

(No Model.)

O. JACKSON.
GRIP PULLEY.

No. 301,997.

Patented July 15, 1884.

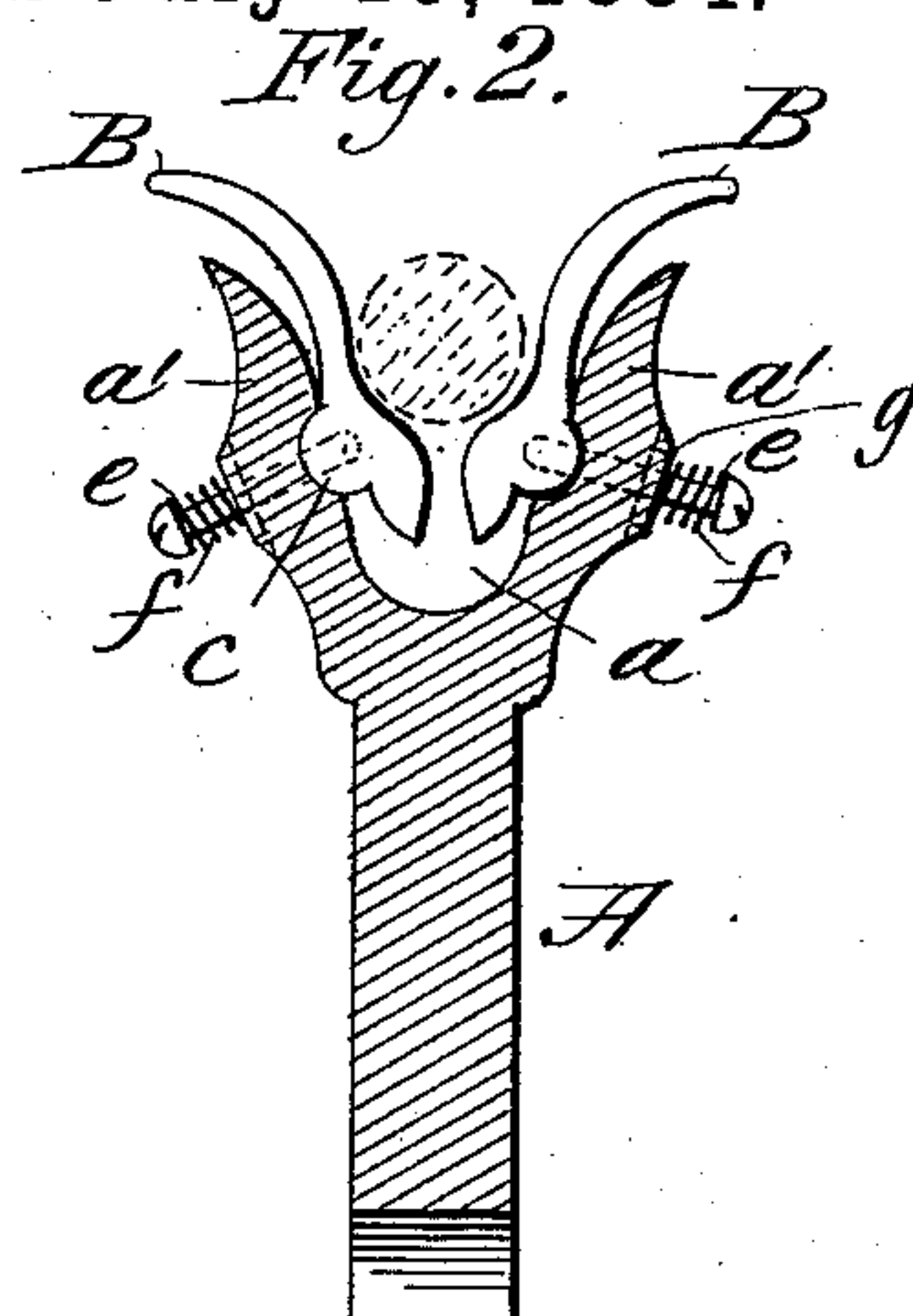
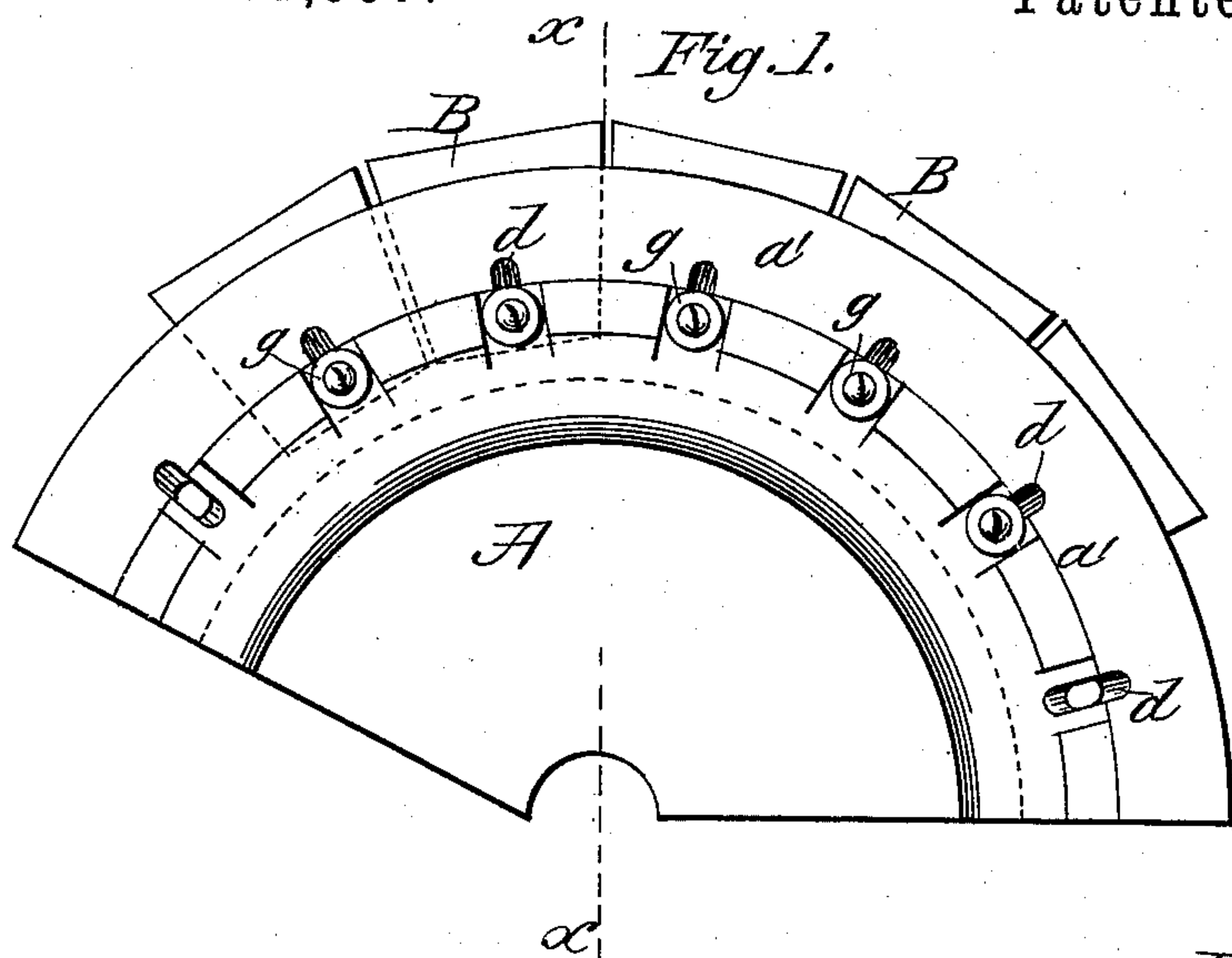


