

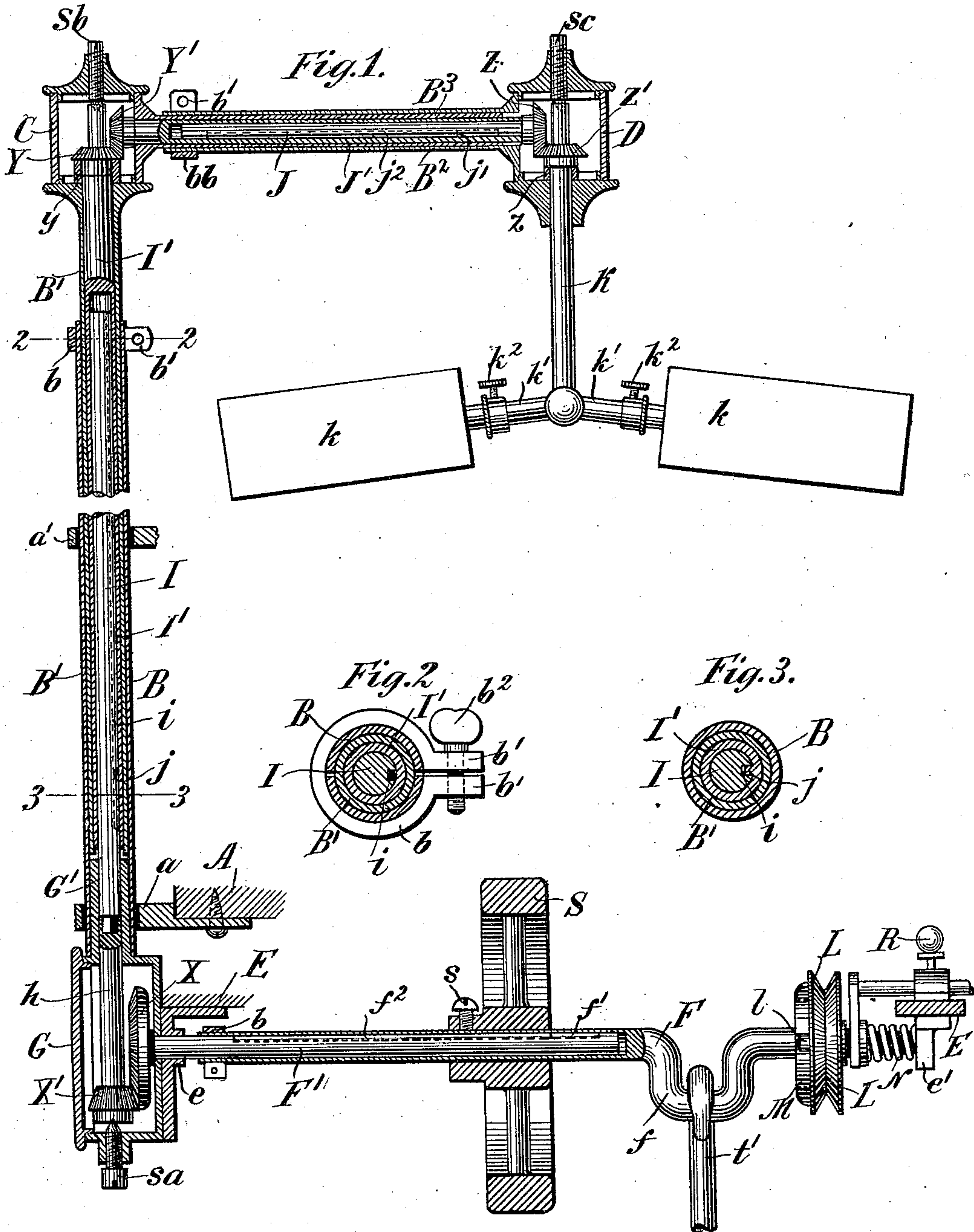
(No Model.)

3 Sheets—Sheet 1.

C. DOLD.
FAN FOR BABY CARRIAGES.

No. 575,637.

Patented Jan. 19, 1897.



