

(No Model.)

2 Sheets—Sheet 1.

M. B. LORAH.
SPLIT PULLEY.

No. 542,166.

Patented July 2, 1895.

Fig 1.

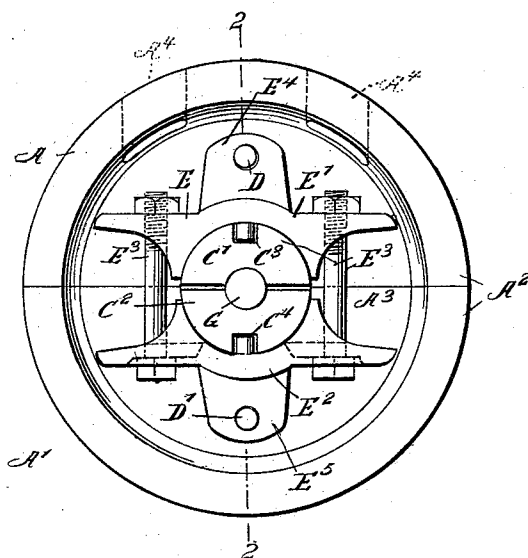
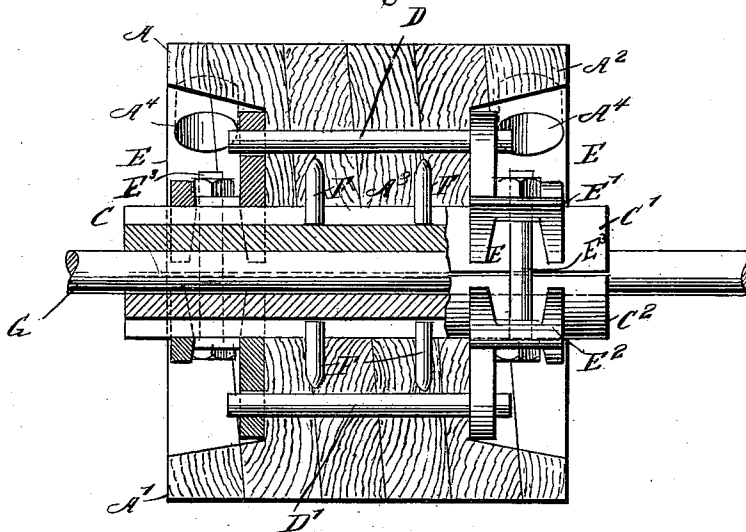


Fig 2.



WITNESSES:

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Munn & Co

ATTORNEYS.

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Fig 3.

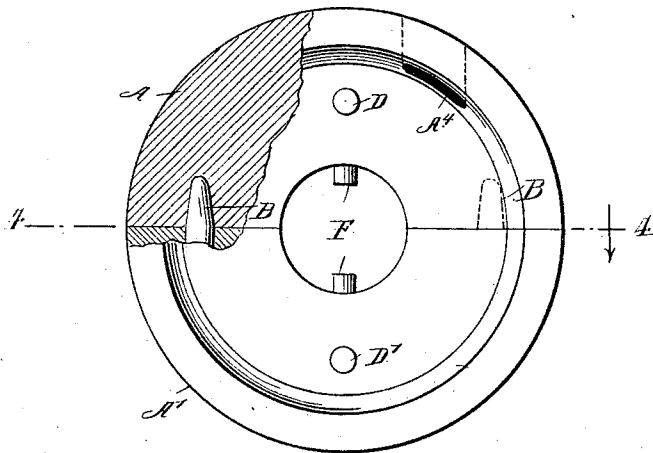
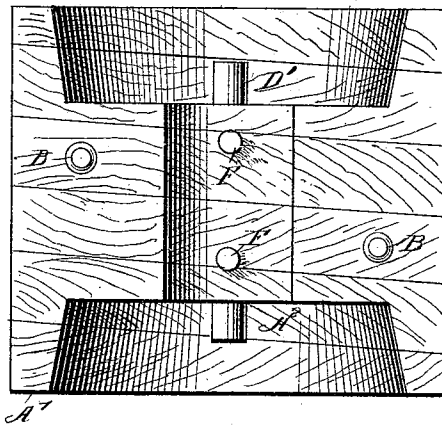


Fig 4.



WITNESSES:

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INVENTOR

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UNITED STATES PATENT OFFICE.

MAHLON B. LORAH, OF READING, PENNSYLVANIA.

SPLIT PULLEY.

SPECIFICATION forming part of Letters Patent No. 542,166, dated July 2, 1895.

Application filed September 12, 1894. Serial No. 522,777. (No model.)

To all whom it may concern:

Be it known that I, MAHLON B. LORAH, residing at Reading, in the county of Berks and State of Pennsylvania, have invented a new and Improved Split Pulley, of which the following is a specification.

