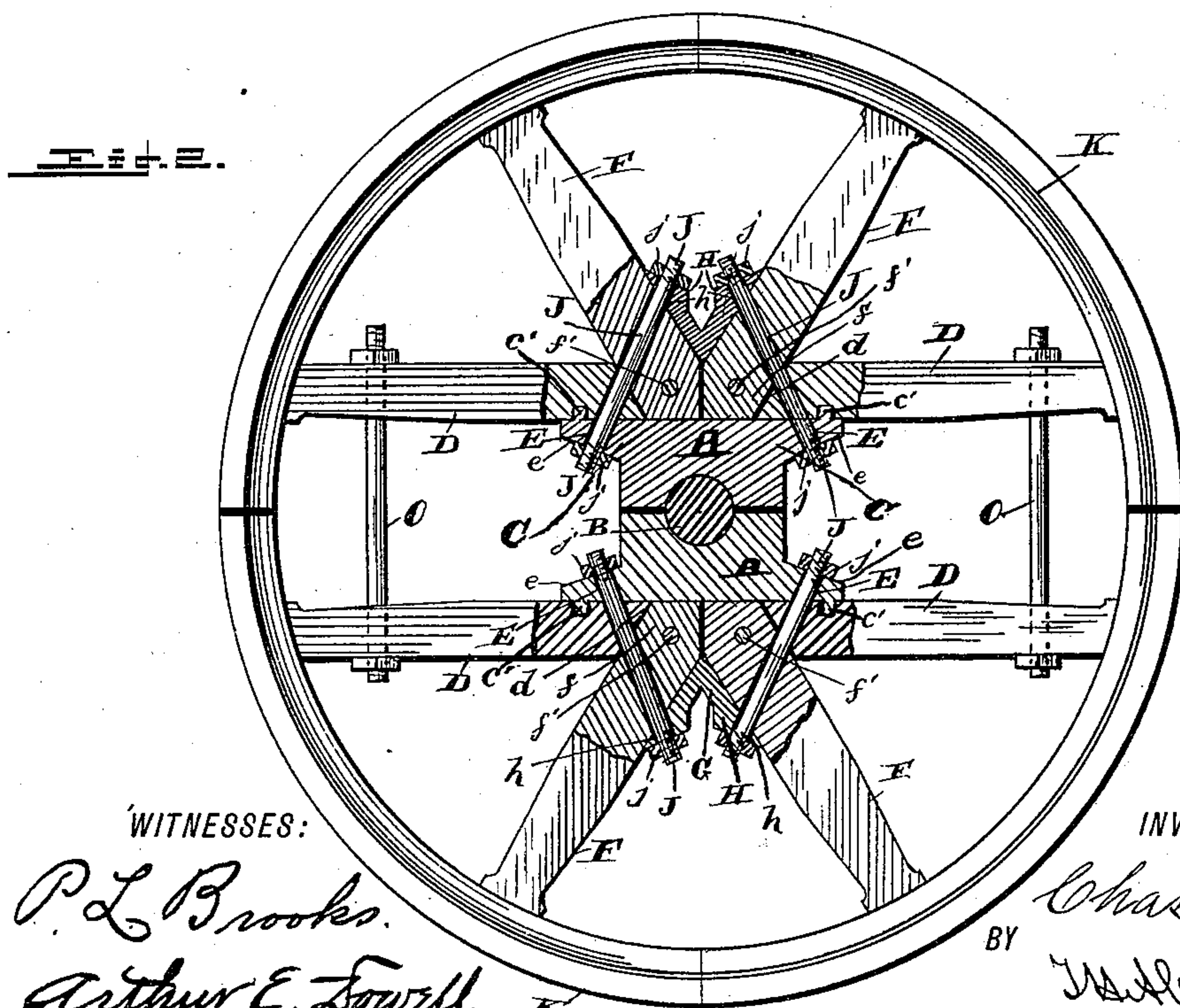
