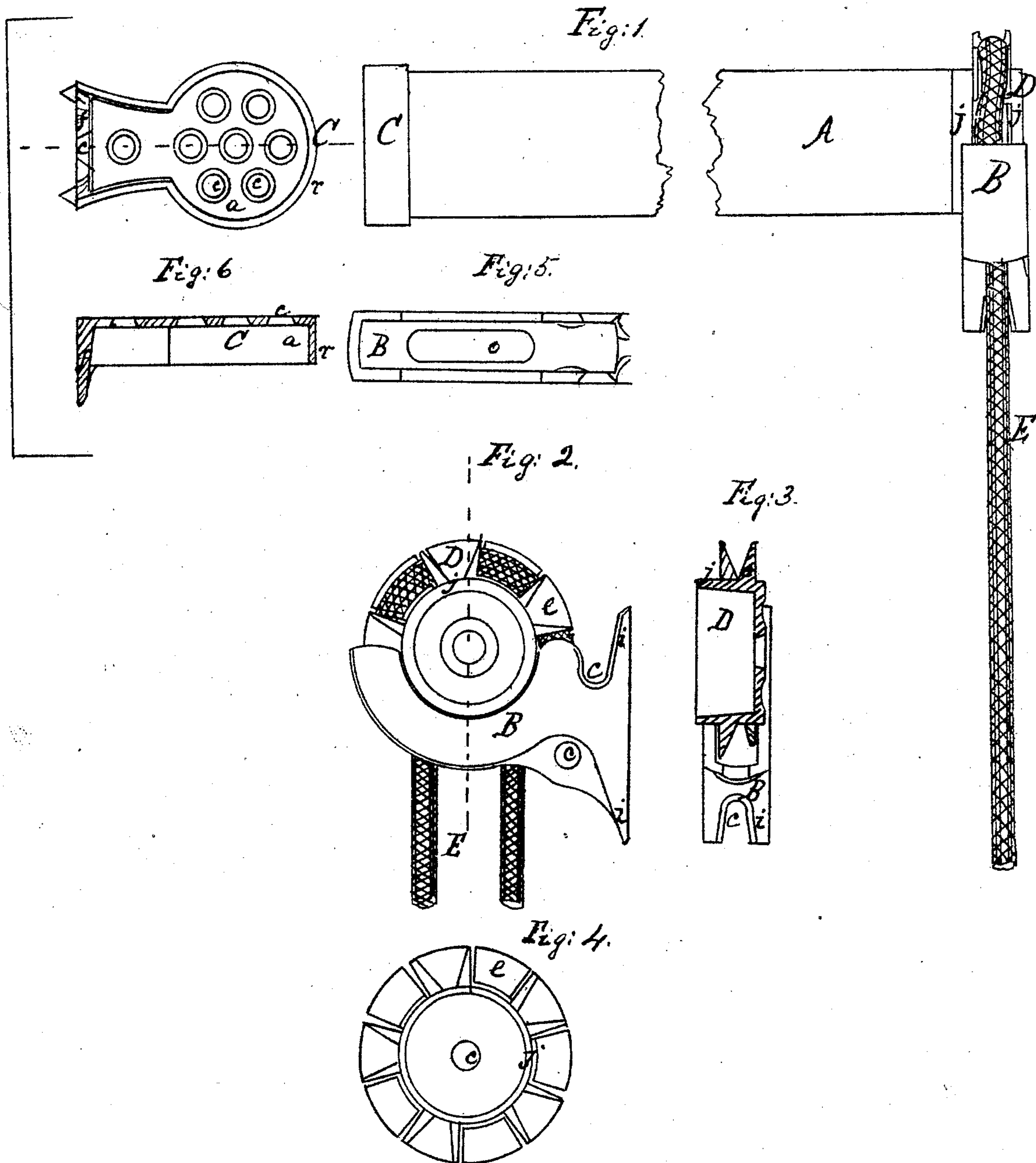


C. F. Knauer.
Curtain-Fixture.

N^o 73612

Patented Jan. 21, 1868.



Witnesses.

Leonard S. Johns
John Smith Jr.

Inventor.

Christian F. Knauer

United States Patent Office.

CHRISTIAN F. KNAUER, OF PITTSBURG, PENNSYLVANIA.

Letters Patent No. 73,612, dated January 21, 1868.

IMPROVED CURTAIN-FIXTURE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, C. F. KNAUER, of Pittsburg, in the county of Allegheny, and State of Pennsylvania, have invented a new and useful Improvement in Window-Curtain Fixtures; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a front view of a curtain-roller attached to my fixture.

Figure 2, side elevation of the cord and pulley and its bearing.

Figure 3, vertical transverse section of the former.

Figure 4, detached side view of the cord-pulley.

Figure 5, top view of its bearing.

Figure 6, side view and longitudinal transverse section of the other roller and bearing.

Similar letters of reference indicate corresponding parts.

The main object of this invention is to obviate the annoying dislocation of the cord from out of its grooved track in the pulley, which will often occur with the common fixture, and to facilitate placing the tension-knob or counter-pulley in position of the easiest access, irrespective of any deviation from the centre line of the cord-pulley.

A represents the curtain-roller; C, the end-bearing, in the form of an annular case or ferrule, just large enough to admit the end of the roller freely, closed on the outer side by the bottom *a*. *r* is the rim; *f*, a flange, provided with a slot, *e*, for screwing it to the outside frame. *c'* are screw-holes in the bottom, which admits the bearing to be secured on the inner side of the window-frame. B is the bearing for the pulley D. It has two semi-annular openings in sizes to fit the pulley-journals J. It forms a semi-encasement for the cord and pulley. *o* is an aperture in the lower part of the case to let the cord E pass through. *i* are flanges, provided with slot, *s e*, which will answer for screw-holes, and which enable the bearing to be applied either in or outside the window-frame or casing. D is the cord-pulley, provided with an annular opening, like a ferrule. It fits close to the roller, and is held there, either by its own friction or by additional screws or nails entered through the holes on the end of the cap or bottom of the ferrule. The periphery of the ferrule J is provided with teeth or projections, *e*, in two parallel circumferential lines, and alternate in their relative positions, leaving an opening opposite each tooth, the whole representing and acting for a grooved pulley, with sections of rims taken away. It will be seen, in fig. 1, that by such a constructed pulley the cord will form a zigzag yielding to the opening opposite the inner surface of each tooth, causing thereby more friction, and consequently the cord itself need not be strained to the tension necessary to be had by the common system where cords are used. By this method the tension-rack may be dispensed with, and any knob, or its equivalent, will do its office. By giving the bearing B such a shape as to encase the lower half of the pulley, and as the opening *o* lets the cord pass through, it guards and guides the same always towards its groove in the pulley, irrespective of any deviation of the centre line of cord, and counter-pulley, or knob, from where it gives the easiest access to operate on.

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

1. I claim the pulley-bearing B, with its aperture or flanges *i*, slots *e*, arranged and constructed substantially as described, and for the purpose set forth.

2. I claim the cord-pulley D, provided with teeth *e* on its periphery, and journals J, when arranged and operated in combination with the cord E, substantially as described and set forth.

CHRISTIAN F. KNAUER.

Witnesses:

LEONARD S. JOHNS,

JOHN LITTLE, Jr.