Witnesses
John P. Nordstrom
Richard J. Elliott

Carl Dold Inventor
By his Attorney Henry Schreiter

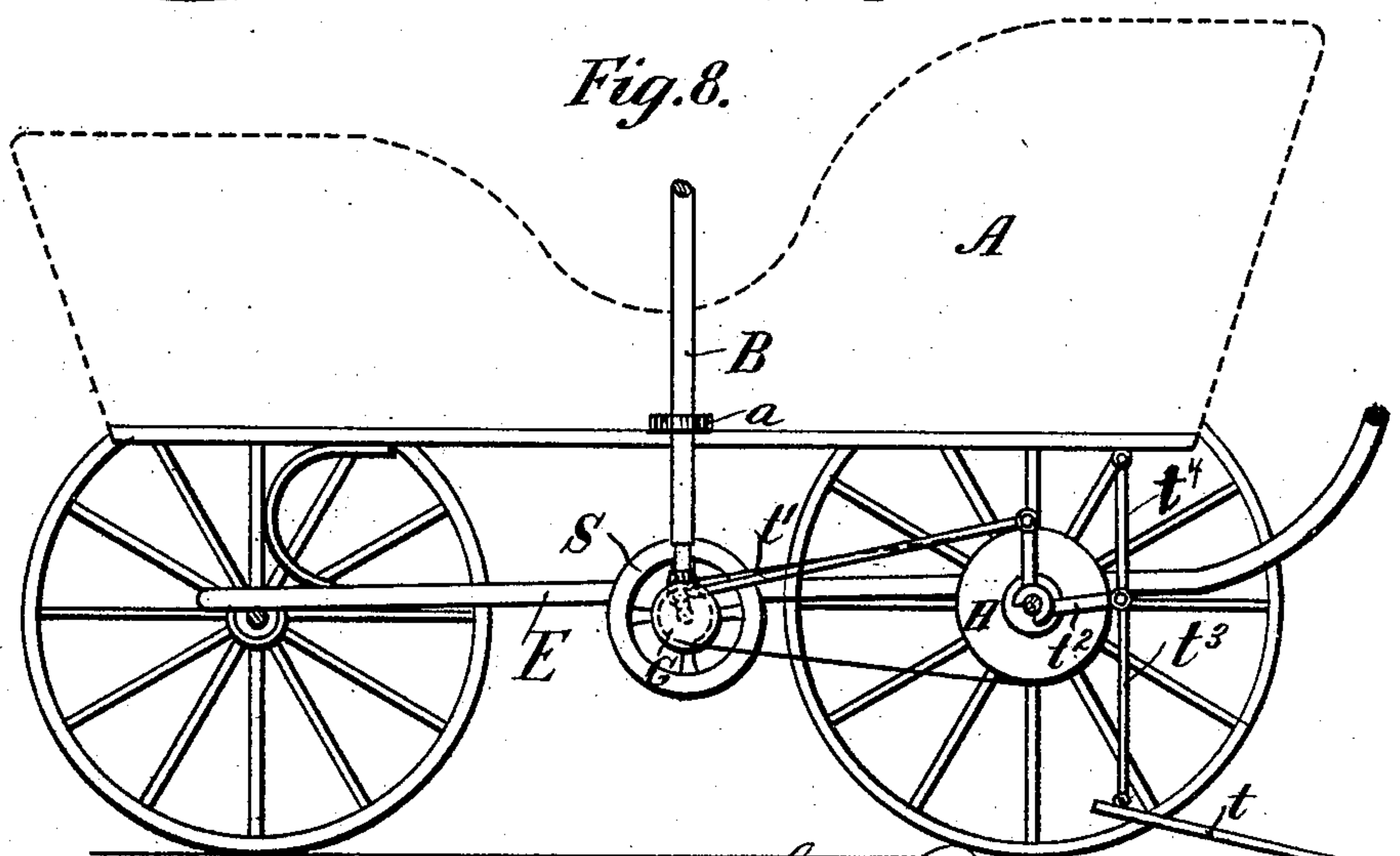
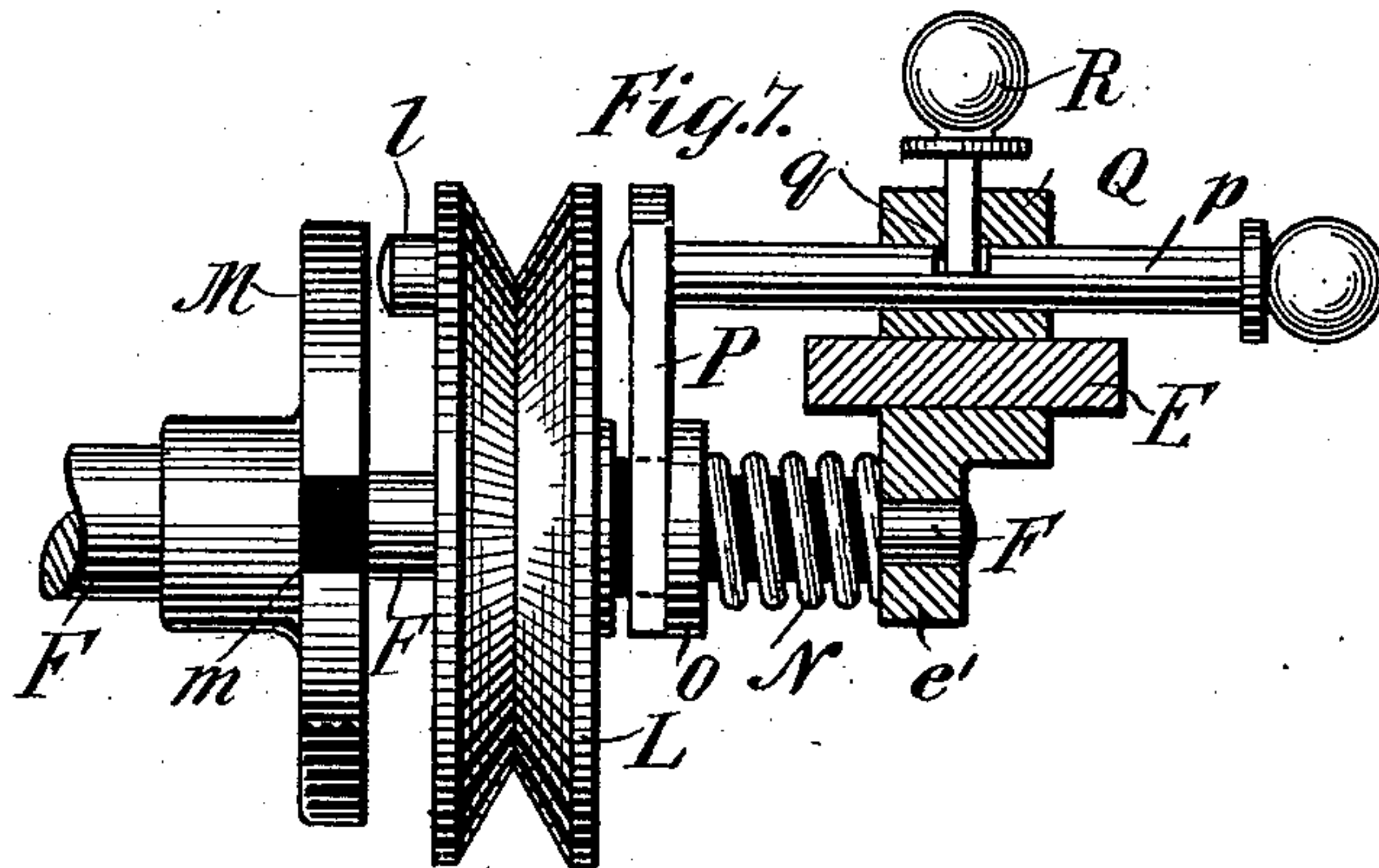
