

No. 741,361.

PATENTED OCT. 13, 1903.

G. M. McLEAN.
HORSE CHECK.

APPLICATION FILED FEB. 24, 1903.

NO MODEL.

2 SHEETS—SHEET 2.

Fig. 5.

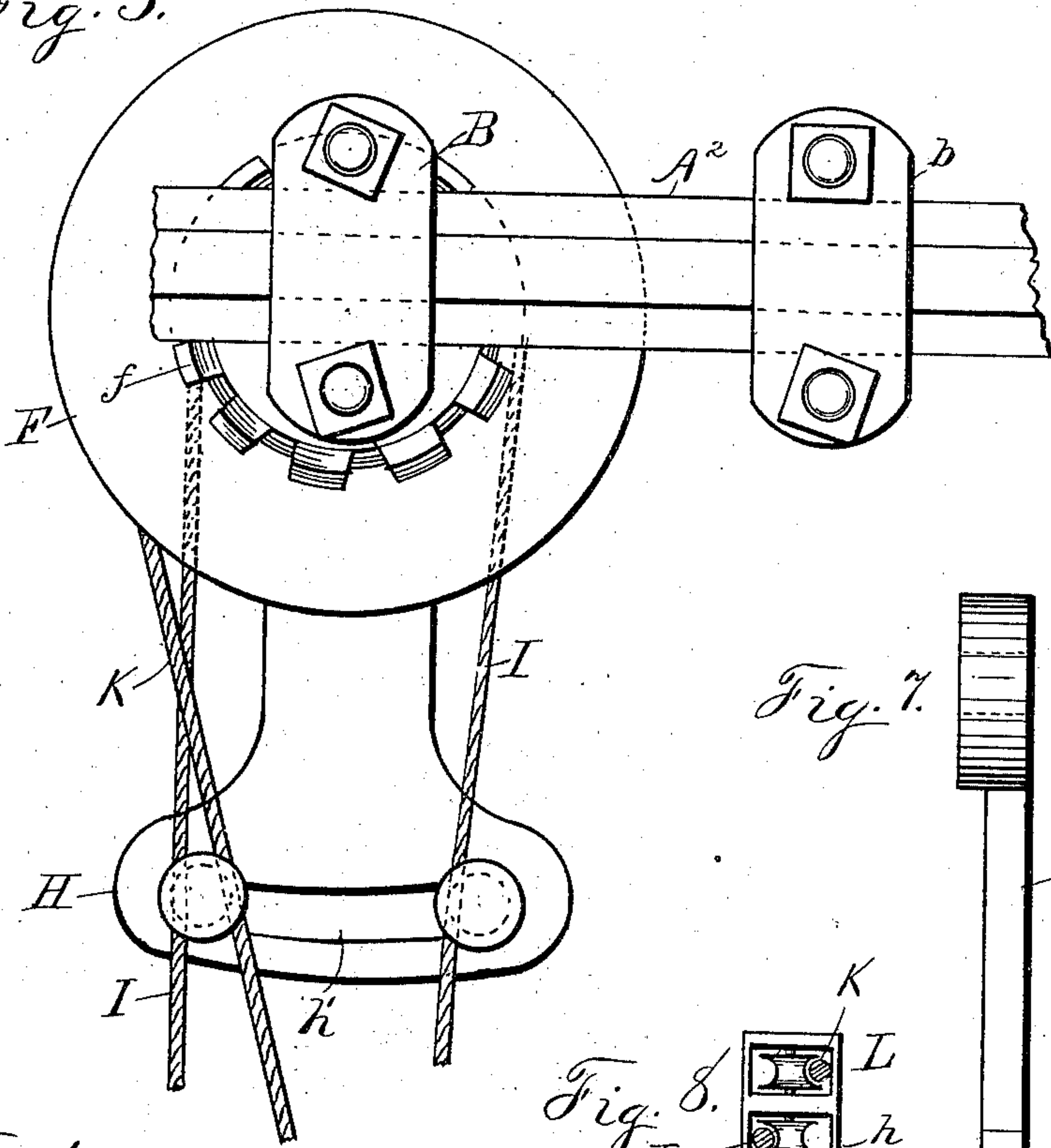


Fig. 6.

