

(No Model.)

J. M. LINSOTT.

CAR STARTER.

No. 367,531.

Patented Aug. 2, 1887.

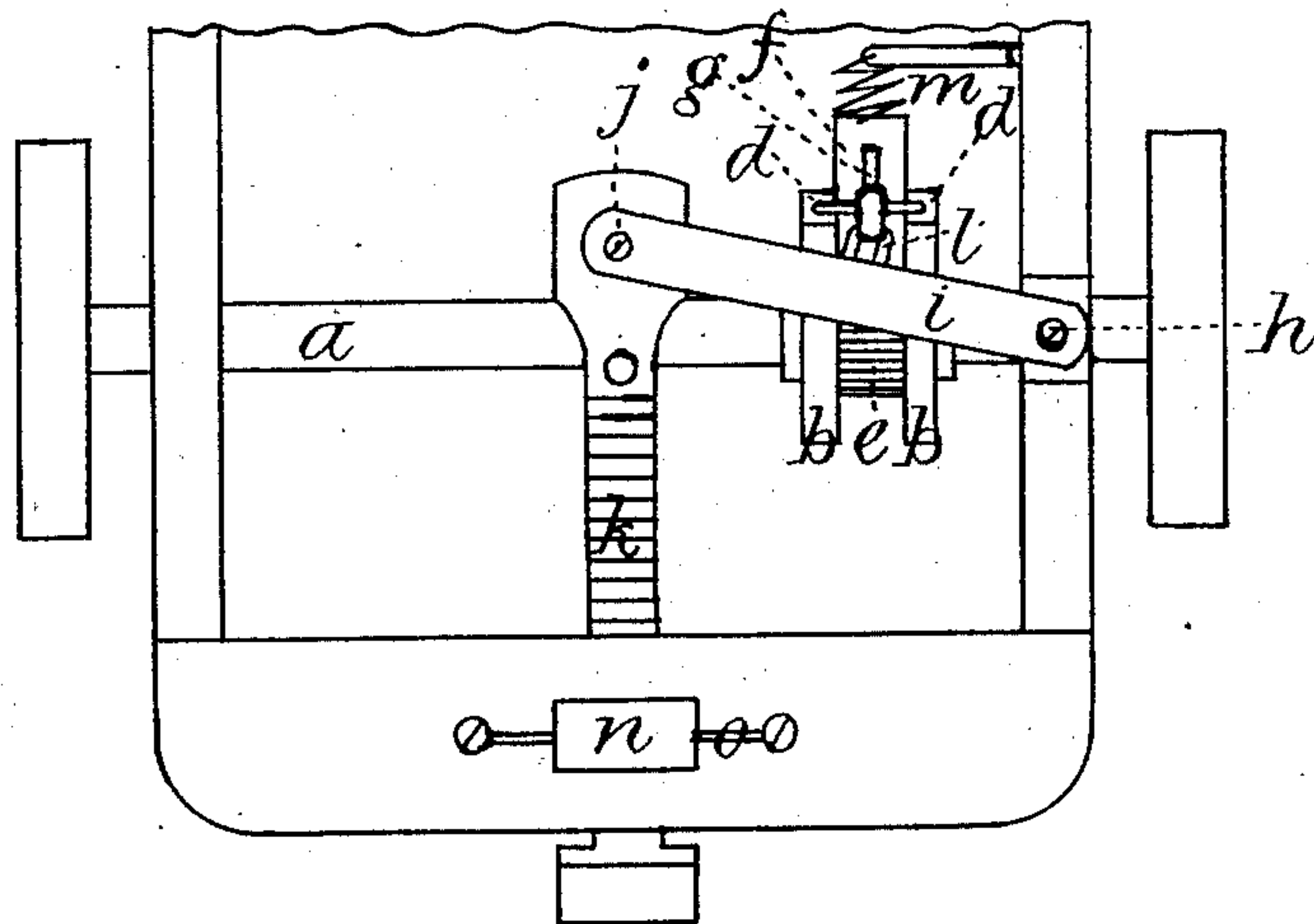


FIG. 1.

