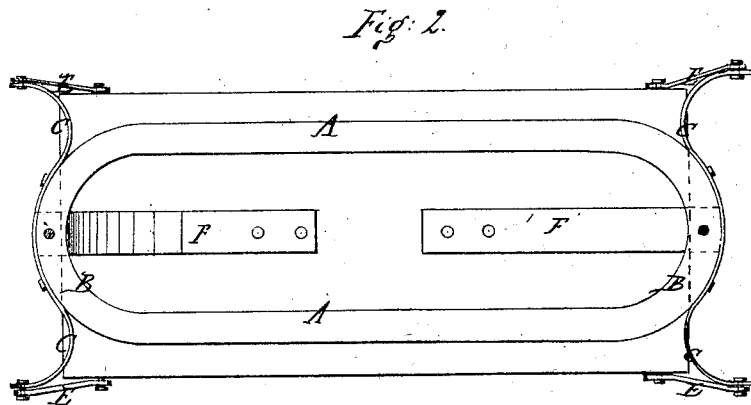
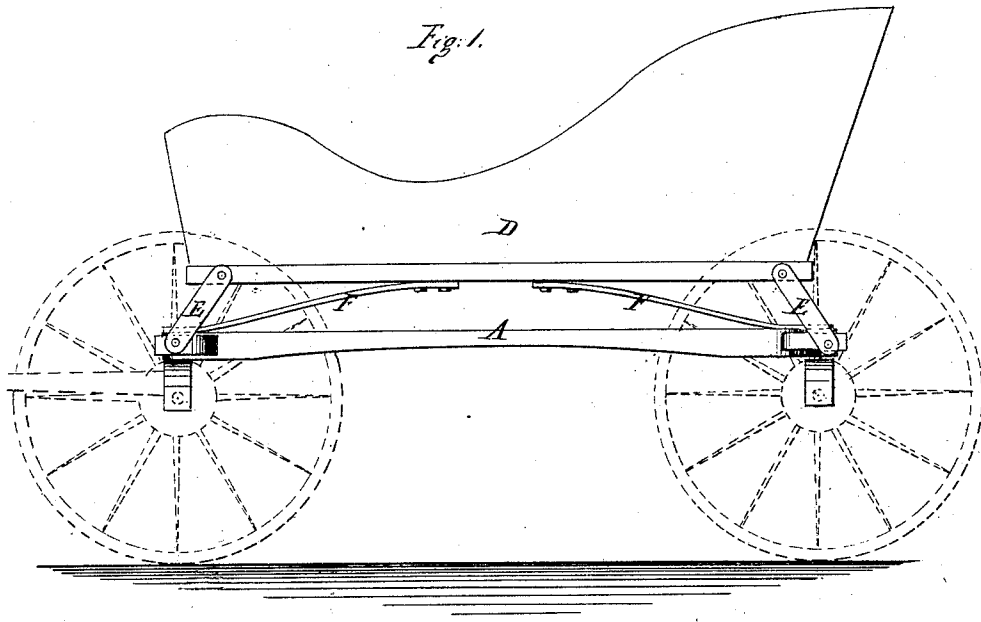


C. H. GUARD.  
Carriage Spring.

No. 111,928

Patented Feb. 21, 1871.



Witnesses:

*Gas. Nida*  
*L. J. Mober*

Inventor:

*C. H. Guard*  
per *Wm. L. Co.*  
Attorneys.

# United States Patent Office.

CHAUNCEY HOLMES GUARD, OF TORONTO, CANADA.

Letters Patent No. 111,928, dated February 21, 1871.

## IMPROVEMENT IN CARRIAGES.

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

### *To all whom it may concern:*

Be it known that I, CHAUNCEY HOLMES GUARD, of the city, county, and State of New York, now residing at Toronto, Canada, have invented a new and useful Improvement in Carriages; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

My invention relates to carriages; and

My object is to provide for the horizontal and vertical swing caused by obstructions, and to take up equably the jolting motion in both directions.

I will first describe my invention in connection with all that is necessary to a full understanding thereof, and then clearly point it out in the claim.

Figure 1 is a side elevation of a carriage constructed according to my improvements, a part being in dotted lines.

Figure 2 is a plan of the reach springs and the bottom of the box.

Similar letters of reference indicate corresponding parts.

The reach is composed of the two parallel bars, A, placed widely apart, and connected at the ends, which are shaped on true circles or nearly so, as shown at B. This provides a reach which is much stronger laterally

than others, and it affords a convenient means for the attachment of the springs C, which I propose to use for supporting the carriage-box D at the ends, which is mounted on them by the links E, and also mounted on the springs F, which are attached to the top of the reach, one at each end, and attached by their other ends to the box near the center.

The links E are inclined from the point of connection with the springs C toward the center of the box, more or less, as may be found best, so that the box rises and falls on them while they swing horizontally or nearly so. This produces an end pressure against the box well calculated to support it firmly in position.

The arrangement of the springs is calculated to support the box with less metal than any other, and is very simple and cheap.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

The springs C C applied edgewise to the body D at front and rear, as described, for the purpose of producing an end-pressure support.

CHAUNCEY HOLMES GUARD.

Witnesses:

JAMES C. MORGAN,  
HORACE THORNE.