(No Model.)

J. G. WILSON.

VENETIAN BLIND PULLEY.

No. 450,392. Patented Apr. 14, 1891.

Fig. 1.

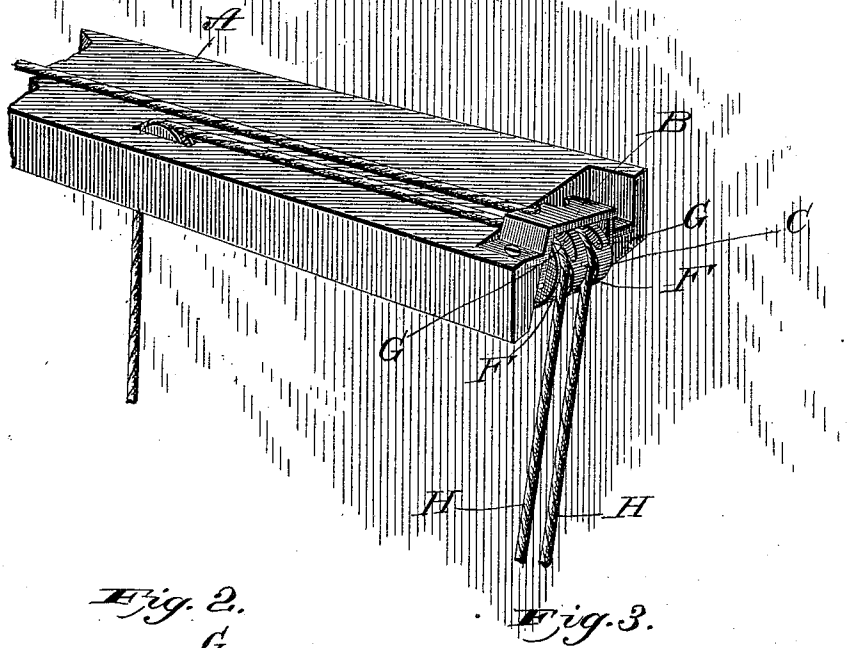


Fig. 2.

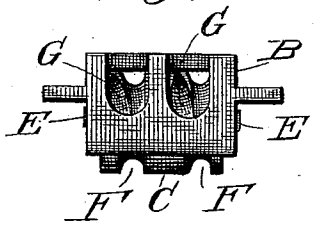


Fig. 3.

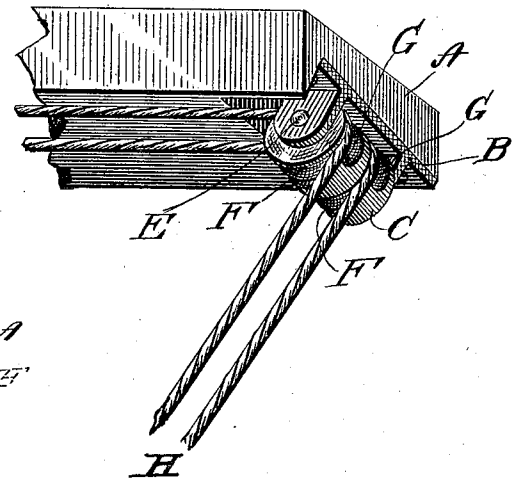
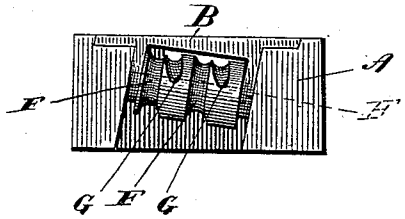


Fig. 4.



Witnesses.

Jno. S. Finch

E. S. Sumner

Inventor.

James G. Wilson

By F. W. Smith Jr.

Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES G. WILSON, OF NEW YORK, N. Y.

VENETIAN-BLIND PULLEY.

SPECIFICATION forming part of Letters Patent No. 450,392, dated April 14, 1891.

Application filed August 16, 1889. Serial No. 320,982. (No model.)

To all whom it may concern:

Be it known that I, JAMES G. WILSON, a subject of the Queen of Great Britain, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Venetian-Blind 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.

My invention has relation to pulleys for use in connection with Venetian blinds, but refers especially to what are generally known as "check-pulleys," and has for its object the production of such pulley, by the use of which the two sides of the blind will be raised simultaneously and equally, and in the checking of the same the cords will be automatically caught without fail and at the same instant.

