

(No Model.)

G. PHILION.  
PULLEY,

No. 413,628.

Patented Oct. 22, 1889.

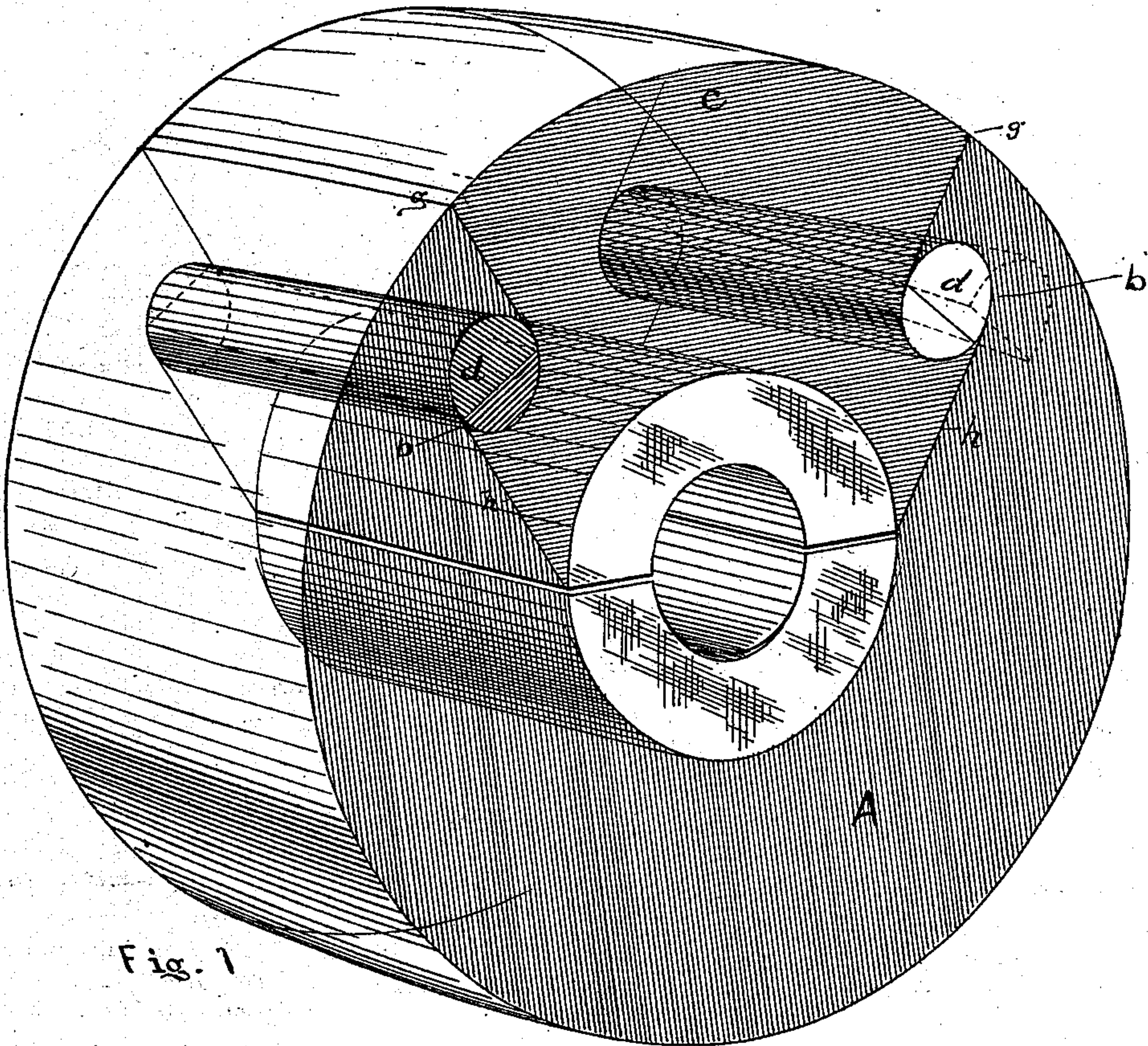


Fig. 1

