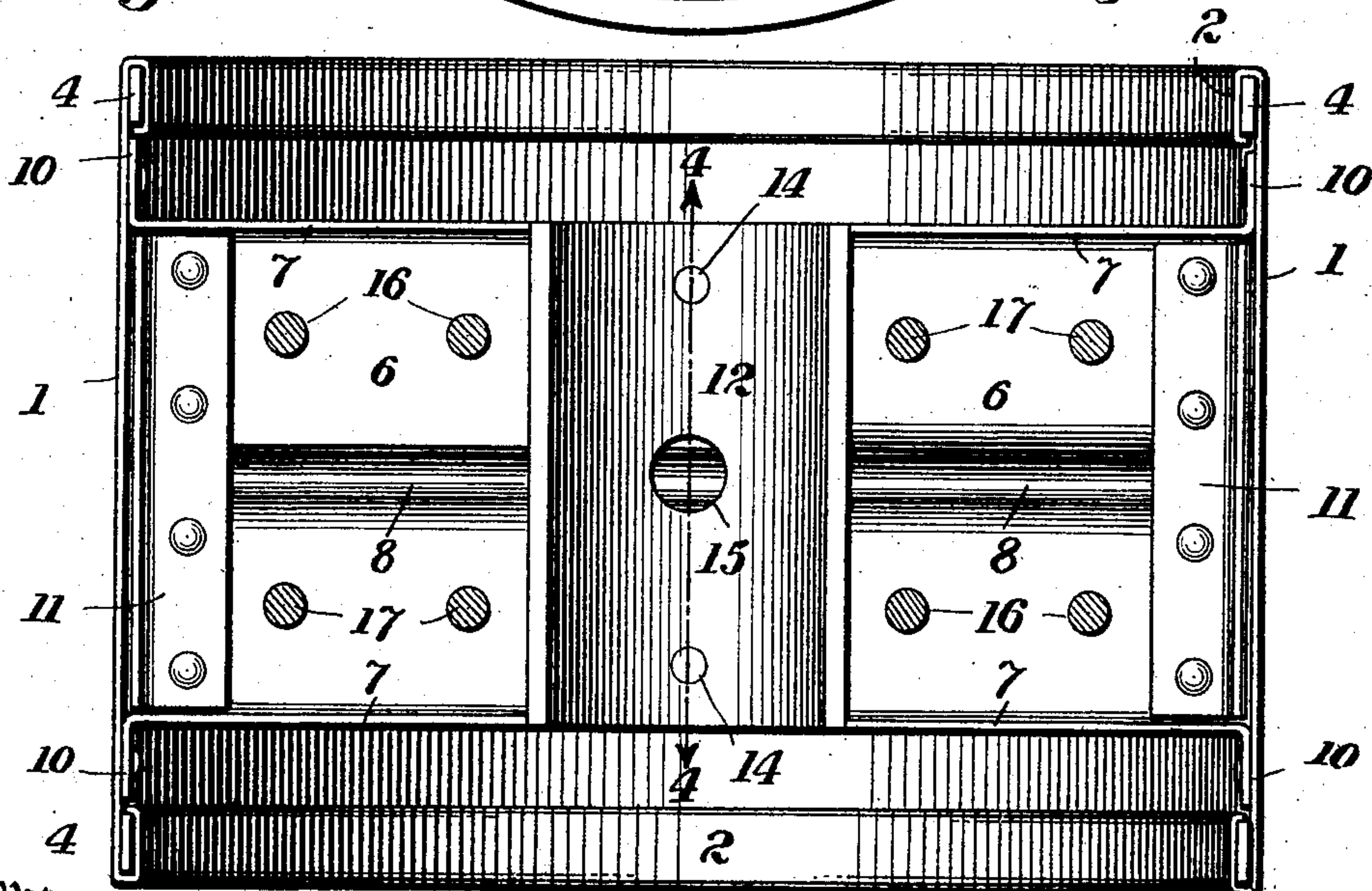


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

