(No Model.)

# A. J. WILLIAMS.

## SPLIT PULLEY.

No. 539,160. Patented May 14, 1895.

Fig. 1

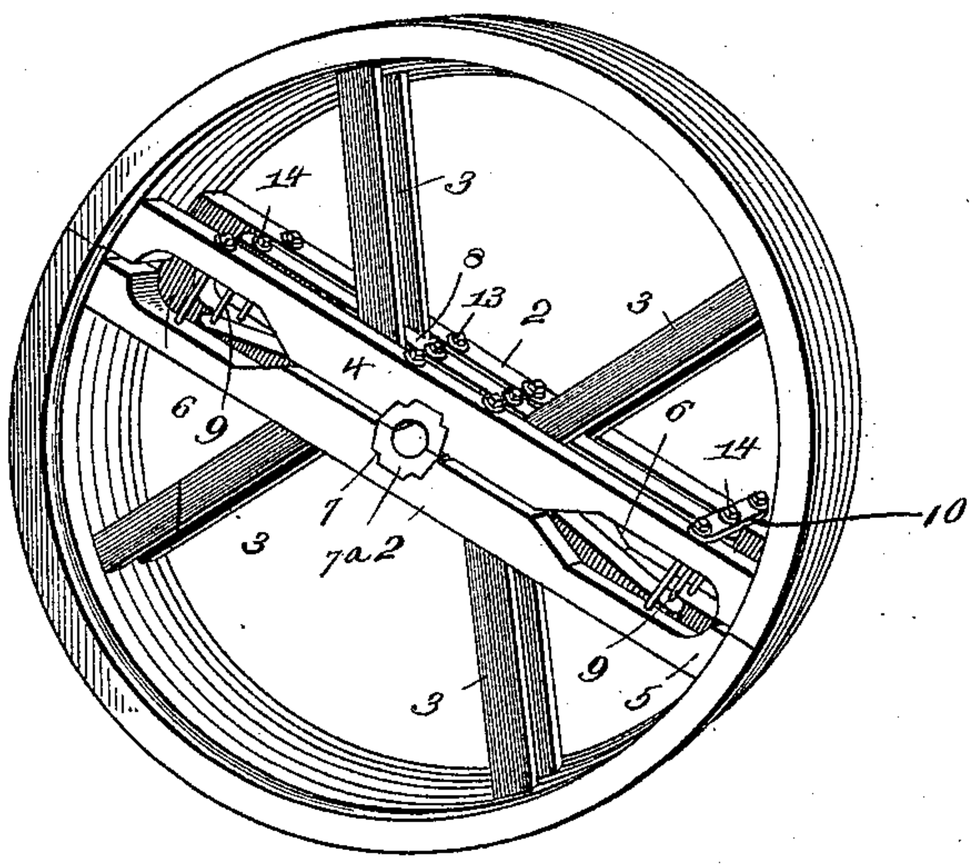



Fig. 2.

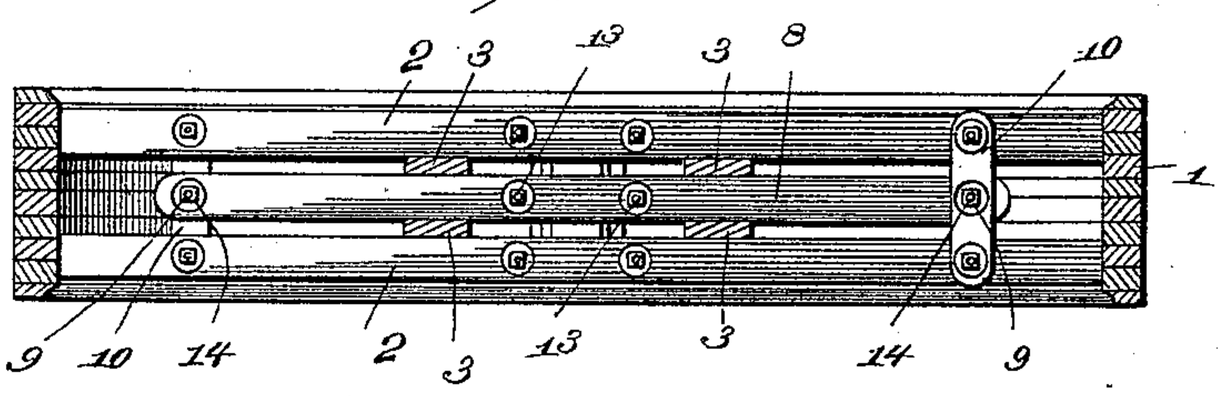
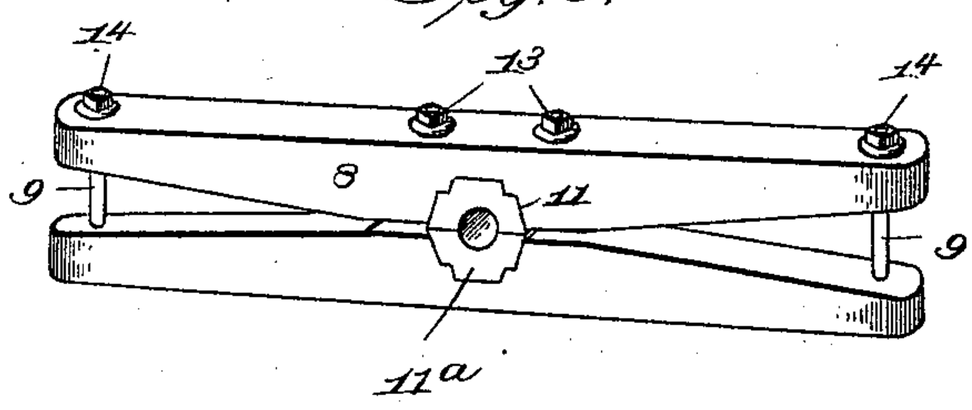



Fig. 3.