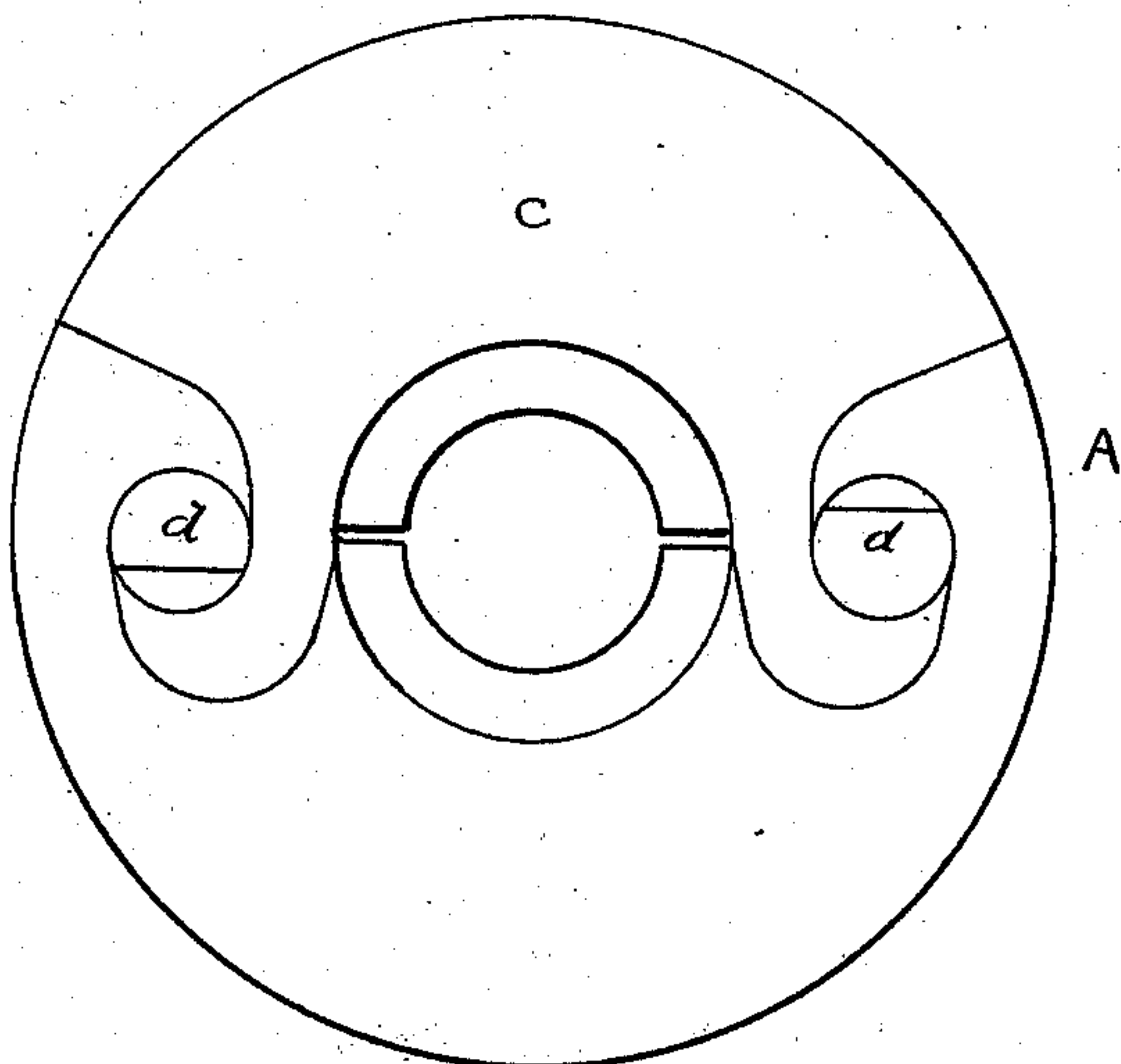


Fig. 2

Attest  
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# UNITED STATES PATENT OFFICE.

