

No. 630,432.

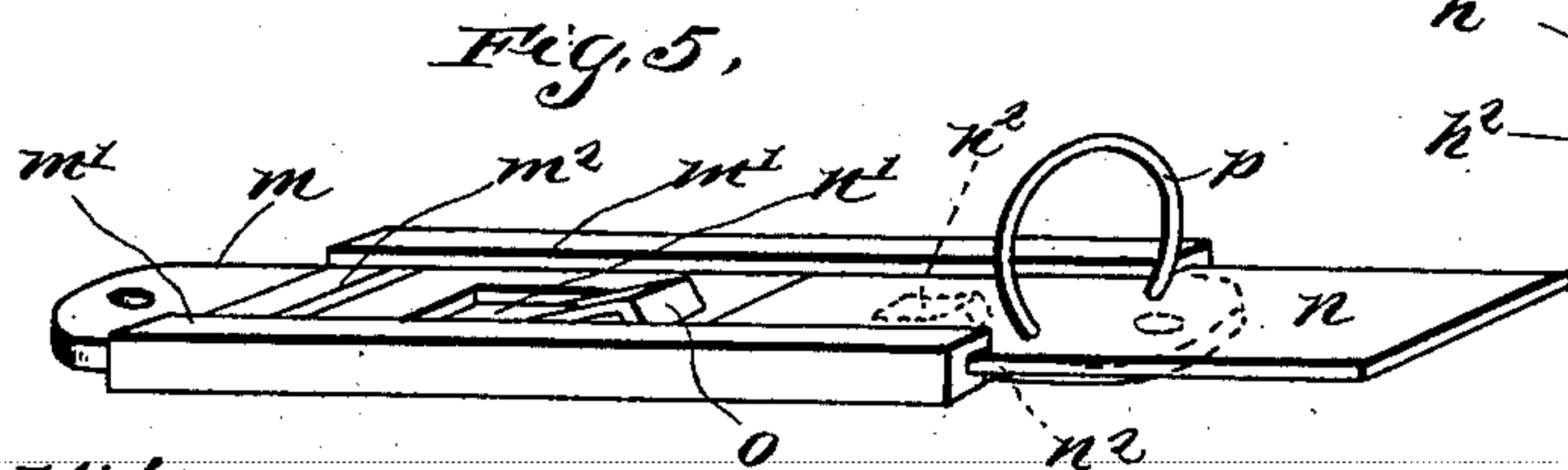
