

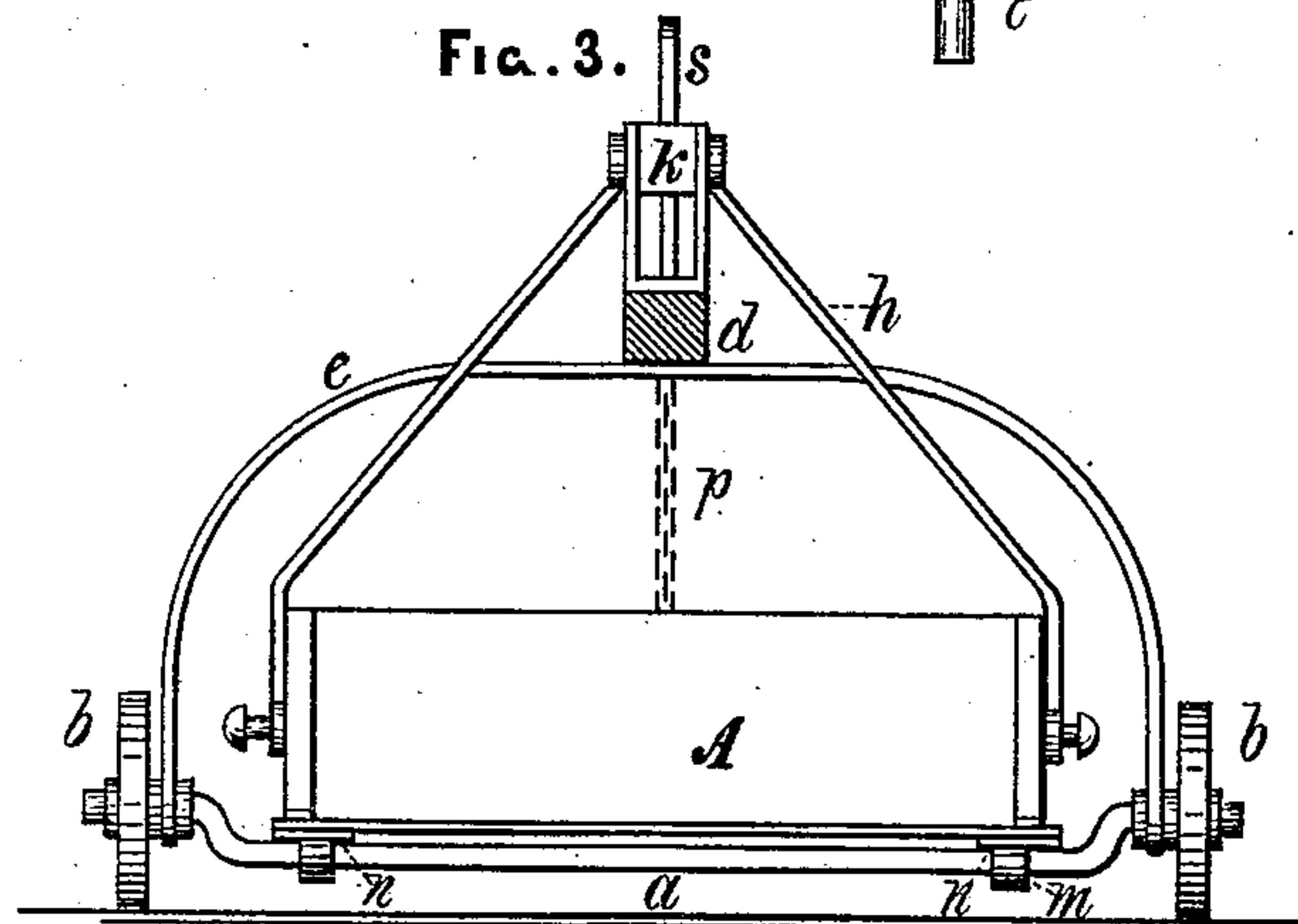
