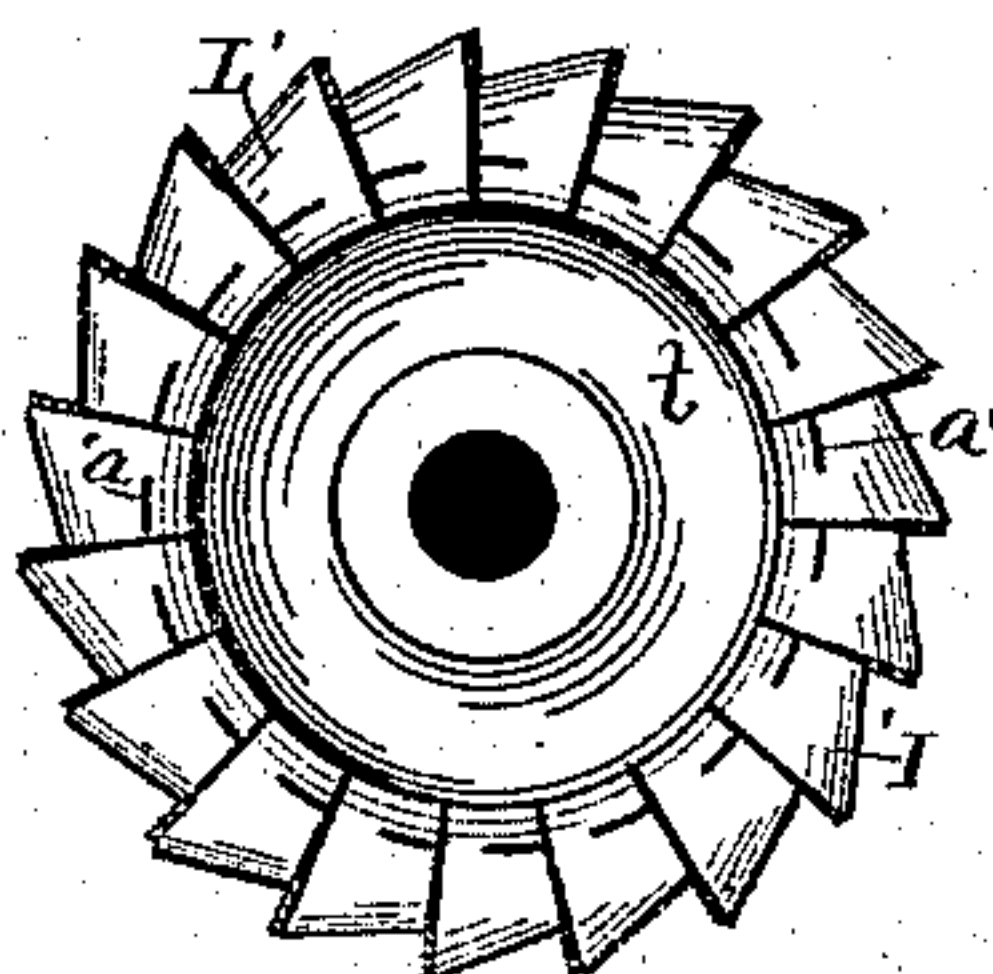
