

(No Model.)

J. A. J. SHULTZ.

BELT PULLEY.

No. 399,636.

Patented Mar. 12, 1889.

Fig. 1.

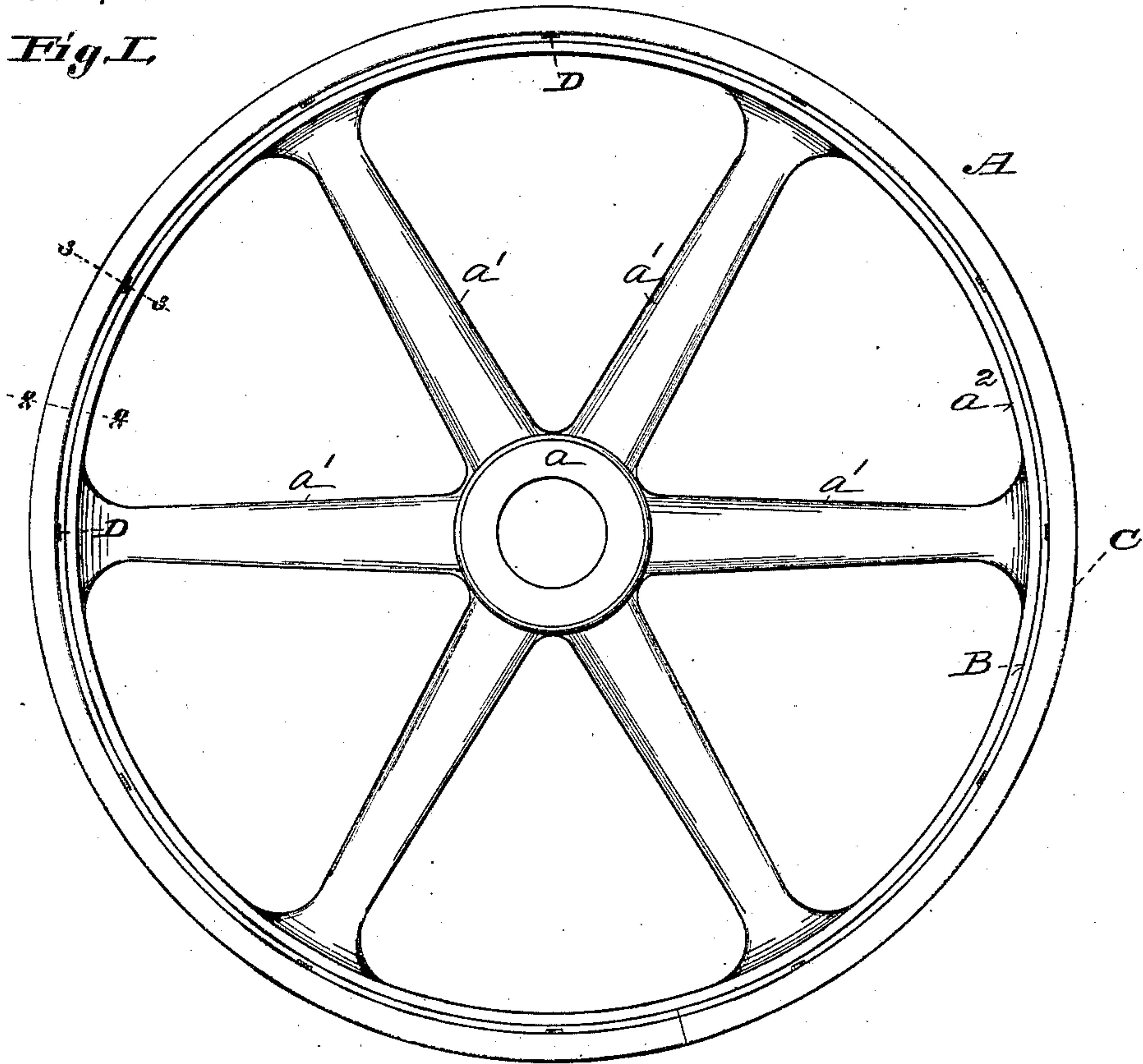


Fig. 2.

