No. 803,605. PATENTED NOV. 7, 1905.

L. S. LACHMAN.

PULLEY.

APPLICATION FILED APR. 28, 1904.

2 SHEETS—SHEET 1

Fig. 3.

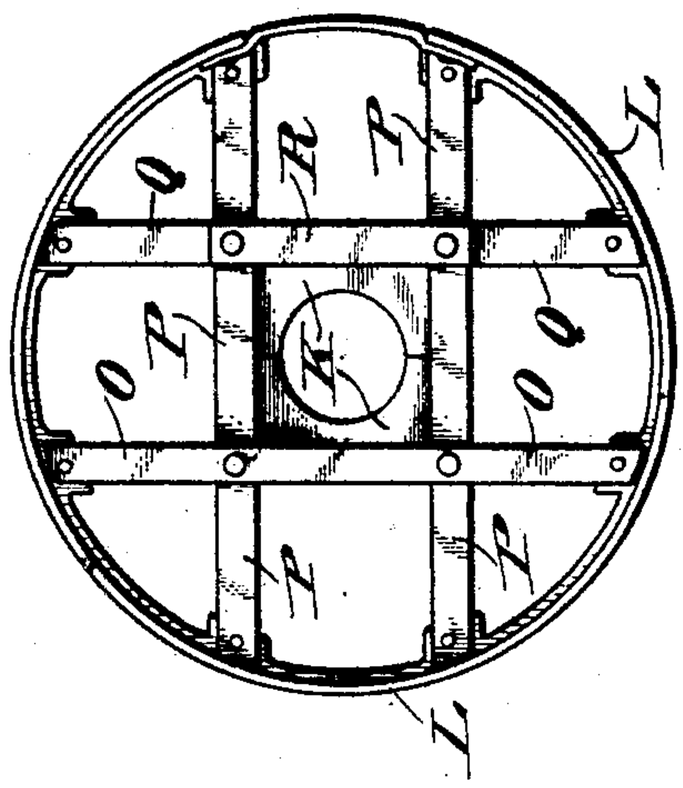


Fig. 2.

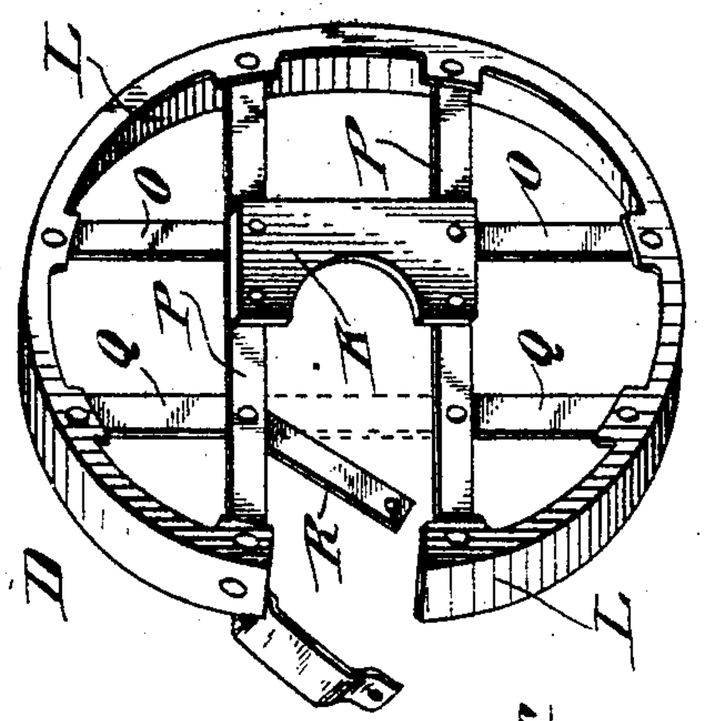
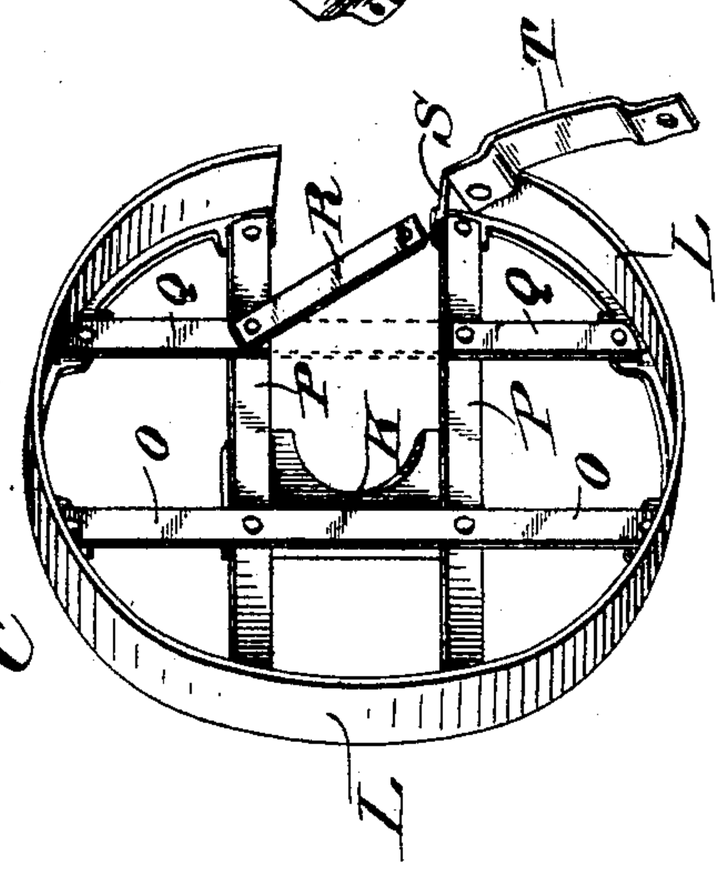