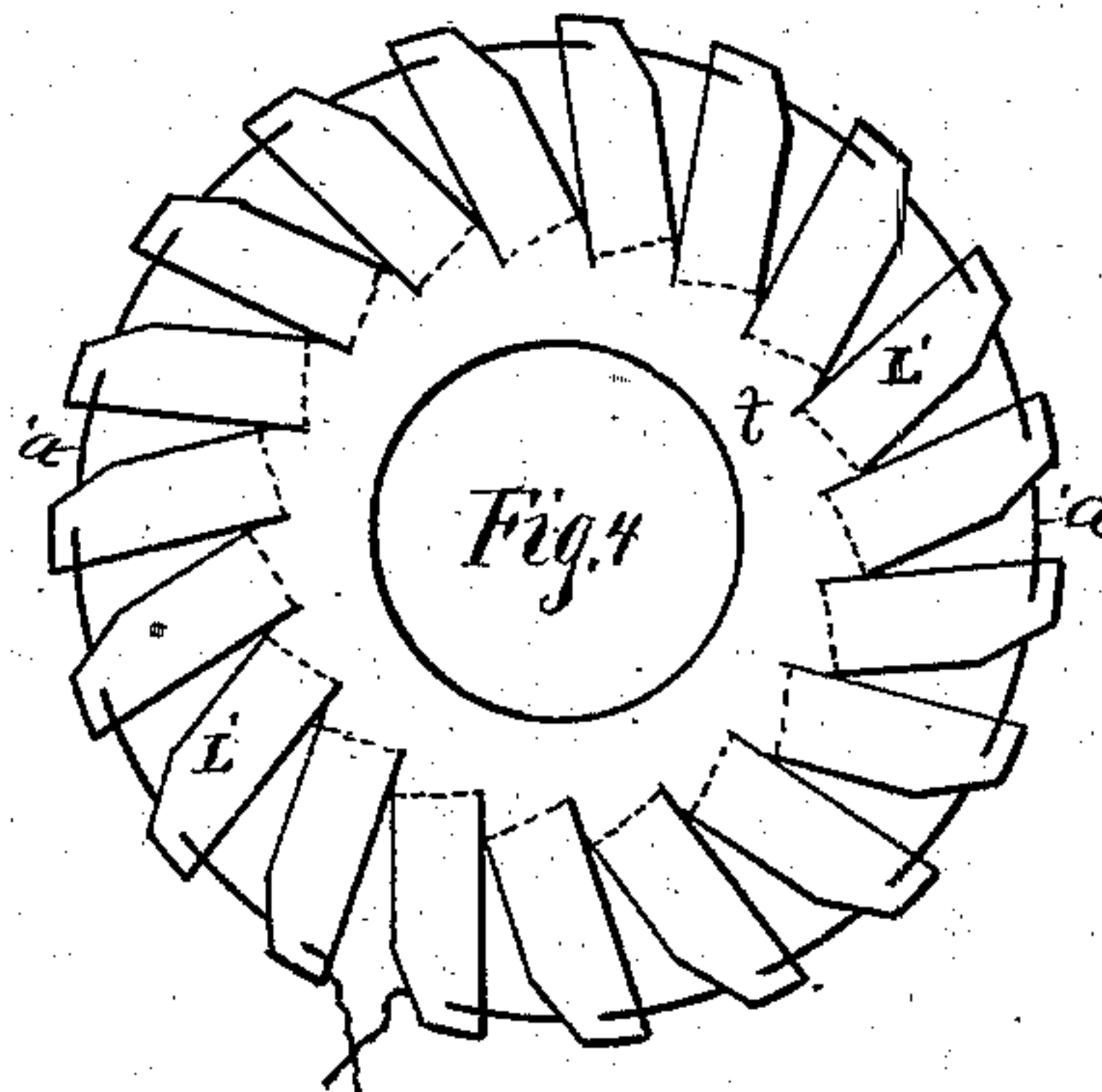
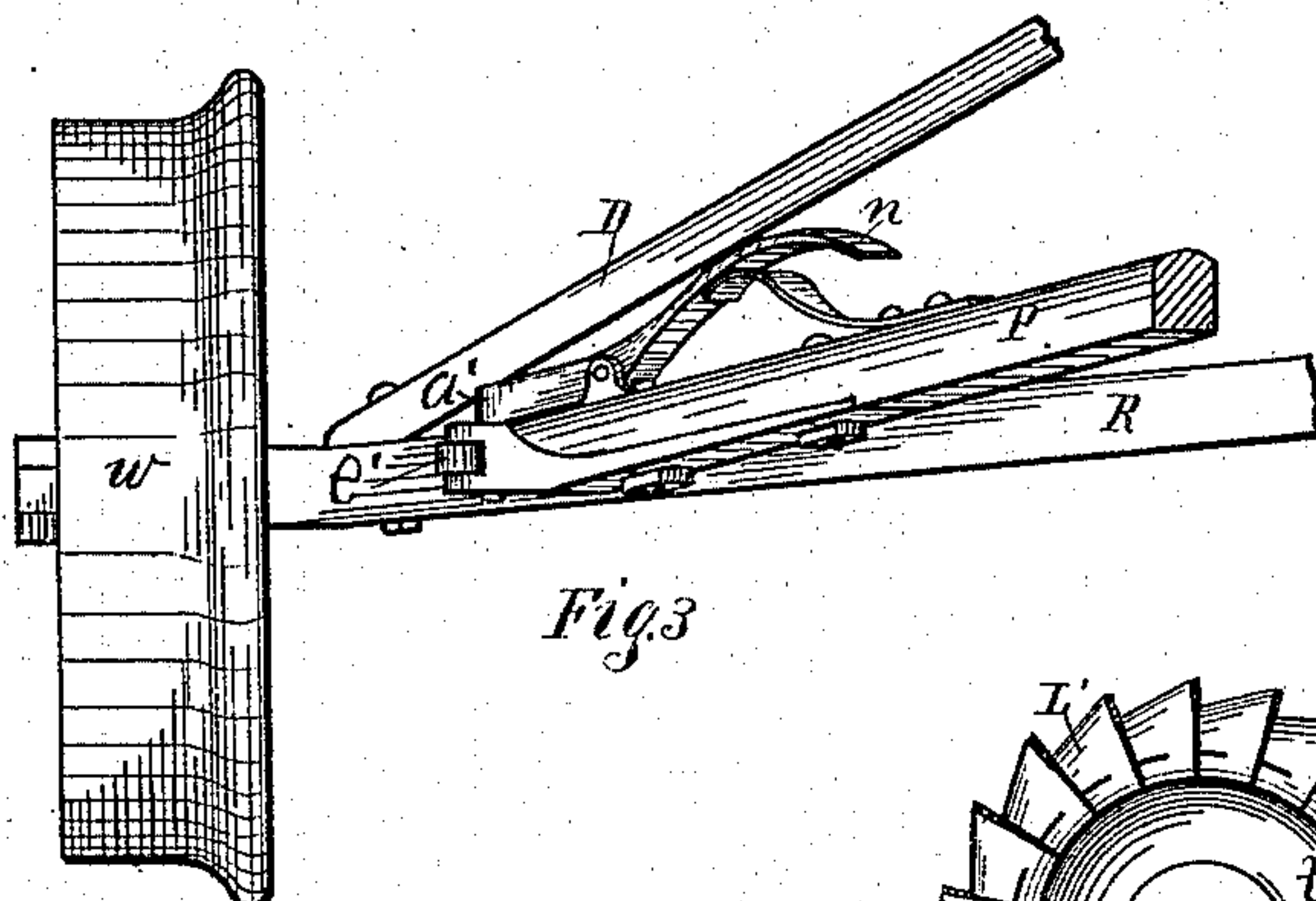