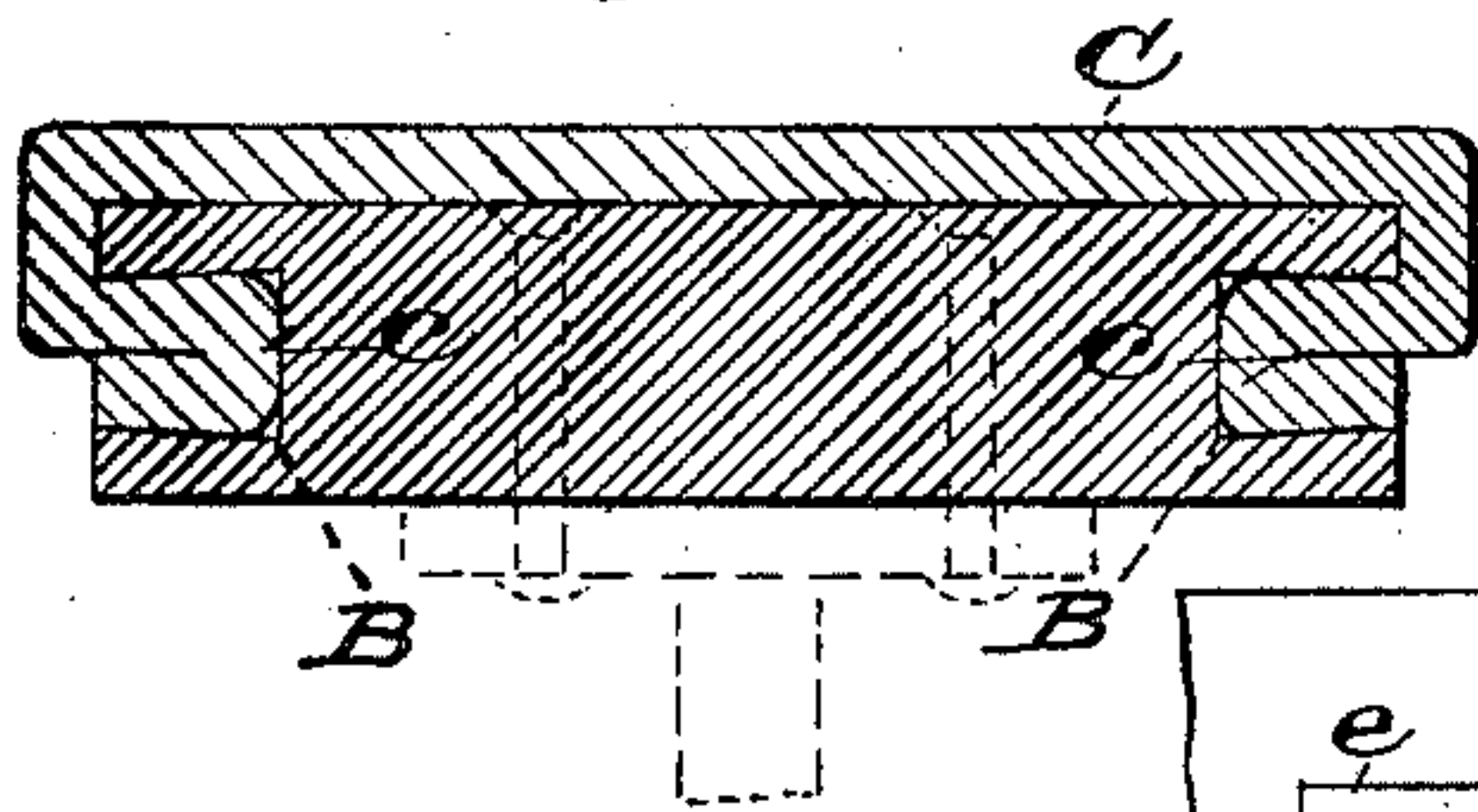


Fig. 3.