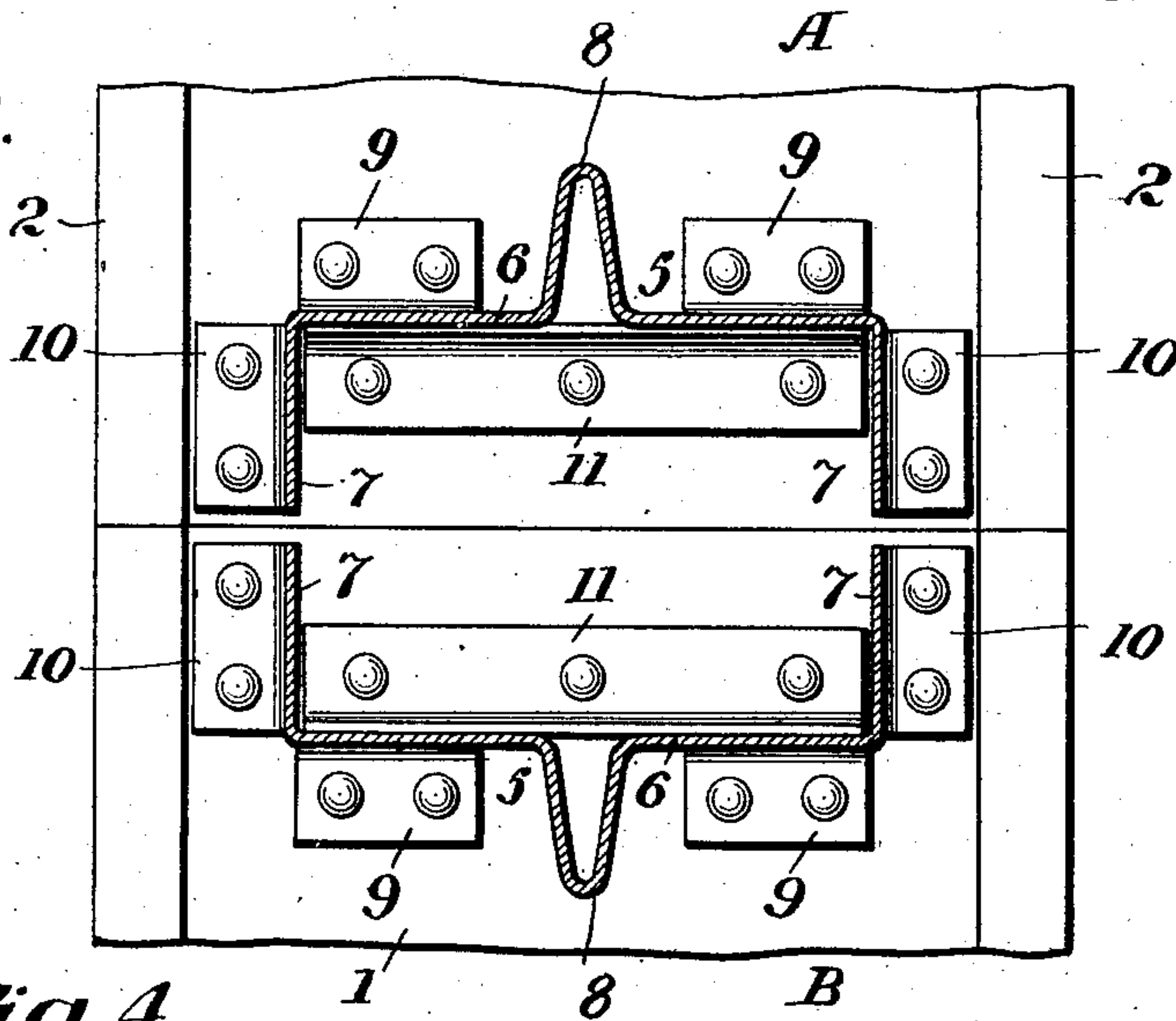


Fig. 4.

