No. 863,391. PATENTED AUG. 13, 1907.

H. T. HALLOWELL.

PULLEY.

APPLICATION FILED OCT. 13, 1902.

Fig. 1.

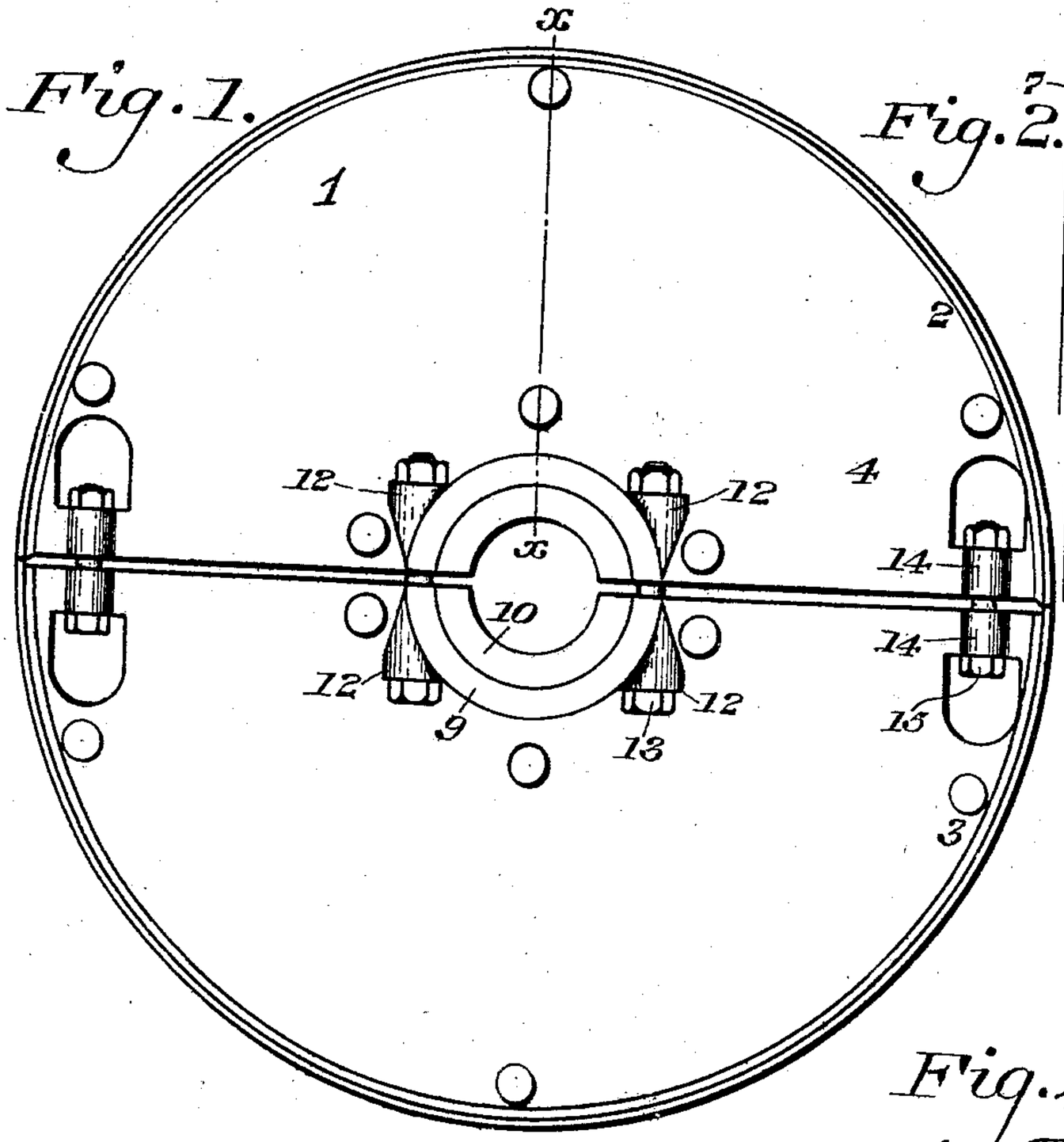


Fig. 2.

