

W. T. & J. B. BURTON.

VEHICLE DEVICE FOR STOPPING HORSES.

No. 174,472.

Patented March 7, 1876.

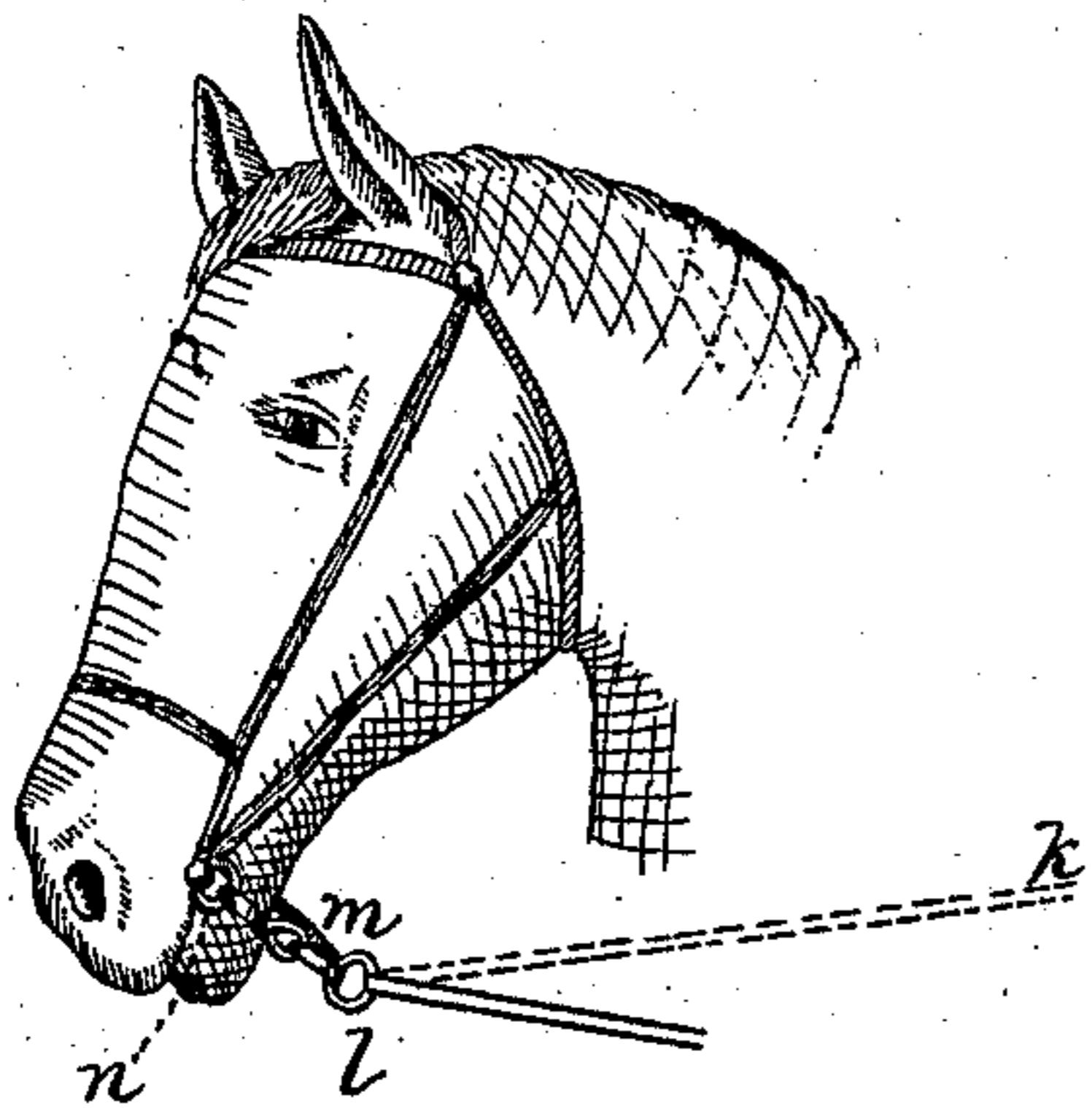


Fig. 1.

