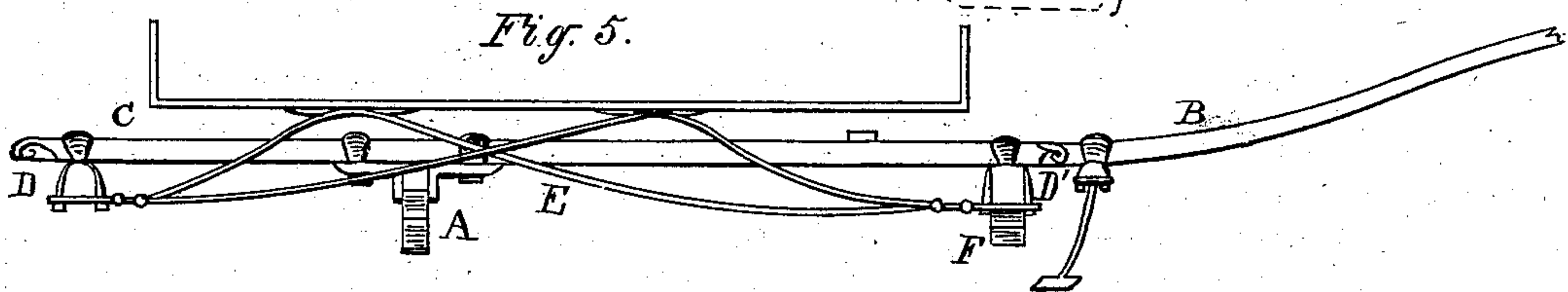
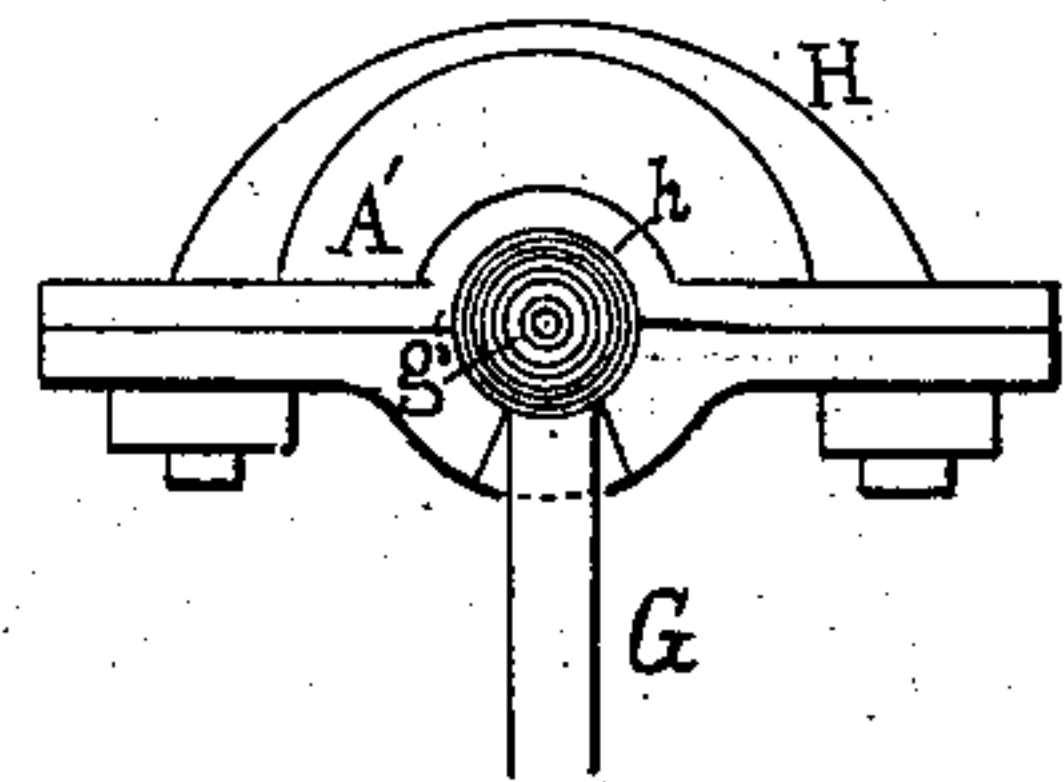