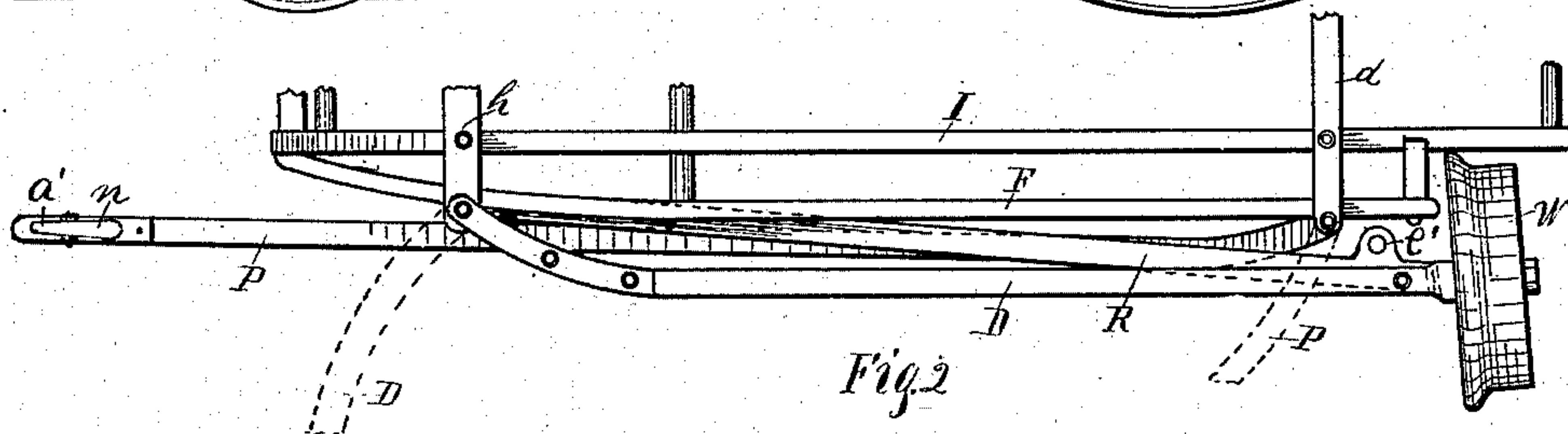
