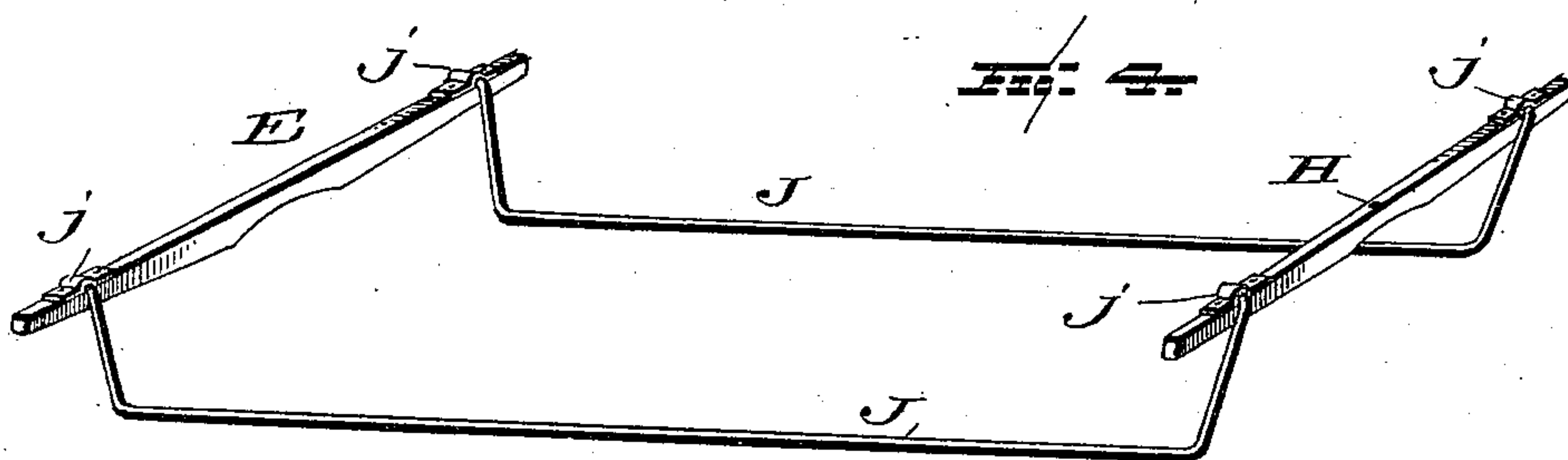
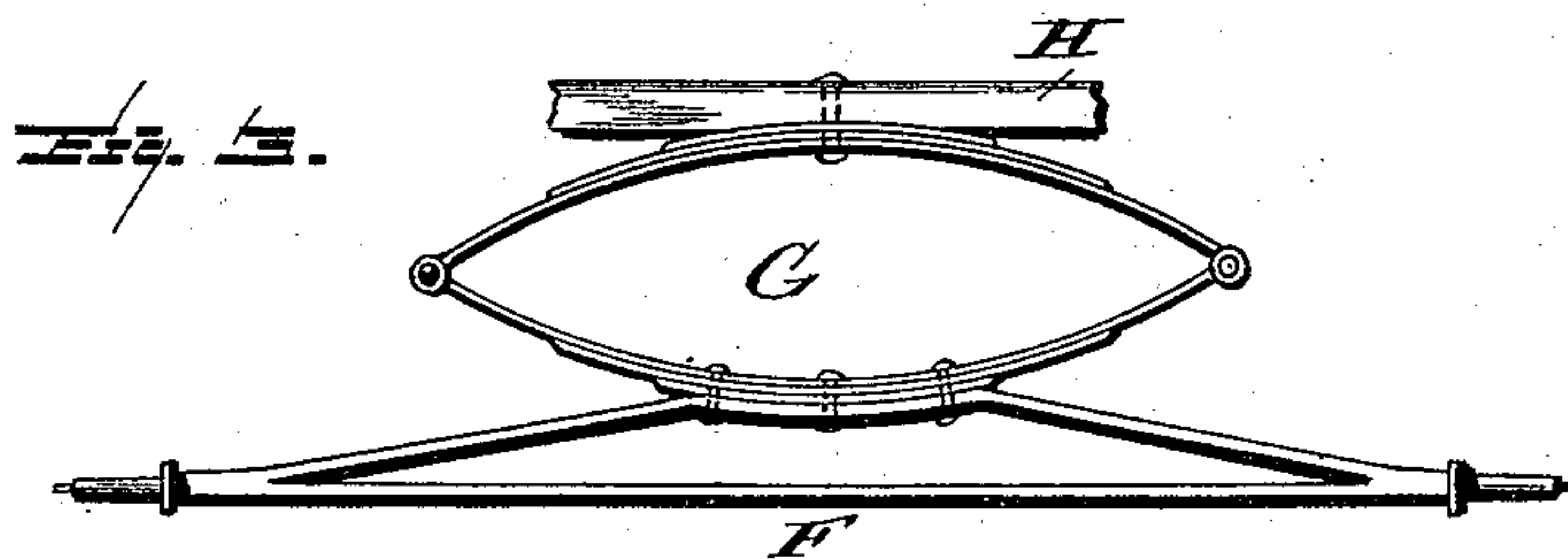
