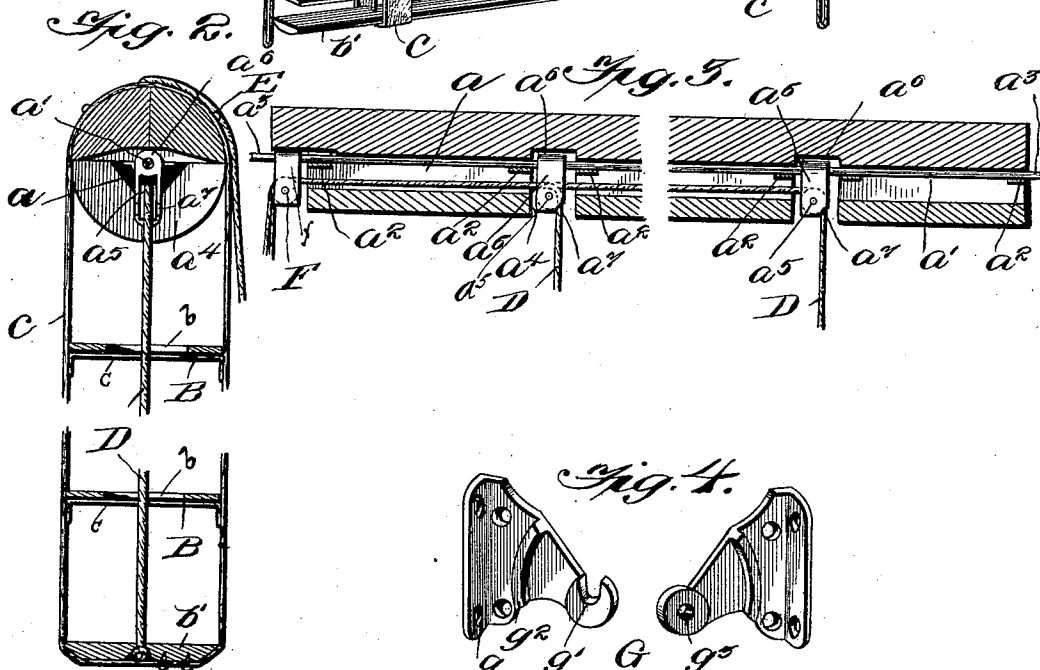
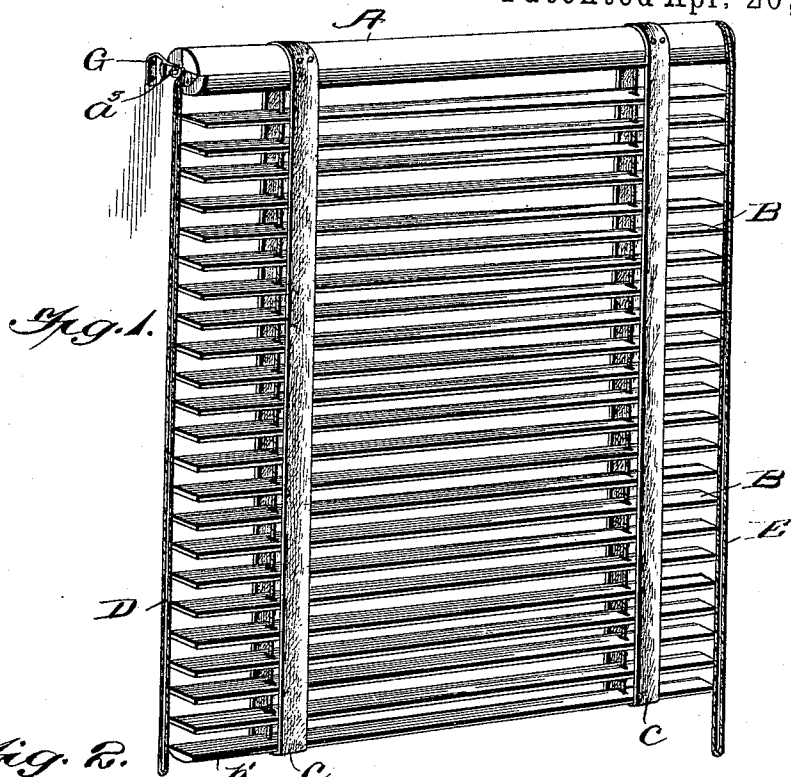


(No Model.)

C. H. PEASE.
VENTILATED SHUTTER.

No. 580,990.

Patented Apr. 20, 1897.



WITNESSES

WITNESSES
J. L. North
I. W. Stockbridge

INVENTOR,
Charles H. Pease,
by *John Weddellburn,*
Attorney

UNITED STATES PATENT OFFICE.

CHARLES H. PEASE, OF CINCINNATI, OHIO.

VENTILATED SHUTTER.

SPECIFICATION forming part of Letters Patent No. 580,990, dated April 20, 1897.

Application filed November 6, 1896. Serial No. 611,245. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. PEASE, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Ventilated Shutters; 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.

This invention relates to improvements in shades or blinds and has more particular relation to Venetian blinds.

The invention consists of certain novel constructions, combinations, and arrangements of parts, all of which will be hereinafter more fully described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 represents a perspective view of the blind embodying my invention, the slats of the same being in their horizontal position. Fig. 2 represents a central vertical section through said blind on the line of one of the pulleys. Fig. 3 represents an enlarged detail central vertical longitudinal section through my said improved roller, and Fig. 4 represents the supporting-brackets in enlarged perspective.

