(No Model.)

P. H. GRIMM.

PULLEY.

No. 432,701. Patented July 22, 1890.

Fig. 1.

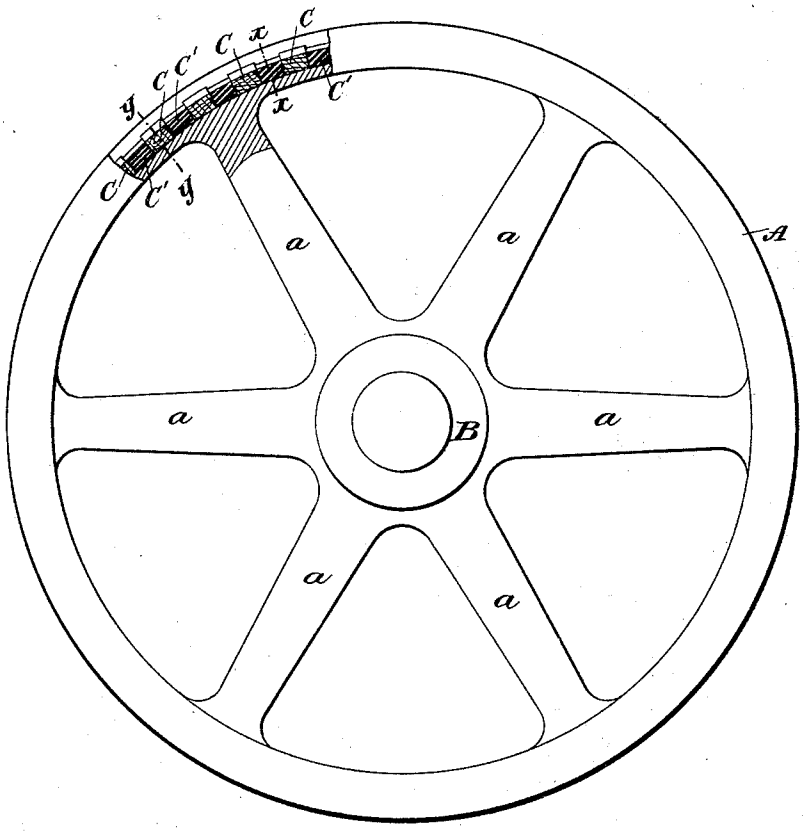


Fig. 2.

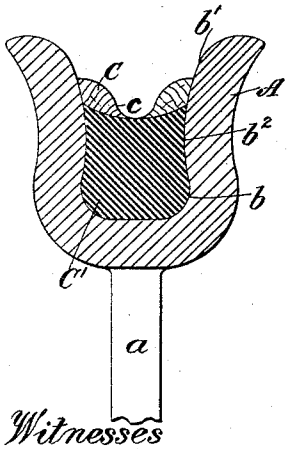


Fig. 3.

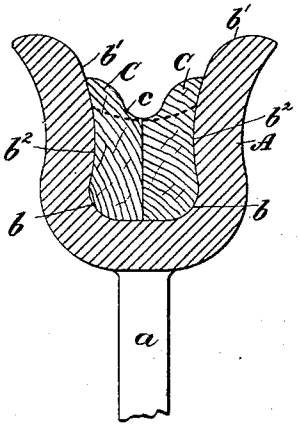
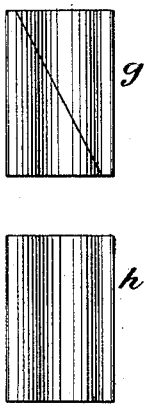


Fig. 4.



Witnesses
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Inventor:-
Paul H. Grimm
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

PAUL H. GRIMM, OF GLEN COVE, NEW YORK, ASSIGNOR OF ONE-HALF TO LOUIS T. DURYEA, OF SAME PLACE.

PULLEY.

SPECIFICATION forming part of Letters Patent No. 432,701, dated July 22, 1890.

Application filed February 20, 1890. Serial No. 341,147. (No model.)

To all whom it may concern:

Be it known that I, PAUL H. GRIMM, of Glen Cove, Queen's county, and State of New York, have invented a certain new and useful Improvement in Wheels and Pulleys for Wire Rope, of which the following is a specification.

My invention relates to wheels or pulleys which are used for supporting a traveling cable, usually a wire rope.

I will describe in detail a wheel or pulley embodying my improvement, and then point out the novel features in claims.

In the accompanying drawings, Figure 1 is a side elevation of a wheel or pulley embodying my improvement, a portion being broken away and shown in section. Fig. 2 is a section thereof, taken on the line *x x*, Fig. 1. Fig. 3 is a section thereof, taken on the line *y y*, Fig. 1. Fig. 4 is a detail view showing two forms of blocks of wood which are employed upon the wheel. Figs. 2, 3, and 4 are drawn to a much larger scale than Fig. 1.

Similar letters of reference designate corresponding parts in all the figures.

The wheel comprises a rim portion A, a hub portion B, and spokes *a* extending between the rim and the hub portion. The rim A is peripherically grooved, and, as shown more clearly in Figs. 2 and 3, is substantially U-shaped in the cross-section. The groove has a widened portion *b* near its bottom, and a widened portion *b'* at its top or open side. Intermediate of the widened portions *b b'* the groove is contracted as at b^2. Inserted in the said groove are alternate blocks C of wood and C' of india-rubber. The blocks of wood are preferably made of a hard wood, such, for instance, as hard maple. They conform in shape to the shape of the groove and fit snugly therein when in position. The shape of the groove is such as to cause the blocks to be locked in the groove against radial displacement. The blocks upon their outer sides are provided with grooves *c* in which the wire rope or cable travels. I prefer that the blocks be made up of sections, either of the form shown at *g*, Fig. 4, or that shown at *h* in the same figure. In the form shown at *g* the block is divided diagonally from one corner to another. This is advantageous, because the sections of the block will wedge each other more or less tightly in the groove. Both of the forms are necessary in order that the blocks may be placed in the groove, as one of the sections may first be placed in the groove and the other then slid in endwise by the side of it. Between the blocks of wood are placed blocks of india-rubber C'. These blocks of rubber also substantially conform in shape to the shape of the groove, but they do not extend up as high as do the blocks C. They are shown as arc shape upon their upper sides and about midway in their widths. Such upper sides are coincident with the bottoms of the grooves *c*. The india-rubber blocks, by the frictional resistance which they offer to the slipping of the cable passing over the wheel or pulley, aid in the proper travel of the cable, while the grooved blocks C act as guides for the cable and prevent the contact of the latter with the side walls of the groove in the rim A of the wheel.

The use of the wooden blocks described is very advantageous on account of their durability and cheapness, while at the same time they prevent undue wear which might be caused by the slipping of the cable.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a wheel or pulley provided with a peripherical groove having a widened bottom portion, a widened top or outer portion and a contracted intermediate portion, of alternate blocks of wood and india-rubber arranged in said groove, said blocks being of substantially the same shape as the said groove and the blocks of wood being made up of sections adapted to be slid past each other, substantially as specified.

2. The combination, with a wheel provided with a peripherically-shaped groove, of alternate blocks of wood and india-rubber arranged in said groove, said blocks of wood being longitudinally grooved upon their upper sides, but having the portions at the sides of said grooves extending upwardly beyond the india-rubber blocks, substantially as specified.

PAUL H. GRIMM.

Witnesses:
FREDK. HAYNES,
LIDA M. EGBERT.