GEORGE PHILION, OF MISHAWAKA, INDIANA, ASSIGNOR TO THE DODGE MANUFACTURING COMPANY, OF SAME PLACE.

## PULLEY.

SPECIFICATION forming part of Letters Patent No. 413,628, dated October 22, 1889.

Application filed June 10, 1889. Serial No. 313,654. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE PHILION, of Mishawaka, in the county of St. Joseph and State of Indiana, have invented new and useful Improvements in Separable Pulleys; and I do hereby declare that the following is a full and accurate description of the same, reference being had to the accompanying drawings, wherein—

10 Figure 1 is a perspective view of my pulley, the outer portion of the same being represented as transparent, in order that the interior portions may be illustrated. Fig. 2 represents a modification in the mode of sever-  
15 ing the same.

My invention belongs to that class of separable pulleys known as "gap-pulleys," wherein a section of the rim sufficiently wide to admit the shaft is made removable on one  
20 side in contradistinction to split pulleys, wherein there is a separation in two substantially equal parts.

The object of my invention is to make the removable section interlocking with the rim  
25 or body of the pulley, so that it cannot move in a radial direction out of its position of engagement with the adjoining parts of the rim, whereby the removable part may be secured in place without the use of bolts or screws.

30 The object also is to produce compression on the shaft to fasten the pulley thereon by the act of fastening the removable section in place.

My pulley A may be made by fastening  
35 together suitable pieces of board with glue or otherwise, with the grain alternately in different directions to avoid liability to split. I then make two perforations *b* parallel with the axis and about midway from the periph-  
40 ery to the center bore for the shaft, and then with a saw I cut from the periphery into said holes and again from said holes into the center in radial directions, or thereabout, being careful to make the two cuts *g h* on each  
45 side—i. e., from the periphery into one hole and from the same hole to the center—in parallel planes. This removes from one side of the pulley-blank a section *c* having the form of two wedges, one connected at its point to  
50 the base of the other, the width of said sec-

tion at its nearest point being at least equal to the diameter of the shaft which is to be employed, so that the same may enter through the gap made by the removal of the section *c*. The section *c*, being in wedge form, will fit  
55 and make contact on its severed sides when moved toward the center of the pulley until its sides have passed over the width of the saw-kerf, and the overlapping shoulders formed at the perforations *b* form seats for  
60 keys *d*, which when in place will retain said section in place. Said keys may be tapering, so as to constitute wedges, and thereby the section *c* may be forced upon the shaft with sufficient pressure to clamp and fasten the  
65 pulley thereon.

In Fig. 2 is shown a modification of the structure above described, wherein the separating cuts are not radial nor in parallel planes, but are so related that they constitute inter-  
70 locking portions whereon wedges may act to key the parts in place and force the gap-section against the shaft or bushing to secure and fasten the pulley to the shaft.

Having described my invention, what I  
75 claim is—

1. The pulley A, having a removable wedge-shaped gap-section *c* on one side, provided with interlocking shoulders and keys *d*, whereby said section may be securely retained in  
80 place.

2. A pulley A, having cut from one side a double wedge-shaped section with interlocking shoulders, combined with wedge-shaped keys *d*, to retain said section in place and  
85 force the same toward the center to clamp the pulley on the shaft.

3. A pulley A, having a removable gap-section, whereof the narrowest part equals the diameter of the center or shaft-bore, said sec-  
90 tion and pulley being provided with interlocking portions adapted to receive wedge-keys to force said pulley and section together and clamp the same upon the shaft, substantially as set forth.

GEORGE PHILION.

Witnesses:

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D. O. FONDA.