A in the drawings represents the roller; B B, the slats; C C, the slat-supporting tapes; D, the cord for raising and lowering the blind, and E the cord for opening or closing the blind. The said roller A is preferably constructed of a plurality of strips of wood so formed as to leave a central longitudinal passage *a* therethrough. A rod *a'* is mounted centrally within said passage *a* by means of clips or brackets *a²*, suitably secured to the interior walls of said passage. The ends of said rod *a'* project sufficiently beyond the opposite ends of the roller A to form trunnions or journals *a³ a³*, adapted to be mounted in suitable brackets for the support of the roller. The said roller A is provided with vertical apertures *a⁴ a⁴*, that extend through the wall of the same into the interior passage *a*. These passages *a⁴* are intended to accommodate antifriction-rollers or belt-wheels *a⁵ a⁵*, said antifriction-rollers being suspended in said apertures by loop-castings *a⁶ a⁶*, that are loosely mounted on the rod *a'* so as to swing from side to side thereon. The

lower portions of the loop-castings *a⁶* are cut away, as at *a⁷*, so that the cord D, passing through the passage *a* and over the pulley *a⁵*, will not contact with the lower end of said casting. One end of said cord D passes over one of said pulleys *a⁵*, arranged at one end of the roller, and the opposite end of said cord over the pulley *a⁵* at the opposite end of said roller. A double roller or wheel F is mounted upon one of the extended ends *a³* of the roller by a yoke *f*, that passes over said end *a³*. This roller is intended to support both of the doubled portions of the cord D as they pass into the passage *a* of the roller A, and thus prevent them from contacting with the end of said roller. The respective ends of said cord D extend downward from their respective pulley-wheels through lateral slots *b*, cut in the slats B, the lower end of said cord being secured to the lowermost slat *b'*, so that when said cord D is pulled said slat *b'* will be raised until it contacts with the next succeeding slat, which in turn will rise to engage the slat above the same, and so on until the entire blind has been raised into contact with the roller A. Said cord may be secured down in position by any desired hook or bracket mounted upon the window-casing. The said slats B are normally supported in position by the tapes C, which extend down from the opposite sides of the roller A and are connected at intervals by cross-strips *c*, upon which said slats B rest. The said roller A is adapted to be rotated so as to wind the strips C upon one side up and lower the strips C on the opposite side to open or close the blind by the cord E, which is wound about said roller A and extends down upon opposite sides of the same. It will be observed that by this arrangement a pulley upon either one or the other side of the cord E will rotate the said roller A either to one side or the other, thus causing the slats B to either assume a horizontal position or a vertical position with their edges overlapping. When in their horizontal position, the blind is adjusted for ventilation, as the air may readily pass through the same, but when said slats are raised to their vertical positions the blind is closed against any such passage of air or light. I prefer to construct said roller A of two or three independent strips of wood, as

by this means said roller may be more cheaply manufactured and at the same time answer all purposes in the same perfect degree that a roller made of one piece would. By this peculiar formation of the roller the same is prevented from warping, as the grains of the several strips forming said roller act against each other to prevent such warping.

By the employment of my invention the blind is raised or lowered with a minimum amount of friction and thus the exertion incidental to this operation is reduced to the lowest practical degree.

All the desirable adjustments of a Venetian blind are combined in my improved device, as the same may be either opened or closed while down in its lowered position or raised into its upper position to leave the window altogether clear at will.

The peculiar pivoted construction of the castings supporting the pulleys is necessary because of the shifting positions the roller A is caused to assume, said constructions permitting of said pulleys always being pendent from their support in a direct vertical plane therewith.

The supporting-brackets G (shown in Fig. 4) are right and left hand, respectively. The right-hand hanger comprises an angular supporting-bracket provided with screw-apertures *g* and open-top journal-apertures *g'* and a segmental guiding or guarding flange *g*². The left-hand hanger is substantially like the right, with the exception that it is turned the other way and has its journal-aperture *g*³ closed.

By the peculiar construction of my roller the side walls of the pulley-apertures act as guides to hold the pulley-supporting devices in position and prevent the supporting-cord from jumping the pulleys.

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

1. In a Venetian blind, the combination with a hollow roller provided with a plurality

of pulley-apertures in its side, of a rod mounted in said roller, pulleys mounted upon said rod and lying in the pulley-apertures and entirely within the circumference of the roller, a plurality of slats, means for suspending said slats from said roller, and operating-cords passed through said roller down through the pulley-apertures and over the pulleys and connected to said slats for raising or lowering the same, the construction being such that the walls of the pulley-apertures hold the pulleys in the proper position and prevent the supporting-cords from jumping from the same, substantially as described.

2. In a Venetian blind, the combination with a hollow roller having pulley-apertures, of a rod mounted within said roller and having projecting journal ends, pulley-supporting castings journaled upon said rod, so as to lie in the pulley-apertures but entirely within the circumference of the roller, pulleys mounted in said castings, a plurality of slats flexibly connected to said roller, cords passed through said roller and over said pulleys and connected to said slats to raise and lower the same, and means for rotating the roller to open or close the slats when in their lowered position, substantially as described.

3. In a Venetian blind, the combination with a hollow roller comprising a plurality of wood strips suitably secured together and formed with pulley-apertures, of a rod mounted in said roller, pulleys mounted upon said rod and lying within said pulley-apertures and entirely within the circumference of the roller, a plurality of slats and cords passing through said roller and over said pulleys and connected to said slats, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHARLES H. PEASE.

Witnesses:

WADE CUSHING,
WM. J. KLEIN.