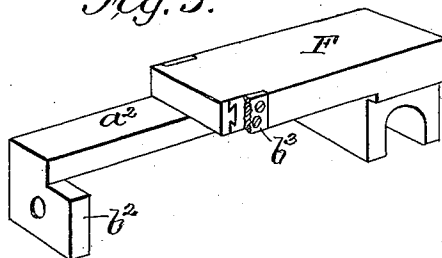
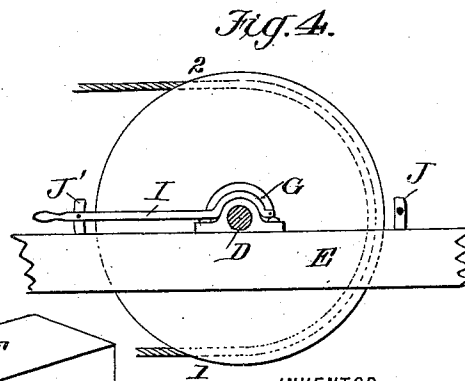
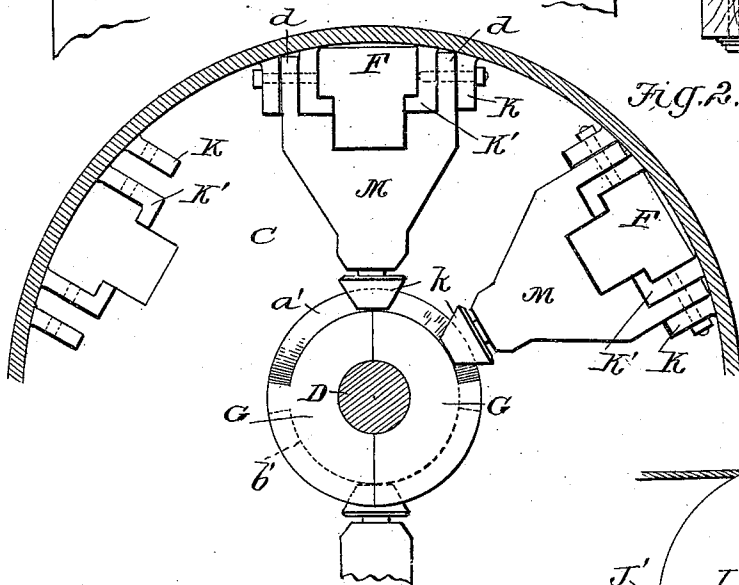
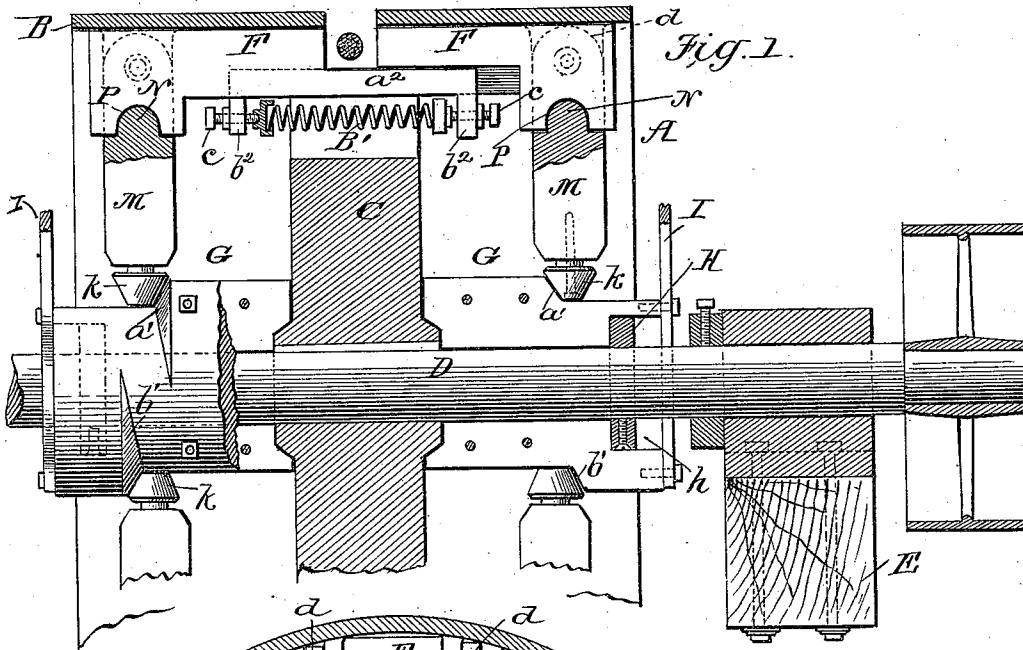


G. S. FOUTS.  
ELEVATOR POWER WHEEL.

Patented Feb. 4, 1896.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

GEORGE S. FOUTS, OF SAN JOSÉ, CALIFORNIA.

## ELEVATOR POWER-WHEEL.

SPECIFICATION forming part of Letters Patent No. 554,023, dated February 4, 1896.

Application filed June 26, 1895. Serial No. 554,120. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE S. FOUTS, residing at San José, in the county of Santa Clara and State of California, have invented a new and useful Improvement in Elevator Power-Wheels, of which the following is a specification.

My invention is an improvement in elevator power-wheels, and especially in that class of wheels represented in my Patent No. 540,158, dated May 28, 1895; and the present invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and pointed out in the claims.

In the drawings, Figure 1 is a sectional view about in line with the shaft, parts being shown in full lines, others partly broken away, and some in section. Fig. 2 is a transverse section of the pulley, parts being broken away and others removed. Fig. 3 is a detail perspective view of one of the clamping-sections, and Fig. 4 is a side view of the pulley.