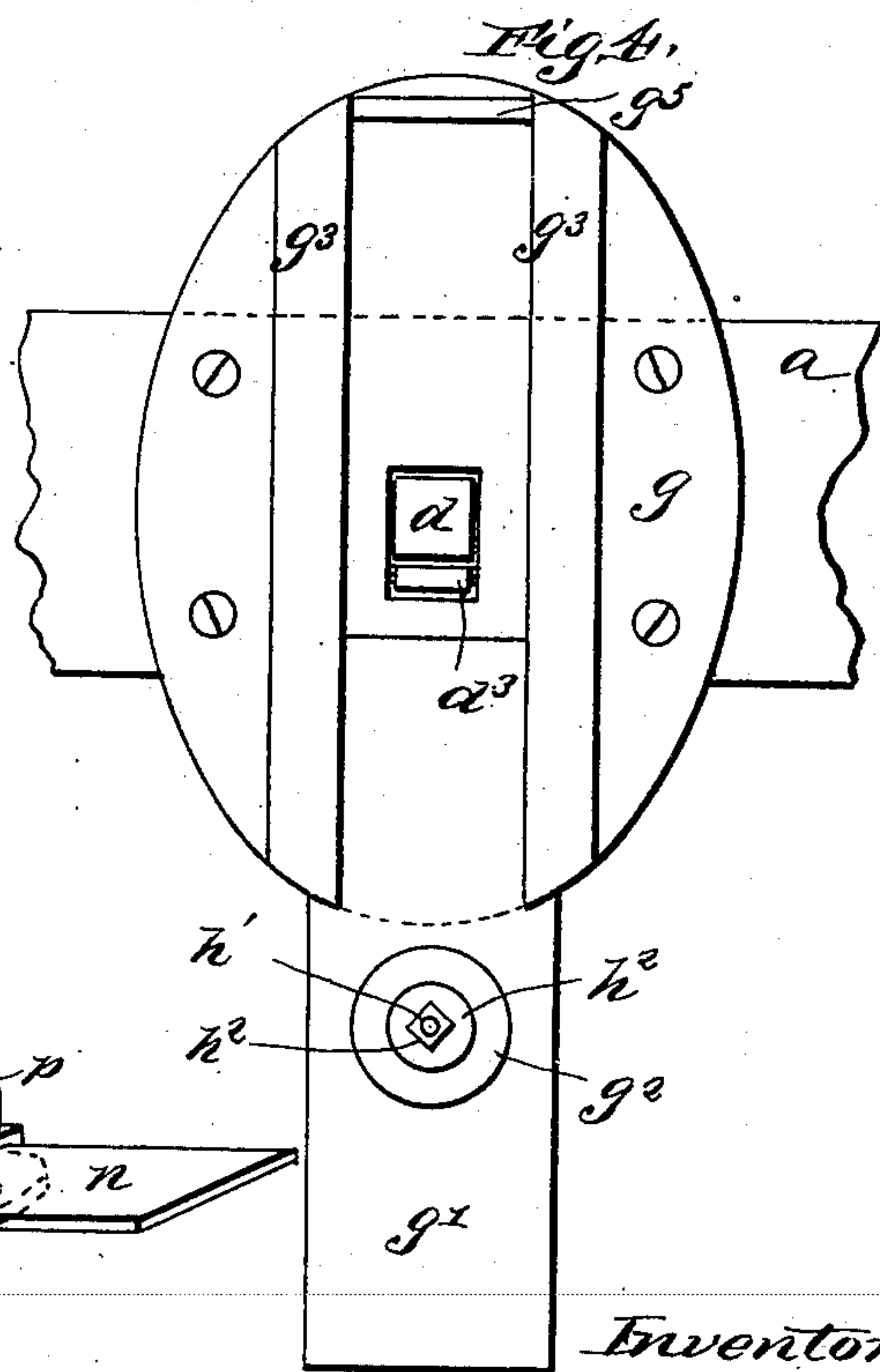
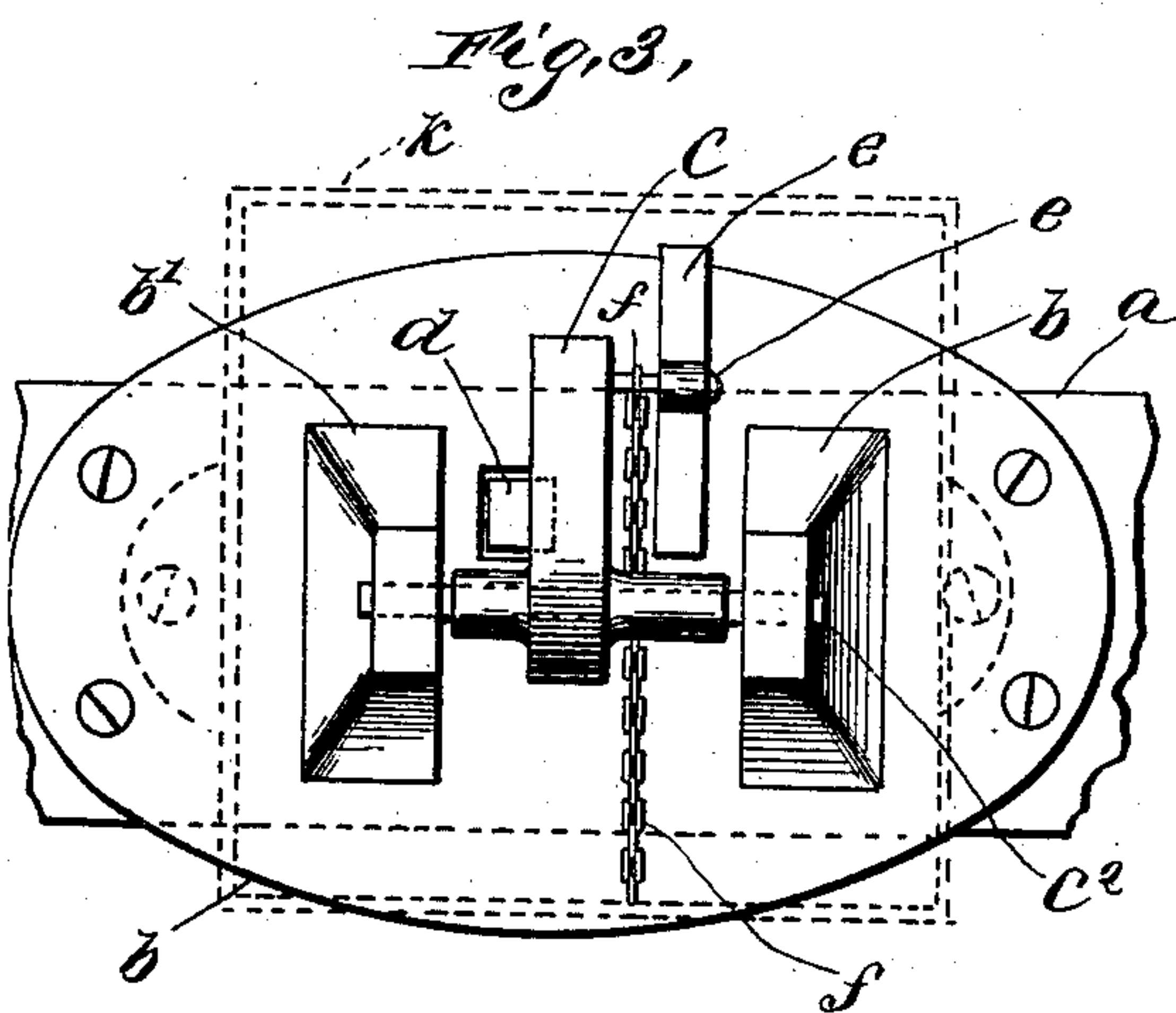