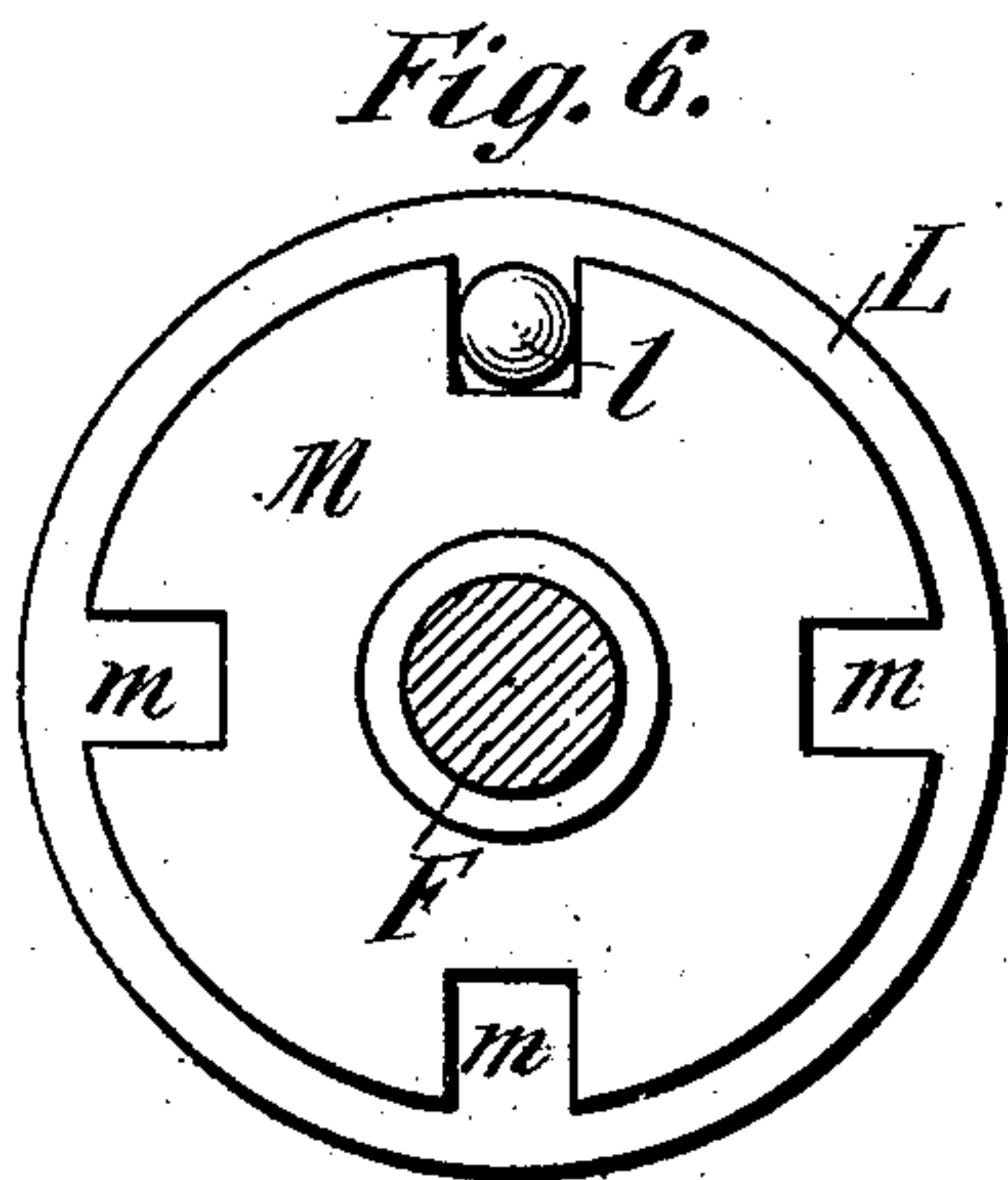
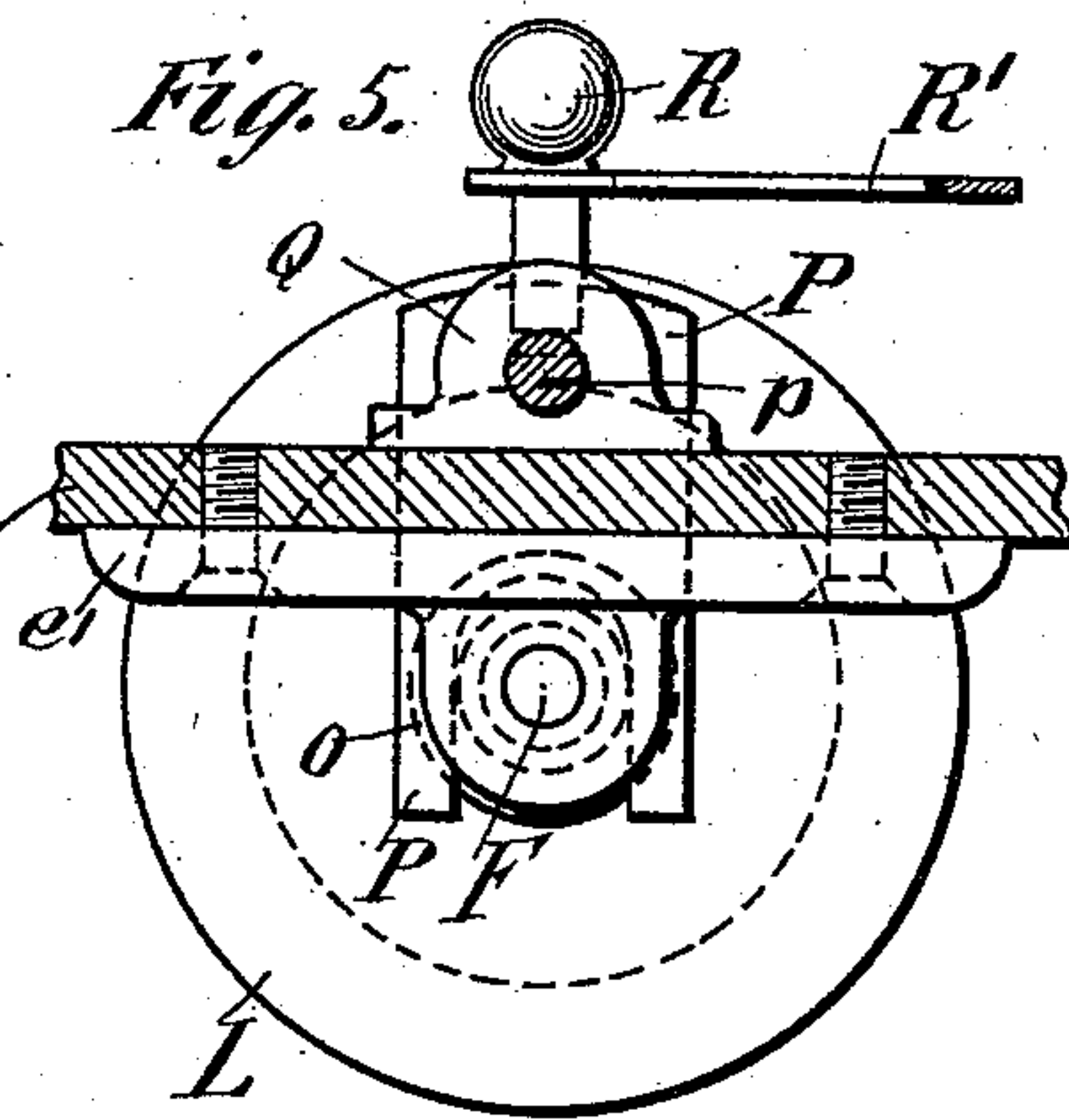
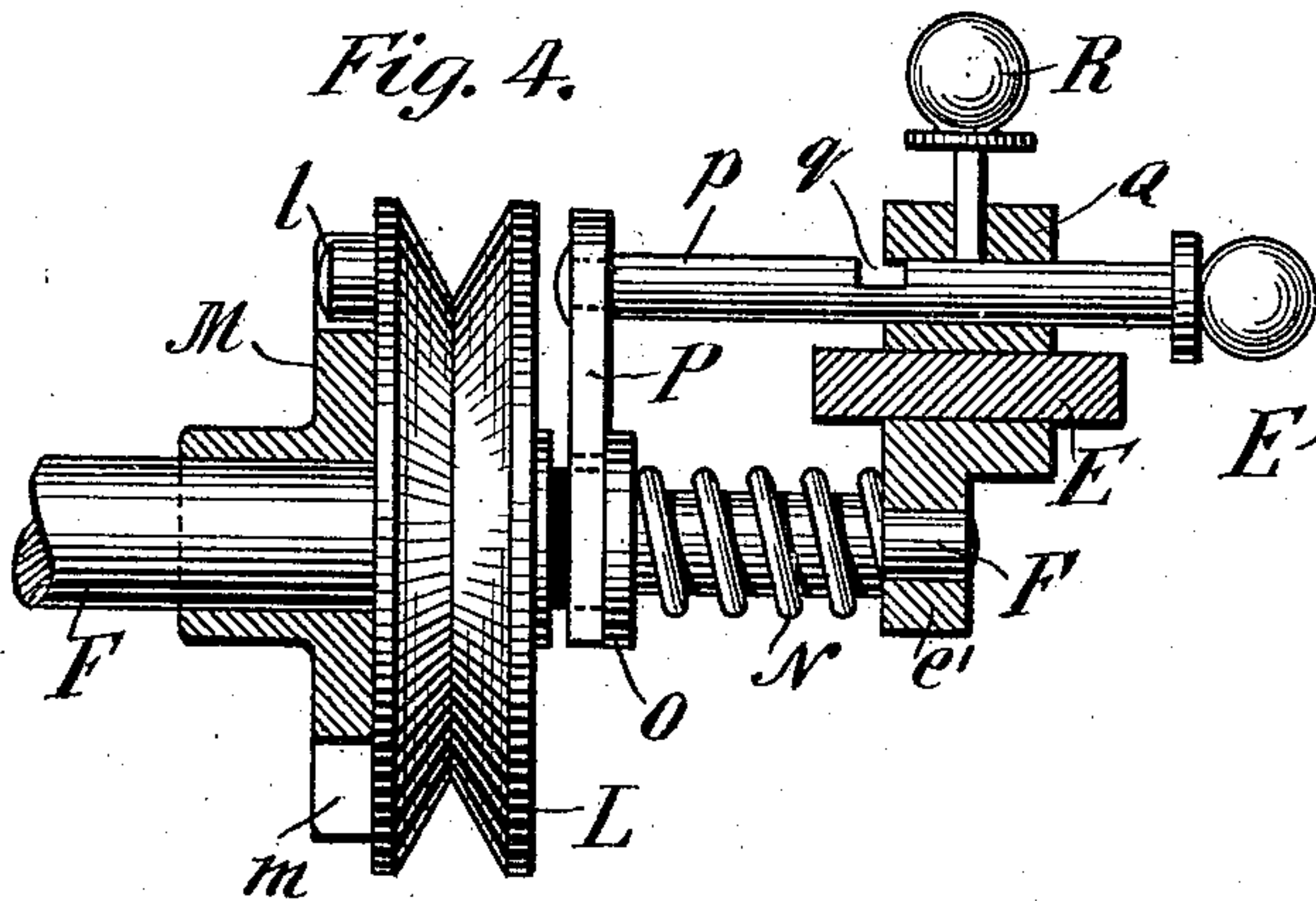