Witnesses
John C. Shaw.
T. F. Riley

Inventor
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By his Attorneys.
C. A. Snow & Co.

# UNITED STATES PATENT OFFICE.

ALBERT J. WILLIAMS, OF FULTON, NEW YORK, ASSIGNOR TO THE EMPIRE STATE PULLEY AND PRESS COMPANY, OF SAME PLACE.

## SPLIT PULLEY.

SPECIFICATION forming part of Letters Patent No. 539,160, dated May 14, 1895.

Application filed February 21, 1895. Serial No. 539,258. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT J. WILLIAMS, a citizen of the United States, residing at Fulton, in the county of Oswego and State of New York, have invented a new and useful Split Pulley, of which the following is a specification.

The invention relates to improvements in split pulleys.

The object of the present invention is to improve the construction of split pulleys, and to provide one which will possess great strength and durability, and which may be firmly clamped on a shaft, and which, at the same time, will be light, and open between the hub and the rim to prevent wind resistance as much as possible.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a pulley constructed in accordance with this invention. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a detail view of the clamping-bars.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a rim, composed of two semicircular sections, and each section is connected at its ends with a pair of transverse bars 2, and is supported by arms or spokes 3 extending radially from the center of the pulley, and secured to the bars 2 and to the rim. The bars 2 are arranged adjacent to the edges of the rim, and are provided with central and end enlargements 4 and 5, and form intermediate openings 6, and the central enlargements 4 are provided with recesses 7, for the reception of bearing blocks or bushings $7^a$.

A pair of clamping bars or levers 8 are arranged in the space between the pairs of transverse bars 2, and have their ends connected by bolts 9, which serve also for connecting the ends of the clamping bars or levers 8 to a pair of cross-bars 10. The cross-bars 10 are located near the terminals of the transverse bars 2, to which they are bolted, and are disposed near opposite sides of the pulley and located at the opposite outer edges of the transverse bars. One cross-bar 10 is arranged at one end of one of the clamping bars or levers 8, and the other cross-bar is connected to the farther end of the other clamping bar or lever 8. The clamping bars or levers 8 are substantially triangular in longitudinal section, and taper from the center to the ends, and are provided at their apexes, which are disposed toward each other, with bearing recesses 11, and carry a suitable sectional bushing $11^a$, and the recesses of the clamping bars or levers are arranged in alignment with those of the transverse bars.

The clamping bars or levers are connected adjacent to the bearing recesses by bolts 13, but by means of suitable nuts 14 of the bolts 9, the ends of the clamping bars or levers may be drawn together, thereby creating great pressure on the shaft, and enabling the split pulley to be firmly clamped thereon. The transverse bars 2 also carry the sectional bushings $7^a$ for the reception of the shaft, to which the pulley is clamped.

It will be seen that the split pulley is simple, inexpensive, strong and durable, that it is light, and may be clamped on a shaft with the desired pressure, and that it is open between the hub and the rim, to avoid wind resistance.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

1. In a split pulley, the combination of a rim composed of sections, transverse bars arranged in pairs and connecting the ends of the sections of the rim, the clamping bars or levers provided with bearing blocks or bushings, and located in the space between the transverse bars, and having their terminals connected with said bars, and adjusting devices connecting the terminals of the clamping bars or levers, substantially as described.

2. In a split pulley, the combination of a rim composed of sections, transverse bars arranged in pairs and connected to the sections,

spokes extending from the bars to the rim, the tapering clamping bars or levers provided with central bearing blocks or bushings, the pair of cross-bars arranged at opposite sides of the pulley and located at the outer edges of the transverse bars at the adjacent ends of the clamping bars or levers, and bolts connecting the terminals of the clamping bars or levers with the cross-bars, substantially as described.

3. In a split pulley, the combination of a rim, two sets of transverse bars arranged in pairs and connecting the rim and provided with bearing blocks or bushings, and the clamping bars or levers located in the space between the two sets of transverse bars and adjustably connected with the same, and provided with central bearing blocks or bushings arranged in alignment with those of the transverse bars, substantially as described.

4. In a split pulley, the combination of a rim, composed of sections, and the clamping bars or levers connected with the rim and provided with central bearing blocks or bushings to receive a shaft, and tapering from the blocks or bushings to their ends, the ends of the clamping bars or levers being free and adjustably connected, whereby the pulley is firmly clamped on a shaft, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ALBERT J. WILLIAMS.

Witnesses:

EMMA J. COATES,

ARVIN RICE.