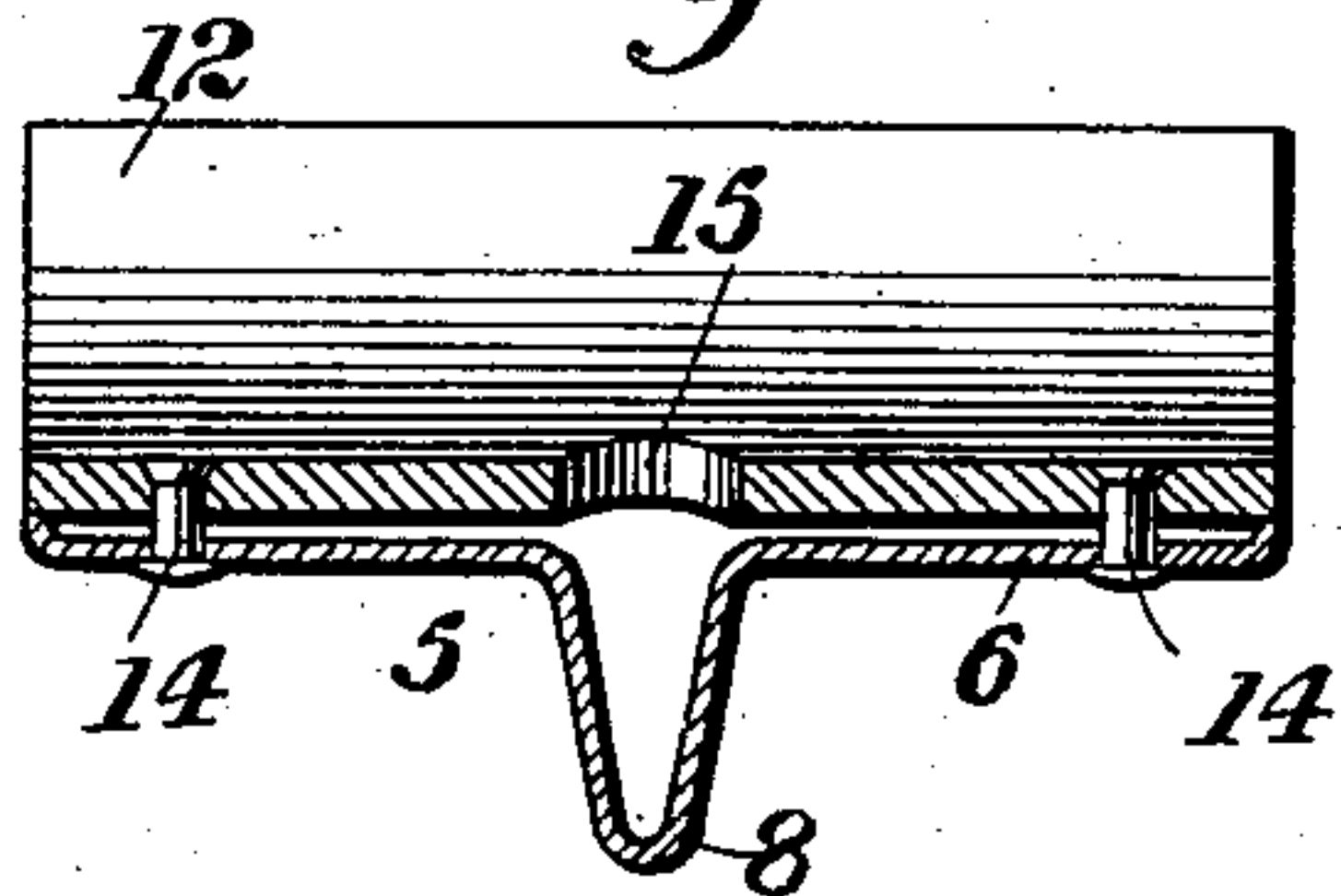


Fig. 5.