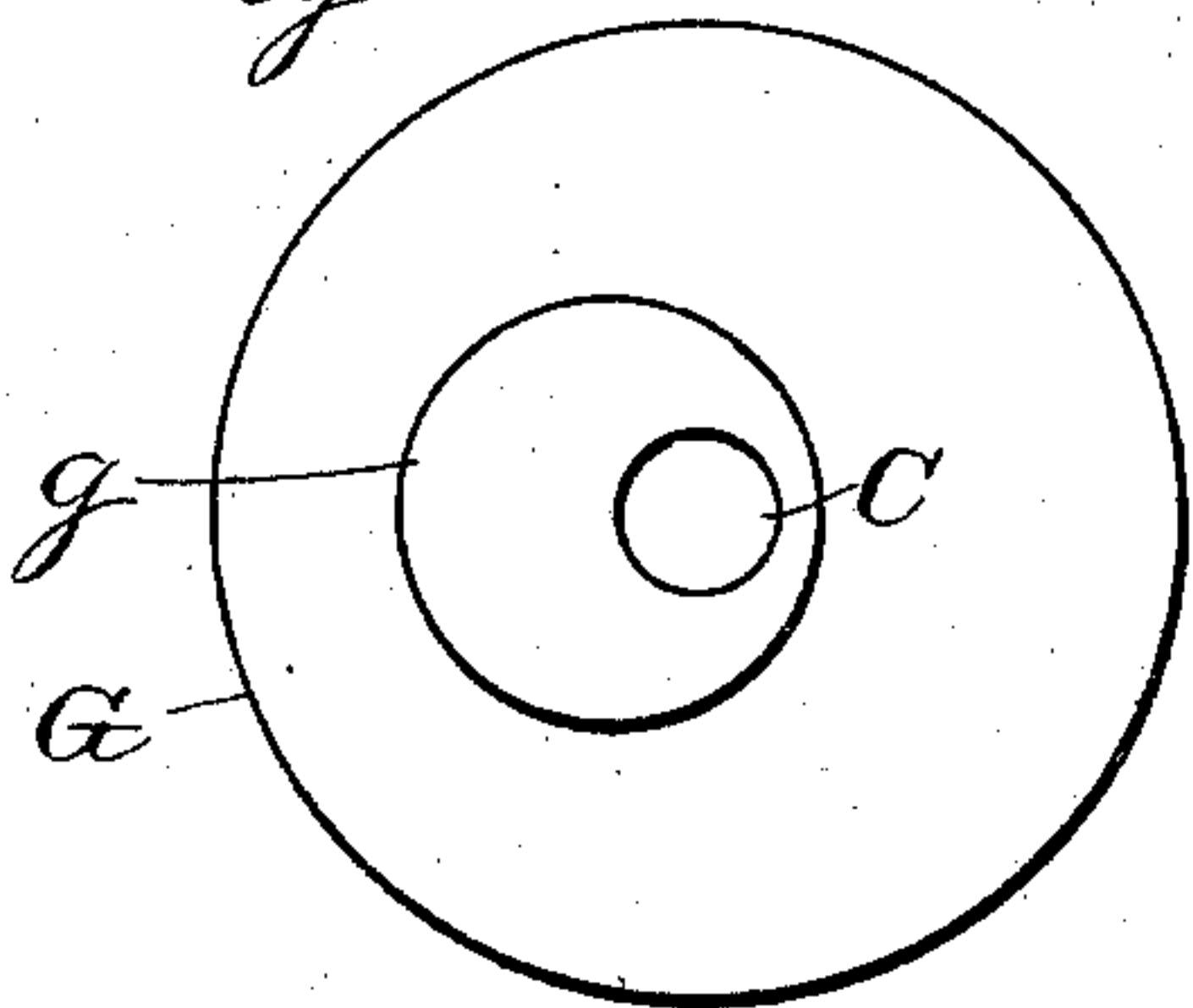


Fig. 7.