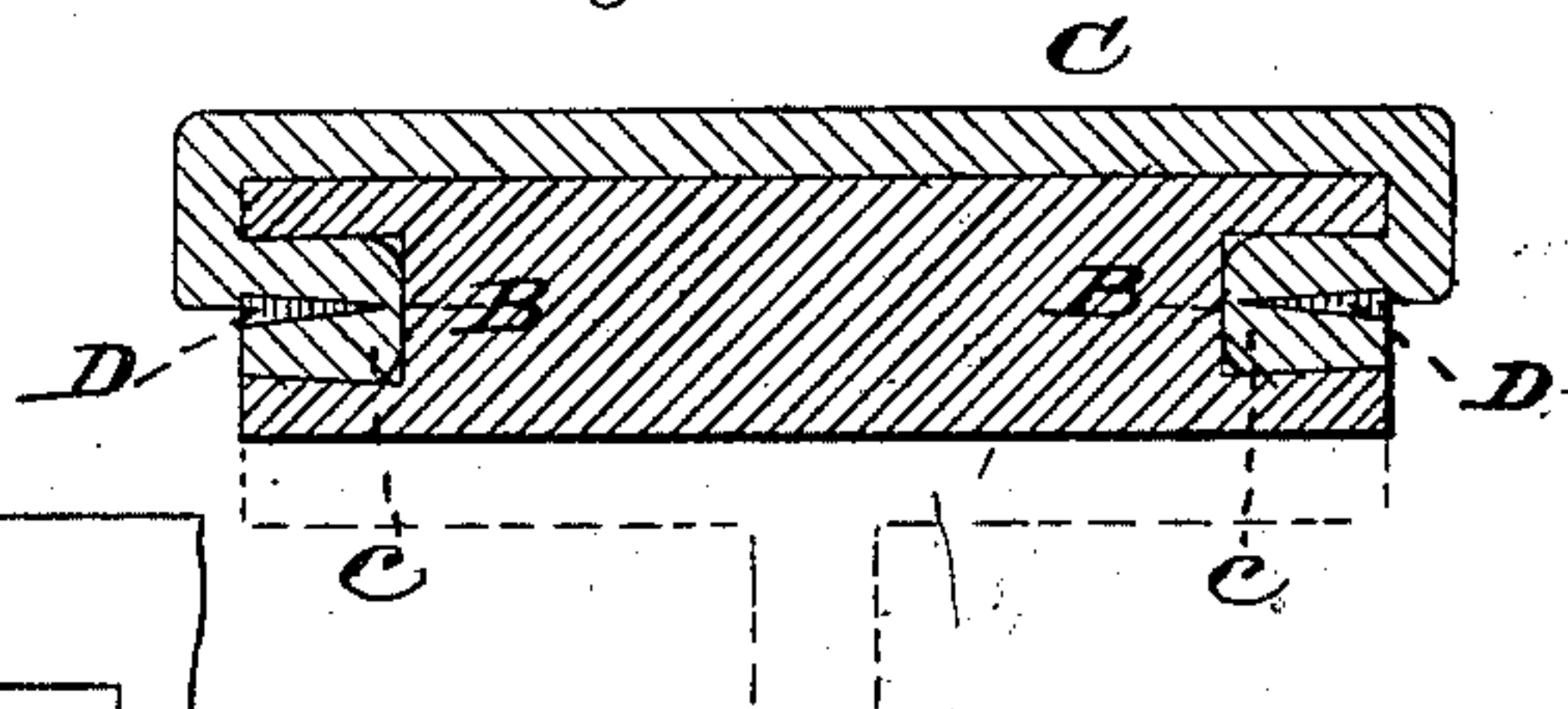
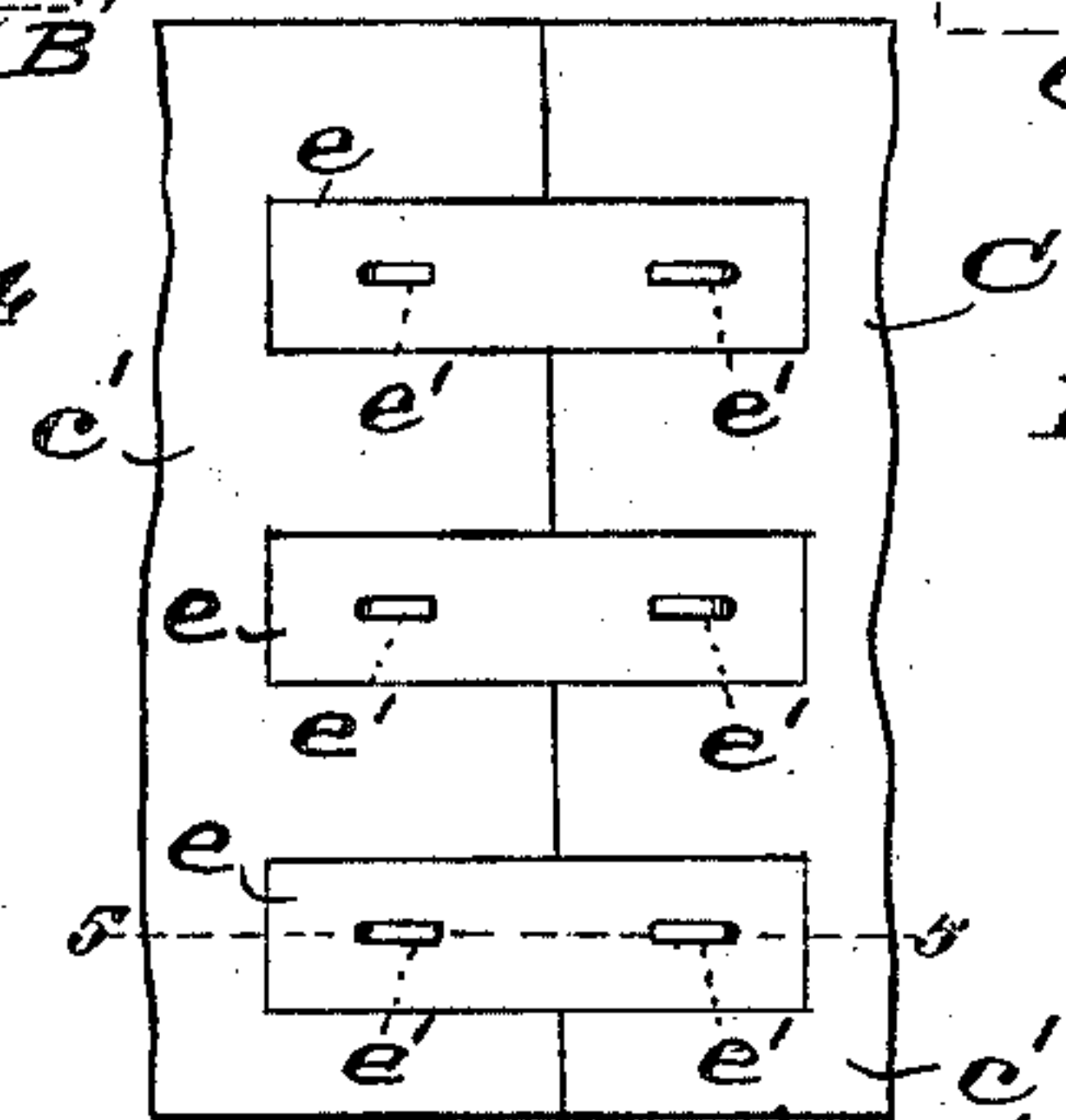