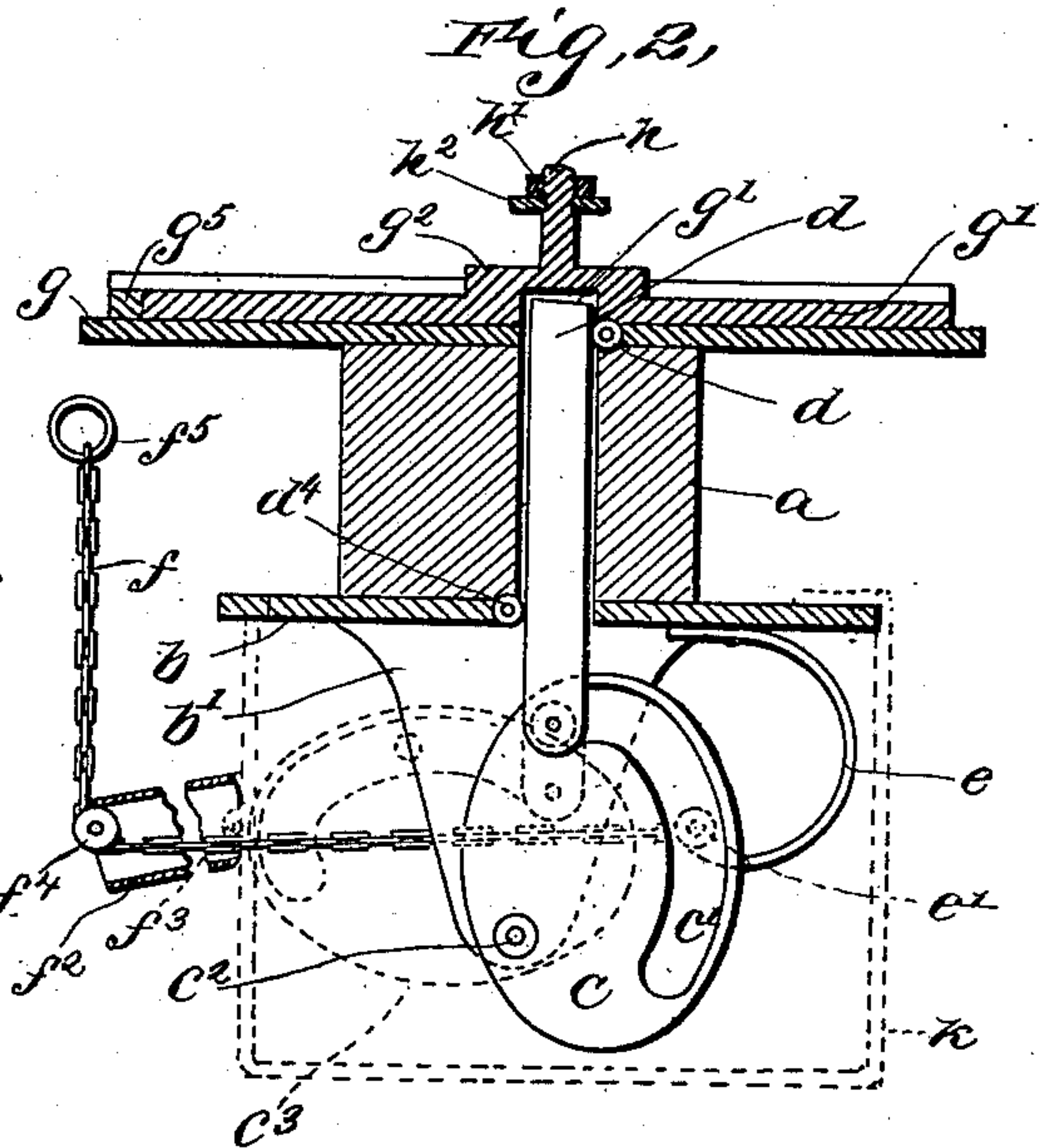