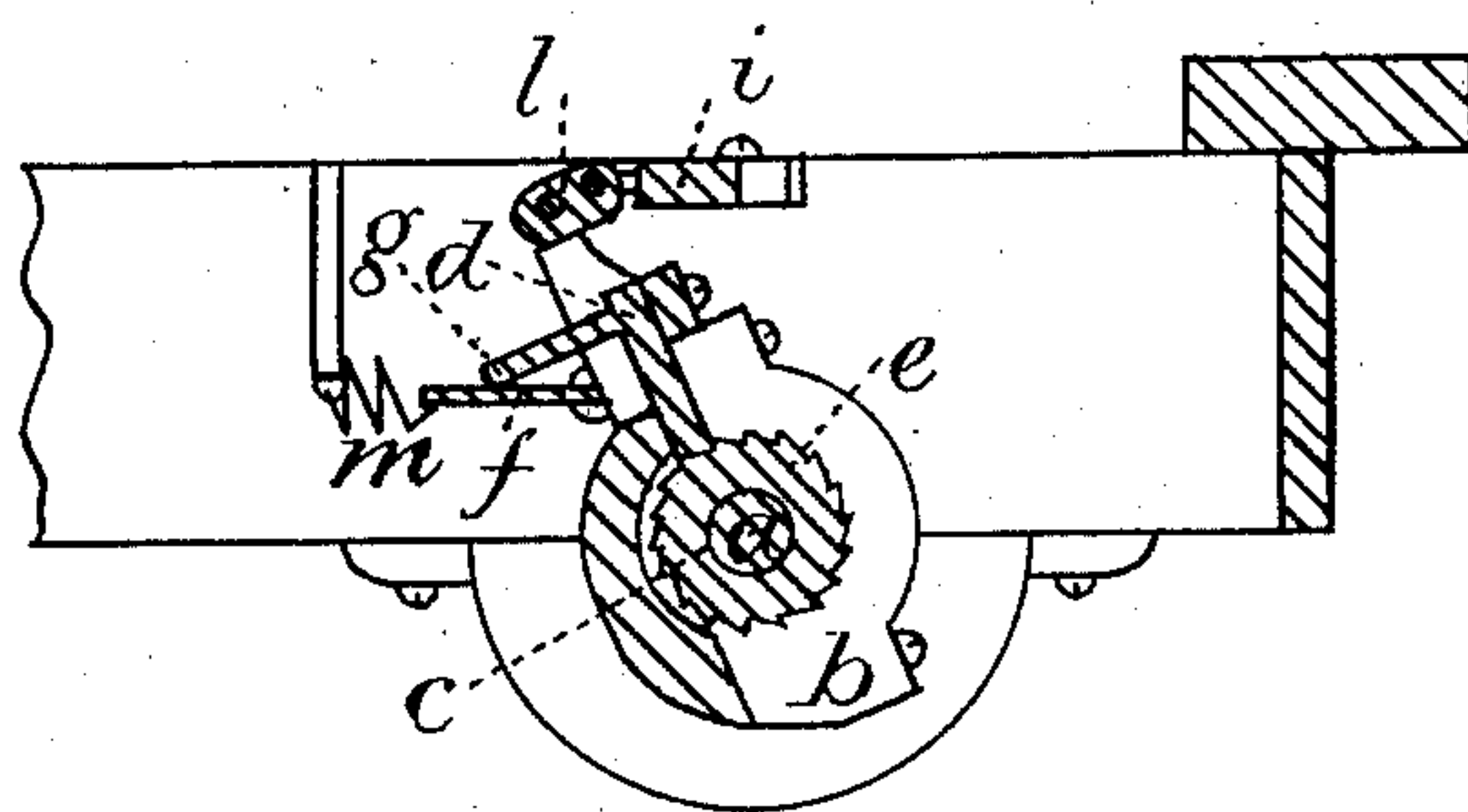


FIG. 2.