Fig. 4.

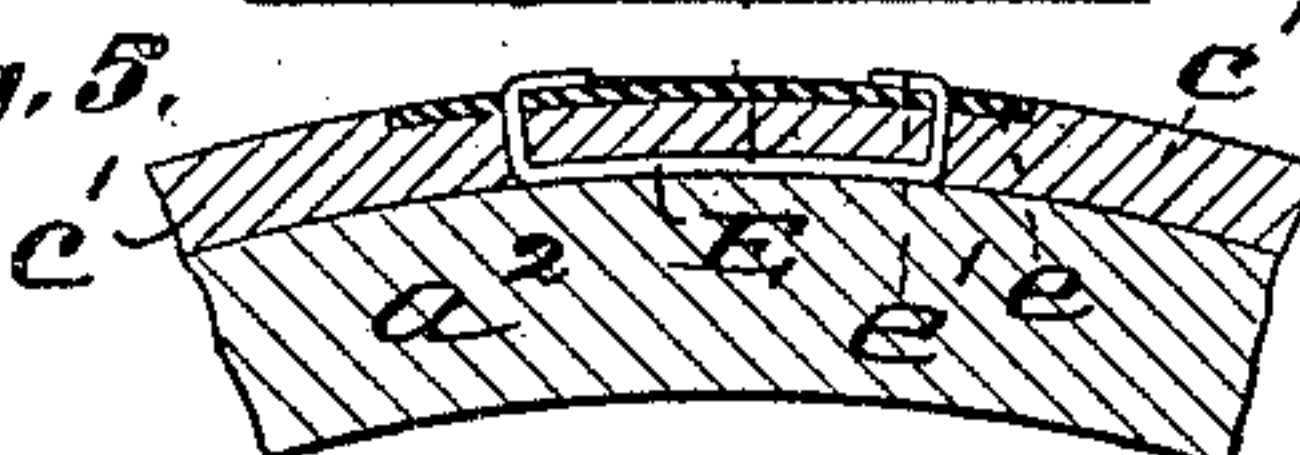
Attest;
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Inventor;

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att'y

Fig. 5.



UNITED STATES PATENT OFFICE.

JOHN A. J. SHULTZ, OF ST. LOUIS, MISSOURI, ASSIGNOR TO BRUCE C. ALVORD,
OF SAME PLACE.

BELT-PULLEY.

SPECIFICATION forming part of Letters Patent No. 399,636, dated March 12, 1889.