The drive-wheel A comprises a pulley having a rim B and a web C, the latter being secured to the shaft D, which shaft is journaled in the framing E. On this shaft, on opposite sides of the web C, are provided cam portions G, which operate the clamps F. These cam portions G may preferably be made in halves, bolted together upon the shaft D and normally held from turning with said shaft and the pulley and yet capable of a partial turning or rotation in order to set the cams to free the clamps at different points in the rotation of the pulley. These cams are preferably held in position on the shaft by means of collars H, fitting in mortises h in the outer ends of the cam portions and operating to prevent said cams from coming in contact with the supporting-framing. These collars H also hold the cam portions in proper position longitudinally upon the shaft D to secure the desired operation of the clamping-section. The cam portions, as before suggested, are capable of a partial rotation, and to effect such rotation I provide a lever I fixed to the cam portions, preferably by seating it in recesses formed therein and bolting it to place, and this lever may be operated

to set the cams in a position to throw the clamping-sections into grip when the lever I is held to the quadrant or segment J or to throw such clamping-sections out of grip when the lever is held to the quadrant or segment J'.

As will be understood from Fig. 4, the rope or band is only in contact with the drive-wheel throughout a portion of the circumference of said wheel, so that if the clamping-sections be released at the portion where the rope engages and are simply thrown into clamp position—say from points 1 to 2—then the wheel will not be caused to drive the cable, and this is the purpose of the throwing-out mechanism I, which enables me to quickly stop the cable when desired.

Each of the cam portions G is shown as provided with cams *a'* and *b'*, the cams *a'* being designed to release the clamping-sections and the cams *b'* for setting such sections into clamp or grip with the rope, and it should be understood that the cams *b'* are not necessary when I employ the springs B' shown in Fig. 1 and as may be preferred. Such cams *b'* and springs B' are both shown in Fig. 1 for purpose of illustration. It will also be understood that where desired such parts B' and *b'* may both be embodied in the same power-wheel.

To the rim B are fixed or otherwise provided the inwardly-projecting lugs K K', the latter being made L shape and forming guides for the clamping-sections F, and the lugs K K' being spaced apart to receive between them the upper end of the levers M, which levers M have portions *d* fitting and pivoted between the lugs K K', are provided between said portions *d* and their lower ends with portions N bearing in a recess P in the clamping-sections, and have at their lower ends rollers *k* or other suitable portions engaging with the cams, as shown. Manifestly the rollers may be replaced by a plain pin or an oblong piece pivoted centrally and arranged to be acted on by the cam-surfaces.

The provision of levers intermediate the clamping-sections and their operating-cams is an important feature of my invention, as thereby I am able by a small cam-surface to

give a considerable throw to the clamping-sections and also to operate such sections with great force in an easy manner.

The clamping-sections are provided with 5 interlapping guide portions  $a^2$  at their inner ends, and are provided at the extremities of said portions  $a^2$  with lugs or blocks  $b^2$ , which receive set-screws  $c$ , between which bear 10 springs  $B'$ , so that each spring operates the two opposite clamping-sections and may be readily adjusted to any desired tension. The bearing-faces of the clamping-sections are provided with removable wear-surfaces dove- 15 tailed into place and held by the removable plates  $b^3$ , as shown in Fig. 3, so such wear-surfaces may be readily renewed when worn or at other times, as may be desired.

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

1. A drive-wheel comprising a revolving pulley having movable clamping-sections, cam-surfaces normally held from turning with the wheel and arranged to operate the 25 clamp-sections such cam-surfaces being capable of a partial turning or revolution and means by which to lock the cam from turning, substantially as set forth.

2. A drive-wheel, comprising a revolving 30 pulley having a clamping-section and cam-surfaces by which to operate said clamping-sections, such cam-surfaces being held from turning with the pulley and capable of a partial rotation and means connected with the 35 said cam-surfaces by which they may be given a partial rotation, substantially as set forth.

3. A drive-wheel, comprising a revolving pulley, clamping-sections carried by said pulleys pivoted levers, engaging said clamping- 40 sections and cams engaging said levers, substantially as and for the purposes set forth.

4. A drive-wheel, comprising a revolving pulley, clamping-sections cams by which said sections may be held out of clamping

position and means by which said cams may 45 be given a partial revolution substantially as and for the purposes set forth.

5. A drive-wheel, comprising clamping-sections, a pulley or revolving support for said sections, and cams normally held from turning 50 and movable whereby they may be set to release the clamping-sections at different portions of the circumference of the pulley, substantially as set forth.

6. A drive-wheel, comprising the pulley, 55 the clamping-sections the cams held from turning with the pulley and the levers pivoted at their outer ends to the pulley engaged between their ends with the clamping-sections and at the inner ends with the cams, 60 substantially as set forth.

7. The combination of the pulley having its rim provided with inwardly-projecting guides for the clamping-sections, the clamping-sections movable in said guides and 65 means for operating said sections including levers pivoted to said inwardly-projecting guides substantially as set forth.

8. In a drive-wheel, substantially as described, the combination with the shaft, the 70 supporting-framing the pulley having the web, the clamping-sections, the cams operating said sections and arranged on the shaft between the web and framing and the collars securing said cams from movement to- 75 ward the framing.

9. In a drive-wheel, the combination of the clamping-sections having interlapping guide portions at their inner ends and projecting inwardly beyond their gripping portions and 80 springs bearing between the inner ends of the said interlapping portions, substantially as and for the purposes set forth.

GEORGE S. FOUTS.

Witnesses:

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