The invention has for its object to provide a new and improved split pulley of a simple and durable construction, adapted to be securely fastened to the shaft to prevent the belt from slipping, and readily changed to fit different-sized shafts, and such invention consists in the novel combination and peculiar arrangement of parts, such as will be first described in detail and then specifically pointed out in the appended claims.

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

Figure 1 is an end view of the improvement. Fig. 2 is a longitudinal section of the same on the line 2 2 of Fig. 1. Fig. 3 is an end view of the pulley with the bushing and clamp removed, and part in section, and Fig. 4 is a plan view of one-half of the same.

The improved pulley has its rim and web made of wood, and in sections A and A' divided longitudinally, as plainly shown in the drawings. The sections A and A' are adapted to be connected together by dowels B, and form the rim A² and the web A³. The sections are built up of disks of wood glued together and having their grains arranged toward each other, as indicated in the said figures. Thus alternate layers have their grains standing in the same direction, whereby a very strong pulley is formed, capable of withstanding any strain and also preventing slipping of the belt.

In the central aperture of the web A³ of the pulley is held a bushing C, adapted to be clamped onto the shaft G by clamping devices E, held in each end of the pulley and loosely hung on studs projected from each side of the web and formed by the projecting ends of the longitudinally-extending pins D and D', held in the said web A³. Each clamping device E is provided with the two clamps E' and E², connected with each other by bolts E³, so that when the nuts of the bolts are screwed up the said clamps E' and E² press the bushing-

sections C' and C² to securely clamp the same to the shaft G.

In order to prevent the bushing-sections C' and C² from turning in the web A³, I provide the said bushing-sections with longitudinally-extending grooves C³ and C⁴, respectively, engaged by sets of pins F driven into the web A³ and extending into the central aperture therein, as will be readily understood by reference to the drawings. Thus the bushing-sections can be readily moved into position in the web A³, and then the bushing-sections are clamped to the shaft by the clamping devices on each end of the pulley.

In order to conveniently support the clamping devices on the projecting ends of the pins D and D', I provide each clamping-section E' and E² with flanges E⁴ and E⁵, respectively, having apertures receiving the said projecting ends of the pins D and D', which thus support said clamping-sections.

It will be observed that by elongating the apertures in the members E⁴ E⁵ the clamp-sections can be quickly and loosely fitted on the pins D D', and when so fitted, by screwing up the bolts on the clamp-screws, the said sections can be quickly and securely pressed in contact with the bushing-sections, which latter are thereby pressed onto the shaft G to clamp the pulley in position.

By using bushings with different-sized openings I may readily use the same pulley on different-sized shafts. In case one end of a pulley is close to a wall or other obstruction, which prevents the operator from screwing up the nuts of the bolts E³ from the end of the pulley, I provide the rim with apertures A⁴, (see dotted lines in Fig. 1,) through which a wrench or other suitable tool may be introduced to turn the nuts of the bolts E³ to fasten the pulley in place on the shaft, as previously described.

A pulley made of wooden disks in the manner described is especially adapted for electric motors, as the belt passing over the pulley is not liable to slip. This permits of running a motor with a slackened belt, thereby preventing the springing of the shaft and heating of the journals.

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

1. A split pulley having a bushing forming

the hub made in sections, said bushing being projected at each side of the web of the divided pulley, and a clamp device on each end of the bushing having portions loosely secured to the web of the pulley and adapted to clamp the bushings to the shaft, as set forth.

2. A split pulley comprising two pulley sections forming a continuous rim, and an apertured web, said web having projecting members at each side, a bushing projected beyond the web, clamp devices hung on the projecting members of the web, adapted to be moved on their supports and provided with clamp portions fitting the bushing, substantially as described.

3. A split pulley, comprising two pulley sections made of wood and forming a continuous rim and an apertured web, a bushing made in sections held in the said web, clamping devices hung on the pulley sections and engaging the said bushing, to clamp the latter to the shaft, and pins held in the web of the pulley and projecting into the opening thereof, to engage longitudinal grooves in the said bushing, substantially as shown and described.

4. A split pulley, comprising two pulley sec-

tions made of disks of wood and forming a continuous rim and an apertured web each web section having a rod passed transversely through and projected at the opposite faces of the web, a bushing made in two sections held in the web and clamping devices loosely hung on the projected ends of the transverse rods held to engage the bushing to clamp the latter to the shaft, as shown and for the purposes described.

5. A split pulley, comprising two pulley sections forming a continuous rim and an apertured web, said rim having apertures at predetermined points, a bushing made of two sections projected at the ends beyond the web, clamp members fitted over the said projected ends at a point inside the rim of the pulley, and tightening bolts and nuts connecting such clamp members, said nuts being disposed in line with the apertures in the rim, all arranged substantially as shown and for the purposes described.

MAHLON B. LORAIN.

Witnesses:

PETER PRICE,
CHAS. A. Z. GRIESEMER.