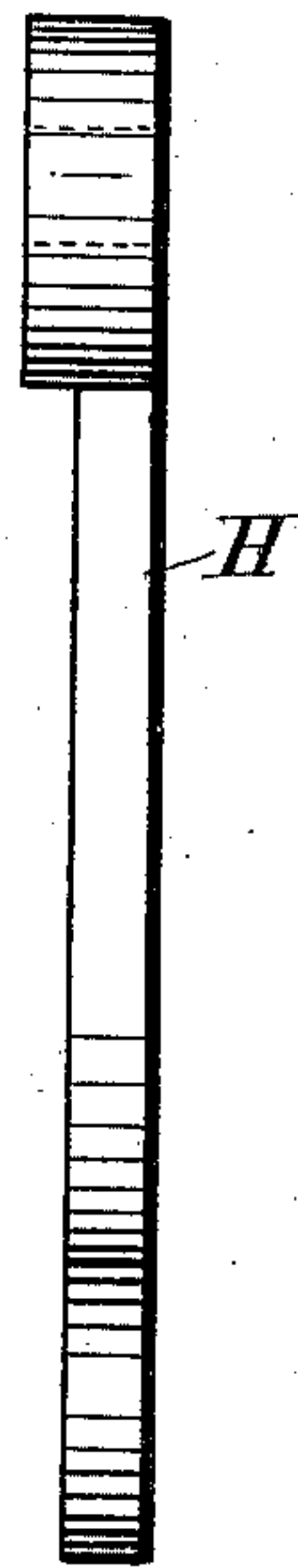


Fig. 8.

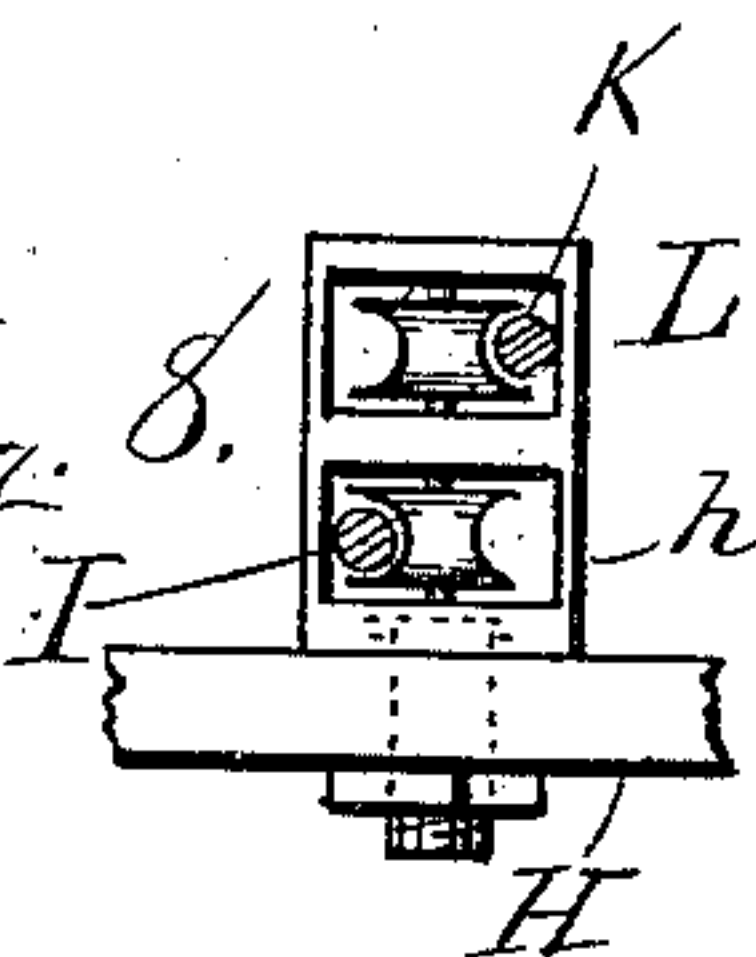
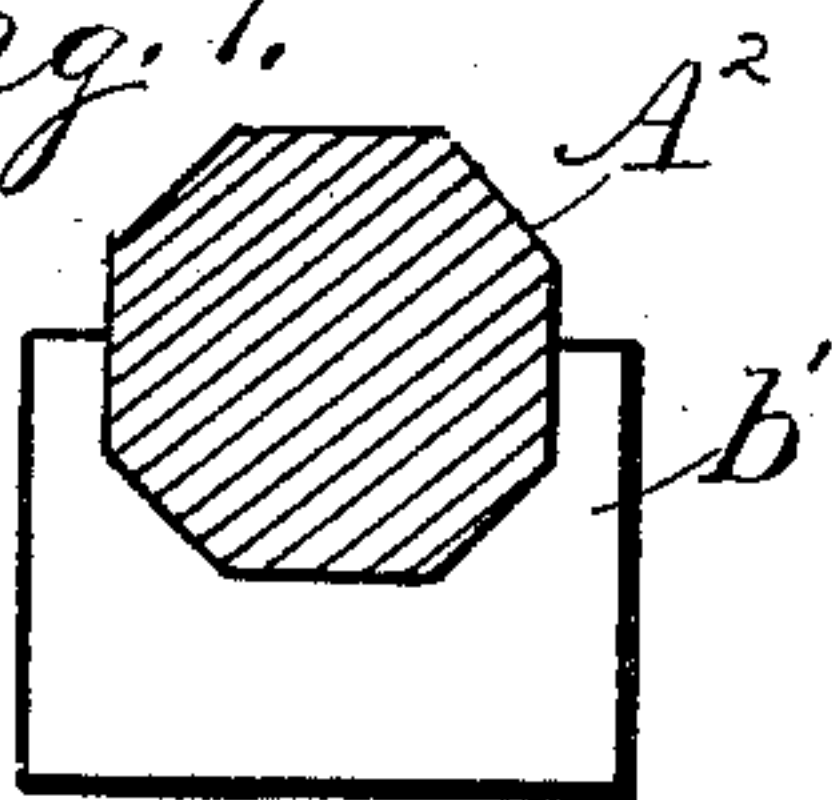


