S. SERIGHELLI.

Expansion Pulley.

No. 211,937. Patented Feb. 4, 1879.

Fig. 1.

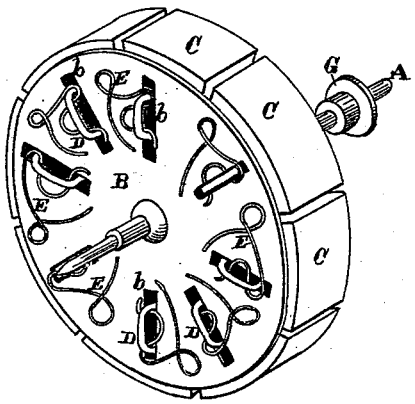


Fig. 2.

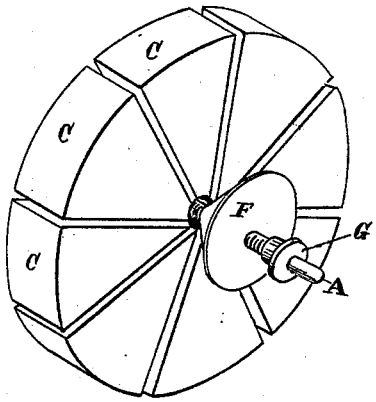
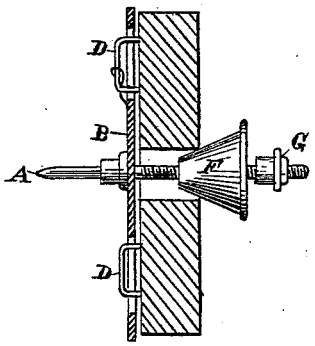


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

SILVESTRO SERIGHELLI, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN EXPANSION-PULLEYS.

Specification forming part of Letters Patent No. **211,937**, dated February 4, 1879; application filed November 22, 1878.

To all whom it may concern:

Be it known that I, SILVESTRO SERIGHELLI, of the city and county of San Francisco, and State of California, have invented an Expansion-Pulley; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings.

My invention relates to that class of pulleys or drums which are expansible; and my improvements consist in a series of details of construction, as hereinafter more fully described and claimed.

Figures 1 and 2 are views of my device. Fig. 3 is a section of the same.

Let A represent the shafting in which my expansible pulley is mounted. On this shaft is keyed the metallic disk B, having slots *b* formed in it, as shown.

The pulley is formed in sections C, as many of these sections as may be considered necessary being used. Each section has attached to it a staple or lug, D, which projects through the slot *b*, so as to come through the disk B, as shown. On the opposite side of the disk from that on which the sections are placed are secured springs E, corresponding in number to the sections of the pulley, and to each lug on each section is fastened one of these springs. The pulley-sections are then each one attached to the disk by means of the lugs and springs; but the elongated slots admit of a certain amount of play to the lugs and sections outwardly from the center.

The slots in the disk are cut so that when the springs draw the lugs to the point nearest the center, and the pulley-sections are in close contact with each other, a circular slot, *d*, is left around the shaft, and between it and the pulley-sections, the inner ends of said sections being cut, as shown, so as to leave said slot.

On the shaft on which the pulley is mounted are formed screw-threads, onto which is screwed a cone, F, and when said cone is screwed up so as to enter the slot *d* it pushes the sections apart and increases the diameter of the pulley. This action brings a tension on the springs, which hold the sections to the disk by means of the lugs, and when the cone is screwed back the springs draw the sections together again and decrease the diameter of the pulley. A nut-lock, G, on the shaft holds the cone in position firmly.

By this means I furnish an expansible pulley, which is quickly and easily regulated. There is never at any time any direct pressure on the springs, since when at the least diameter the sections meet each other, and bring no strain on the springs. When fully expanded the pressure is taken by the cone, the springs merely holding the sections to the disk by means of the lugs.

This pulley is adapted for use in any place where pulleys are ordinarily employed; but I have intended it more particularly for use in a clock for which I have applied for Letters Patent, and in that case it is used for regulating the speed of the hands by being enlarged or diminished at will, the endless cord operating said hands, and leading from the clock-movement passing around said pulley.

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

In an expanding pulley, the combination of the disk B, slotted radially, the wedge-shaped sections C, provided with lugs D, projecting through the slots in plate or disk B, springs E, arranged on the face of plate B, shaft A, cone F, and nut G, all constructed, arranged, and operated as set forth.

In witness whereof I have hereunto set my hand.

SILVESTRO SERIGHELLI.

Witnesses:

CHAS. G. YALE,

FRANK A. BROOKS.