Fig. 3.

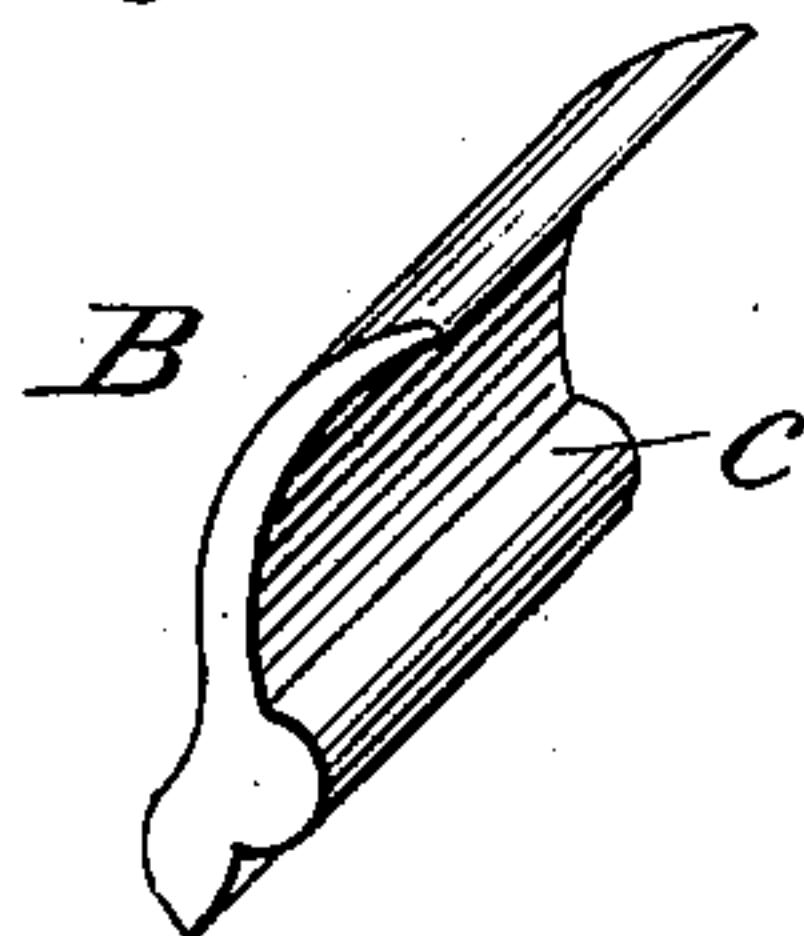


Fig. 4.