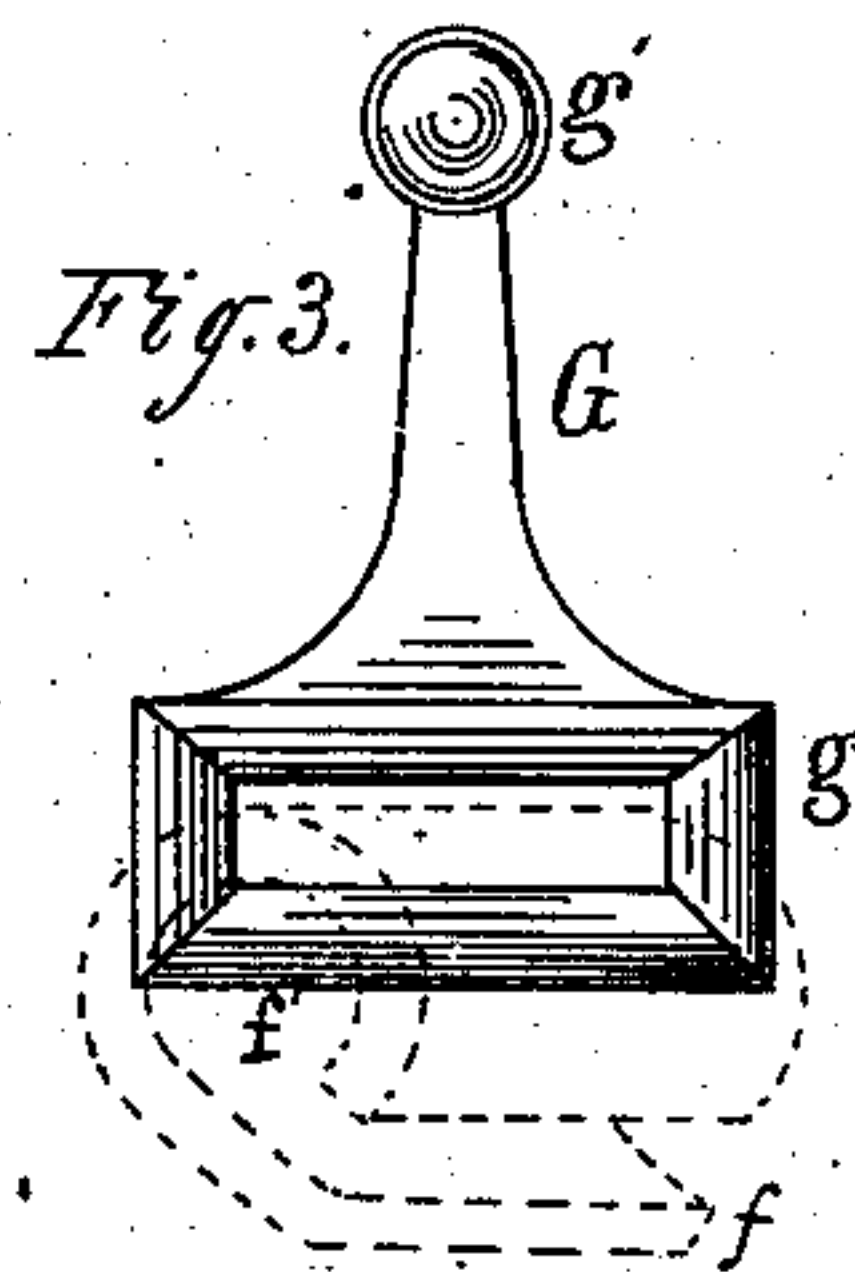
