(No Model.)

H. C. CROWELL.

WOOD PULLEY.

No. 570,909. Patented Nov. 10, 1896.

Fig. 1.

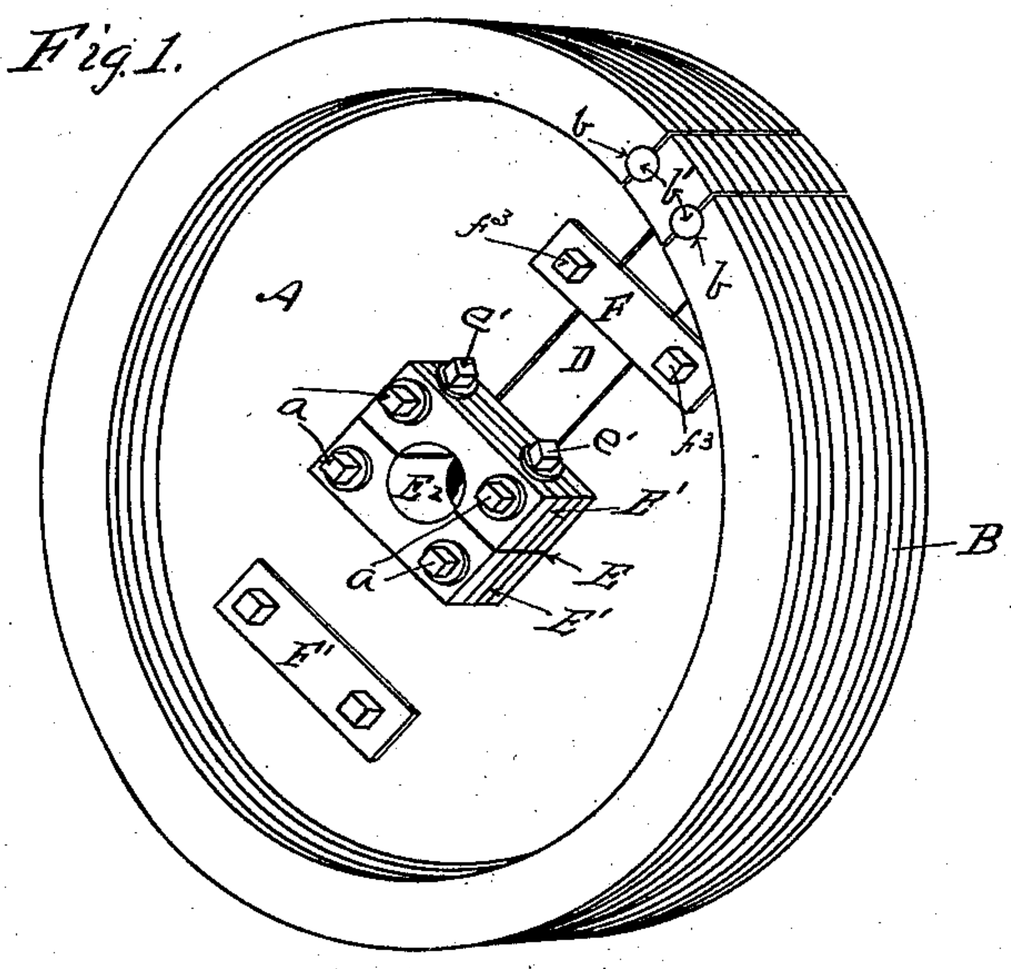


Fig. 2.

