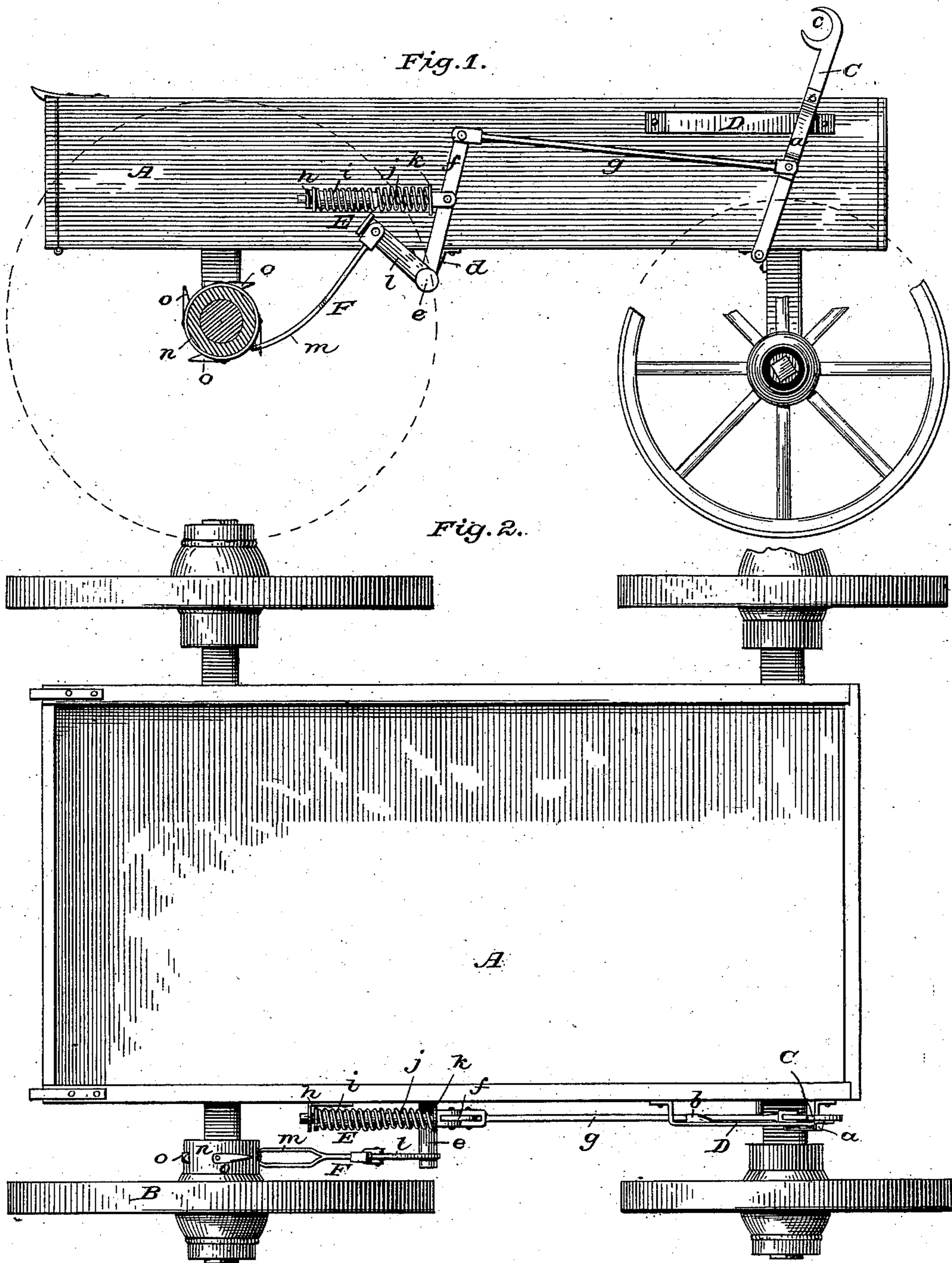


(No Model.)

L. GRAPE.  
Rein-Holder.

No. 228,060.

Patented May 25, 1880.



Attest:  
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# UNITED STATES PATENT OFFICE.

LEWIS GRAPE, OF CANAJOHARIE, NEW YORK.

## REIN-HOLDER.

SPECIFICATION forming part of Letters Patent No. 228,060, dated May 25, 1880.