Fig. 9.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE MARK McLEAN, OF SALT LAKE CITY, UTAH.

HORSE-CHECK.

SPECIFICATION forming part of Letters Patent No. 741,361, dated October 13, 1903.

Application filed February 24, 1903. Serial No. 144,891. (No model.)

To all whom it may concern:

Be it known that I, GEORGE MARK McLEAN, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Horse-Checks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of this invention is, primarily, to control the speed of horses or to stop them completely if running away when they cannot be controlled by the reins, and, secondarily, to prevent a horse or team from starting from a given place without hitching them to a post or weight, as is commonly done.

The means I employ are inconspicuously attached under the body of the vehicle, are strong, compact, and easily rendered operative by the driver.

The accompanying drawings illustrate the invention, in which—

Figure 1 is a reduced general plan view of the device as connected to a vehicle from which the body and springs have been removed. Fig. 2 is a front view, partly in section, in operative position with the cord guide-rollers omitted. Fig. 3 is a side elevation of the hanging-bolt with its circular notched head. Fig. 4 is a bracing-clamp to engage the bolt C. Fig. 5 is a plan of the suspended mechanism out of engagement with the driving cog-wheel. Fig. 6 is a plan of the drum; Fig. 7, a side view of the arm H; Fig. 8, a side elevation of the box and rollers, and Fig. 9 a side of a clevis-block with a section of an axle therein.

Like letters of reference denote corresponding parts in the different views.

The letter A indicates a vertical cog-wheel secured upon the inner end of a rear hub A', preferably by screws *a a*. B is a clevis on the axle A² adjacent to the hub A'. This clevis is made for general use of a fixed size, and blocks *b'* of varying inner measurement are employed as seats for axles of different sizes.

A bolt C, with circular flattened head *c* and having radial corrugations or notches *c'* on both sides, is held by a brace-clamp D, whose jaws *d d* are notched and adapted to engage

the notches on the bolt C. A set-screw E passes through holes in the head *c* and jaws *d* and binds them tightly together.