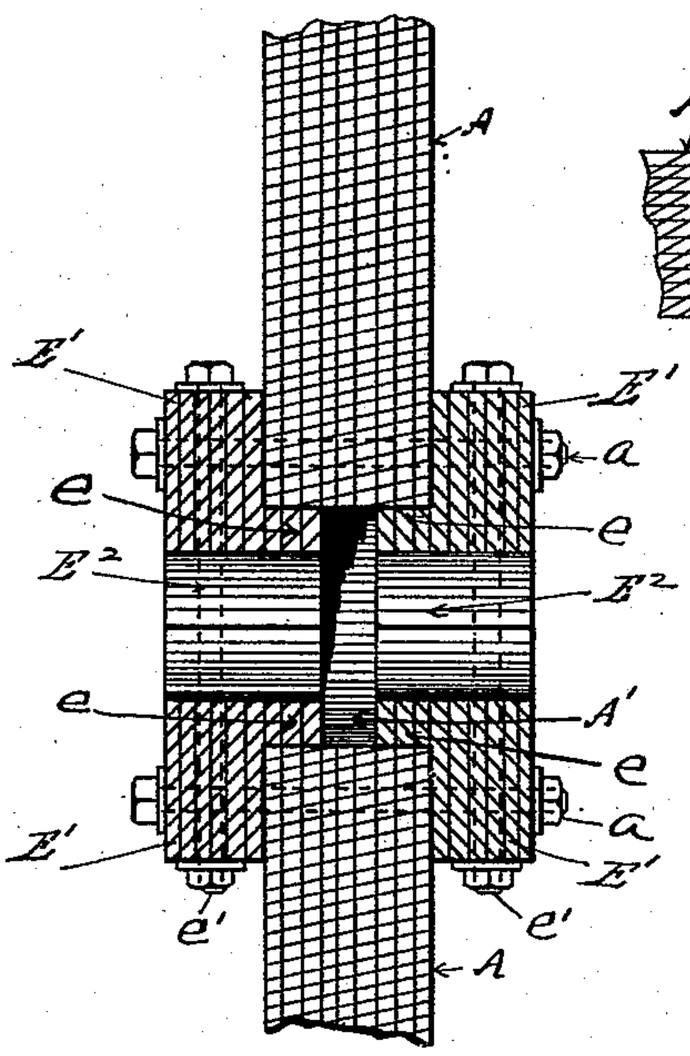
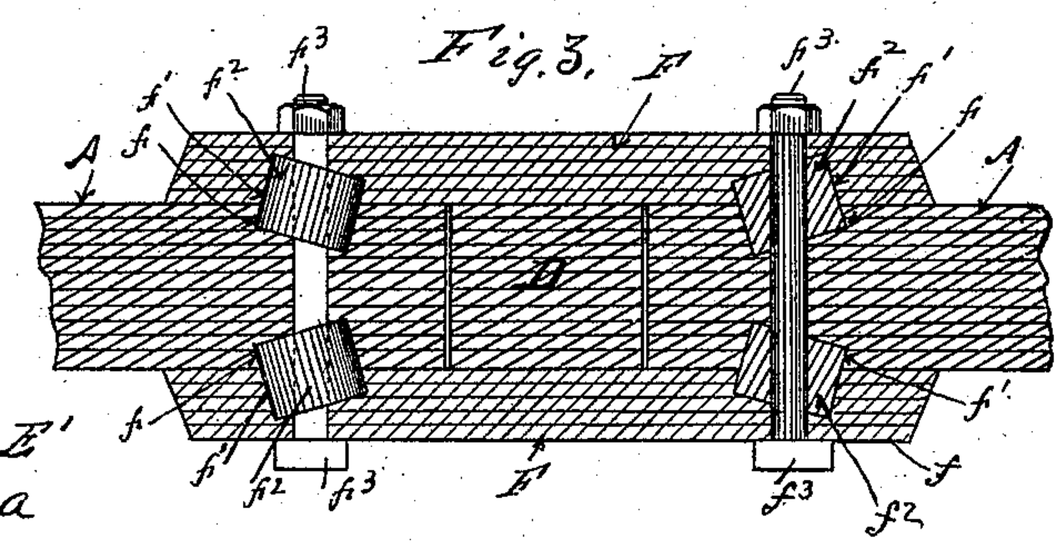


Fig. 3.



Witnesses.

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WOOD PULLEY.