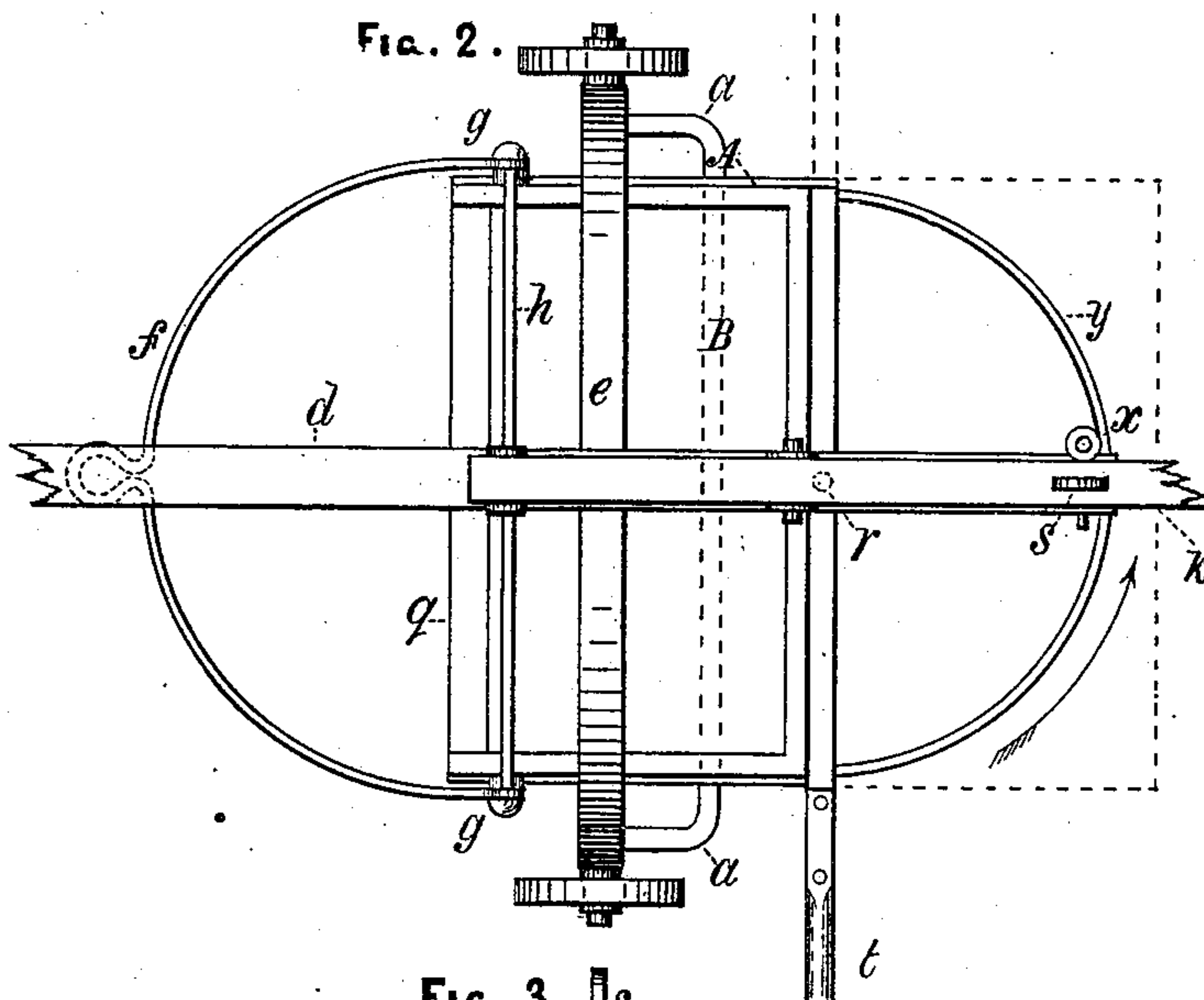