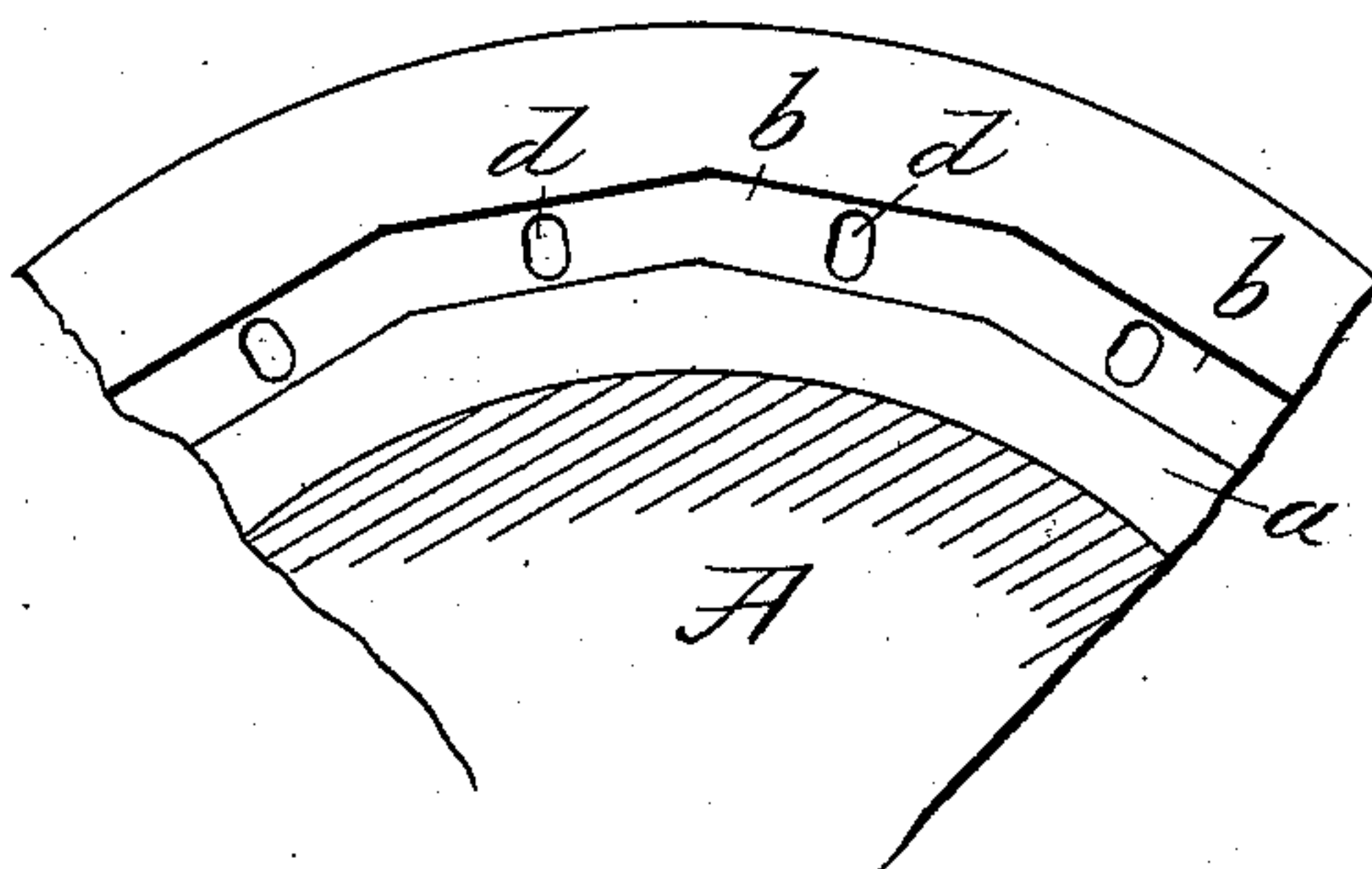