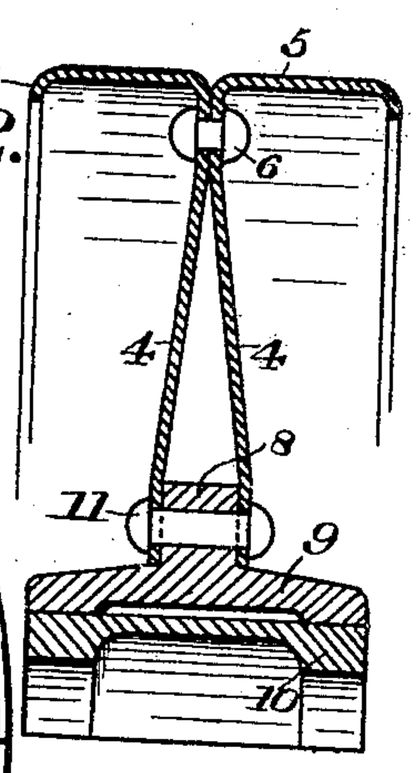


Fig. 4.

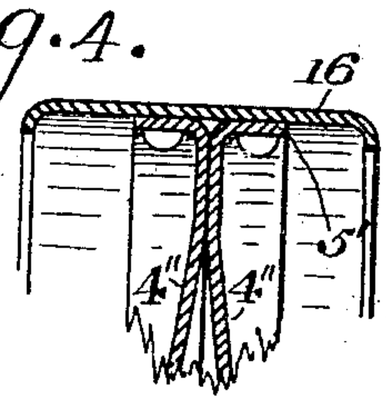
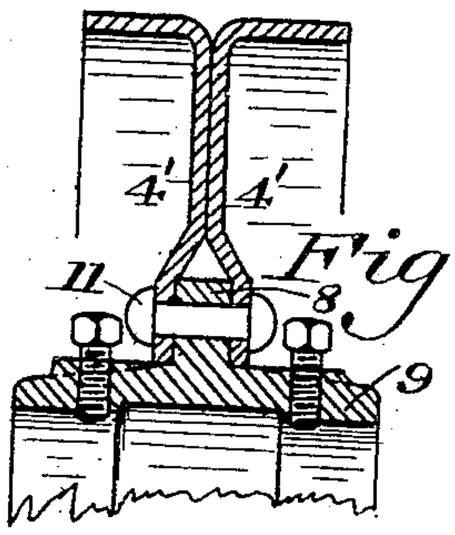


Fig. 3.



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UNITED STATES PATENT OFFICE.

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PULLEY.

No. 863,391. Specification of Letters Patent. Patented Aug. 13, 1907.

Original application filed May 22, 1902, Serial No. 108,468. Divided and this application filed October 13, 1902. Serial No. 126,972.

To all whom it may concern:

Be it known that I, HOWARD T. HALLOWELL, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Pulley, of which the following is a specification.

My invention consists of an improvement in pulleys wherein I provide a strong and durable construction and one which is easily and cheaply manufactured.

The parts herein shown and described are shown but not claimed in my application for patent Serial No. 108,468, filed May 22, 1902.

It further consists of novel features of construction, all as will be hereinafter fully set forth.

Figure 1 is a side elevation of a pulley embodying my invention. Fig. 2 represents a sectional view of a portion of the pulley on line *x*—*x* Fig. 1. Fig. 3 represents a sectional view of a portion of a pulley similar to that shown in Fig. 2, with slight changes therein. Fig. 4 represents a sectional view of a portion of a pulley showing how the web sections are secured to the rim,

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates a split pulley consisting of the sections 2 and 3, and as the formations of the same are substantially similar, a description of one is deemed sufficient. The half shown at 3 is formed with a reinforced rim.

4 designates the web sections which are bent or flanged to form the rim or bearing surface 5, said webs being secured together adjacent the rim, by the bolts 6, the edges of said rim being deflected from the plane of the rim as seen in Fig. 2. The inner ends of said web sections are secured to a lug or extension 8 which preferably passes between said section and is integral with or forms part of the hub 9 which is formed of any suitable material, in the interior of which is fitted the bushing 10, it being noted that the web sections are secured to the hub by the bolts or pins 11.