Fig. 1.



Witnesses
C. Mitchell
Marion Hall

Inventor
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By Dickerson, Brown, Raegener & Binney
his Attys

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2 SHEETS—SHEET 2.

Fig. 4.

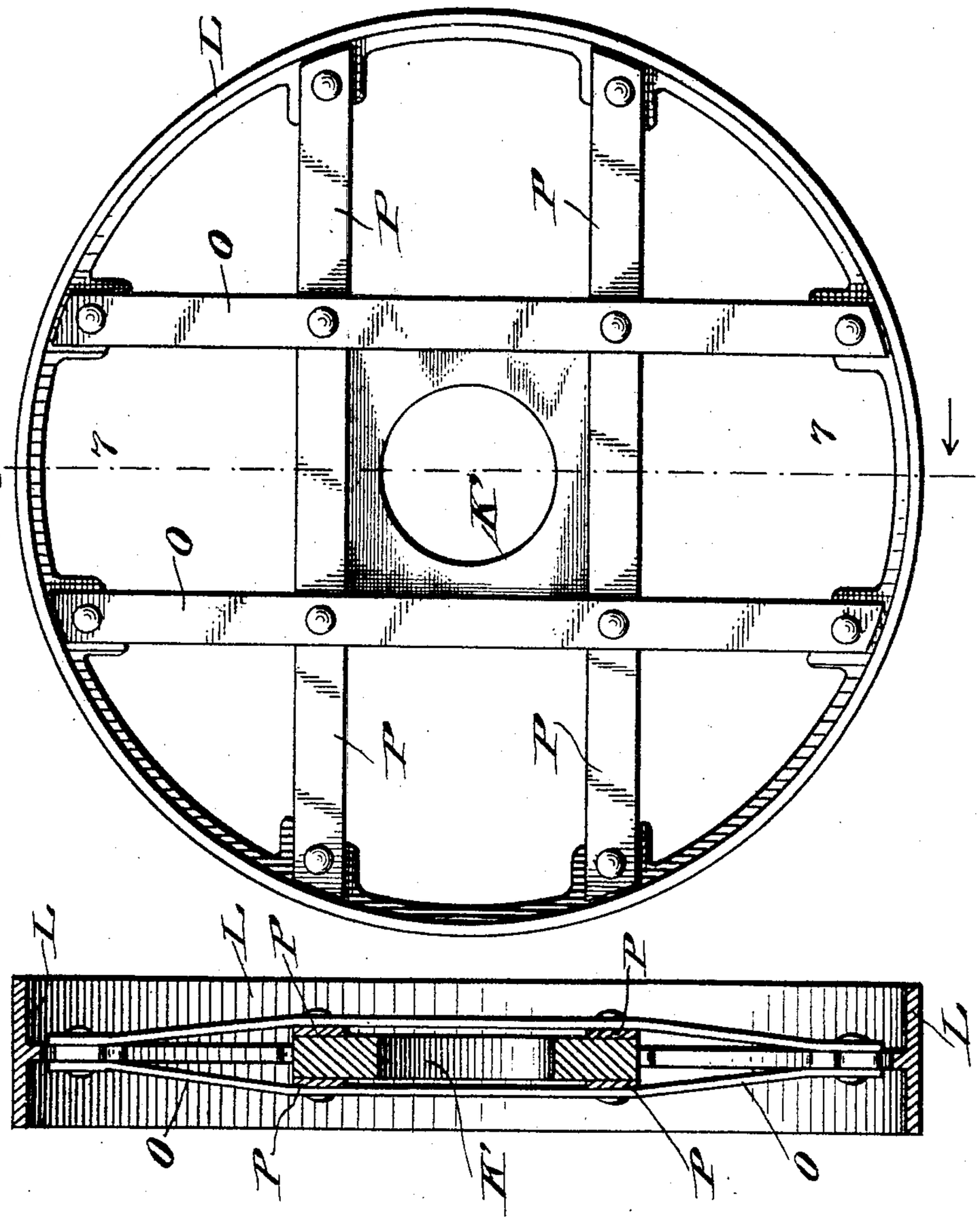

Fig. 5.

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UNITED STATES PATENT OFFICE.

LAURENCE S. LACHMAN, OF NEW YORK, N. Y.

PULLEY.