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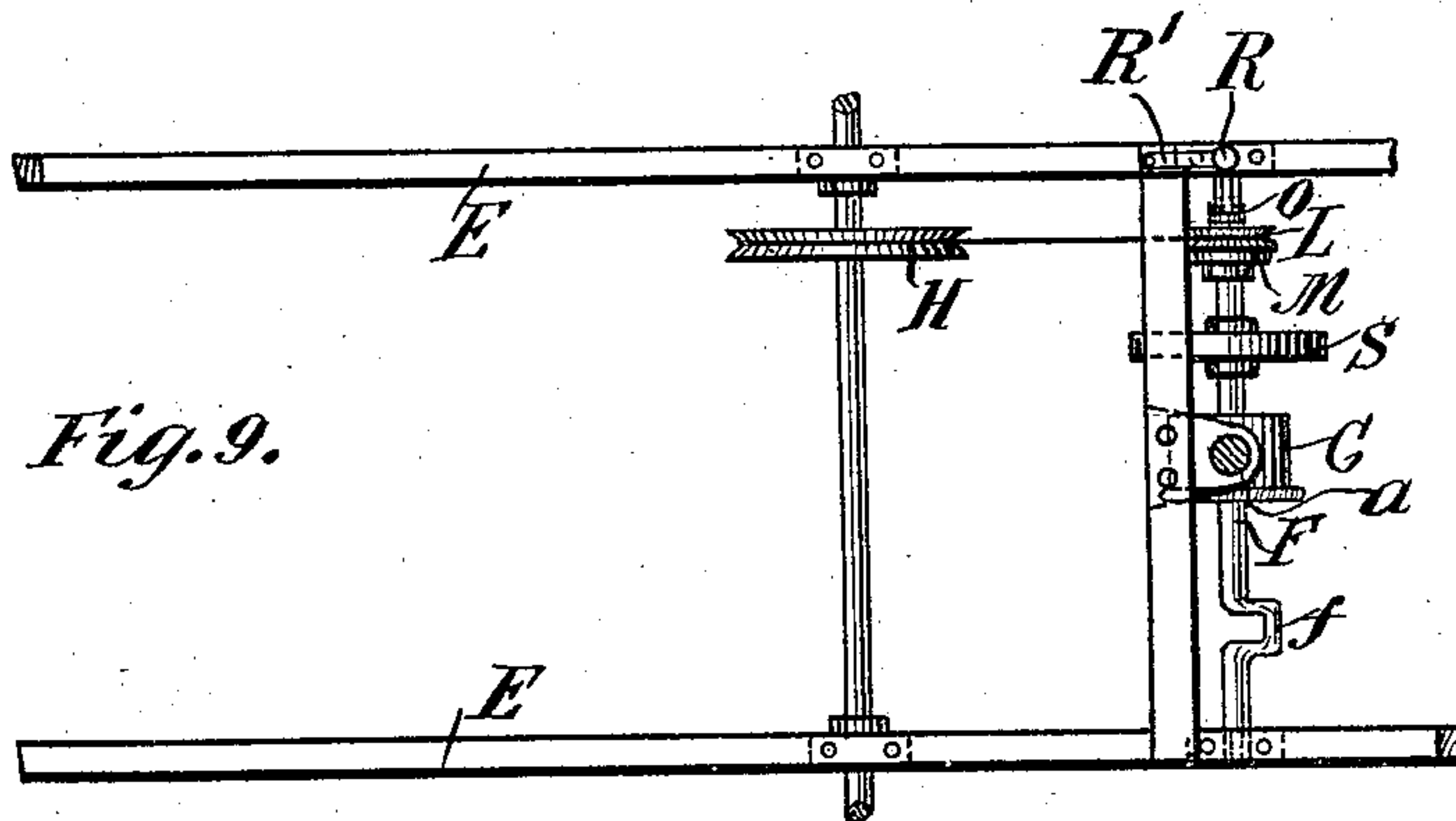