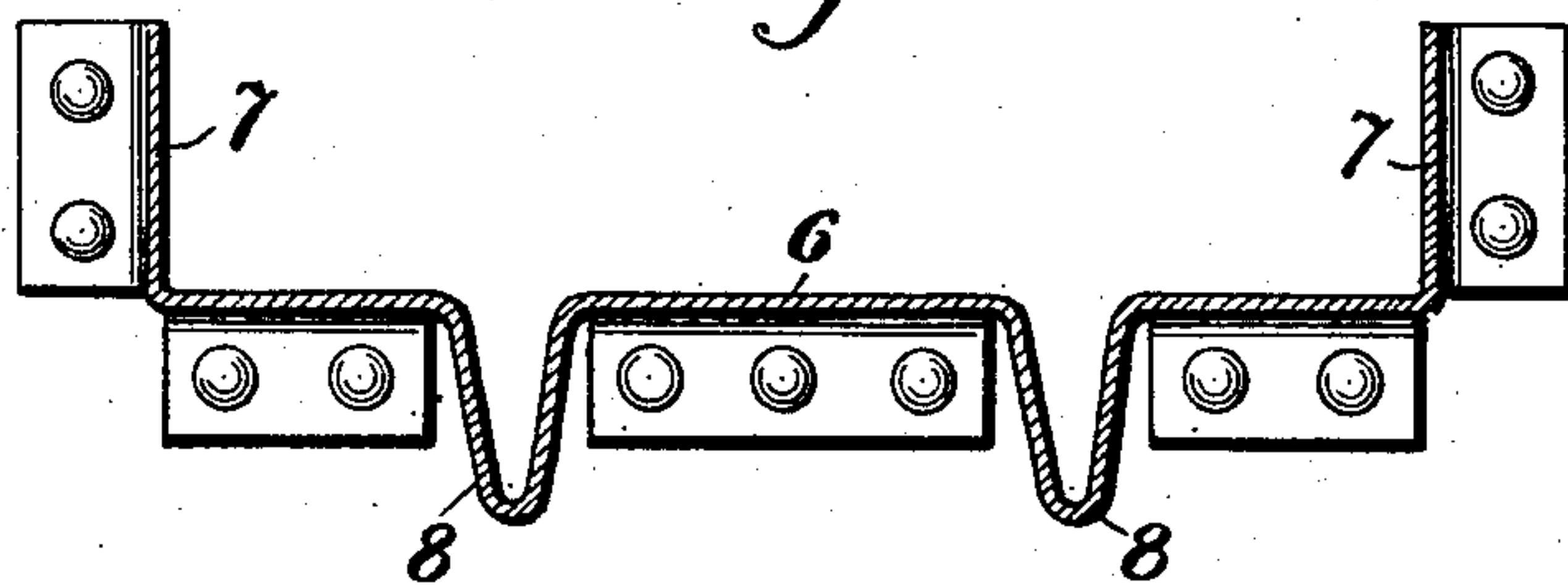


Fig. 6.