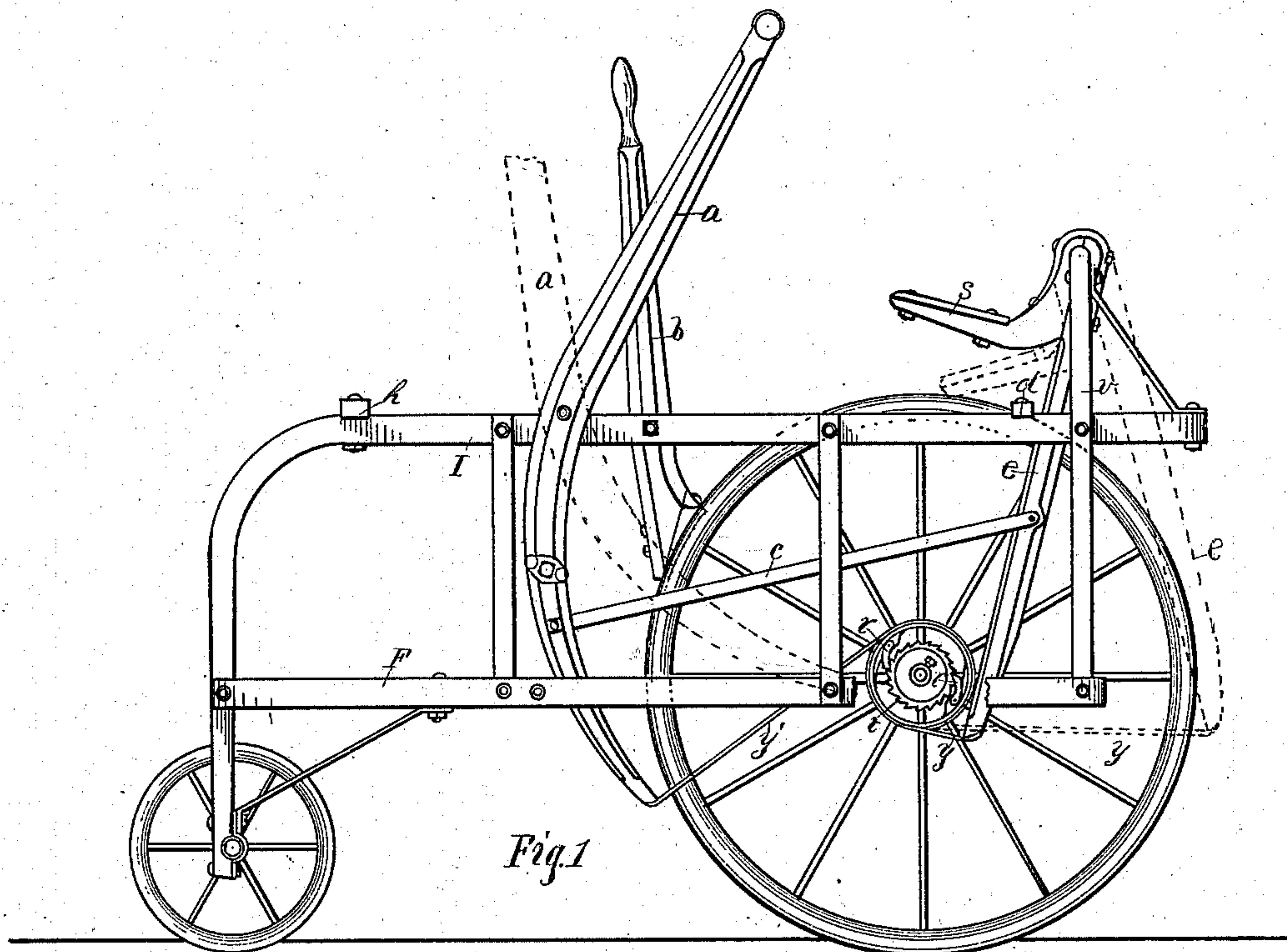