No. 803,605. Specification of Letters Patent. Patented Nov. 7, 1905.

Application filed April 28, 1904. Serial No. 205,321.

To all whom it may concern:

Be it known that I, LAURENCE S. LACHMAN, a citizen of the United States, and a resident of the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Pulleys or Wheels, of which the following is a specification accompanied by drawings.

This invention relates to metal pulleys or wheels; and the objects of the invention are to improve upon the construction of such apparatus and enable the pulley or wheel to be quickly applied to or removed from a shaft without necessitating the application of the pulley over the end of the shaft.

Another object of the invention is to increase the strength and efficiency of the device and enable the strain to be distributed in the most advantageous manner between opposite points of the rim and between the rim and the hub.

Further objects of the invention will hereinafter appear; and to these ends the invention consists of a pulley or wheel for carrying out the above objects, embodying the features of construction, combinations of elements, and arrangement of parts having the general mode of operation, substantially as hereinafter fully described and claimed in this specification and shown in the accompanying drawings, in which—

Figure 1 is a perspective side view of one portion of another form of pulley or wheel embodying the invention. Fig. 2 is a perspective side view of the other coöperating portion of the wheel. Fig. 3 is a side view of the wheel completed, as illustrated in Figs. 1 and 2. Fig. 4 is a side view of a wheel having an unbroken spoke and hub. Fig. 5 is a sectional view on the line 7 7 of Fig. 4.

Referring to the drawings, in Figs. 1, 2, and 3 a two-part hub is provided, comprising the portions K, upon which the structure of the wheel is built up. The wheel comprises two portions, provided with any suitable rim L. The spokes are preferably of sheet metal, and it will be seen that the continuous spokes O and P are arranged at an angle to each other and extend continuously from opposite points on the rim of the wheel. The spokes O and P are suitably secured to the hub K, while the spoke Q is broken, being provided with the flap or tongue R. The rim also is provided with a broken portion S, having a flap T, the construction being such that the portion C of the wheel may be readily slipped over the shaft and then the tongues and flaps suitably secured in position.

The portion D of the wheel is constructed in substantially the same manner as the portion C, with the spokes O, P, and Q and flaps R and S. When the two portions C and D of the wheel have been slipped over the shaft, the portions of the hub K coöperate to form the hub of the wheel, and the flaps R and S are suitably secured in position, as by means of rivets, screws, or bolts. According to this construction it will be seen that the spokes P, O, and Q are suitably secured to the hub, as by means of screws or bolts, and instead of extending radially are arranged to form chords of the circle. In this manner the strain upon the rim does not all fall upon the hub, because the continuous spokes distribute the strain between portions of the rim.

Preferably the spokes O and Q are arranged outside the spokes P on each portion of the wheel, and it will be seen, furthermore, that when the two coöperating parts of the wheel are slipped over the shaft or otherwise brought together a double wheel is formed, because the spokes of one part fall opposite those of the other. This construction therefore adds great strength and rigidity to the wheel or pulley, because spokes of double thickness are in reality provided. Furthermore, the broken portion or flaps R of the spokes Q fall opposite the continuous spokes O when the parts of the wheel are assembled.

In Figs. 4 and 5 the wheel is not shown sectional as in the other figures, and the hub K′ is solid, with continuous spokes O and P secured thereto, as hereinbefore described.

Obviously some features of this invention may be used without others, and the invention may be embodied in widely-varying forms. Therefore, without limiting the invention to the constructions shown and described nor enumerating equivalents I claim, and desire to secure by Letters Patent, the following:

1. A wheel or pulley, comprising in combination a hub formed in separate coöperating sections, spokes secured to each section of said hub, rectangular open portions extending from the rim to the center being provided in the arrangement of said spokes on each section of the hub, whereby both said rectangular open portions of the sections of the wheel may be slipped over a shaft and arranged side by side, the parts of the wheel being so arranged that the continuous spokes

fall opposite the rectangular open portions of the opposite coöperating section when the parts of the wheel are assembled.

2. A wheel or pulley, comprising in combination a hub formed of a plurality of sections, and spokes secured to each of said sections, each part of the hub and spokes secured thereto forming a side of the wheel having a rectangular open portion extending from the rim to the center of the wheel, whereby both of said rectangular open portions of the wheel-sections may be slipped over a shaft, the arrangement of spokes being such that when the two coöperating portions of the wheel are assembled side by side, the solid continuous spokes fall opposite the rectangular open portions of the coöperating section of the wheel, and the sections of the hub cooperate to form a complete hub.

3. A sheet-metal wheel or pulley provided with a hub and a rim and having sheet-metal spokes in the form of thin flat strips secured with their flat sides against each side of the hub and extending from opposite points on the rim and arranged at an angle to each other, the intersecting points of the spokes falling outside of the center of the wheel, and the spokes at each side of the hub being placed, some directly against the hub, and some crosswise on top of said spokes, said spokes being connected to the rim, and means for connecting them to the hub at their points of intersection.

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

LAURENCE S. LACHMAN.

Witnesses:

E. Van Zandt,

A. L. O'Brien.