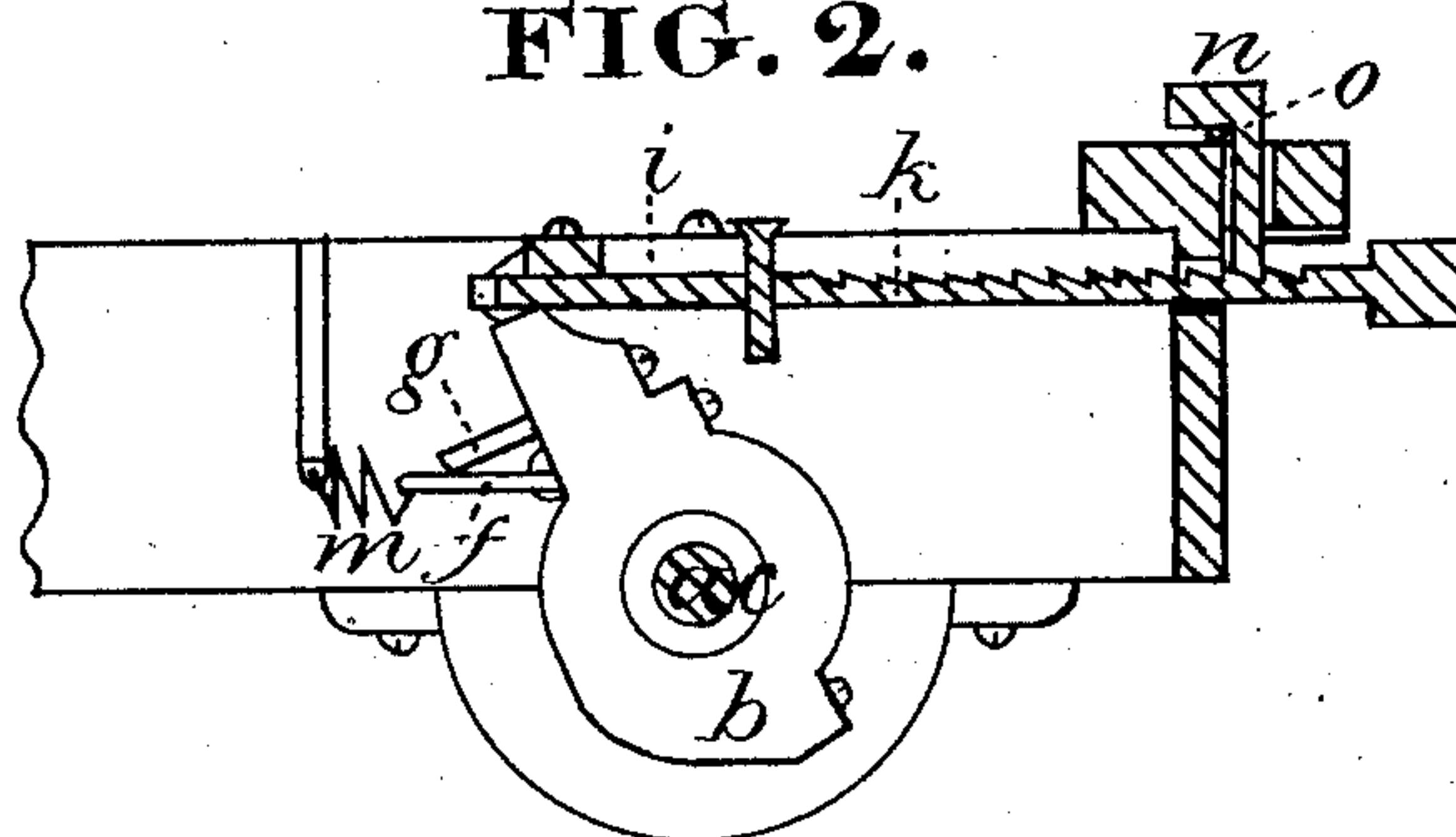


FIG. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN M. LINSKOTT, OF WORCESTER, MASSACHUSETTS.

CAR-STARTER.

SPECIFICATION forming part of Letters Patent No. 367,531, dated August 2, 1887.