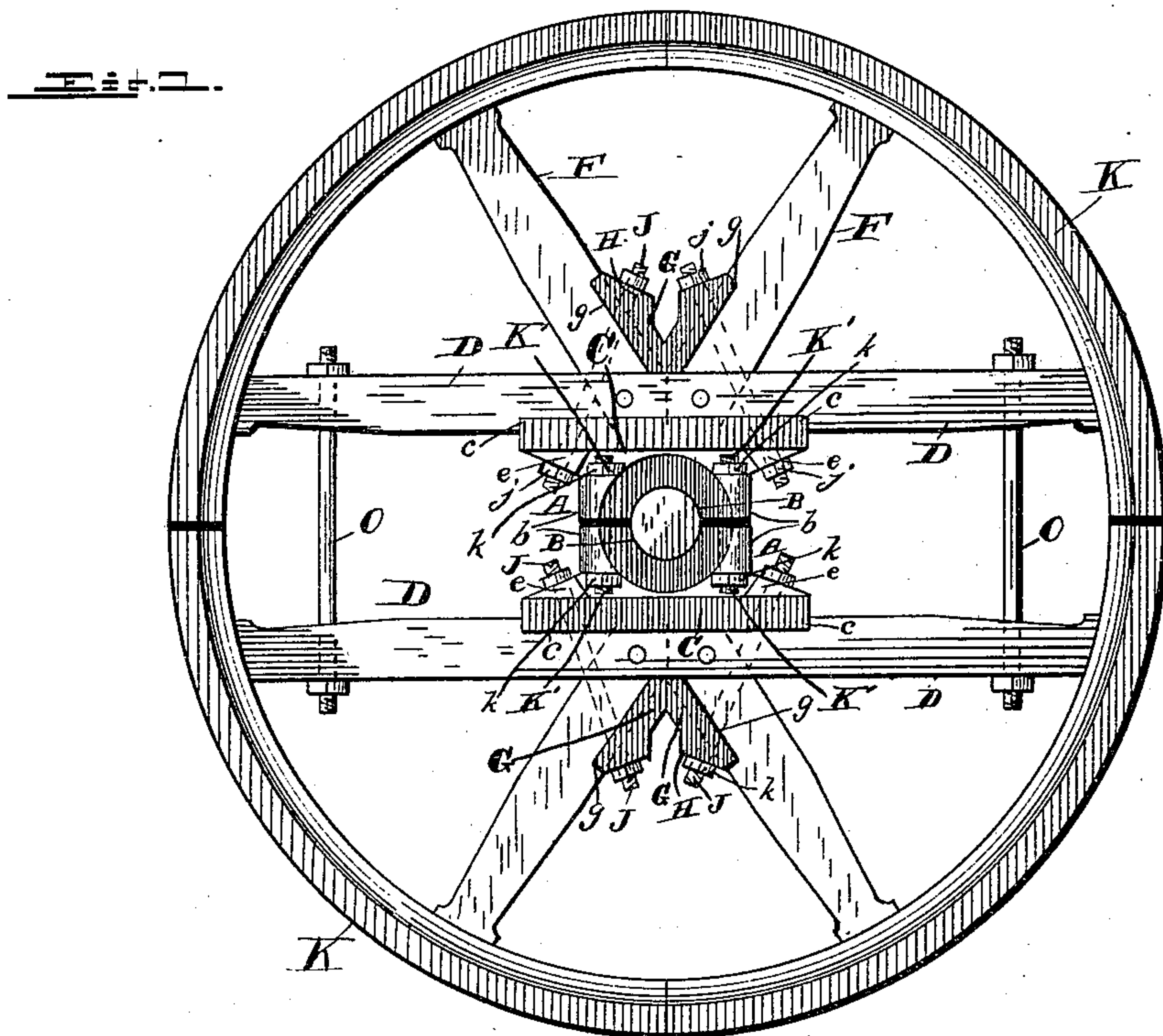