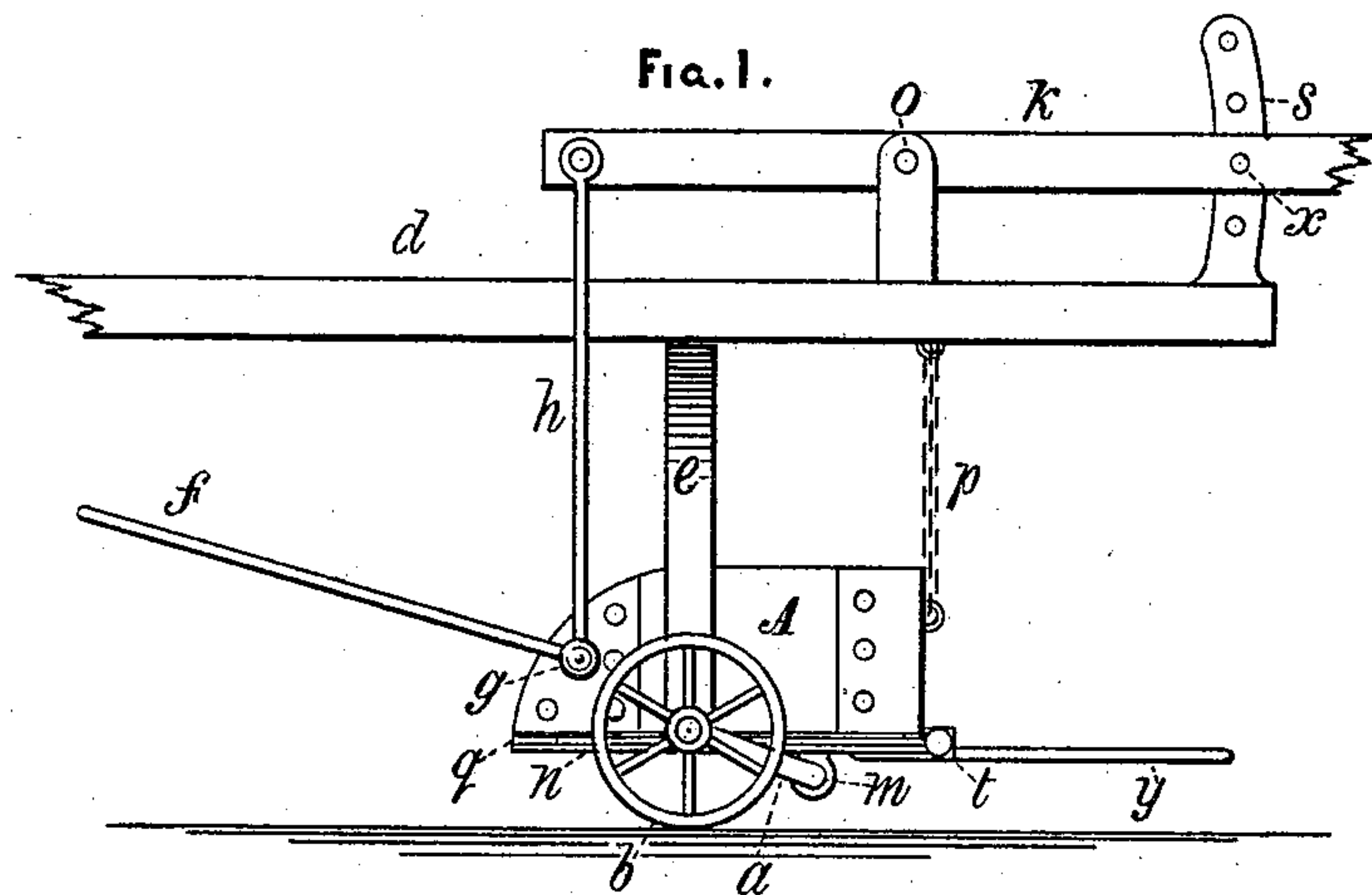
(No Model.)

