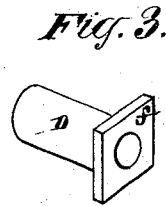
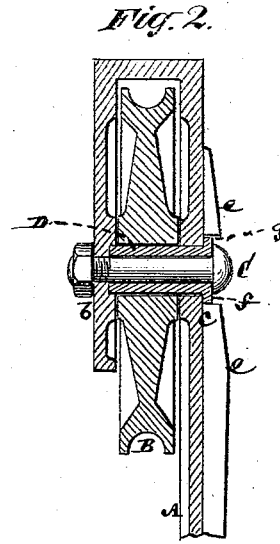
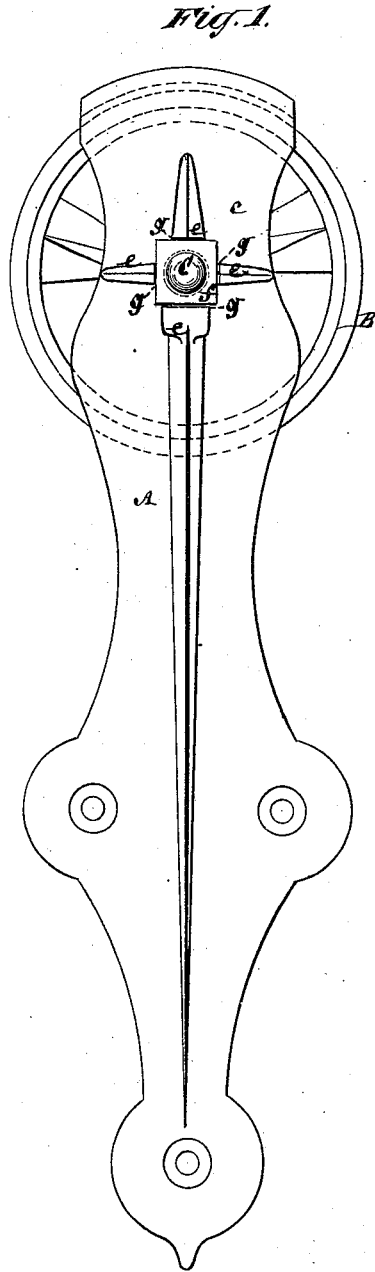


C. H. WHITE.  
Bearing for Sheaves and Journals.

No. 197,439.

Patented Nov. 20, 1877.



*Witnesses*  
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*Fred Haynes*

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# UNITED STATES PATENT OFFICE.

CHARLES H. WHITE, OF NEW YORK, N. Y.

## IMPROVEMENT IN BEARINGS FOR SHEAVES AND JOURNALS.

Specification forming part of Letters Patent No. **197,439**, dated November 20, 1877; application filed October 24, 1877.

*To all whom it may concern:*

Be it known that I, CHARLES HARCOURT WHITE, of the city and State of New York, have invented a new and useful Improvement in Bearings for Sheaves and Journals, of which the following is a description, reference being had to the accompanying drawing, forming part of this specification.

This invention, although here shown as applied to the hangers of sliding doors or gates, regardless of whether the same be used in connection with doors or gates supported from above or below, is equally applicable to other contrivances or devices in which sheaves are used to sustain the weight, likewise to sheaves of pulley-blocks, and other sheaves and pulleys having to sustain a one-sided weight or pressure, which causes unequal wear of their bearings.

The invention consists in a reversible and removable sleeve-bearing of novel construction for the sheave or pulley, in combination with the center pin or bolt within said sleeve, and the frame or casing containing said sheave or pulley, whereby a secure lock or hold is obtained for said sleeve when set, with every convenience for turning it to meet lateral wear, and for removing it, or the pulley or sheave working on it, without dismembering the frame or case.

Figure 1 of the accompanying drawing represents a hanger plate or frame for a sliding door, with a running or supporting sheave therein for said door, and having my invention applied. Fig. 2 is a vertical central section of the same, in part, in a plane at right angles to Fig. 1. Fig. 3 is a view, in perspective, of the sleeve or bushing on which the sheave turns.

A is one of the hangers of a sliding door or gate, or frame or plate thereof, forming the casing within which the sheave B, used to carry the door, runs. This frame is made to straddle the sheave, and has opposite cheeks, *b c*, at its sheave or pulley end.

C is the pin or bolt which forms the pintle of the sheave, and around which the sleeve or bushing D, on which the sheave turns, is fitted. This sleeve, through which and the cheeks *b c*

of the frame A the bolt C passes, it is preferred to make of what is termed "anti-friction metal," and its length is such as to prevent any binding or tightening of the sheave in its running space within the hanger; and said sleeve, which enters freely through an aperture, *d*, in the cheek *c* of the hanger, is constructed to enter a bearing-recess, *e*, in the opposite cheek *b*, whereby the bolt C is relieved of weight or friction consequent on lateral pull or pressure of or on the sleeve.

Furthermore, said sleeve D, fitted as described, is not only made readily removable on withdrawing the bolt C and the sheave B, likewise made readily removable without dismembering the casing or framing A, but said sleeve D is provided with a locking head or projection, *f*, which, as said sleeve is fitted to its place, is made to engage externally with one or more locking-recesses, *g*, formed by the ribs *e*, or otherwise, in the cheeks *c* of the hanger A, or which, having one or more locking-recesses in it, is made to engage with one or more corresponding projections on the exterior of the cheek *c* of the frame as stops. In this way or by these means the sleeve D may, by simply and slightly withdrawing it, so as to free the engagement of its head or projection *f* with the cheek *c*, be turned to present different sides of it—say four, more or less—in succession, to the sheave or pulley on that side of the latter on which the weight or pressure is brought to bear, and said sleeve afterward be returned and positively stopped or locked at its set within the frame A.

I claim—

The combination, with the frame A and pin or bolt C, of the reversible and removable sleeve-bearing D, provided with a locking head or projection on one of its ends, engaging with a projection or recess on the exterior of the frame, substantially as and for the purpose herein described.

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Witnesses:

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