The brace-clamp D is held at its outer end in the clevis *b*, which is secured on the axle A² and by its adjustability can be held by the clevis on bent axles either above or below the line of a straight axle. The bolt C and its appendages are by these means held rigidly at all times.

The bolt C extends downward through a sheave F, a drum G, and an arm H, and by means of nut *c'* at its lower end loosely supports these parts in a horizontal position.

On the upper side of the drum F is a pinion *f*, whose teeth are adapted to engage the teeth of the cog-wheel A.

An eccentric vertical extension *g* on the drum G supplies a bearing for the sheave F and pinion *f*. The drum is required to make only one-half of a revolution and back again and turns centrally on the bolt C. In this limited movement it carries the pinion *f* into and out of engagement with the cog-wheel A.

Another drum G' of twice the circumference of the drum G is hung beneath the front part of the vehicle, and its spindle *g'* extends up through the floor of the body convenient to the foot of the driver. A short pedal-lever *g'* is attached to this spindle, and by it the drum is turned. A cord I encircles both drums, and when the drum G' is given a one-quarter turn the drum G responds with the one-half revolution already mentioned. Another cord K is attached to and adapted to be wound upon the sheave F, its other end extending forward under the vehicle-body and being secured to the heads or bits of the horses. It is guided by rollers *l l*, conveniently placed, and both the cords I and K pass around rollers L L in the box *h* on the arm H. This box *h* is laterally adjustable in a slot *h'* in the arm H. It is clearly seen that when the lever is turned, as stated, the pinion *f* is thrown into engagement with the wheel A and if the latter is being rotated by the revolution of the hub that the sheave F will wind upon itself the cord K, which will very quickly bring the animals to a standstill. A reverse turn of the lever *g'* immediately throws the mechanism out of operative engagement.

When the team is to be kept standing, in-

stead of hitching the horses simply throw the cog-wheels into engagement and any forward movement of the animals will be instantly stopped.

- 5 I do not limit myself to the cog-wheels described, as a friction engagement of similar revolving surfaces may be used. I also reserve the liberty to vary to a reasonable extent other parts of this device without departing from the spirit of the invention.

10 Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A horse-check comprising a cog-wheel
15 on a vehicle-hub, a sheave supported on the axle, a pinion on said sheave adapted to engage said cog-wheel, a drum supported beneath said sheave, a vertical bearing for said sheave and pinion, disposed eccentrically, on
20 said drum, a pedal-operated drum convenient to the driver, a cord encircling both said drums, and a cord attached to said sheave and to the horses' bits, substantially as set forth.
- 25 2. A horse-check comprising a cog-wheel on the vehicle-hub, an adjacent clevis on the axle, a bolt supported by said clevis, a sheave, a pinion and a drum supported by said bolt, and means to throw said pinion into, and out
30 of engagement with said cog-wheel, whereby a cord attached to the horse, is caused to be wound upon said drum, for the purposes herein described.

- 35 3. In a horse-check the combination of a clevis B, upon the vehicle-axle, a bolt having

a flattened and notched head, a brace-clamp having notched jaws adapted to adjustably engage said bolt-head, both clamp and bolt held by said clevis B, and another clevis b, on the axle, to hold the outer end of said
40 clamp, for the purpose stated.

4. In a horse-check, the combination of a depending bolt supporting a sheave and a drum, carrying cords, an arm on said bolt, a slot in said arm and a box carrying guide-
45 rollers for said cords and adjustable in said slot as herein specified.

5. In a horse-check the combination of a cog-wheel on a rear vehicle-hub and a pinion and greave eccentrically disposed on a drum
50 G, the herein-described drum G', under the vehicle-body, the spindle of said drum projecting through the body-floor, a pedal-lever on said spindle and a cord encircling both drums, for the purpose stated.

6. In a horse-check the combination of a cord connecting its engagement mechanism, and another cord connecting its sheave with the horse's head, an adjustable arm supported
60 beneath said sheave a slot in said arm, a roller-box adjustable along said slot and rollers in said box to guide said cords substantially as herein set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE MARK McLEAN.

Witnesses:

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SADIE E. PRICE.