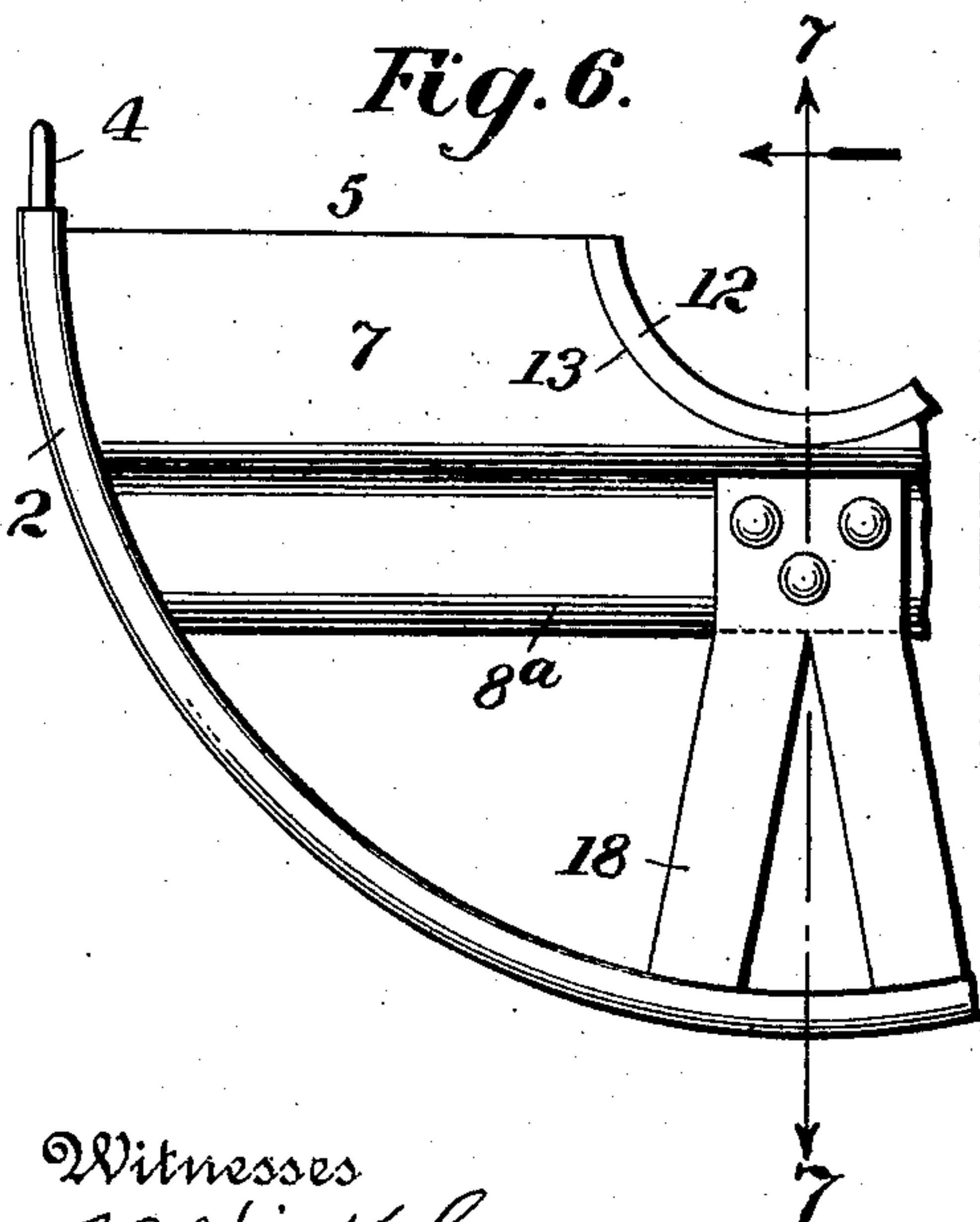
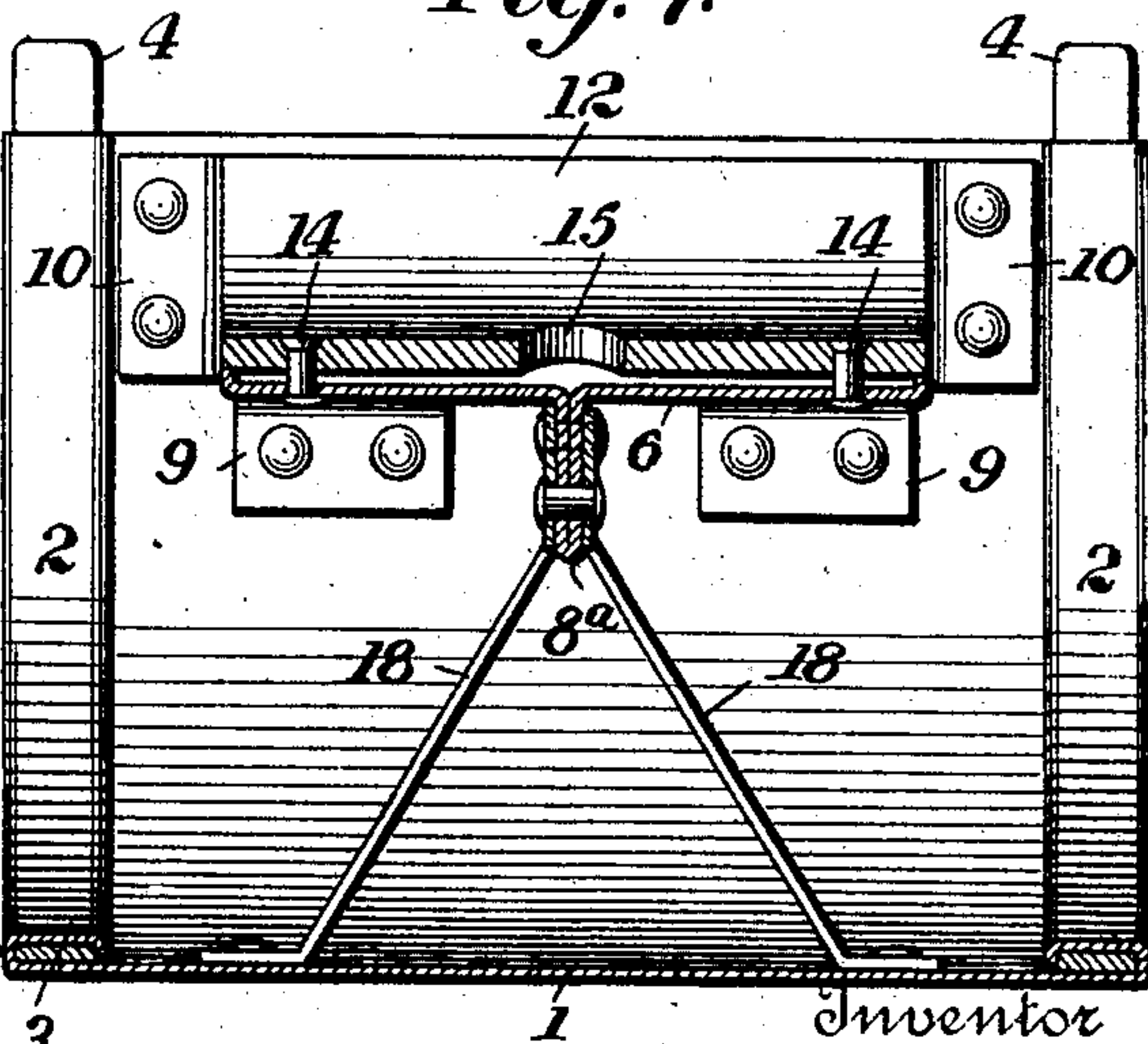


