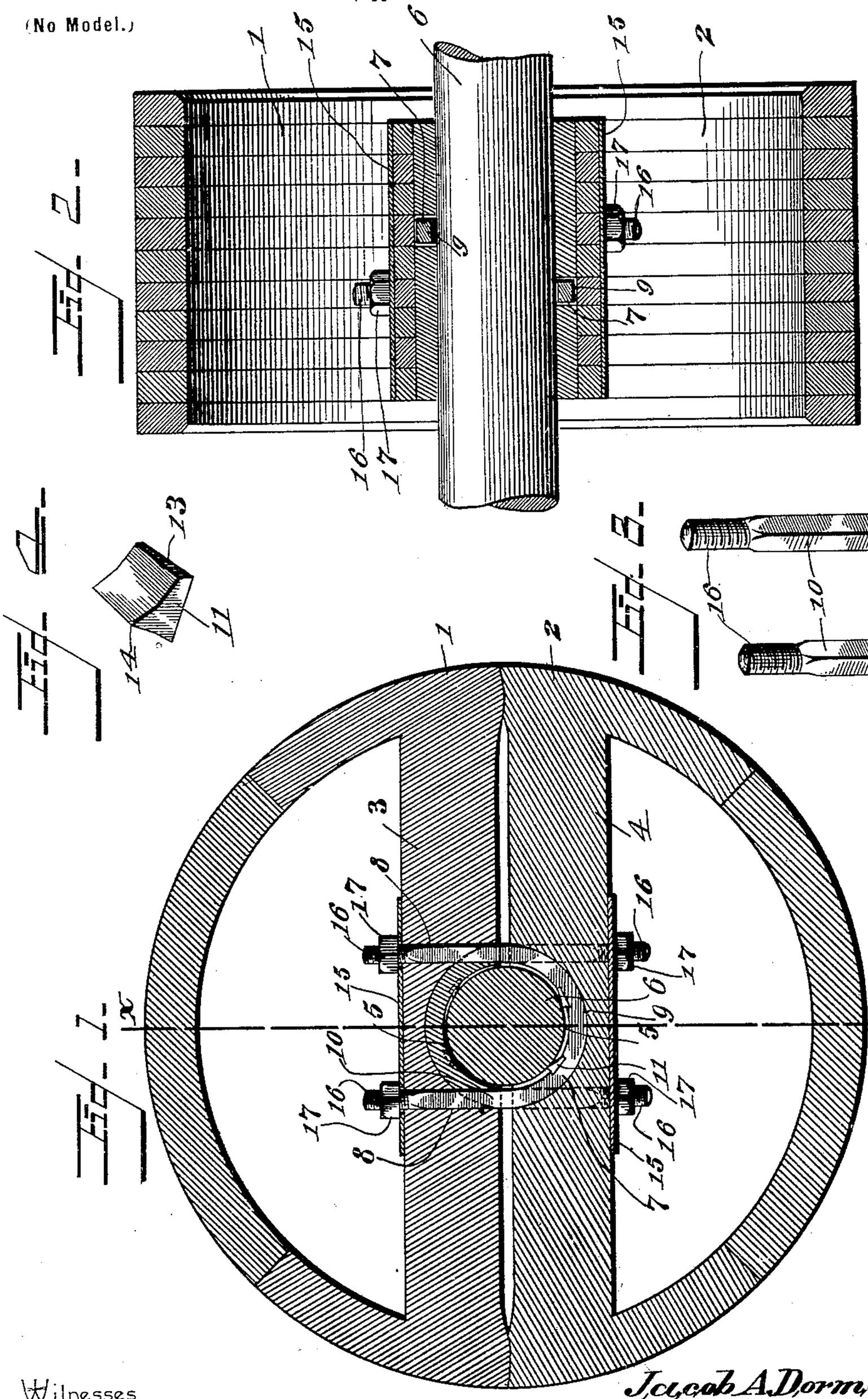
No. 630,868. Patented Aug. 15, 1899.

J. A. DORMAN.

SPLIT PULLEY.

(Application filed June 28, 1899.)

(No Model.)



Witnesses

F. D. Sumner

D. B. Shepard

Inventor

Jacob A. Dorman

By his Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JACOB A. DORMAN, OF WOOLLEY, WASHINGTON, ASSIGNOR OF ONE-HALF TO JAMES T. MOORE, OF SAME PLACE.

SPLIT PULLEY.

SPECIFICATION forming part of Letters Patent No. 630,868, dated August 15, 1899.

Application filed June 28, 1899. Serial No. 722,151. (No model.)