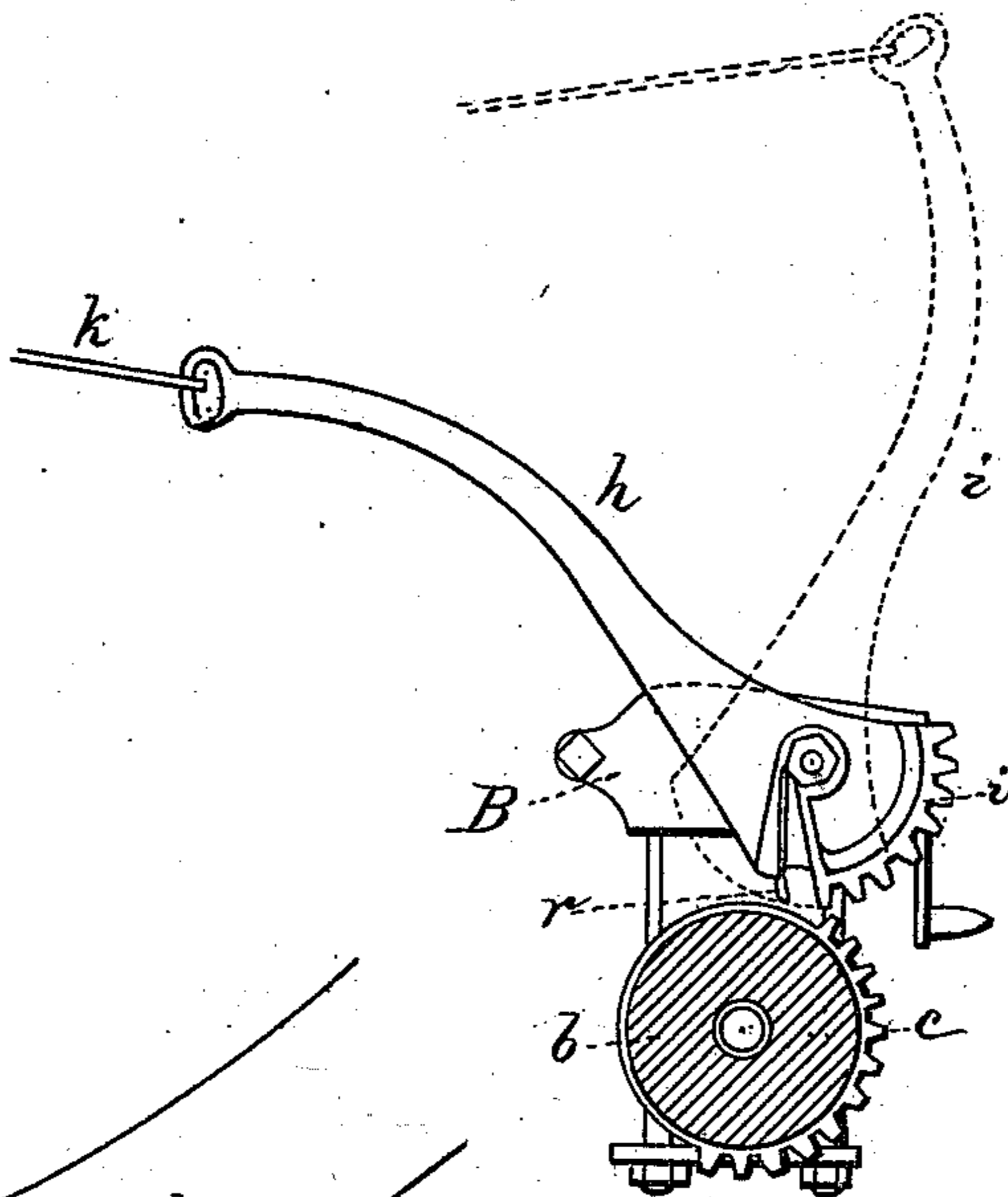