Fig. 9.

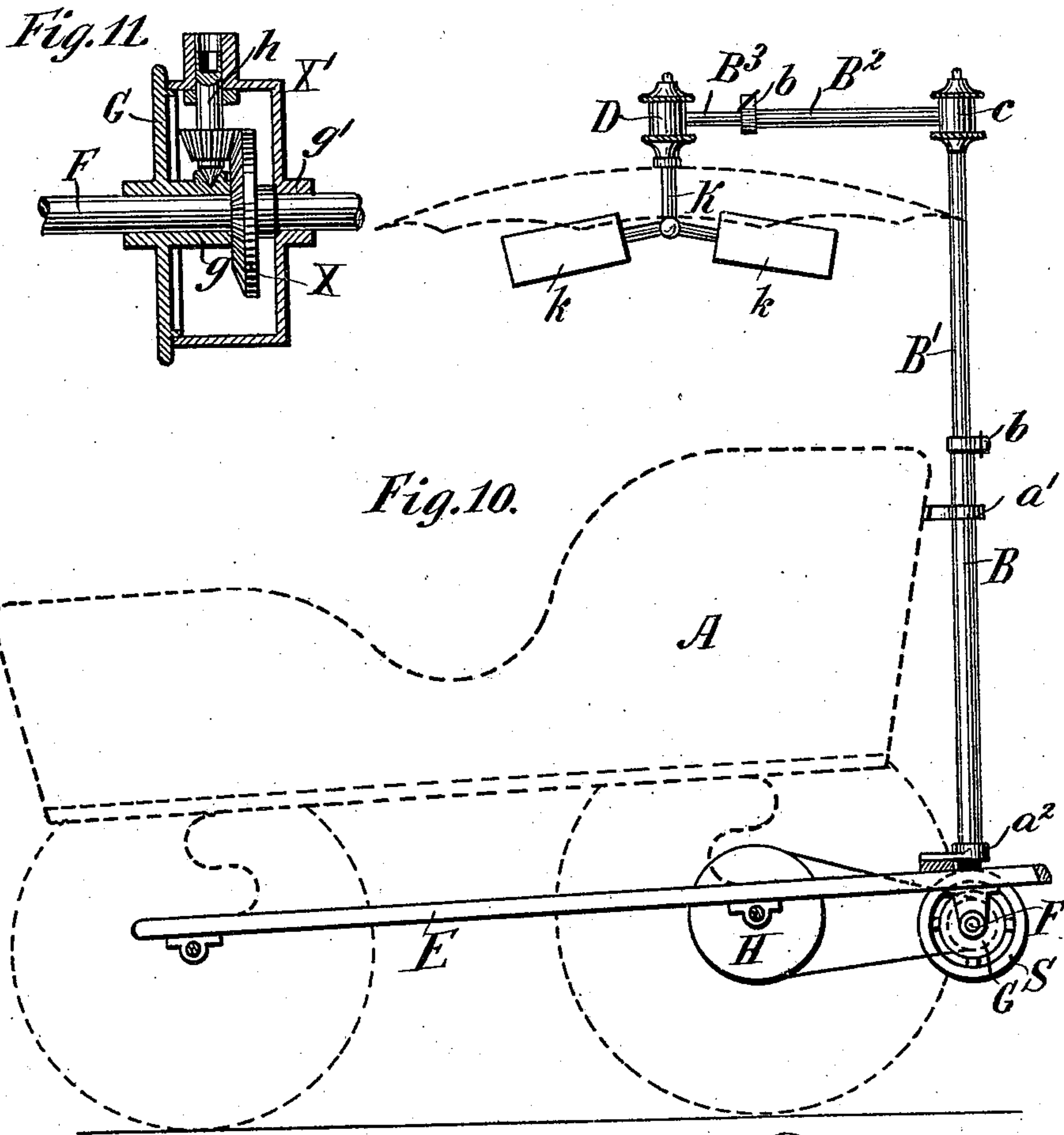


Fig. 10.

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UNITED STATES PATENT OFFICE.

CARL DOLD, OF BROOKLYN, NEW YORK.

FAN FOR BABY-CARRIAGES.

SPECIFICATION forming part of Letters Patent No. 575,637, dated January 19, 1897.

Application filed December 31, 1895. Serial No. 573,892. (No model.)

To all whom it may concern:

Be it known that I, CARL DOLD, a citizen of Germany, and a resident of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Fans for Baby-Carriages, of which the following is a specification.

My invention relates to fans and devices for operating them; and it consists of an apparatus adapted to be attached to a baby-carriage for operating a rotary fan from the axle of the carriage or by a treadle.

The apparatus is illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of the fan and apparatus, the tubes inclosing the spindles being shown in section in order to disclose the shafts and transmission-gearings. Fig. 2 is a section on line 2 2 in Fig. 1. Fig. 3 is a section on line 3 3 in Fig. 1. Fig. 4 is a partly-sectional elevation of the driving-wheel and clutch. Fig. 5 is a front view thereof. Fig. 6 is a view thereof from opposite side. Fig. 7 is the same view as Fig. 4, showing wheel and clutch separated. Fig. 8 is a side elevation showing how the fan is attached to a baby-carriage and also the arrangement of a treadle for driving the fan when the carriage is not moved. Fig. 9 is a top view of the truck-beams of a carriage, showing how the driving-shaft of the fan apparatus is mounted thereon in the back of the carriage. Fig. 10 is a side elevation of the same arrangement. Fig. 11 is an enlarged detail showing the modified arrangement of the gearing as used in this case.

Similar letters of reference in the various views indicate corresponding parts.

My improved fanning apparatus is composed of the following parts: Rope-wheel H, set on one axle of the carriage-wheels, transmits the motion to wheel L, rotating loosely on shaft F and adapted to clutch with disk M, set on the same shaft. Gears X and X' transmit the rotary motion to the upright shafts I and I', gears Z and Z' to horizontal shafts J and J', and gears Y and Y' to the fan-shaft K. Thus when the carriage is moved the fan is actuated thereby, when the rope-wheel L is clutched with disk M. When the carriage is standing still, the fan may be actuated by a treadle t, operating the shaft F through hook t' and crank f. When the fan is not used, the whole

