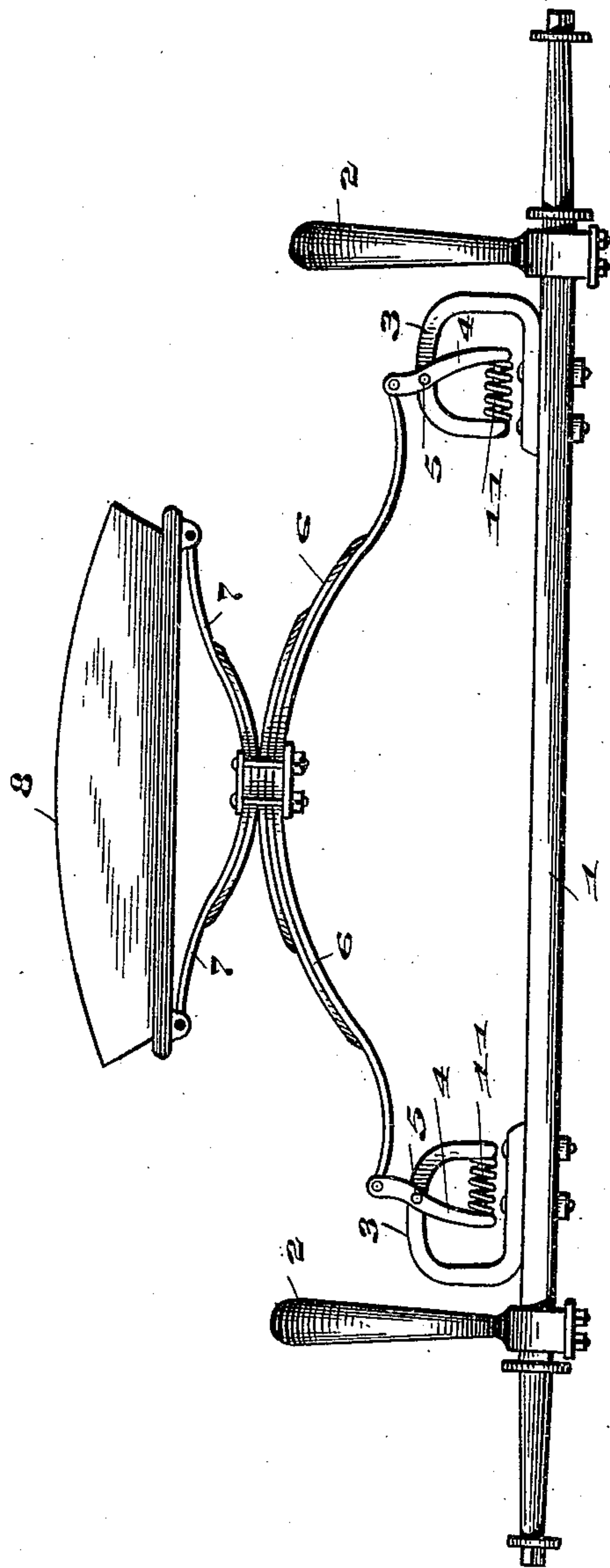


(No Model.)

G. W. COONSE & O. E. HARRIS.
VEHICLE.

No. 446,172.

Patented Feb. 10, 1891.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE W. COONSE AND OTTO E. HARRIS, OF INDIANAPOLIS, INDIANA.

VEHICLE.

SPECIFICATION forming part of Letters Patent No. 446,172, dated February 10, 1891.

Application filed March 10, 1890. Serial No. 343,238. (No model.)

To all whom it may concern:

Be it known that we, GEORGE W. COONSE, of Indianapolis, county of Marion, and State of Indiana, and OTTO E. HARRIS, of the same place, have invented certain new and useful Improvements in Vehicle-Springs; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, in which like figures refer to like parts.

Our invention relates to the construction of vehicle-springs, and is more particularly intended for use upon road-carts, and will be understood from the following description.

The drawing represents a rear end view of a road-cart, the wheels being removed, showing the manner in which our device is constructed and applied.

In detail, 1 is the axle; 2, the shafts; 8, the seat; 7, the upper part of the body-spring pivotally connected beneath the seat, 6 being the lower part of the body-spring, its ends pivoted to the upper ends of arms 4, which are pivoted at 5 to hangers 3, bolted to the axle.

11 are coiled springs set between the lower ends of the arms 4 and the free ends of the hangers 3, and secured in any suitable manner so that they will not drop out, and adapted to be compressed between the end bearings by a load upon the seat 8. Thus when the body-spring is compressed by such a load the ends of its lower part 6 are forced outward, carrying with them the upper ends of the arms 4. These arms moving upon their pivots 5,

their lower ends are carried inward, compressing the coiled springs 11. In such case, therefore, the tension of the coiled springs is exerted to ease up that of the body-spring and tends to prevent its fracture or displacement under any abrupt strain or pressure.

What we claim as our invention, and desire to secure by Letters Patent, is the following:

1. In a vehicle, a main spring connected to the seat or body above and below to the upper ends of arms pivoted to hangers supported upon the axle, and a coiled spring connected to the lower ends of such pivoted arms and also to the lower end of the hanger, whereby the latter is compressed by the load of the main spring, all combined substantially as shown and described.

2. In a road-cart or other vehicle, a main spring connected to the seat or body above and below to the upper ends of arms pivoted to hangers supported upon the axle, and coiled springs connected to the lower ends of such pivoted arms and also to the upper end of the hanger, whereby such spring is adapted to be compressed by the load of the main spring, all combined substantially as shown and described.

In witness whereof we have hereunto set our hands this 5th day of March, 1890.

GEORGE W. COONSE.
OTTO E. HARRIS.

Witnesses:

C. P. JACOBS,
E. B. GRIFFITH.