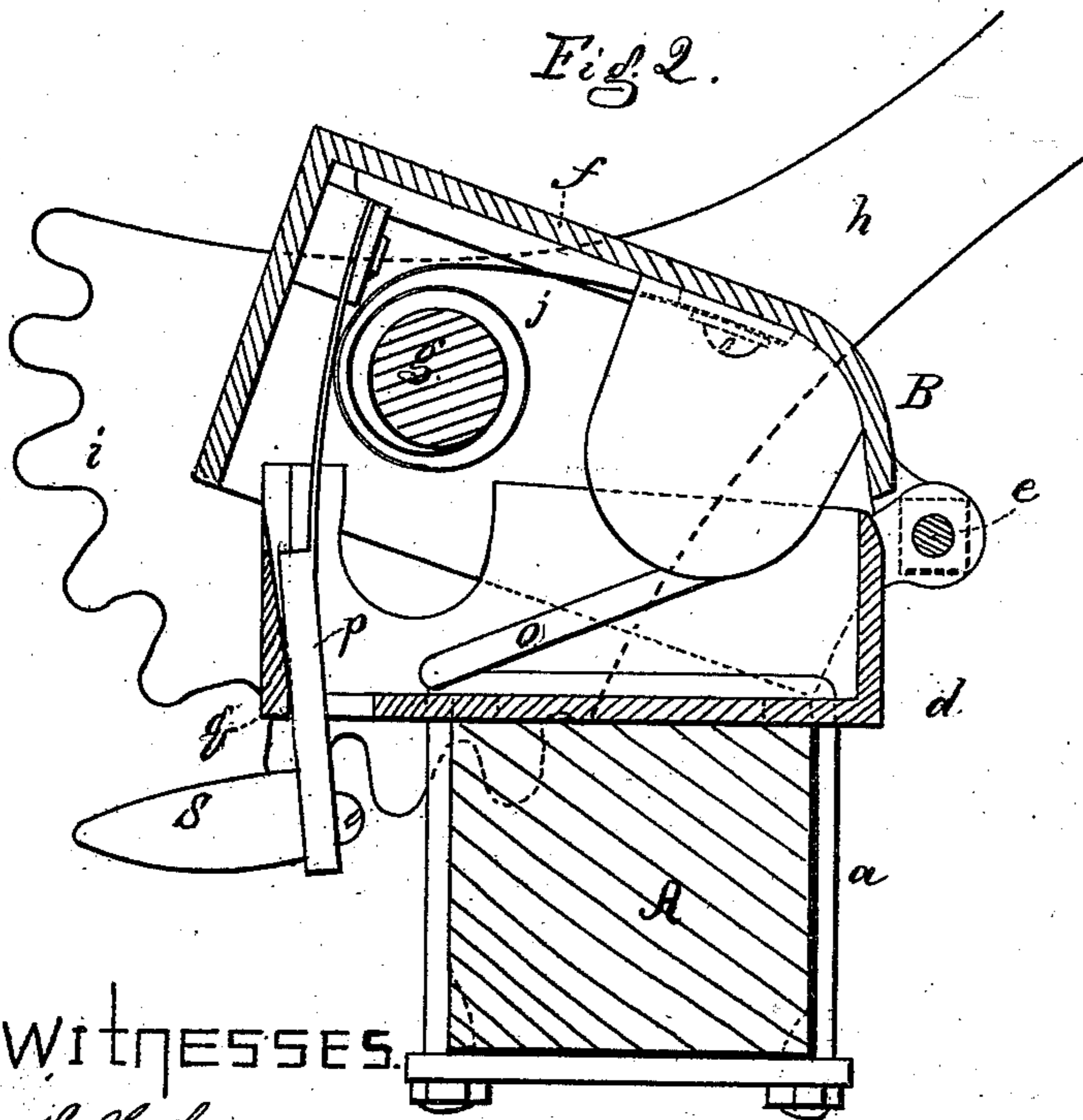