(No Model.)

G. N. SPENCER.
RAILWAY VELOCIPED.

No. 288,507.

Patented Nov. 13, 1883.



Attest.
Jno. L. Perkins
John H. Chase

Inventor,
George N. Spencer
By Lucius C. West
Att'y-

UNITED STATES PATENT OFFICE.

GEORGE N. SPENCER, OF THREE RIVERS, MICHIGAN, ASSIGNOR OF ONE-HALF
TO HIRAM GASKINS, OF SAME PLACE.

RAILWAY-VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 288,507, dated November 13, 1883.

Application filed April 20, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE N. SPENCER, a citizen of the United States, residing at Three Rivers, county of St. Joseph, State of Michigan, have invented a new and useful Railway-Velocipede, of which the following is a specification.

My invention has for its object certain improvements, substantially as described and claimed in the following specification.

In the drawings forming a part of this specification, Figure 1 is a side elevation; Fig. 2, a top view of broken portion of frame; Fig. 3, a broken portion of Fig. 2 in perspective, enlarged; Figs. 4 and 5, plan of cushioning the ratchet-wheel used in the propelling mechanism.

In Fig. 1, a hand-lever, *a*, and a seat-lever, *e*, are pivoted to the frame I F. These levers are pivotally connected by bars *c*. To their lower ends are connected straps *y' y*, which are connected, respectively, with a pulley on the main axle. These pulleys are provided with a ratchet and spring so adapted that each pulley is alternately locked with the axle as the straps revolve them when pulled on by their respective levers, and alternately revolve in the opposite direction in taking up the slack of the straps, all substantially as secured to me by United States Patent No. 270,913, January 23, 1883, to which patent reference should be had for a further understanding of this part of the device, as my present improvement in it relates to cushioning the ratchet-wheel *t* used in the pulley. Fig. 1 shows its position. A wrapper of leather or other suitable material is cut in a circular form, with a hole in the center less in size than the ratchet-wheel *t*, Fig. 4. Pieces are removed by cutting in from the edge, leaving radial strips *L' L'*, adapted for folding over the notches of the ratchet to the other side, where they are gathered and secured by a wire, *a'*, strung through the ends of said strips, Fig. 5. By this means the ratchet is cheaply and conveniently cushioned, and the noise of the pawls *r* slipping over the notches is deadened.

The device has a side guide-wheel, *w*, as in other devices, the axle R of which is hinged

to the frame, as is also the upper brace, D, secured to it, and also the detachably-connected brace P, all in a manner that the axle R, with its wheel and the brace P, may be swung or folded around against the frame. To facilitate the operation of thus folding these parts in a velocipede, I have provided the detachable end of the brace P with a spring-actuated locking-bolt, *a'*, which couples said end of the brace with the eye *e'* of the axle R, near wheel *w*. By bearing down on the handle *n* of the locking-bolt *a'*, said parts are quickly and conveniently uncoupled. The spring between the handle *n* and brace P holds the bolt in place in the eye. A brake-lever, *b*, is pivoted to the beam I of the frame, Fig. 1, the lower end of which is adapted for engagement with the periphery of the wheel.

Having thus described my invention, what I claim is—

1. In a velocipede having a hinged guide-wheel axle and a hinged axle-brace detachably connected with said axle in a manner to be detached and folded, substantially as set forth, the combination of said axle having the eye, the hinged axle-brace, and the spring-actuated locking-bolt, for the object set forth.

2. The combination of the belt, axle-pulleys, and a ratchet provided with the wrapper-cushion, substantially as set forth.

3. The combination of a ratchet-wheel and pawl and a wrapper having the center hole, and the radial connected strips adapted for folding over the notches, and means for gathering and securing them, substantially as described.

4. The combination of a wheel-axle and axle-brace, both hinged at one end and having an eye at the other end, and a coupling-bolt secured to the axle-brace at the eye end, and provided with the handle and spring, substantially as specified and shown.

In testimony of the foregoing I have hereunto subscribed my name in the presence of two witnesses.

GEORGE N. SPENCER.

Witnesses:

R. H. BUCKHAUT,
CHAS. METLER.