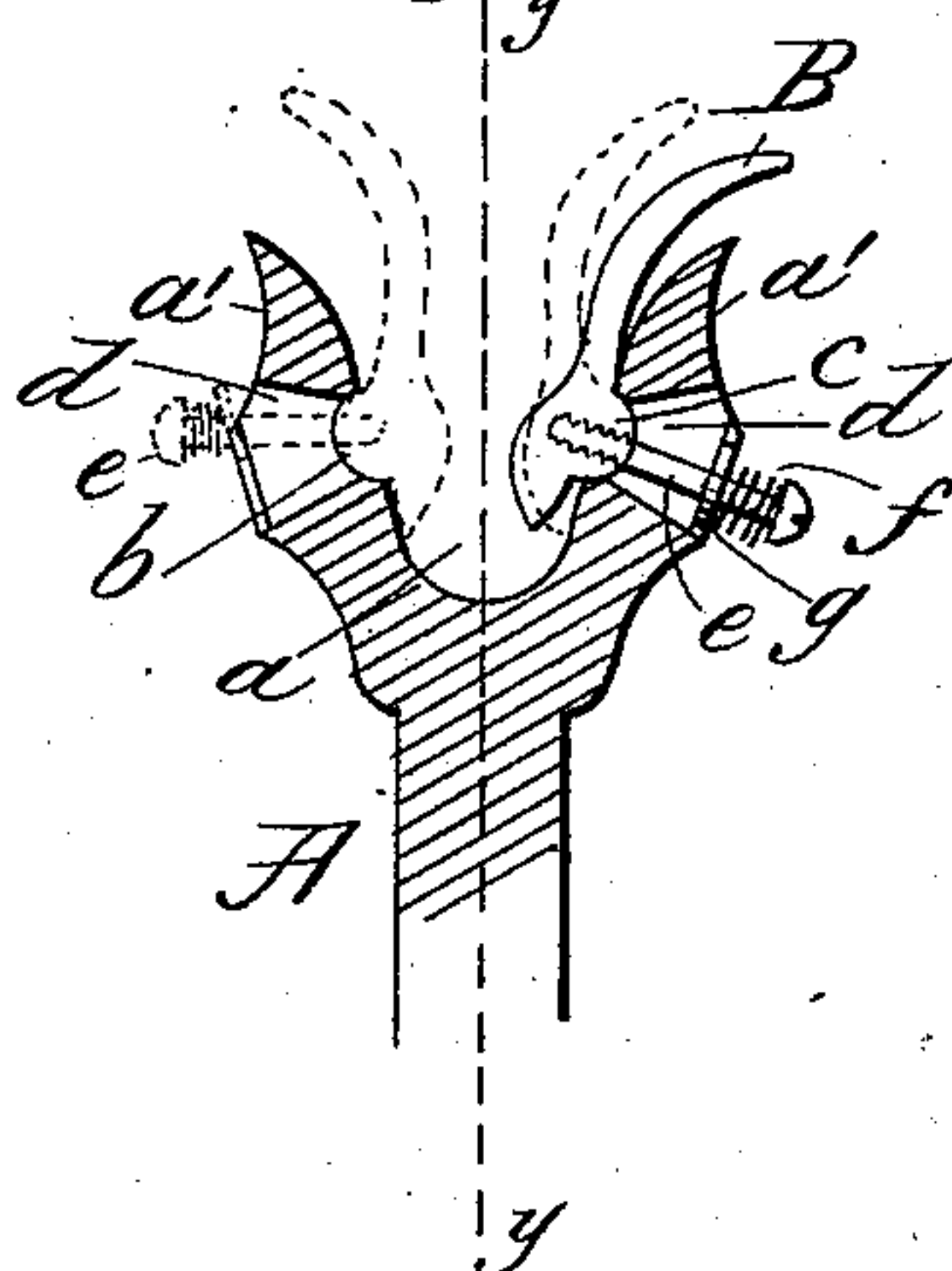


Fig. 5.