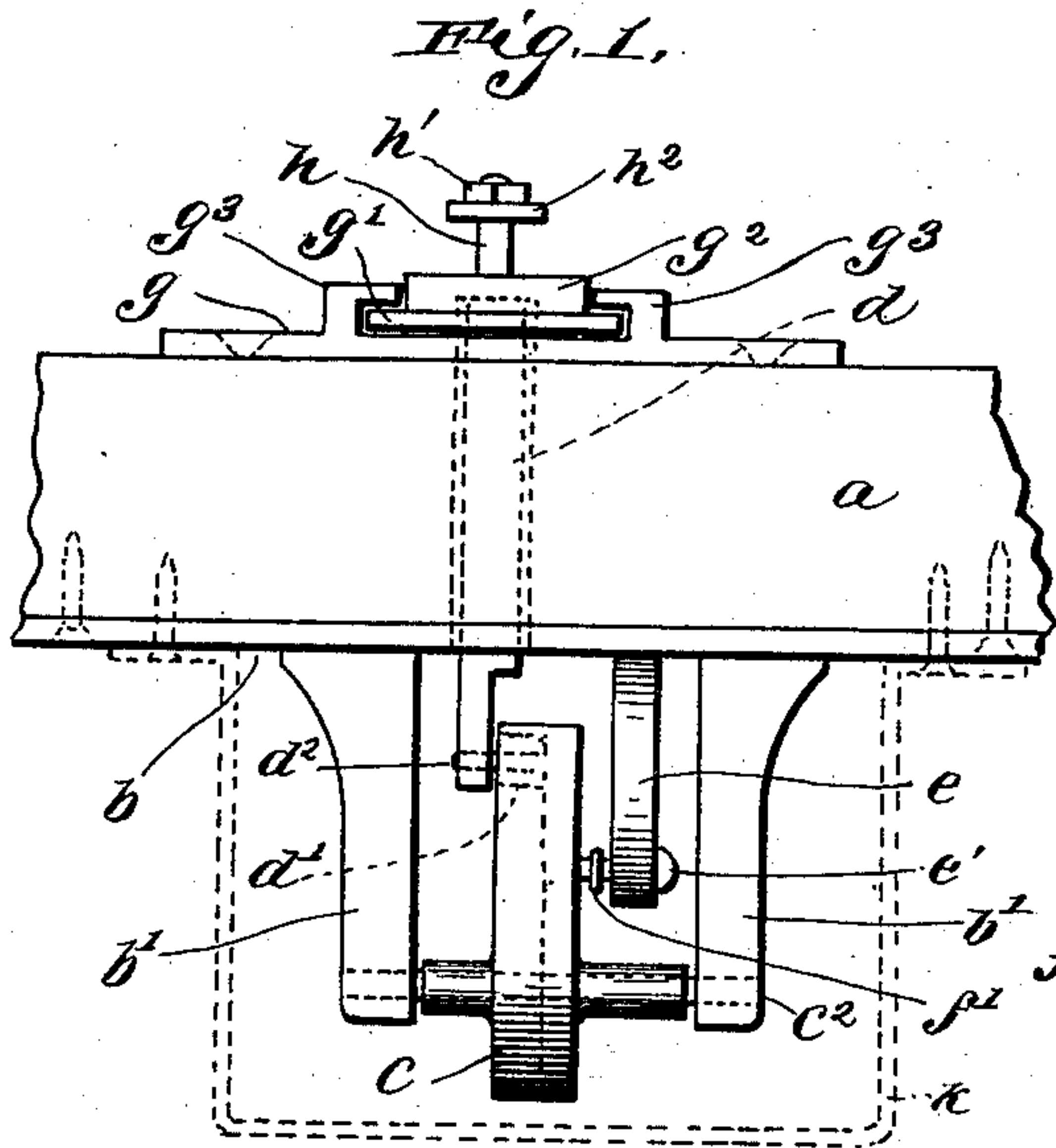
Patented Aug. 8, 1899.