In Fig. 3 I have shown a construction similar to that already described, excepting that the web sections 4′ are brought close together directly above the lugs 8 and that the edges of the rim are straight.

It will be evident that the construction already described is applicable to a split pulley or a solid pulley. If the pulley is a split pulley, I employ the lugs 12 which may be secured to each section of the pulley, or may be struck up integral from the hub rim 9, said lugs 12 being adapted to receive suitable bolts and nuts 13 for locking the sections together. For larger pulleys, I may strike up the clips 14 through which I may pass the bolts and nuts 15 for locking the edges of the sections together.

When it is desired to have an increased bearing surface in either the initial construction or alteration of a pulley of the type shown in Figs. 1 to 3, I may secure to the flanges 5′, as shown in Fig. 4, a band or strip 16 of general cylindrical form and of suitable width. The oppositely extending cylindrical flanges 5′ may then be of narrower width than the belt. It will be evident that the flanges 5′ on the web, as shown in Fig. 4, correspond in form to the rim portions 5 seen in Fig. 2 except that the pulley face formed is continuous instead of slightly interrupted at the center and that the construction of Fig. 4 makes use of pan-shaped webbed portions having cylindrical flanges of the same form as shown in Figs. 1 and 2, which flanges may be of the same width also, if desired. The cylindrical flange 5′ forms the extremity of the webbed portion 4″ and is located at the rim. When this is the portion upon which the belt runs, that is, when the construction corresponds to Fig. 2, the outer flange or rim portion being the bearing face for the belt, this outer flange is a "rim portion." When it becomes desirable to widen the face of the belt after use of the pulley by putting on such a belt bearing face as 16, the flange 5 which was a rim portion does not cease to be such and it is still a rim portion even if the auxiliary belt bearing face 16 is put on during the manufacture of the pulley as it is a portion at the rim.

It will be evident from the above construction described that the pulley thus formed is of a strong and durable nature.

Claims.

1. A pulley formed of semi-circular pan-shaped sections, said sections forming the web and rim portions of the pulley, with the webs of the two sections in close parallel relation with each other adjacent the rim, means for securing said sections laterally with respect to each other, a hub, and means for securing said sections with respect to said hub.

2. A pulley formed of semi-circular pan-shaped sections, said sections forming the web and rim portions of the pulley with the webs of the two sections in close parallel relation with each other adjacent the rim, means for securing said sections laterally with respect to each other, a hub having a projection thereon adapted to be seated between said sections, and means for securing said sections with respect to said hub.

3. A pulley formed of semi-circular pan-shaped sections, said sections forming the web and rim portions of the pulley with the webs of the two sections in close parallel relation with each other adjacent the rim, means for securing said sections laterally with respect to each other, a hub, and means for securing the sections together at a plurality of points in proximity to said hub.

4. A pulley formed of semi-circular pan-shaped sections, said sections forming the web and rim portions of the pulley with the webs of the two sections in close parallel relation with each other adjacent the rim, means for securing said sections laterally with respect to each other, a hub, means for securing said sections with respect to said hub, and means engaging the sections for securing the sections together.

5. A pulley formed of semi-circular pan-shaped sections, said sections forming the web and rim portions of the pulley with the webs of the two sections in close parallel relation adjacent the rim, means for securing said sections laterally with respect to each other, a hub, a projection on said hub extending between the said sections, means for securing said sections with respect to said hub against transverse separation, clips adjacent the rim engaging with the last mentioned means for locking the sections together and means engaging said lugs.

6. A pulley comprising a plurality of mating segmental sections having axially extending flanges a hub secured thereto between sections having oppositely extending flanges, means for uniting adjoining sections axially and means for uniting said sections transversely.

7. A pulley comprising opposite annular sectorial sections having axially extending curved flanges, a hub secured thereto between the sections, means for uniting the sections axially and means for uniting said sections transversely.

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