(No Model.)

C. McNEAL.
SPLIT PULLEY.

No. 427,004.

Patented Apr. 29, 1890.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES MCNEAL, OF GOSHEN, INDIANA, ASSIGNOR OF ONE-HALF TO
EDWARD SKILLMAN, OF SAME PLACE.

SPLIT PULLEY.

SPECIFICATION forming part of Letters Patent No. 427,004, dated April 29, 1890.

Application filed November 29, 1889. Serial No. 331,929. (No model.)

To all whom it may concern:

Be it known that I, CHARLES MCNEAL, of Goshen, in the county of Elkhart and State of Indiana, have invented certain new and useful Improvements in Split Pulleys; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a face view of my improved pulley. Fig. 2 is a sectional view thereof in the plane of the wheel F.

This invention is an improvement in split pulleys, and its object is to improve the construction thereof, and is especially designed for constructing large wheels; and to this end the invention consists in the novel construction and arrangement of parts, hereinafter described and claimed.

Reference being had to the drawings by letters, A A represent the opposite similar hub-sections, each having a semi-tubular or channeled portion B, lying parallel with the shaft to which the pulley is secured, and a transverse piece C, lying at right angles to portion B and projecting equally on both sides thereof, the face of said piece lying parallel with the plane of parting of the hub.

c c are upstanding flanges on the side of pieces C, and, if desired, transverse ribs c' c' may be formed on the faces of said pieces, as shown.

In the ends of pieces C are formed openings E E, and on the under faces of said pieces and surrounding the openings are perforated inclined bosses e e, as shown.

b b are perforated ears projecting laterally from the edges of portion B, at each side thereof, as indicated.

D D designate spoke-bars resting on pieces C C, between the flanges thereof, which prevent lateral movement of the bars, while ribs c', engaging notches in the edge of the bars, prevent longitudinal displacement thereof. From the center of each bar D, directly opposite piece C, rise two spokes F F, which spokes are tenoned on their inner ends, as at f f, and engage a corresponding mortise d in the bar D, being secured therein by glue, or by pins f' f' also, if desired.

G designates a V-shaped casting or clamping-block lying between spokes F F, and having side flanges g g on its outer faces, which embrace the sides of the spokes, as indicated. The arms of this casting are perforated, as at h h, and on the opposite inner faces of the arms and surrounding these openings are bosses H H, as shown. The perforations in these clamping-blocks G are in line with the perforations E E in pieces C, and J J are clamping-bolts which pass, respectively, through openings E E, openings in the spoke-bars D and spokes F, respectively, and through openings h h of the clamping-block, and are secured by nuts j j on their ends, as shown. These bolts thus tie the spokes directly to the hub-sections and at the same time bind the spoke-bars thereto, forming a kind of truss-brace for the bars and spokes, enabling them to withstand centrifugal strain when the pulley is in use. The flanges on pieces C and blocks G and the bolts J prevent lateral displacement of the spokes and bars.

K K designate the rim-sections secured to the respective spoke-bars and spokes by socket-and-tenon joints, or in other convenient manner. The rim and hub part on the same line and the pulley can be readily and quickly secured to a shaft by placing its opposite halves on opposite sides of the shaft, which is received between the portions B B of the hub, and then by means of clamping-bolts K' K', passed through the perforated ears b b of the opposite hub-sections and the nuts k k, the hub-sections are firmly-clamped upon the shaft. Tie-bolts O, passed through the opposite bars D D and securely nutted, as indicated, may be employed to draw the rim-sections more tightly together, if desired. This construction gives an eight-spoked wheel, and is suitable for large heavy driving or power wheels, all parts being readily detachable, so that the hub-sections can be changed for others having portions B adapted for different sizes of shafts.

Having thus described my invention, I claim—

1. The combination, in a split pulley, of a pair of hub-sections having cross-pieces, and the spoke-bars seated on said cross-pieces, and the spokes fitted to said bars, with the clamping-blocks between the spokes, and the

clamping-bolts passing through the cross-pieces, spoke-bars, spokes, and clamping-blocks, substantially as described.

2. The combination of the hub-sections 5 each having a channeled portion partly embracing the shaft, and a flanged cross-piece, with the spoke-bars seated on said cross-pieces, the pairs of spokes rising from said bars, the clamping-blocks between said pairs 10 of spokes, and the clamping-bolts passing through the clamping-block, one spoke of each pair, the spoke-bar, and one end of a cross-piece, respectively, for the purpose and substantially as described.

15 3. The combination of the hub-section A, having cross-piece C, provided with perforated bosses *e e*, the spoke-bar D, the spokes F F, secured thereto, and the flanged V-shaped clamping-block G, and the clamping- 20 bolts K' K', all substantially as set forth.

4. The combination of the opposite hub-sections A A, constructed substantially as described, with the spoke-bars D D, the spokes

F F, secured to said bars by mortise-and-tenon joints, and clamping-blocks G G, and 25 the rim-sections secured to said spokes and bars, and the uniting bolts and nuts for the several parts, substantially as described.

5. The combination of the opposite hub-sections A A, having semi-tubular portions B 30 B, and cross-pieces C C, provided with flanges and ribs, with the spoke-bars D D, secured to the respective pieces C C, the pairs of spokes F F, secured to said spoke-bars, the rim-sections secured to said spokes and spoke- 35 bars, and the flanged clamping-blocks G G, bolts J J, and clamping-bolts K' K', all substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of 40 two witnesses.

CHARLES McNEAL.

Witnesses:

EDWARD SKILLMAN,
CHAS. D. SHULTZ.