Application filed April 6, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS GRAPE, of Canajoharie, in the county of Montgomery and State of New York, have invented a new and useful Improvement in Rein-Holders; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to a rein-holding attachment for vehicles, by which the horses are prevented from running away, the device at the same time acting as an ordinary rein-holder, it being operated by means of the reins.

The invention is an improvement upon that shown in patent granted to me June 10, 1879. Its object is to provide a convenient and more effective device, and less liable to get out of order, and better adapted for the purpose for which it is intended.

The invention consists, mainly, in combining, with a pivoted lever controlled by the driver; a spring, a suspended hook, and a ratchet on the hub or axle of the rear wheel; further, in the combination, with these essential elements, of various connecting parts; and, further, in the construction and arrangement of the several operative parts, all as fully hereinafter explained.

In the accompanying drawings, Figure 1 represents a side view, and Fig. 2 a top view. A represents the wagon-body, and B the rear wheel, of the usual construction. In the forward portion of the body A is pivoted a lever, C, either directly to the body itself or to a suitable shaft secured thereto or to the bolster. The lever is either slotted or has a bent strip, *a*, secured upon its outer side, so that it may work back and forth in the guide D, secured to the side of the wagon-body and near the top thereof. On the inside of the guide is a catch, *b*, as shown in Fig. 2, which holds the lever C when thrown back. The upper end of the lever is provided with a suitable hook, *c*, to which the reins are to be secured.

On the bottom of the wagon-body, in suitable bearings *d d*, is journaled a shaft, *e*, which extends some distance beyond the side of the wagon-body toward the wheel, and which has a free movement in such bearings, and to this shaft is rigidly attached an arm, *f*, which extends in a nearly-vertical direction toward the top of the wagon-body, and is pivoted to the

connecting-rod *g*, the other end of which is pivoted to the lever C. A bracket, *h*, is attached to the wagon-body in the rear of the arm *f*, and in it is journaled a sleeve, *i*, in which slides a rod, *j*, the forward end of which is pivoted to the arm *f* and is provided with a shoulder, *k*. A stiff coil or other suitable spring, *E*, bears upon the shoulder *k* at one end, and upon the right-angle end of the bracket *h*, its force being exerted in a forward direction, forcing the arm *f* and lever C forward. The sleeve *i* and sliding rod *j* have a slight lateral play in the bearings of the bracket, which is necessary, since the sliding rod is pivoted to the arm *f* at its center.

On the outer end of the shaft *e* is keyed or otherwise rigidly secured an arm, *l*, to the rear end of which is pivoted a catch, *F*, which extends down to slightly below the level of the axle, and has at its end a loop, *m*. Secured upon the inner end of the hub is a collar, *n*, provided with ratchet-teeth *o*, for the purpose of engaging with the loop on the catch *F*.

When my device is not in use the lever C is pushed back in the guides, and secured by the projection or catch *b*, and the pivoted catch *m* will then drop by its own weight, and hang vertically some distance in front of the ratchet without danger of coming in engagement therewith. When, however, the driver wishes to leave his vehicle, he disengages the lever C from its stop, and it is forced forward by the spring, throwing the catch *m* backward and nearly in contact with the collar on the hub. He then ties the reins to the hook on the lever C. Should the horses start forward the motion of the rear wheel will bring one of the ratchet-teeth into engagement with the loop-catch, which, acting through intermediate mechanism, will compress the spring and draw back the lever C, to which the reins are fastened. This will, of course, have the effect of at once checking the horses, and should they back the spring will gradually force the lever C forward, allowing the reins to slacken.

It will thus be seen that there is no pressure upon the reins unless the team should start forward, and under ordinary circumstances a very slight pull upon the reins will be sufficient to check them.

It is obvious that for different styles of wag-

ons modifications in the construction and manner of attachment might become necessary, and I do not therefore wish to limit myself to the exact form or location shown in this application, since the same might be modified in many different ways without departing from the general principle of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the pivoted lever C, the spring E and connecting-rods, the catch *m*, and the ratchet secured to the wheel, substantially as described and shown.

2. In a rein-holding device, a catch adapted to be thrown into engagement with a ratchet by the forward movement of the wheel, in com-

bination with the spring for automatically releasing such ratchet when the motion is reversed, as described.

3. In combination, the shaft *e*, having arms *f l* secured thereto, pivoted sliding rod *j*, and spring E, the looped catch *m*, or its equivalent, the ratchet, and the lever C and its connecting-rod, all substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEWIS GRAPE.

Witnesses:

PETER SLOAN,  
A. G. RICHMOND.