Fig. 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM T. BURTON AND JOHN B. BURTON, OF BOSTON, MASSACHUSETTS,
ASSIGNORS TO FREDERICK WAKEFIELD, OF SAME PLACE.

IMPROVEMENT IN VEHICLE DEVICES FOR STOPPING HORSES.

Specification forming part of Letters Patent No. 174,472, dated March 7, 1876; application filed
February 25, 1876.

To all whom it may concern:

Be it known that we, WILLIAM T. BURTON and JOHN B. BURTON, both of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Vehicle Device for Stopping Horses, of which the following is a specification:

This invention relates to devices attached to vehicles for stopping horses, and is an improvement on United States Patents Nos. 157,712 and 158,359, heretofore granted to us.

In the former patent the checking-arm is carried by a movable bearing piece or bracket, to which is attached a carriage-step, and the sector is arranged back of the hub, and the step turns. In the latter patent the sector of the checking-arm is placed immediately above the hub, and is depressed to engage the sector with the hub by means of a lever.

In this our present invention the shaft supporting the checking-arm and sector is mounted on a hinged step box or frame attached to the upper side of the axle, immediately back of the hub, the box-top answering for the step to receive the foot, and by stepping on the box, in getting out of the carriage, the sector of the checking-arm is thrown down into engagement with the toothed rim or flange on the hub.

Our present invention consists in the combination of the checking-arm and sector with a hinged step-box adapted to be applied to the top of the axle; also, in the combination, with the checking-arm and sector, of a spring or yielding tooth, so that the checking-arm will not be operated when the carriage is moved backward.

Figure 1 is a side view of our checking mechanism shown as connected with a bit in the mouth of a horse. Fig. 2 is a section in part of our invention.

A is the axle, to which the checking device is attached by means of clips *a*. The hub *b* is shown in section, and is to be provided with two or more sections of teeth, *c*, as shown in our other patents; but in this instance we have shown but one section. The step-box B consists of a frame, *d*, set on the axle, having pivoted thereto, at *e*, a lid or plate, *f*, which

sustains a shaft, *g*, to which the checking arm or lever *h*, with its attached cogged sector *i*, is attached. A strong barrel-spring, *j*, has its inner end connected with the shaft *g* and its outer end with the lid *f*, and the tendency of the spring is to turn the shaft and arm to the position shown in full lines, Fig. 1, or so that it will not draw on the checking-strap *k*, which is connected with a ring, *l*, attached to a bit-strap, *m*, adapted to be attached to the bit *n* in the mouth of the horse. Any other suitable spring might be used instead of the barrel-spring—as, for instance, a wire or coiled spring. A spring, *o*, within the step-box lifts the lid *f*, when the spring-hook *p* is pushed back out of engagement with the bottom of the step-box. A person stepping out of the carriage will step on the lid of the step-box, and by the weight applied to the lid the lid will be pushed down, and the spring-hook *p* will engage the corner *q* of the step-box, and the sector *i* will be thrown into position with or to be operated by the hub-teeth *c* should the carriage be moved forward, and the arm *h* will be quickly and forcibly thrown back, pulling on the check-strap *k* and the bit-strap, and jerking the bit evenly. The arm will be jerked in this way two or more times during each rotation of the hub forward, accordingly as there are two or more sections of teeth, *c*. Should the carriage be moved backward the teeth of *c* will first meet the loose spring-tooth *r*, and the sector and arm *h* will not be operated. This is of much importance, for when a horse starts to back he should not be urged to back farther. In getting into or when in the carriage the projection *s* may be pressed back to knock off from corner *q* the hook *p*, and then the spring *o* will elevate the lid of the step-box. The dotted lines, Fig. 1, show the position of the checking-lever when drawn back by the action of the teeth *c* on the sector *i*. The surface of the lid of the step-box is preferably roughened. The ring *l* is attached to the bit-strap *m* at one side of its center to insure an even pull.

Having described our invention, we claim—

1. The combination of the step-box B, having hinged lid, with the toothed checking arm,

its shaft, and spring for retaining the arm forward, substantially as described.

2. The combination, with the pivoted arm *h* and its sector *i*, of the spring or yielding tooth *r*, adapted to operate in connection with the teeth on the hub, as and for the purpose described.

In testimony whereof we have signed our

names to this specification in the presence of two subscribing witnesses.

WILLIAM T. BURTON.
JOHN B. BURTON.

Witnesses:

G. W. GREGORY,
W. J. PRATT.