A. L. WILKIE.
HORSE DETACHER.

(Application filed Feb. 4, 1898.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:
Charles. Cannon
John Hamilton Standing

Inventor:
Abraham Lincoln Wilkie

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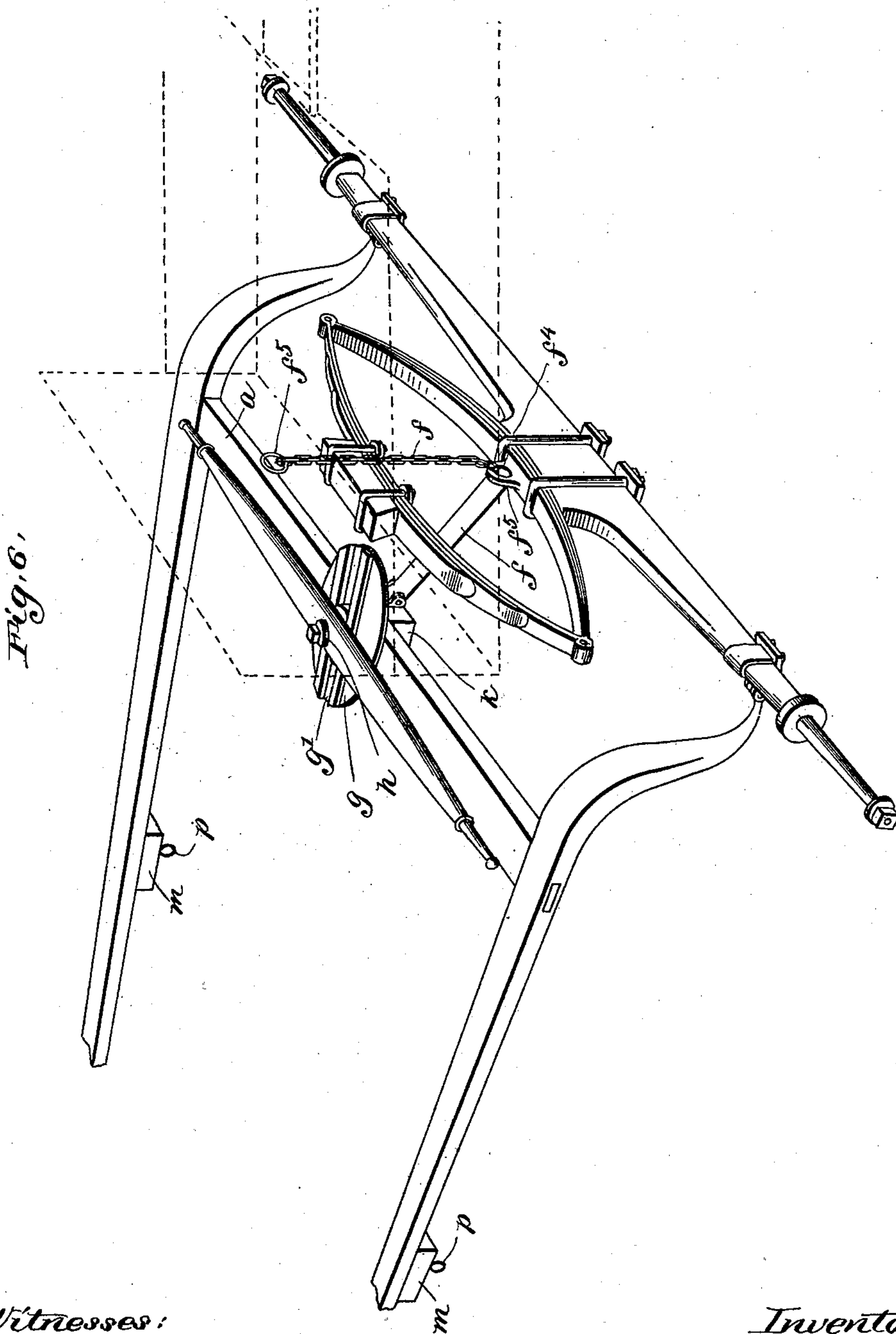
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UNITED STATES PATENT OFFICE.