To all whom it may concern:

Be it known that I, JACOB A. DORMAN, a citizen of the United States, residing at Woolley, in the county of Skagit and State of Washington, have invented a new and useful Split Pulley, of which the following is a specification.

This invention relates to split pulleys, and has for its object to provide improved means for connecting the same to shafts and also to accommodate a single pulley to shafts of different diameters.

A further object is to provide a strong and durable device which is not liable to become broken when being tightened upon the shaft and also which will not wear grooves in the shaft, but will remain fixed in its original applied position.

To these ends the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claim, it being understood that changes in the form, proportion, size, and the minor details of construction may be made within the scope of the appended claim without departing from the spirit or sacrificing any of the advantages of the present invention.

In the drawings, Figure 1 is a longitudinal sectional view of the improved split pulley. Fig. 2 is a transverse sectional view taken on the line *x x* of Fig. 1. Fig. 3 is a detail perspective view of one of the clamping-yokes. Fig. 4 is a detail perspective view of one of the detachable teeth.

Corresponding parts in the several figures of the drawings are designated by like characters of reference.

Referring to the accompanying drawings, 1 and 2 designate, respectively, the half-sections of a split pulley, each of which is provided with a pulley-arm 3 and 4, respectively. The pulley-sections may be of the built-up variety, as shown, or solid, as desired, and the contiguous faces of the arms are provided with transverse complementary segmental grooves 5, adapted to form a central shaft-opening to receive the shaft 6, as shown. This much of the pulley may be constructed in any of the common or usual ways.

In carrying out the present invention the segmental shaft-grooves of each arm are provided with a transverse groove 7, and at one side thereof there is provided a pair of openings 8, which extend entirely through the arm and are located at opposite sides of the shaft-groove.

Fitted into the transverse grooves 7 are the yoke-shaped clamps 9, which have their opposite side arms 10 extending through the respective openings 8 in the arm of the opposite pulley-section. As best shown in Fig. 3, it will be seen that the clamping-yoke is provided with a pair of teeth 11, which are located upon one face of the bowed portion of the clamp and intermediate of the opposite side arms thereof. Each clamp member is formed of wrought-iron, so as to be of maximum strength, and the teeth are tempered, so as to provide the sharp edges thereof, which are adapted to bite into the shaft 6.

To preserve the required strength of the clamping members, the teeth are made removable, so that they may be tempered independently of the said members. The inner bowed face of each clamp member is provided with a pair of longitudinally-tapered and dovetailed grooves 12, which extend entirely across the width of the members. The teeth are also wedge-shaped longitudinally and are provided with outwardly-beveled longitudinal edges 13, whereby said teeth are adapted to be driven into the tapered grooves and thereby held firmly therein. As clearly shown in Fig. 3, it will be seen that the outer faces of the teeth round evenly and gradually into the curved inner face of the clamp member, and one end only projects outwardly from the inner face of the clamp member, so as to form the sharp biting edge 14, which extends transversely across the member. It will further be noted that the shoulders formed by the biting edges 14 are located in the same relative direction in each clamp member, but are disposed in opposite relation in the respective members.

By reference to Fig. 1 it will be seen that each clamp member embraces the shaft 6 and the opposite arms 10 project through the respective openings 8 and beyond the outer side of the respective arms 3 and 4. Fitted to the outer face of each pulley is a metallic wear-plate 15, having suitable openings re-

ceiving the projecting threaded ends 16 of the clamping members, and the latter are provided with nuts 17, whereby the clamping members may be firmly engaged with the shaft. Thus it will be seen that by tightening the nuts 17 the bowed portions of the U-shaped clamps may be drawn firmly against the opposite sides of the shaft, thereby forcing the teeth 11 into the shaft and firmly fastening the pulley-sections to said shaft. It will be understood that the teeth bite into the shaft and hold the respective clamp members fixed thereto, thereby preventing movement of the members and the wearing of grooves in the periphery of the shaft. Should any of the teeth become broken or worn, they may be readily removed and a new tooth substituted therefor.

What I claim is—

The combination in a split pulley having opposite half-sections and pulley-arms therefor, of oppositely-disposed substantially U-shaped clamping members, which embrace the shaft and extend through the respective pulley-arms and provided with tapered dovetailed grooves located in the inner face of the bowed portions thereof, and tapered teeth having longitudinally-beveled edges and removably fitted in the grooves of the respective clamping members, and fastening means for the clamping members, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JACOB A. DORMAN.

Witnesses:
C. E. BINGHAM,
A. W. SCHAFER.