No. 772,739. PATENTED OCT. 18, 1904.

G. F. McLYNN.

SPLIT PULLEY.

APPLICATION FILED JUNE 1, 1904.

NO MODEL.

Fig 1

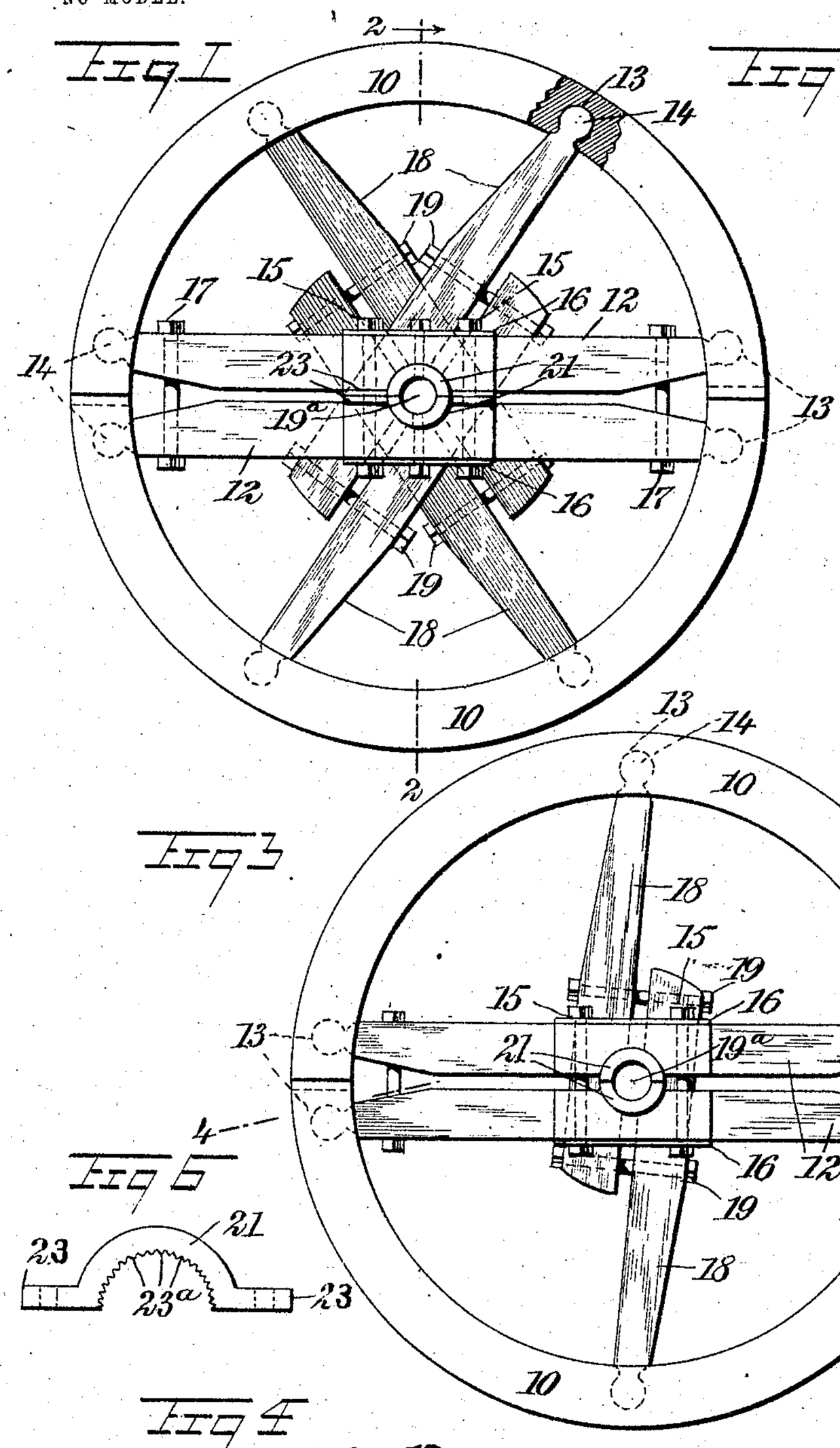

Fig 2

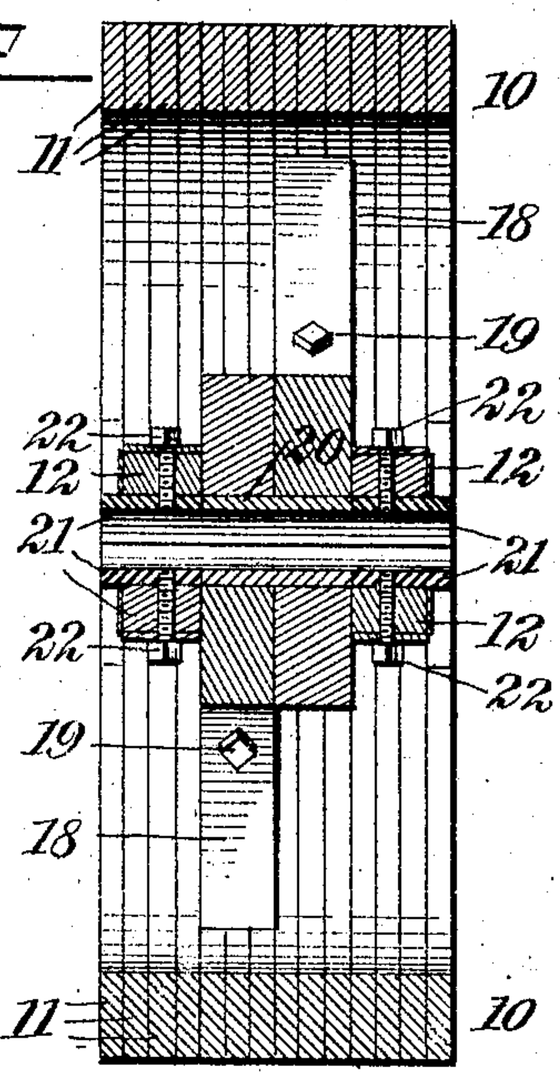

Fig 3

Fig 4

Fig 5

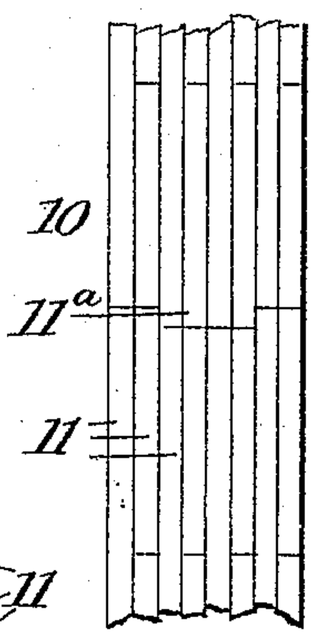

Fig 6

WITNESSES:

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No. 772,739. Patented October 18, 1904.

UNITED STATES PATENT OFFICE.

GEORGE F. McLYNN, OF COTTAGEGROVE, OREGON.

SPLIT PULLEY.

SPECIFICATION forming part of Letters Patent No. 772,739, dated October 18, 1904.

Application filed June 1, 1904. Serial No. 210,667. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. McLYNN, a citizen of the United States, and a resident of Cottagegrove, in the county of Lane and State of Oregon, have invented a new and Improved Split Pulley, of which the following is a full, clear, and exact description.

My invention relates to split pulleys, and has for its principal objects the provision of a strong and efficient device of this class.

It consists in the various features hereinafter described and more particularly claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of one embodiment of my invention, parts being broken away. Fig. 2 is a section therethrough on the line 2 2 of Fig. 1. Fig. 3 is a side elevation of another form of my invention adapted for lighter work than that shown in the previous figures. Fig. 4 is a section therethrough on the line 4 4 of Fig. 3. Fig. 5 is a detail in elevation, showing the juncture between the adjacent ends of the pulley-sections; and Fig. 6 shows in enlarged side elevation another form of bushing-section than that illustrated in the previous figures.

