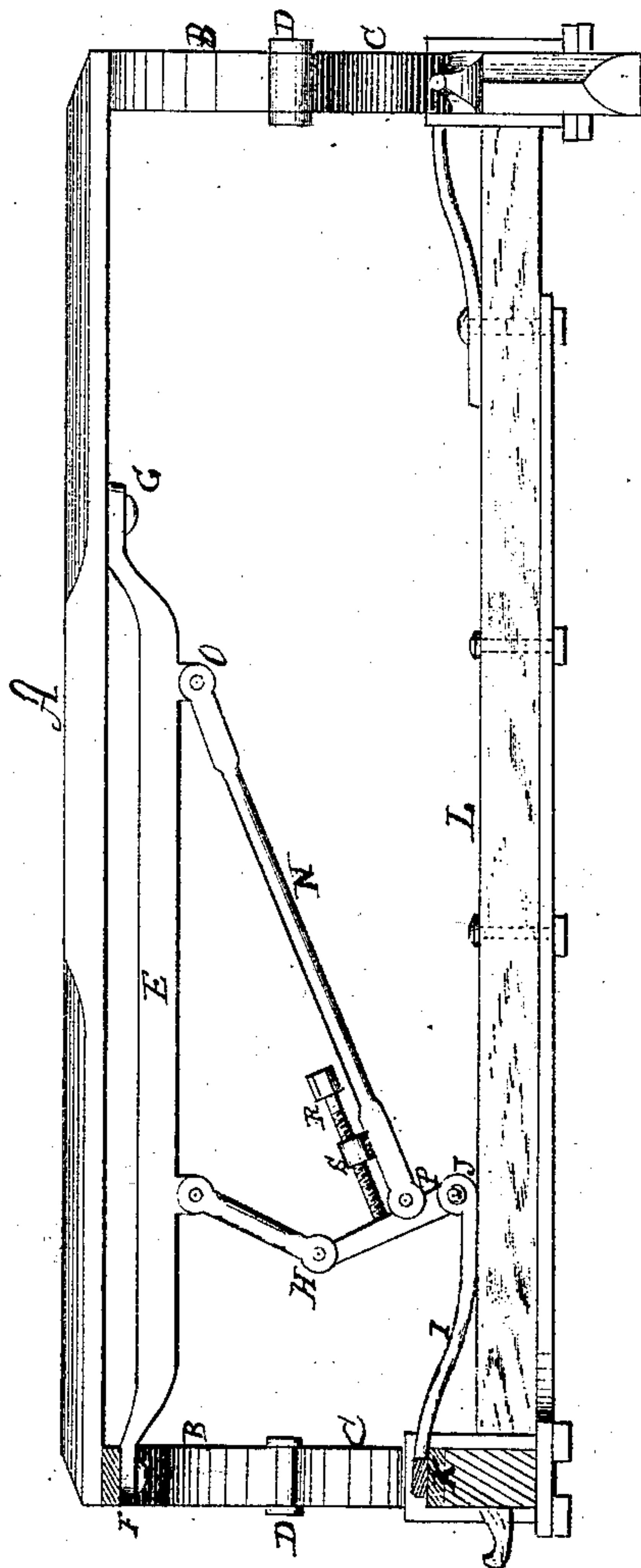


Carriage-Spring Guard.

Patented June 14, 1870.



M. Vorländer
G. J. Mabe

O. H. Wheeler

PER

Attorneys.

United States Patent Office.

ORSON HARVEY WHEELER, OF HAMLIN, MICHIGAN.

Letters Patent No. 104,239, dated June 14, 1870.

IMPROVEMENT IN CARRIAGE-SPRING GUARD.

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, ORSON HARVEY WHEELER, of Hamlin, in the county of Eaton and State of Michigan, have invented a new and useful Improvement in Carriage-spring Guard; 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.

This invention relates to a new and useful improvement in a device for controlling the action of elliptic springs on carriages and all spring vehicles, and consists in the construction and arrangement hereinafter described.

The accompanying drawing represents a side view of a carriage running-gear with my improvement applied.

Similar letters of reference indicate corresponding parts.

A is the center piece of the carriage frame, the ends of which rest upon and are bolted to the upper half of the elliptic springs in front and rear.

B is the upper, and C the lower part or half of the elliptic springs.

D represents the joints at the ends where the parts of the springs are united.

E is a stationary bar, the rear end of which is securely bolted to upper portions of the spring, as seen at F, and the forward end to the frame A, as seen at G.

H is a knee-joint, the upper end of which is jointed to the bar E, and its lower end to the stationary bar I, which bar is bolted fast to the reach at J, and is fastened to the spring, as seen at K.

L represents the reach.

N is a brace, one end of which is jointed to the stationary bar E at O, and the other end to the lower arm of the knee-joint, as seen at P.

R is a set-screw in the lugs S of the brace, the end of which is made to act against the lower arm of the knee-joint, as seen in the drawing.

By this arrangement it will be seen that the full expansion of the rear spring is prevented, and that its upward action is controlled by the position of the knee-joint and set-screw.

The importance and value of this device will be obvious when it is considered that elliptic springs usually break from the recoil or expansion, and not from pressure.

Having thus described my invention,

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

The stationary bars E I, knee-joint H, and adjustable brace N R S, when combined with and constructed and arranged with respect to reach L, center-piece A, and elliptic spring B C, as set forth and for the purpose specified.

O. H. WHEELER.

Witnesses:

ANSON UPHAM,
AMANDA GRIFFITH.