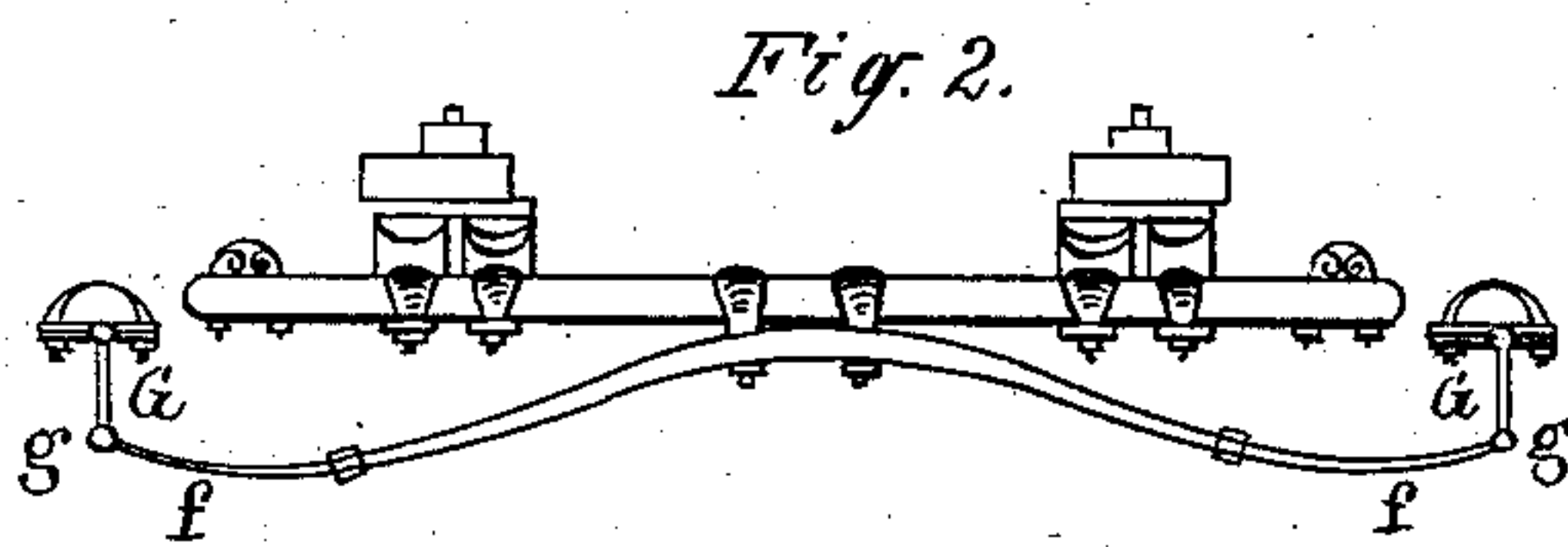
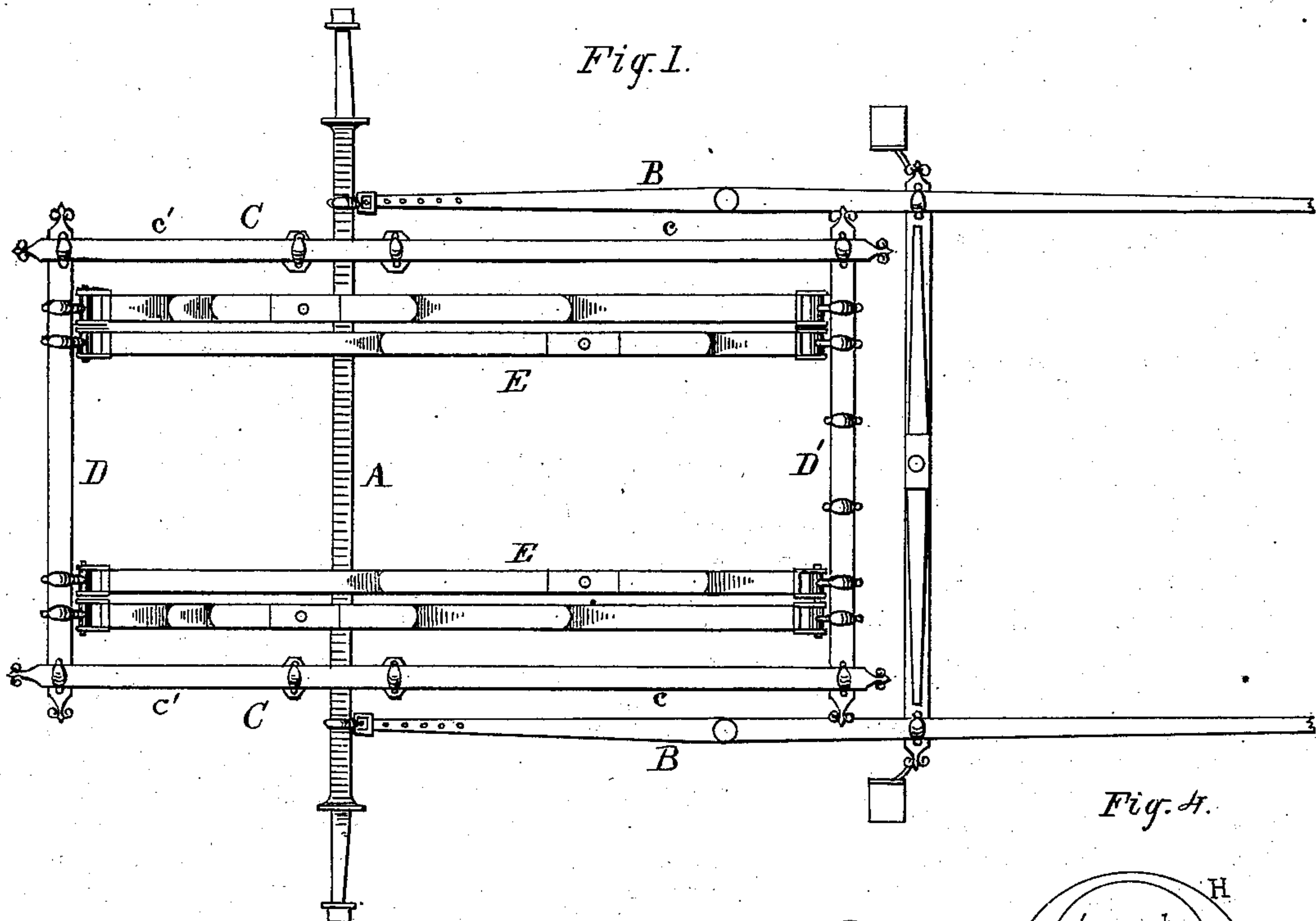


