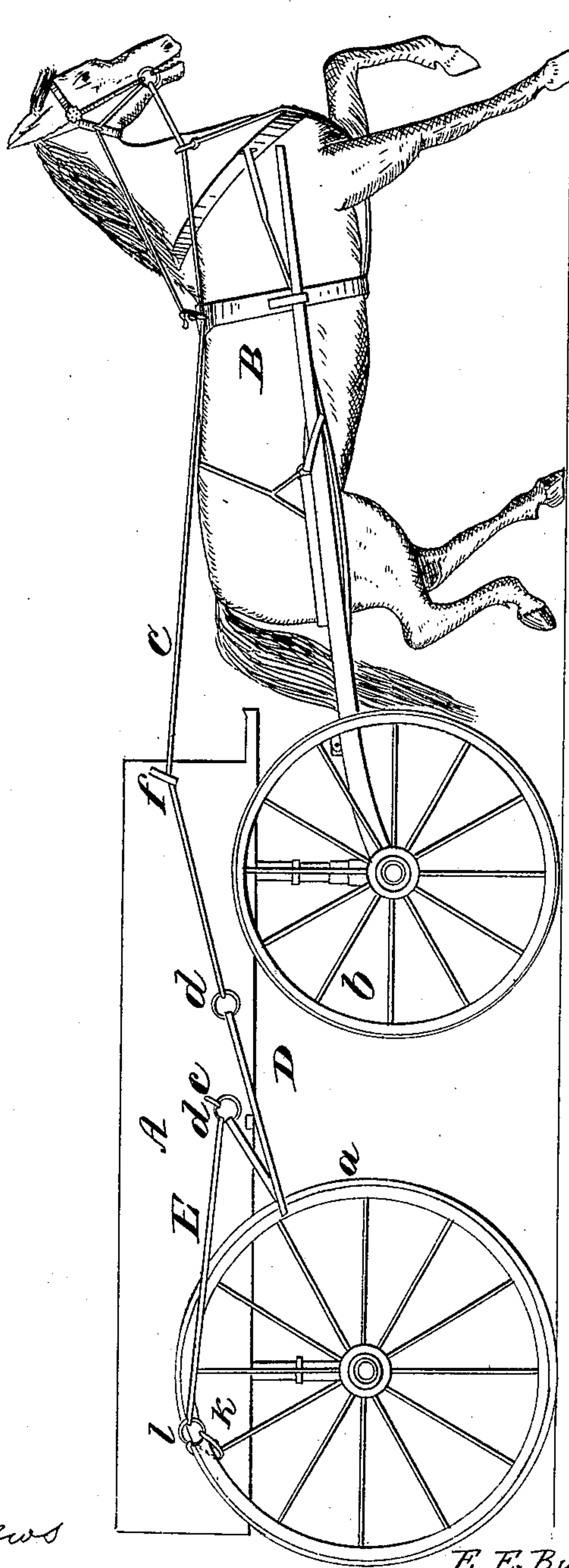


BURNHAM & BROWN.

Hold-Back.

No. 68,600

Patented Sept. 10, 1867.



Witnesses

Geo. H. Andrews  
Lounis Keller

Inventor

E. E. Burnham & G. Brown  
by their attorney  
R. W. Edley

# United States Patent Office.

EDWARD E. BURNHAM AND GEORGE BROWN, OF GLOUCESTER, MASSACHUSETTS.

*Letters Patent No. 68,600, dated September 10, 1867.*

## IMPROVEMENT FOR PREVENTING A HORSE FROM RUNNING AWAY WITH A CARRIAGE.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL PERSONS TO WHOM THESE PRESENTS MAY COME:

Be it known that we, EDWARD E. BURNHAM and GEORGE BROWN, of Gloucester, in the county of Essex, and State of Massachusetts, have made a new and useful Invention for Preventing a Horse from Running Away with a Carriage; and we do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawing, which is a side elevation of a horse and carriage with our invention applied to the reins of the harness and one of the wheels of the carriage.

We are aware that to prevent a horse from running away with a vehicle it has been customary to tie the reins to the felloes of one of the wheels thereof, the same being in order that whenever an attempt to move off with the vehicle should be made by the animal, when unattended, the forward movement of the wheel will cause the reins to be drawn back so as to hold him in check. Therefore we make no claim to this as our invention. This plan, however, is liable to objection, that is, it is apt to be productive of serious injury to, if not breakage of the lower jaw of a horse, for, when he starts, it frequently happens that he does so with a sudden and quick movement, whereby the momentum of the carriage exerted through a powerful leverage is thrown suddenly upon the bit in his mouth, the consequence being a broken or severely strained jaw. To prevent such an accident is the purpose of our invention.

In carrying out our invention we connect the reins to the wheel by an elastic band or connection.

In the drawings, A denotes the carriage, and B the horse. C is the rein, and *a* and *b* the wheels. An elastic band, D, composed of "vulcanized India rubber," attached to the reins, is led through the rear wheel, and thence carried upward and hitched upon a hook, *c*, extended from the carriage body. The band may have applied to it rings *d d* for connecting it to the reins and the said hook. Such band may be suspended from the carriage instead of being attached to the reins, and when wanted for use it may be run through the wheel, and hitched to or connected with the reins by a hook or other proper means. For supporting the reins, or keeping them out of contact with the front wheel there may be a guide-hook, *f*, which may be projected from the body of the carriage.

By attaching the elastic band to the carriage body, and extending the said band through the wheel, and connecting it with the reins, it will be observed that when the wheel is revolved the strain of it on the band will be distributed between the carriage body and the reins, but were the band disconnected from the carriage body, and only connected with the wheel and the reins, the whole strain of the wheel would be on the band. The application of the band to the carriage body and wheel is advantageous in another respect, that is, it causes the band to be longer, and thus more elastic than it would be were it attached to the wheel alone. From this it will be seen that while the elastic band, used under either arrangement of it, will operate to gradually bring the momentum of the carriage into action upon the jaw of a horse in order to check his advance, that arrangement of the band in which it is connected to the carriage body and afterwards passed through the wheel has particular or important advantages. In order to prevent the carriage from being forced backward by the draught-animal or animals, and thereby cause the wheel to draw upon the reins through the elastic band D, we attach to the back ring *d* of the band D a strap, E, provided with means (viz, a hook, *k*, and a ring, *l*), by which it may be fastened to the rear wheel at or near the upper part of its periphery. This strap, which we term the safety-backing strap, will prevent the wheel from being revolved backward in a manner to cause the reins to draw upon the horses while they may be in the act of backing.

The employment of the elastic band or connection with the rein and wheel, or with the same and the carriage body, in the way or ways hereinbefore specified, causes the strain of the wheel to be slowly brought into action on the bit, and thereby lessens, if not completely prevents, all danger of injury to or breakage of the jaw of the horse or draught-animal. What, therefore, we claim as our invention, is—

The employment or combination of the elastic band or connection with the carriage-wheel and the rein of the harness under circumstances and for the purpose specified.

And we also claim the application of the elastic band or connection to the carriage body, the wheel, and the driving-rein or reins, substantially in manner as specified.

And we also claim the combination of the safety-strap E with the band D, applied to or to be applied to the carriage-wheel and rein or reins of the harness, as specified.

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Witnesses:

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