C. W. PIERCE.
Door-Hangers.

No. 198,997. Patented Jan. 8, 1878.

Fig. 1.

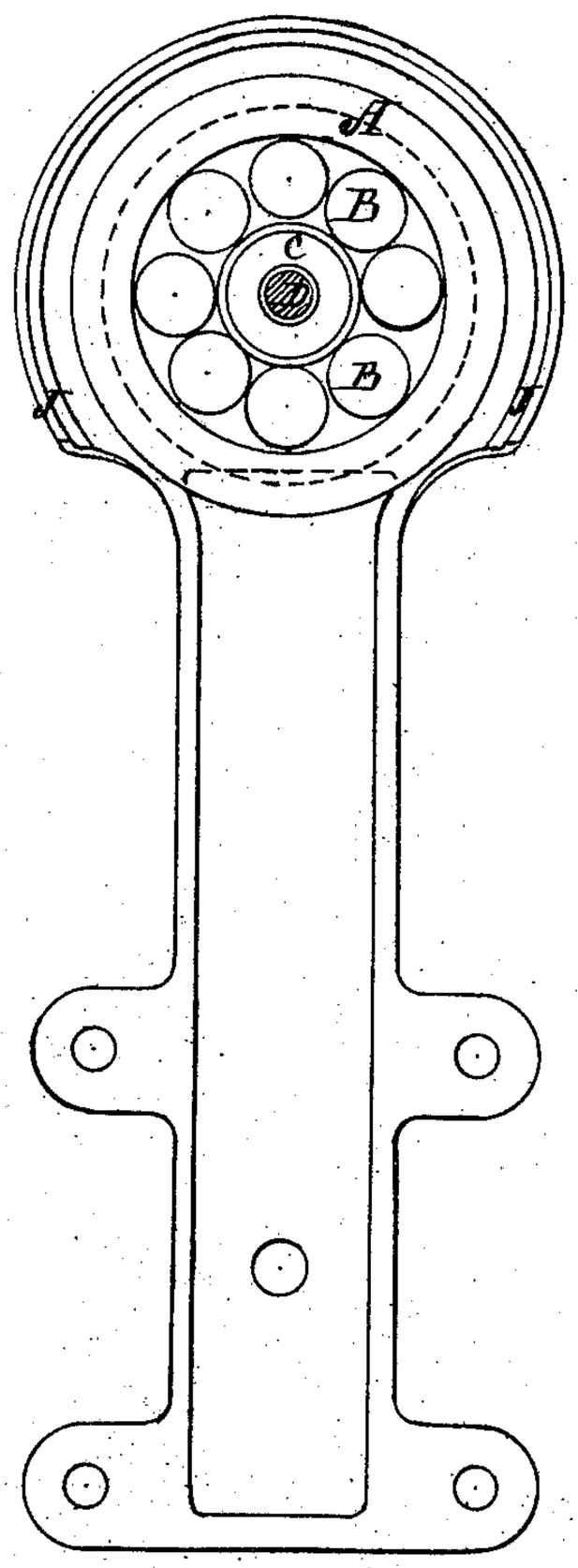
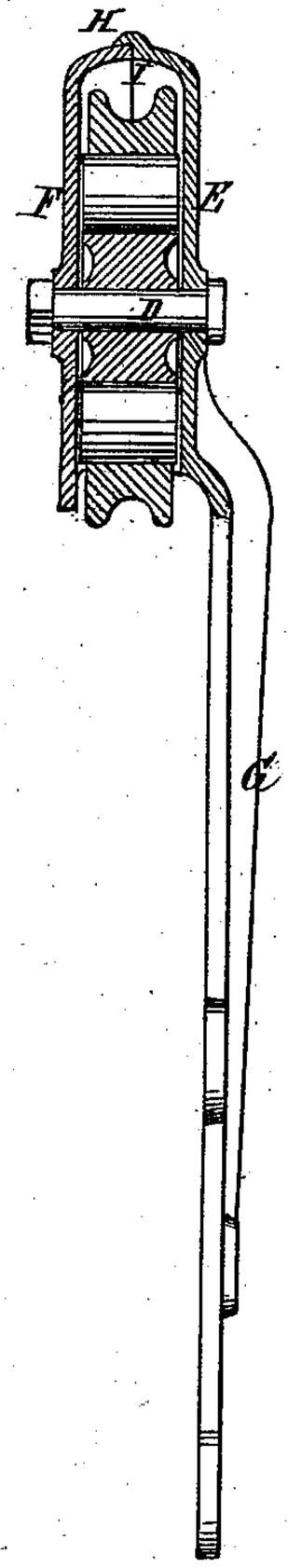


Fig. 2.



Witnesses.

F. A. Thayer.

Wm. J. Morgan.

Inventor.

Chas. W. Pierce,

By A. P. Thayer, Atty.

UNITED STATES PATENT OFFICE.

CHARLES W. PIERCE, OF NEW YORK, N. Y.

IMPROVEMENT IN DOOR-HANGERS.

Specification forming part of Letters Patent No. **198,997**, dated January 8, 1878; application filed March 7, 1877.

To all whom it may concern:

Be it known that I, CHARLES W. PIERCE, of New York city, county and State of New York, have invented new and useful Improvements in Sheave-Pulley Blocks, of which the following is a specification:

My invention consists of a construction of the sheave with an outer grooved ring, a circle of friction-rollers, and a center roller, so contrived that the rings heretofore ordinarily used in connection with the circle of rollers, and in which the rollers have been journaled, are dispensed with, thus making the sheave much simpler and cheaper, while at the same time possessing all the anti-friction properties of the more expensive contrivance; also, of a simpler and cheaper construction of the case or block, all as hereinafter more fully described and claimed.

Figure 1 is a side elevation of my improved sheave-pulley block, with one side of the case removed. Fig. 2 is a sectional elevation.

A is the grooved ring of the sheave, in which the rope runs; B, the circle of friction-rollers, on which the ring is mounted, and *c* the center roller on which the rollers B work. The roller *c* is mounted on the center pin or bolt D, and this bolt holds the two parts E and F of the case or block together, close to, but not quite touching, the ends of the rollers, so as to control them, for preventing them from skewing or sheering sidewise, for which also the rollers are made full size to the ends, and as long as is consistent with the thickness of the sheave and the necessary freedom at the ends, and they are also of suitable diameter to afford ample bearing-surface at the ends to be guided properly by the sides of the case, without sheering or skewing around and binding or cramping between the sides of the case. Thus the rings commonly employed at the ends of the rollers for bearings of journals on the ends of the rollers are dispensed with making the sheave less expensive and more durable.

The part E of the case or block to which the support is attached, which support may be the standard G, or a hook or eye at the top, has a circular flange, H, inside of which the edge of the other part, F, fits at the joint I of the two parts, and this flange is extended sufficiently below the horizontal axis of the case to form the vertical supports at J for the part F of the case, so that no other fastening besides the center bolt D is required to secure the block together.

The case being cast in the two parts, so as to go together without any fitting, and so as to be secured by one fastening-bolt, renders the construction very cheap and simple.

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

The revolving center roller, combined with the intermediate rollers and the outer wheel or ring, and having its support on a center-pin, which is supported at one end in the stationary part of the case, and at the other end in the removable part of the case, which is itself supported by an overlapping flange of the stationary part, substantially as described, for the purpose set forth.

CHARLES W. PIERCE.

Witnesses:
F. A. THAYER,
WM. J. MORGAN.