Application filed August 12, 1886. Renewed July 5, 1887. Serial No. 243,442. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. LINSKOTT, of Worcester, in the county of Worcester and State of Massachusetts, have invented certain
5 new and useful Improvements in Car-Starters; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the
10 same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a top plan. Fig. 2 is a side sectional elevation. Fig. 3 is a side elevation, with parts broken out to show the working parts.

Same letters show like parts.

My invention relates to car-starters, or to
20 devices to increase the ease of starting horse-cars and other vehicles.

a is the forward shaft of a car. On this shaft I first place the frame-work *b*. This frame-work is loose on the shaft *a*, so that the
25 shaft revolves in the holes *c*, made through the frame-work. This frame-work carries a pawl, *d*. This pawl slides upwardly and downwardly in grooves on the insides of the parts of the frame-work *b*. This is seen at Fig. 2.
30 Between the two parts or sides of the frame-work *b*, and rigidly on the shaft *a*, I place the ratchet *e*. Into the teeth of this ratchet works the pawl *d*. On the back side of the frame-work *b* is a table, *f*.

35 Projecting from the pawl *d* on the back side is the tongue *g*. This tongue is connected with the pawl *d*, and lifts it upwardly by resting on the table *f*, as will be hereinafter set forth.

40 Pivoted into the side of the car, at *h*, is a horizontal lever, *i*. This lever is pivoted at *j* to the draw-bar *k*. The draw-bar *k* is connected to the animals drawing the car. The lever *i* has a link, *l*, which is connected also
45 with the frame-work *b*. Being a loose link, it also allows the body of the car to rise or fall on its springs without binding.

The pawl rests in the teeth of the ratchet *e* when the parts are in the position seen in Fig.
50 1, which is the position in which they are before the horses have begun to draw. When the animals begin to draw, the draw-bar *k* is pulled forwardly, and the horizontal lever *i*

also. This motion of the horizontal lever turns the frame-work *b* also forwardly or toward the
55 animals and on the shaft *a*. The pawl *d* being in the teeth of the ratchet *e*, and being moved as the frame-work is moved, turns the ratchet *e*, and so revolves the shaft *a* and its car-wheels, and so facilitates the starting of the car. 60
When the horses stop, the spring *m*, connected with the table *f* and to some rigid part of the car-frame, draws the frame-work *b* back into the position seen in Fig. 3. When this takes place, the tongue *g* strikes the table *f*, and this 65
lifts the pawl *d* out of the ratchet and allows of the movement of the shaft *a* backwardly, if desired. The shaft *a* can always revolve forwardly when the pawl is in the teeth of the ratchet *e*. 70

n is a brake to be operated by the driver's foot, and set in the floor of the car-platform. When the pressure of the foot is taken off from it, it is lifted by the spring *o*. When the draw-bar is pulled forwardly and it is desired to stop
75 on a hill or other place, the driver places his foot on the brake *n*. The brake *n* at its lower end works into the teeth seen on the draw-bar *k*, and so holds it in the position it may be when the brake is forced down onto it. If 80
the draw-bar is drawn forwardly, then the frame-work *b* is also tipped forwardly, the pawl *d* is in the teeth of the ratchet *e*, and so the forward wheels of the car (those on the shaft *a*) are prevented from revolving back- 85
ward. Remove the pressure from the brake *n*, back the horses slightly, and the contrivance becomes a starting contrivance again, as before described.

What I claim as my invention, and desire 90 to secure by Letters Patent, is—

1. The combination of the shaft *a*, frame-work *b*, ratchet *e*, table *f*, pawl *d*, and tongue *g*, spring *m*, draw-bar *k*, horizontal lever *i*, and link *l*, for a car-starter, as herein set forth. 95

2. The combination of the brake *n*, spring *o*, the toothed draw-bar *k*, frame-work *b*, pawl *d*, ratchet *e*, and link *l*, as a device to brake up or stop or hold a car, as herein set forth.

In testimony that I claim the foregoing as 100 my own I affix my signature in presence of two witnesses.

JOHN M. LINSKOTT.

Witnesses:

ROBERT A. DAVIS,
CHAS. E. DAILY.