Fig. 7.



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UNITED STATES PATENT OFFICE.

PATRICK D. SKAHEN, OF SYRACUSE, NEW YORK.

PULLEY.

No. 859,849.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed December 11, 1906. Serial No. 347,323.

To all whom it may concern:

Be it known that I, PATRICK D. SKAHEN, a citizen of the United States, and a resident of Syracuse, Onondaga county, State of New York, have invented certain new and useful Improvements in Pulleys, of which the following is a specification.

This invention relates to metal pulleys and especially to a pulley constructed of sheet metal parts properly stamped or pressed into shape and suitably connected together.

The invention will be described in connection with the accompanying drawing, in which,

Figure 1 is a side elevation of a pulley embodying the invention, parts being broken away to show the interior construction; Fig. 2 is a plan view of one-half of the pulley shown in Fig. 1; Fig. 3 is a sectional view on the line 3—3 of Fig. 1; Fig. 4 is a section on the line 4—4 of Fig. 2; Fig. 5 is a view similar to part of Fig. 3 but showing a construction of spoke used for a wider pulley; Fig. 6 illustrates in side view an additional spoke or brace which is sometimes used; and Fig. 7 is a section on the line 7—7 of Fig. 6.

Referring to the drawing, A, B, indicate the two halves of the sectional or split pulley. These two halves are identical in construction except that they have interlocking parts at the meeting edges of the rim, as will be hereinafter explained. Each pulley section comprises a semi-cylindrical rim of sheet metal having its curved edges turned to form a stiffening rib or bead 2, which ribs preferably inclose curved rods 3. These rods may be flat, round or square in cross section, depending upon the size of the pulley and the amount of strength required in its construction. For pulleys of moderate size, the flat bars shown in the drawing are preferable, as the flat bead or rib which incloses them can be more readily constructed. At the meeting edges of the rim, the rods 3 are prolonged on one side and shortened on the other, the prolonged portions or tongues 4 being adapted to enter the opposite open ends of the bead 2, as shown in Fig. 1. The meeting edges of the rim sections are thus made to register exactly and prevented from relative movement when the pulley is assembled.