To these ends the invention consists in certain peculiarities in the construction and arrangement of said pulley, substantially as hereinafter specified, and particularly pointed out in the subjoined claims.

In the accompanying drawings, Figure 1 is a perspective showing the top bar of a Venetian blind provided with my improvement; Fig. 2, a detail elevation of the pulleys and pulley-frame; Fig. 3, a view similar to Fig. 1, but showing the pulley-frame mortised within the bottom of the top bar instead of the top; and Fig. 4, a modification of my invention, showing the pulley so constructed that the axis thereof will be normally tilted without any incline of the mortise.

Similar letters denote like parts in the several figures of the drawings.

A is the top bar from which the blinds depend.

As this invention has no pertinence to the construction of the blinds, I have omitted them from the drawings.

B is a pulley-frame having mounted therein a double check-pulley C on an axis E, said pulley being provided with two plain grooves F and two switch-tracks G, one from each of said grooves in parallelism with each other and at the same place with respect to the individual straight grooves F.

The end of the bar A is so mortised that the front edge of such mortise is higher than the rear edge thereof, and the axis of the pulley, when the pulley-frame is secured within said mortise, will therefore be at an angle to the horizontal plane of the bar. When the pulley is properly secured, as shown in Figs. 1 and 2, the plain grooves F will be in front of their respective switch-tracks G.

By the use of the improved double-check pulley hereinabove described the two sides of the blinds will be raised simultaneously and equally, which is a result not obtained with the use of two single-check pulleys, as the grooves and switch-tracks are always carried at the same speed at the same time and between the same limits of time, and in the checking of the blind the same result will be obtained, for then, both switch-tracks being located in parallelism and at exactly the same place with respect to the individual straight grooves, the cords will be caught without fail and at exactly the same time.

It is very natural for a person to pull the cords H of the blinds outward, and said cords are thus drawn within the plain grooves F and away from the switch-tracks G, thus permitting a free operation of the blinds without the frequent catching so common in instances where the axis of the pulley is horizontal. By mounting the pulleys on an inclined axis so that the circumferential plain grooves extend in the direction of such natural outward line of draft of the cords it will be readily seen that no accidental catching of said cords can occur, whereas in the instance of horizontal pulleys the cord must be pulled vertically or else it will ride out of the groove over the face of the pulley and become caught between the latter and the pulley-frame. As I stated before, a person naturally draws the cord outward and the accidental catching of the latter in the case of the usual check-pulleys is very frequent. Also, in the usual check-pulleys the operator, when he releases the cord, must give it a cast to one side in order that it may enter the switch-track and be caught and held between the face of the pulley and the frame, whereas in my improvement the cord when released swings by gravity to a vertical position, thereby automati-

cally entering the switch-track, which latter, by the way, is brought into a vertical plane by the inclination of the axis E.

It is immaterial whether the pulley-frame is mortised in the top or in the bottom of the bar; but I prefer the construction shown at Fig. 1, because it is best adapted to the particular arrangement of the cords in Venetian blinds commonly used.

In Fig. 4 I have shown the sides of the frame inclined so that the axis of the pulley when journaled within said frame will be at the proper incline to a horizontal, thus obviating the necessity of mortising the top bar on an incline.

I am aware that a single-check pulley having a single plain groove and a switch-track diverging therefrom is old, said pulley also being arranged at an angle. I am further aware that an ordinary double pulley—that is to say, a pulley having two parallel plain grooves—is old. It is obvious, however, that neither of these constructions is capable of accomplishing the object of my invention—to wit, the production of a pulley for Venetian or inside blinds, by the use of which both sides of the blinds will be raised simultaneously and equally and checked at the same time, so that the sides of the blinds equipped with my improved pulleys will always be on a level, the advantages of which will be readily seen and appreciated.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. As an improved article of manufacture, a double-check pulley having two circumferential straight grooves, and two switch-tracks diverging one from each of said grooves in parallelism with each other and at the same place with respect to the individual straight grooves, substantially as described, and for the purposes specified.

2. In a Venetian blind, the combination, with the top bar having an inclined mortise in the end thereof, of a double-check pulley mounted in a frame which is secured within said mortise, whereby the axis of said pulley is normally at an incline to a horizontal, said pulley having two parallel circumferential grooves extending in a plane at right angles to the axis of the pulley, and also two switch-grooves deflected in parallelism from said circumferential grooves, substantially as shown and described.

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

JAMES G. WILSON.

Witnesses:
WM. A. ROEDEL,
JAS. STANSFIELD.