L. C. SUTTON.

ROAD GRADER.

No. 247,132.

Patented Sept. 13, 1881.



WITNESSES

R. Newton
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UNITED STATES PATENT OFFICE.

LEWIS C. SUTTON, OF JERSEYVILLE, ILLINOIS.

ROAD-GRADER.

SPECIFICATION forming part of Letters Patent No. 247,132, dated September 13, 1881.

Application filed March 21, 1881. (No model.)

To all whom it may concern:

Be it known that I, LEWIS C. SUTTON, of Jerseyville, in the county of Jersey and State of Illinois, have invented a new and Improved Road-Grader; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The invention herein described relates to an improvement in road-graders; and it consists in certain details of construction, hereinafter fully described, whereby the contents of the earth box or scoop is not only more easily discharged than heretofore, but the bottom of the scoop is, by the act of discharging the load, automatically cleared of such earth as does, when moist, adhere thereto.

In the drawings, Figure 1 is a side elevation of the machine; Fig. 2, a plan or top view, and Fig. 3 a front end elevation, of the same, similar letters of reference indicating like parts in all the figures.

In Fig. 1, A represents an earth box or scoop of the ordinary form, to the under side of which is hinged an axle, *a*, on each end of which is journaled a wheel, *b*. It will be observed by reference to Fig. 2 that the axle is bent into the form of a crank, its main length, or that portion to which the scoop is attached, being eccentric to the ends upon which the wheels are journaled. The object of this is to allow the scoop to be raised or lowered, as required. From the inner end of the hub of each of the wheels, and pivoted upon the axle, springs an iron arch, *e*, supporting at its middle or highest part a tongue or draft-pole, *d*.

At *f* is represented a draft-bar of the ordinary form, pivoted to the sides of the scoop at *g*. At this latter point is also pivoted a second similarly-shaped bar, *h*, adapted to span the earth-box and connect the front part thereof with the forward end of a hand-lever, *k*, said lever being pivoted to the tongue *d* at the point *o*, and terminating rearward in a handle. From the tongue depends a chain, *p*, to the lower extremity of which is suspended the earth-box. Forming the front or cutting edge of the scoop is a sharpened steel bar, *q*. Immediately in the rear of said bar is the bottom B of the earth-box, preferably made of iron, and adapted to revolve about a pivot, *r*. This bottom is carried upon an iron frame, *n*, supported beneath the under or lower edges of the two sides and rear of the scoop, and to

this frame the axle is hinged at the point *m*, Fig. 1. To the front of this frame *n* is secured the bar *q*, and to the rear thereof is similarly fastened a semicircular support, *y*, upon which rests the bottom B when the latter is turned back, for the purpose hereinafter explained.

At *t* is represented a handle, by which the bottom is actuated. Secured to the rear end of the draft-pole or tongue *d* is a curved bar, *s*, provided with a series of holes corresponding with a hole in the lever *k*, so as to retain, by the insertion of a pin, *x*, the lever in any required position.

The operation of the machine is as follows: The height of the rear of the scoop from the ground is first adjusted by taking up or letting out one or more links of the chain *p*, thus raising or lowering the fulcrum upon which the scoop oscillates. The front edge of the earth-box is then lowered to the ground by raising the rear end of the lever *k*, which is retained in the required position by inserting the pin *x* in whichever hole in the bar *s* corresponds with the hole in the lever *k*. The load is then transported to where it is to be discharged. This latter operation is accomplished by simply swinging the bottom of the scoop round by means of the handle *t*, as indicated by the arrow, Fig. 2, into the position shown in dotted lines, which not only lets out the contents of the earth-box, but at the same time scrapes the bottom clean as it slides round between the lower edge of the earth-box and the frame *n*, which supports it.

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

1. In a road-grader, the earth box or scoop A, provided with a horizontally-revolving bottom, B, adapted to swing round from under scoop, substantially in the manner and for the purpose herein set forth.

2. In a road-grader, the combination of the axle *a*, provided with eccentrically-journaled wheels, the scraper-box A, journaled upon the offset part of said axle, chain *p*, lifting-bar *h*, and lever *k*, said parts being combined for united operation substantially in the manner and for the purpose herein set forth.

This specification signed and witnessed this 8th day of March, 1881.

LEWIS C. SUTTON.

Witnesses:

WM. G. NALLEY,
C. W. CORY.