SPECIFICATION forming part of Letters Patent No. 570,909, dated November 10, 1896.

Application filed January 6, 1896. Serial No. 574,523. (No model.)

To all whom it may concern:

Be it known that I, HILEN C. CROWELL, a citizen of the United States, residing at Dunkirk, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Wood Pulleys; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming a part of this specification.

This invention relates to wood pulleys; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved wood pulley. Fig. 2 shows a section of the pulley-web and of the hub in the same. Fig. 3 shows a section of the pulley-web and of the clamping mechanism for securing the sections of the same together.

In constructing the pulley illustrated in the accompanying drawings I preferably make the pulley-web A of veneering, one thickness thereof being piled upon another, each thickness being at right angles to the one preceding it until the proper thickness is built up, the whole being cemented together. The rim B is made of layers of veneering laid up in like manner and sawed out into rings, which are cemented to each side of the web A until the rim is built up to the proper width. In this manner the grain of the wood is so crossed in both the web and rim of the pulley that the pulley is substantially homogeneous in all of its parts. In the center of the web A, I make a round opening A′, considerably larger in diameter than the shaft upon which the pulley is designed to operate.

The hub E of the pulley I make in four sections E′, built up of layers of veneering, which are turned off on their inner surfaces, so as to form projections *e* thereon, which when the four sections E′ of the hub are in place the projections *e* form a circular projection which extends into and fits the opening A′ in the pulley-web A, the hub E being centered in the pulley-web thereby. Through the center of the sectional hub E is bored a shaft-opening E^2 of such size that the sections of the hub E on each side of the web A may be clamped together by means of bolts *e′*, these sections being secured to each side of the pulley-web by means of bolts *a*, which pass through holes in the hub-sections, which are slightly larger than the bolts *a*, so as to permit of the lateral motion necessary in clamping the hub-sections to a shaft.

In making this pulley so as to be removable from a fixed shaft I bore dowel-pin holes *b b* transversely through the rim B at substantially the same distance apart as the diameter of the opening A′ in the pulley-web A, and I then saw out a section D of the rim and web on lines passing through the dowel-pin holes *b b* and extending to the sides of the central opening A′ in the web. For securing this section in place I then put dowel-pins *b′* into the holes *b*, and also put clamps or plates F on the sides of the web A. These clamps or plates F, I preferably make of wood, and in each side of the web A, I bore inclined holes *f*, and in the clamps or plates similar holes *f′*, oppositely inclined, so that short guides or cylinders f^2 of wood placed in the holes *f* will project into the holes *f′* in the clamps F, and through the clamps F and cylinders f^2 I put clamping-bolts f^3, which operate not only to clamp the clamps F firmly to the sides of the web A, but the action of the inclined cylinders f^2 in the inclined holes *f f′* tends to draw the edges of the web A toward the section D, and thus firmly hold the parts in place.

To counterbalance the clamps F on the pulley-web A, I bolt dummy-clamps F′ to the sides of the web opposite the clamps F. It will readily be seen that by this construction I am enabled to make a pulley with not only interchangeable hubs adapted to fit any-sized shaft, but am enabled to make the pulley so that it can be readily placed upon or removed from a fixed shaft, while at the same time the pulley is not seriously weakened by so constructing it.

Having thus fully described my invention, so as to enable others to construct and use the same, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a wood pulley, the combination, with a web and a rim provided with a radially-slidable section permitting the pulley to be placed

on a shaft; of plates extending across the said section, clamping-bolts for securing the said plates to the main portions of the web, and inclined guides engaging with the said plates and web and operating to contract the main portion of the pulley upon the said section when the said clamping-bolts are tightened up, substantially as set forth.

2. In a clamp for securing the sections of a wood pulley together, plates, there being inclined openings in the pulley-web and in said plates, cylindrical blocks fitting into said inclined openings, and bolts passing through said plates and blocks, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HILEN C. CROWELL.

Witnesses:
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GEO. G. HOLLISTER.