ABRAHAM LINCOLN WILKIE, OF WINNIPEG, CANADA.

HORSE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 630,432, dated August 8, 1899.

Application filed February 4, 1898. Serial No. 669,104. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM LINCOLN WILKIE, a citizen of Canada, residing at Winnipeg, in the Province of Manitoba, Canada, have
5 invented a new and useful Horse-Detacher for Vehicles, of which the following is a specification.

My invention relates to a contrivance which may be attached to any vehicle drawn by
10 horses and which will enable the driver to free the horse or horses from the vehicle the moment any danger occurs from their taking fright or running away. This is obtained by the contrivance illustrated in the accompanying
15 drawings, in which—

Figure 1 is a front view of the detaching apparatus. Fig. 2 is a sectional view of the same. Fig. 3 is a view of the same as seen from below. Fig. 4 is a view of top plate and
20 slide as seen from above. Fig. 5 is a view of one of the plates and slides which is secured to shafts. Fig. 6 is a view of shafts and front axle, showing the application of my invention.

25 Similar letters refer to similar parts throughout the several views.

In the drawings, A is the ordinary cross-bar of the shafts.

30 *b* is the bed-plate. *b' b'* are standards secured thereto. *C* is an eccentric or cam working on the axle *C'*, which passes through the standards *b' b'*, as shown.

C' is a curved groove in cam *C*.

35 *d* is a bolt which passes freely through an aperture in the cross-bar A, the lower end having the roller *d'*, working on the center pin *d'*, the said roller *d'* being placed in the groove *C'*.

40 *d'* *d'* are rollers which are optional. They are placed the one on the under side and the other on the top of the bar A and secured to the plates *g* and *b* to facilitate the movement of the bolt *d*.

45 *e'* is a pin secured to the other side of the cam *C*, to which is secured one end of the spring *e*, the other end being secured to the bed-plate *b*, as shown. The pin *e'* also carries the end of the chain *f*, as shown at *f'*.

50 *g* is the top plate, secured to the top of the cross-bar A, having grooved projections *g'* *g'*, in which the slide-plate *g'* freely passes.

g' is a circular projection on the top of the

slide-plate *g'* to give opportunity to form the cavity *g'*, in which the top of the bolt *d* is received.