upper apparatus, including upright shaft I, may be slid out from its bearings and removed. This upper rig may be also used for carrying the umbrella in the manner illustrated in Fig. 10.

In constructing my improved fanning apparatus I proceed as follows: Shaft F is mounted horizontally across beams E of the carriage-truck in bearings e and e', secured to the beams. Box G, wherein the leveled gears H and H' are inclosed, transmitting the motion from the horizontal shaft F to the vertical shaft h, is supported on bearing e to beam E of the carriage-truck. Spindle h is supported by the pointed set-screw sa, set in the bottom of the box G. Another bearing G' is provided in top of box G.

Tube B, inclosing shaft I, is slid over the bearing G' on top of the box G. Spindle h extends only through box G and is provided on its end with a square recess, in which the squared end of the vertical shaft I is fitted. This shaft I is provided with spline i, extending its whole length, and hollow shaft I' provided with a key j, fitted into the spline i, slides on the shaft I vertically and revolves with it. These shafts are inclosed in tube B, telescoping with tube B'. Tubes B and B' are clamped together in adjusted position by clamp-ring b, fastened by thumb-screw b², drawing together flanges b' of the clamp-ring surrounding tube B, which is split at its upper end. Tubes B and B' are braced against excessive movement by brackets a a', secured to the carriage. The upper end of tube B' is enlarged and forms the bottom of box C, inclosing gears Y Y'. This box C forms a rigid joint for tubes B' and B³ and contains also bearings for the shafts I' and J'. Shaft I' is supported in box C by collar y and is centered therein by set-screw sb. To the shaft I' and above the collar y is fastened the bevel gear-wheel Y, driving the similar wheel Y', secured to the horizontal shaft J'. Tube B³ is flanged on its basis, and this flange is screwed into the side of box C. On this tube B³ slides the tube B² and is secured thereto in adjusted position by clamp-ring bb, similar in all respects to the above-described clamp. The other end of tube B² is similarly flanged and screwed into the side of box D, similarly equipped to the box C. Boxes C and D are

strongly made and form, together with tubes B B', &c., firmly screwed in their sides, an efficient and adjustable frame, supporting safely the extensible shafts, gearing, fan, and sun-shade.