Attest:

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UNITED STATES PATENT OFFICE.

OSWALD JACKSON, OF CARROLLTON, ILLINOIS.

GRIP-PULLEY.

SPECIFICATION forming part of Letters Patent No. 301,997, dated July 15, 1884.

Application filed February 26, 1884. (No model.)

To all whom it may concern:

Be it known that I, OSWALD JACKSON, a citizen of Great Britain, residing at Carrollton, in the county of Green and State of Illinois, have
5 invented certain new and useful Improvements in Grip-Pulleys, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in grip-pulleys; and it consists in the peculiar construction of the pulley and its gripping-jaws, as well as in the manner of pivoting or securing the said gripping-jaws to the pulley-rim, as will be hereinafter
15 more fully described, and then specifically pointed out in the claim.

In the annexed drawings, which fully illustrate the invention, Figure 1 is a side view of a portion of my improved grip-pulley with
20 several pairs of gripping-jaws attached. Fig. 2 is a cross-section on the line *x x* of Fig. 1. Fig. 3 is a perspective view of one of the gripping-jaws removed from the pulley. Fig. 4 is a section on the line *y y* of Fig. 5, showing
25 the grooves in which the gripping-jaws are pivoted. Fig. 5 is a cross-section through the rim of the pulley, showing the manner in which the gripping-jaws are secured in the slots in the pulley-rim.

30 The letter A represents a pulley used for imparting motion to an endless wire or hemp rope or cable.

In order to prevent the slipping of the rope or cable on the pulley, the latter is provided
35 with a series of gripping jaws or levers, B B, arranged in pairs around its rim, as shown in Fig. 1. The rope passing around between the grips or jaws B B under the movement of the pulley will jam itself against or between the
40 gripping-jaws, and thus move with the pulley and be prevented from slipping. This pulley A is provided with a deep groove, *a*, running around its entire periphery or rim, in which the lower ends of the jaws B B are pivoted in
45 a manner hereinafter to be described. The groove *a* has flaring sides or flanges *a' a'*, each flange having a series of adjacent recesses or grooves, *b b*, cut in it for the reception of the pivotal lugs *c* of the jaws B B. At the center
50 of each recess *b* there is an opening or slot, *d*, in the face or side *a'* of the pulley, as shown

in Fig. 5. The slots *d d* are flaring or wider at the outer face than at the recesses *b b*. The gripping-jaws B B are of the shape shown in Fig. 3, with outwardly-curved lips, and are
55 provided each with a curved or semicircular rib or lug, *c*, on and extending entirely across its back a short distance above the lower edge of the jaw. The jaws B B are fulcrumed or pivoted to the inner sides of the rim, as follows: 60 Each jaw B is placed with its lug *c* resting loosely in one of the recesses *b*. A bolt, *e*, passing through the opening *d* is screwed into the jaw B at about the center of the rib *c*, and serves to hold the jaw in place. This bolt *e* projects
65 externally a short distance beyond the side *a'*, and is provided around its projecting portion with a spring, *f*, which is confined between the headed end of the bolt *e* and a loose washer, *g*, resting in a flattened space on the outer side
70 of the flange *a'*, as shown in Fig. 5. These springs *f f* afford an elastic grip of the jaws on the cable, and also tend to keep the jaws distended. The rope or cable while being passed
75 around with the pulley is gripped between the lower parts of the jaws by the tension of the rope, and the greater the strain or tension the tighter the hold of the jaws on the cable. The flaring slots *d d* permit the bolts *e e* to play in
80 said slots as the jaws open and close. When the strain is removed, the pressure of each pair of jaws on the rope relaxes successively, and the rope or cable is thus moved outward and forward under the revolutions of the pulley by
85 the several pairs of jaws coming in turn into frictional engagement with said rope or cable.

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

The combination, with the pulley A, having
90 a grooved periphery, *a*, provided with recesses *b b* and slots *d d*, of the pivoted spring-jaws B B, having ribs or lugs *c c*, the bolts *e e*, springs *f f*, and washers *g g*, substantially as described. 95

In testimony whereof I affix my signature in presence of two witnesses.

OSWALD JACKSON.

Witnesses:

WILLIAM L. ARMSTRONG,
KENT W. BLACK.