55

g' is the stop.

h is a pin rising from the projection *g'*, which is intended to hold the whiffletree, the washer *h'* and nut *h'* securing it in position.

k is merely the box or casing to protect the
60 works before described.

f' is an adjustable tube hinged with lugs to the box *k* at *f'*.

f' is a pulley-wheel secured to the outer end of tube *f'* to facilitate the movement of the
65 chain *f*.

f' is a ring termination which is secured to the chain after it has been passed through the bottom of the carriage.

Fig. 5 shows a plate *m*, having its edges
70 *m' m'* turned over so as to form grooves in which the plate *n* freely slides.

m' is the stop.

n' is a slot in the plate *m*, and *o* is a spring secured at one end to the back thereof, the
75 other projecting upward through the slot *n'*, as shown at *o*.

n is the slide-plate, working freely in the grooved edges *m' m'*. On the under side of the said plate *n* is a recess *n'*, which when
80 the plate *n* is pushed full up into its place engages the spring *o*, which holds it in position. On the top of plate *n* is the ring or loop *p*.

Having now described the various parts of
85 my invention, I will proceed to explain the working thereof.

It will be seen by referring to Fig. 6 that the box *k*, containing the detaching apparatus, is placed on the under side of the cross-
90 bar A; that the plate *g*, with slide, pin, nut, and washer, are above, holding the whiffletree in position, and also that the tube *f'* passes rearward to the axle-tree, upon which the spring is attached. Close to this spring is a
95 ring-fastening *f'*, holding the tube *f'* in its proper place, and the chain *f* passes upward through the bottom of the vehicle, which is indicated by dotted lines. It will also be seen that the plates *m m* are secured by screws
100 or otherwise to the shafts in suitable position. When the horse is harnessed and put in the shafts, the traces are attached to the whiffletree in the usual way and the breech-

straps secured to the rings or loops *p p*. Now it is at once clear that in case of danger, when the horse cannot be controlled, by pulling up the chain *f* by the ring *f*⁵ the cam *C* is drawn
 5 into the position shown by dotted lines *c*³, at the same time drawing down the bolt *d*, so that the upper end thereof is clear of the cavity *g*⁴. The plate *g*¹ slips out of the grooved plate *g*, and the slide-plates *n n* slip out of
 10 the grooves in plates *m m* with the breechstraps, and the horse is at once clear of the carriage, and thus all danger is averted. It will be observed that the peculiar form of the groove *c*¹ is such that the roller *d*¹, with bolt
 15 *d*, is locked and cannot work down or get out of position until chain is pulled, as described.

It is also evident that my invention is equally applicable to double harness, the detaching apparatus being in this case secured
 20 to the doubletree in a similar manner to that above described and the plate *m* secured to the pole.

I make no claim to any particular kind of vehicle, nor to any special form of shaft; but
 25 What I claim as my invention, and desire to secure by Letters Patent, is—

1. In safety appliances for vehicles, a perforated cross-bar having a bed-plate provided with hangers depending therefrom, a cam
 30 journaled in the hangers and carrying a pin working in said perforation, a device supported by the cross-bar, and carrying a whif-

fletree locked in place by said pin and means for operating the cam whereby the said device is unlocked, all combined substantially
 35 as set forth.

2. In safety appliances for vehicles, a perforated cross-bar having a bed-plate provided with hangers depending therefrom, a cam having a groove and journaled in said hang-
 40 ers, a pin having a head working in said groove and extending through the cross-bar, a device supported by the cross-bar and carrying a whiffletree locked in place by said pin and means to operate the cam whereby
 45 said device is unlocked, all arranged and combined as set forth.

3. In safety appliances for vehicles, the combination of a cross-bar having a perforation, a device carrying a whiffletree resting
 50 on said bar, a base-plate provided with depending hangers a grooved cam journaled in said hangers, a spring connecting the cam and base-plate, a pin having a head working in the cam-groove and extending through the
 55 perforated cross-bar and means to operate said cam, whereby the device carrying the whiffletree is unlocked, all arranged as set forth.

ABRAHAM LINCOLN WILKIE.

Witnesses:

C. H. ALLEN,
 C. I. CONKLIN.