In tube B³ rotates hollow shaft J', driven, as described, with the shaft I' by gears Y and Y', and in this shaft again slides the shaft J, being coupled with it in similar manner as the shaft I is coupled with shaft I'. Shaft K, journaled in box D and supported by collar *z* in the same manner as shaft I' in box C, is driven by bevel-gear Z Z' from shaft J', cog-wheel Z' being secured to the vertical shaft K, centered by set-screw *sc*, set in lid of the box. In sockets *k'*, carried on the lower end of shaft K, fan-blades *k* are secured by screws *k*². Driving-shaft F may also be made lengthwise adjustable by composing it of two telescopic shafts coupled in a manner similar to shafts I and J. This arrangement is shown in Fig. 1, shaft F' sliding in the hollow shaft F and the key *f'*, attached to shaft F, engaging in slot *f*² in the shaft F'. For ordinary baby-carriages this arrangement would not be necessary; only in such cases where apparatus adaptable to different vehicles be desired.

Shaft F is driven through clutch-disk M by rope-wheel L, when the clutch, normally disconnected, is joined. Clutch-disk M, having slots *m* in its periphery, is rigidly fastened to the shaft F. Rope-wheel L runs loosely on shaft F and slides thereon. Dog-pin *l*, adapted to engage in one of the slots *m* in the periphery of the clutch-disk M, is screwed in the rope-wheel L, whose boss is extended into the grooved collar O. Between it and the bearing *e'* is slid on shaft F the spiral spring N, which normally keeps rope-wheel L pressed against the clutch-disk M. Fork P, attached to one end of the rod *p*, engages the groove in the collar O. This rod *p* slides in the bearing Q, secured on the truck-beam E of the carriage, and is provided with a knob or other suitable handle on the end, projecting from the bearing Q, and with notch *q* on the side opposite to fork P. Spring-pin R, passing through a slot in bearing Q, is attached to spring R', secured to the beam E. This pin R is adapted to spring into the notch *q* when rod *p* is pulled in position where fork P disengages rope-wheel L from clutch-disk M. Shaft F may also be driven by a treadle when it is desired to operate the fan without moving the carriage. For this purpose crank *f* is provided in the shaft F. Rod *t'*, hooked to the crank, is connected to bell-crank lever *t*², resting on the axle of the carriage, and the other end of this bell-crank lever is connected by rod *t*³ to the treadle *t*, resting on the floor.

Thus by disconnecting the rope-wheel L from the clutch-disk M the fan can be operated by treadle *t* with a foot when the carriage is not moved.

Fly-wheel S, secured on the shaft F by set-screw *s*, is to steady the rotary motion of the fanning apparatus and to carry it over all dead-points when shaft F is driven by the treadle.

*t*⁴ represents a rod which is also connected with the bell-crank lever *t*² and pivotally to the bottom of the carriage, so that the crank F may be turned by rocking the carriage through the same mechanism as is used in connection with the treadle *t*. Both the links or rods *t*³ and *t*⁴ (in connection with the treadle *t*) may be used simultaneously, or one of the links *t*³ or *t*⁴ and its connections may be detached when desired.

The treadle, when not needed, and all the rods connected to it are removed by simply lifting the bell-crank lever off the axle and unhooking the rod *t'* from the crank.

It will be found more convenient to arrange the fanning apparatus in the rear of the carriage-truck, as indicated in Fig. 10. The changes in construction and arrangement of the parts necessary for this purpose are shown in Figs. 9 and 11. Gear-box G is then placed in middle of shaft F, which runs through it, and gear-wheel X, set on the shaft, is kept in position between bearings *g g'*. Vertical shaft *h*, carrying beveled wheel X', is supported on its conically-pointed lower end in a boss set on the bearing *g* of the box. The tubular frame is supported, as before, by the box G and is braced in position by bracket *a*², screwed on the truck, and by bracket *a'*, screwed on the back of the carriage.

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

The combination with a baby-carriage or similar vehicle, of a driving-shaft provided with a pulley designed to be driven by the vehicle-wheels and with a crank adapted to receive a suitable driving-rod, a vertically and horizontally adjustable fan carried by the vehicle and geared to the crank-shaft through intermediate mechanism, and clutch mechanism for throwing the pulley into or out of engagement with the shaft, whereby the fan may be actuated by the vehicle-wheels or by other power through a common driving-shaft.

In witness that I claim the improvements described in the foregoing specification I have signed my name in the presence of two subscribing witnesses.

CARL DOLD.

Witnesses:

RICHARD I. ELLIOTT,
JOHN P. NORDSTROM.