Application filed October 13, 1888. Serial No. 288,022. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. J. SHULTZ, of St. Louis, Missouri, have made a new and useful Improvement in Belt-Pulleys, of which the following is a full, clear, and exact description.

The said improvement relates to that class of belt-pulleys which are faced with leather or some similar material. The practice hitherto has mainly been to apply the facing to the rim by cementing or otherwise securing the facing directly to the face of the pulley-rim.

The present improvement consists in applying the facing by attaching it to the sides of the pulleys, to which end the facing, in the place of being as wide as the pulley-rim, is made considerably wider, so that when applied it extends laterally beyond each edge of the rim, and that portion of the facing thus extending is turned tightly over the outer corners of the edges of the rim and securely fastened in continuous grooves provided to receive it in the edges of the rim of the pulley, whereby the facing is securely fastened to the face of the rim, substantially as herein described and claimed, aided by the annexed drawings, forming part of this specification, of which—

Figure 1 is a side elevation of a pulley embodying the herein-described improvement; Fig. 2, a cross-section of the rim of the pulley on the line 2 2, Fig. 1; Fig. 3, a cross-section of the same on the line 3 3, Fig. 1, and Figs. 4 and 5 details, being views illustrating the mode of uniting the ends of the facing, Fig. 4 being a plan of the facing, and Fig. 5 a section on the line 5 5 of Fig. 4.

Like letters of reference applied to the several drawings denote like parts.

A represents a pulley in which the improvement is embodied. The pulley has the customary hub, *a*, spoke *a'*, and rim *a*², and is of the usual form, saving as it is modified by the present improvement. In each side or edge of the rim of the pulley and extending continuously around with said rim is a groove, B. The edges of the facing C are respectively secured in these grooves, and the facing thereby held in place. The preferable way of securing the edges in the grooves is to fold the edge as shown at *c* and to force it into the groove, so that it becomes tightly packed therein, and to better confine the folded edge the groove

may be made wider at its bottom than at its top, and to still better fasten the facing, wedges—such, for instance, as shown at D D—may be inserted between the folds of the edge. By this means the facing is tightly and securely strained upon the face and around the corners of the pulley, and is held from slipping upon the rim, and the sides of the pulley are free from projections or any roughnesses calculated to interfere with the use of the pulley. At the same time the facing can, by withdrawing its edges from the pulley-grooves, be detached from the pulley.

The abutting ends of the facing may be united or secured evenly in opposition to each other in various ways. One method is indicated.

E E represent U-shaped fastenings passed from the inner side of the facing outward through its ends *c' c'* and having a plate, *e*, applied, and the points *e' e'* of the fastenings clinched upon the plate, substantially as shown—that is, one point of the fastening passes through one of the facing ends and the other point of the fastening through the other facing end. The facing ends are drawn snugly together, and the fastening points and plate, when in place, do not substantially project above the general surface of the facing.

The cross-section of the grooves B is preferably that of a dovetail form, as shown; but other suitable forms may be employed.

The improvement may be applied to an ordinary pulley by the attachment thereto of a circular part, or a circular series of segmental parts, whose outer surface, in conjunction with the pulley-rim, shall form a groove which is the equivalent of that shown.

The improvement is not limited to pulleys, but can be applied to other wheels of various kinds, as velocipede-wheels, for instance. Other means than the grooves B can be used to secure the facing-edges.

I claim—

1. A pulley provided with a facing, said facing being wider than the pulley-rim and having its side edges confined in the sides, respectively, of the rim, substantially as described.

2. A pulley provided with a facing, said facing being wider than the pulley-rim and having its side edges confined in grooves, respect-

ively, in the sides of the pulley-rim, substantially as described.

3. A pulley provided with a facing, said facing being wider than the pulley-rim and having its side edges folded and confined in grooves in the sides, respectively, of the sides of the pulley-rim, substantially as described.

4. A pulley provided with a facing, said facing being wider than the pulley-rim and having its side edges folded and wedged in grooves in the sides, respectively, of the pulley-rim, substantially as described.

5. A pulley provided with a facing, said facing being wider than the pulley-rim and hav-

ing its side edges confined in the sides, respectively, of the rim, and its ends united by means of the fastenings and plates, substantially as described. 15

6. A pulley or wheel provided with a facing, said facing being wider than the face of the pulley or wheel, and having its side edges secured to the sides, respectively, of said face, substantially as described. 20

Witness my hand.

JOHN A. J. SHULTZ.

Witnesses;

C. D. MOODY,

D. W. A. SANFORD.