(No Model.)

J. M. BROMLEY.  
TWO WHEELED VEHICLE.

No. 281,337.

Patented July 17, 1883.



Attest.  
*Wm. V. Butler*  
*Wm. R. Singleton*

Inventor  
*James M. Bromley*  
*per Wm. R. Singleton*  
*attys.*

# UNITED STATES PATENT OFFICE.

JAMES M. BROMLEY, OF PLATTSBURG, NEW YORK, ASSIGNOR TO WILLIAM E. SMITH, OF SAME PLACE.

## TWO-WHEELED VEHICLE.

SPECIFICATION forming part of Letters Patent No. 281,337, dated July 17, 1883.

Application filed April 25, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES M. BROMLEY, of Plattsburg, in the county of Clinton and State of New York, have invented certain new and useful Improvements in Two-Wheeled Vehicles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 represents a plan view of the running-gear of a two-wheeled vehicle provided with my invention. Fig. 2 is a front view. Figs. 3 and 4 are enlarged details, showing the coupling between the front spring and the shafts. Fig. 5 is a side view, one shaft being removed.

This invention relates to an improvement in two-wheeled vehicles.

Its object is to provide an easy-riding vehicle in which the movements of the horse will not affect the body of the vehicle and its occupants.

The invention consists in the construction hereinafter set forth.

In the annexed drawings, the letter A indicates the axle of a two-wheeled vehicle, to which are pivoted, in the usual way, the shafts B B.

Rigidly secured to the top of the axle between the shafts are the side bars, C C, of a spring-platform. These bars extend farther in front than behind, their ends *c* being longer than their ends *c'*. To the latter, *c'*, is secured the rear bar, D, of the platform, and to the former, *c*, is secured the front bar, D', just behind the whiffletree. These bars C C D D' form the spring-platform, and the pairs of springs E E run parallel with the bars C C', and from the bars D to D'. These springs E E are constructed and applied to the body as

described in my Patent No. 259,663; but it is obvious that other kinds of side springs can be used; and, if desired, only one on a side.

Secured to the middle of the under side of front bar, D', is a front transverse spring, F, the ends of which are connected with the shafts. The ends *f f* have eyes *f' f'*, which engage the loops *g g* of the shackles G G, the upper ends *g' g'* of which are ball-shaped. These balls fit corresponding sockets, *h h*, within the tie-plates A' of the clips H, secured to the shafts. This gives the spring F an easy free connection with the shafts, which allows such spring full freedom of movement in traveling.

This construction produces an easy-riding vehicle, in which the weight is fully relieved by the spring-platform, and the latter gives the vehicle a fine finish and appearance. The spring F takes up the usual swaying motion of the shafts and prevents its transmission to the body.

Having described my invention, what I claim is—

1. The combination, with the body, axle, and shafts connected with the axle, of a spring-platform consisting of end and side bars and side springs between the body and axle, and a transverse spring between the front end of the spring-platform and the shaft, substantially as described.

2. The body, axle, and shafts secured to the axle, in combination with the spring-platform between the body and axle, and the spring F between the front end of the platform and shafts, such spring having a ball-and-socket connection with the shafts, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JAMES M. BROMLEY.

Witnesses:

THOS. E. BRADY,

GEORGE E. BERTRAND.