Each pulley section is provided with a spoke section 5 connecting its ends. The spoke sections of the two halves of the pulley are thus parallel when the pulley is assembled, the inner edges of the spoke sections being substantially radial to the center of the pulley. Each spoke section is in the nature of a channel-bar having a bottom plate or web 6 and two side flanges 7. The web 6 is stiffened and reinforced by ribs 8 which are preferably V-shaped and formed by folding the metal, as shown in the several views of the drawing. In a very narrow pulley, the V-shaped rib might be omitted and

in wide pulleys a plurality of these ribs might be used, as shown in Fig. 5. In the smaller sizes of pulleys a single rib is sufficient, as shown in Fig. 4. The ends of the spoke sections are preferably provided with integral lugs 9 connected with the web 6 upon opposite sides of the rib 8, and with integral lugs 10 connected with the flange members 7. These lugs 9 and 10 are adapted to fit closely to the rim 1 of the pulley and are securely connected to the rim by rivets, thus rigidly connecting the spoke sections with the rim. As a further means of connecting the spoke sections with the rim angular sheet metal brackets 11, are used at each end of each spoke section, these brackets being riveted to the spoke sections and to the rim, as shown in Figs. 1, 2 and 3.

Two semi-cylindrical hub sections 12 are used, one being connected to each pulley section. These hub sections are seated in semi-circular openings 13 in the webs 7 and are held securely in their seats by suitable means, such as rivets 14. These hub sections are provided with suitable openings 15 to receive projections on bushings and prevent relative rotation of the bushings and the hub. No bushings are shown as they do not form a part of the present invention.

The webs 6 of the spokes are provided at suitable points with openings 16 to receive bolts 17 for connecting the two pulley sections together, as shown in Fig. 1. In Figs. 6 and 7 the metal parts forming the ribs 8^a are brought close together and braces 18 are connected with the metal of the web 8^a and with the rim. These braces 18 are preferably inclined away from each other and tend to stiffen the entire construction. They may be omitted in the smaller sizes of pulleys but are useful in the larger sizes.

It will be seen that the above described pulley is strong, durable and cheap to construct. Each half is practically a single rigid piece when completed. The various parts are simple in form and easy to manufacture.

It will be seen that the spokes above described form rigid trusses connecting the hub with the rim. The flanges 7 support the hub throughout its periphery and the ends of the spokes are shaped to conform to the curvature of the rim and thereby tend to support and stiffen the rim.

Having described my invention what I claim and desire to secure by Letters Patent is,

1. A sheet metal pulley consisting of two semi-circular sections, each section comprising a semi-cylindrical rim and a single spoke connecting the two ends of the rim, each spoke comprising a web and two side flanges, and a semi-cylindrical hub seated in the side flanges and connected to the spoke.

2. A sheet metal pulley consisting of two semi-circular sections, each section comprising a semi-cylindrical rim and a single spoke connecting the two ends of the rim,

each spoke comprising a web and two side flanges provided at their ends with integral lugs connected with the rim, the side flanges having semi-circular openings to receive a hub section, and the hub section seated in the flanges of each spoke.

3. A sheet metal pulley consisting of two semi-circular sections, each section comprising a semi-cylindrical rim and a single spoke connecting the two ends of the rim, each spoke comprising a web portion having openings for connecting bolts and one or more longitudinal ribs formed therein, side flanges having openings to receive hub sections, and lugs for connecting with the rim.

4. A sheet metal pulley consisting of two semi-circular sections, each section comprising a semi-cylindrical rim having a head or rib formed at each lateral edge thereof and provided with means for interlocking the meeting edges of the rim sections, and each pulley section being provided with a single sheet metal spoke section connect-

ing the ends of the rim section, each spoke section comprising a web and side flanges, hub sections seated at their ends in said side flanges, and suitable means for connecting the pulley sections together.

5. A sheet metal pulley consisting of two semi-circular sections, each section comprising a semi-cylindrical rim and a single spoke connecting the two ends of the rim, each spoke section comprising a web provided with a stiffening rib, and side flanges, a brace connecting an intermediate portion of the rib with the pulley rim, and a hub section suitably seated in the spoke.

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

PATRICK D. SKAHEN.

Witnesses:

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