The numerals 10 10 designate rim-sections of a pulley, these being here shown as two in number and preferably formed of wood, they being made up of successive layers 11. The adjacent ends of the sections may be mortised and tenoned at 11ª, furnishing an interlock to maintain them in their true relation. The ends of the sections are connected by arms 12, there being one of these arms situated at each side of the rim. They are preferably secured to the sections at their opposite ends in recesses 13, which, as illustrated, extend but a portion of the distance through the rim and are located in one or more of the inner layers. In the present instance two of these layers are cut away for this purpose. These recesses or mortises are preferably dovetailed and, as shown, have their walls curved to receive reduced curved ends 14 upon the arms. The sections are secured together by bolts 15, passing through the arms at each side of the center, there preferably being a protecting-plate 16 interposed between their heads and nuts and the outer faces of the arms, and by bolts 17, extending through the ends of the arms near the rim. Between these arms 12 are pairs of arms 18, which at their outer ends engage recesses 13 similar to those previously described. These last-named arms extend by the center of the companion arms, but terminate short of the other section. They may be secured together by bolts 19. In Figs. 1 and 2 two pairs of these intermediate arms are shown separated by angles of substantially sixty degrees; but their number may be varied according to the work which the pulley is to do and its consequent width. Each of the arms is grooved at 19ª, said grooves uniting to form an axial opening to receive the shaft upon which the pulley is to be supported. In this opening or bore a bushing 20 may be inserted to adapt the pulley to the diameter of the shaft to which it is to be applied. This bushing may be conveniently of wood and, as shown, is formed in sections and includes bushing-sections 21, of metal, in which are set-screws 22 to positively secure the pulley to the shaft when its duty is heavy. The set-screws operate through openings in the arms. Their rotation with the pulley is insured by flanges 23, which extend between the pair of arms within which it is situated and being connected therewith by the bolts 15, which pass through openings registering with the openings in the arms. Instead of depending upon a set-screw to maintain coaction between the sections 21 and the shaft they may be milled to furnish internal teeth 23ª, as is particularly illustrated in Fig. 6 of the drawings, which teeth will grip the shaft, or both set-screw and teeth may be employed.

In Figs. 3 and 4 of the drawings a pulley for lighter work is shown, the face being narrower, and but a single pair of intermediate arms is provided, the connection of these with the rim being at points equidistant from the ends of the arms 12.

In the manufacture of the pulley the arms are assembled when the layers of the rim-sections are built up, my improved method

of attachment giving a maximum strength of connection, while weakening the rim but little. The arms 12, joining the ends of the sections, hold the pulley in its true shape.

In use the sections are placed about the shaft in the usual manner, with a bushing of proper size interposed, and then clamped upon it by the bolts, a sectional bushing such as I have described being used, if desired, to secure the proper engagement. When thus fixed in place, it will be seen that the strain upon all parts of the rim is communicated directly to the shaft and that at the places where the structure is weakest, this being at the juncture of the sections, a double support is given.

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

1. A pulley comprising a rim formed in sections, pairs of arms connecting the ends of the sections at each side thereof, a pair of arms situated between the connecting-arms, each arm of this intermediate pair being connected at one end to one of the sections and at the other end to its companion arm, and means for drawing each pair of arms toward one another about the shaft.

2. A pulley comprising a rim formed in sections which are provided with recesses upon the inner side extending but a portion of the distance through the rim, pairs of arms connecting the ends of the sections at one side thereof and having their ends coacting with the recesses, a pair of arms situated between the connecting-arms, each arm of this intermediate pair having one end coacting with a recess and the other end with its companion arm, and means for drawing each pair of arms toward one another about the shaft.

3. A pulley comprising a rim formed in sections, pairs of arms connecting the ends of the sections at each side thereof, a pair of arms situated between the connecting-arms, each arm of the latter pair being connected at one end to the sections, means for joining the arms of each pair, a sectional bushing mounted at the center of the arms, one of the sections of said bushing having flanges extending between a pair of arms, and a set-screw operating through this section and through an arm.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE F. McLYNN.

Witnesses:
J. S. BENSON,
J. H. CHAMBERS.