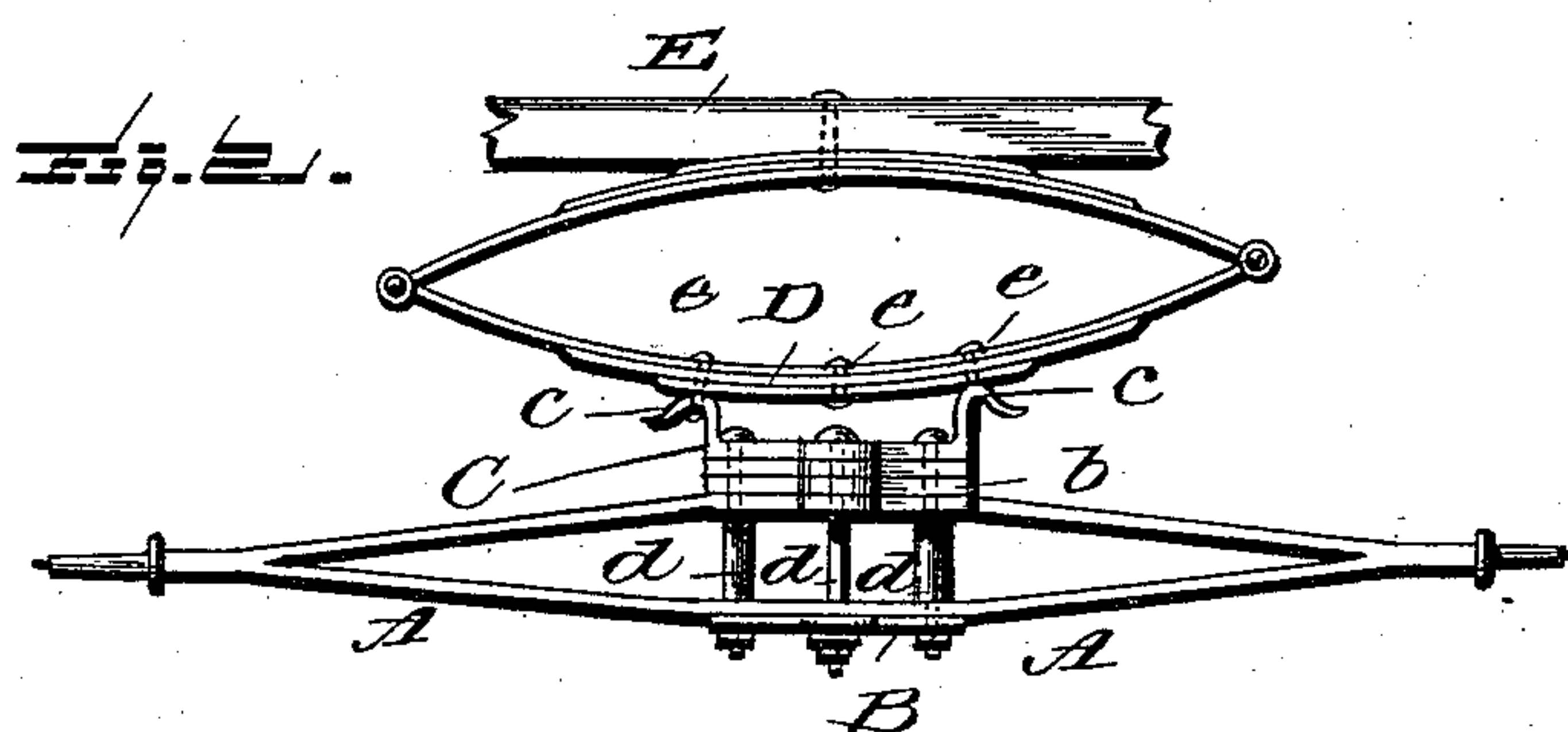
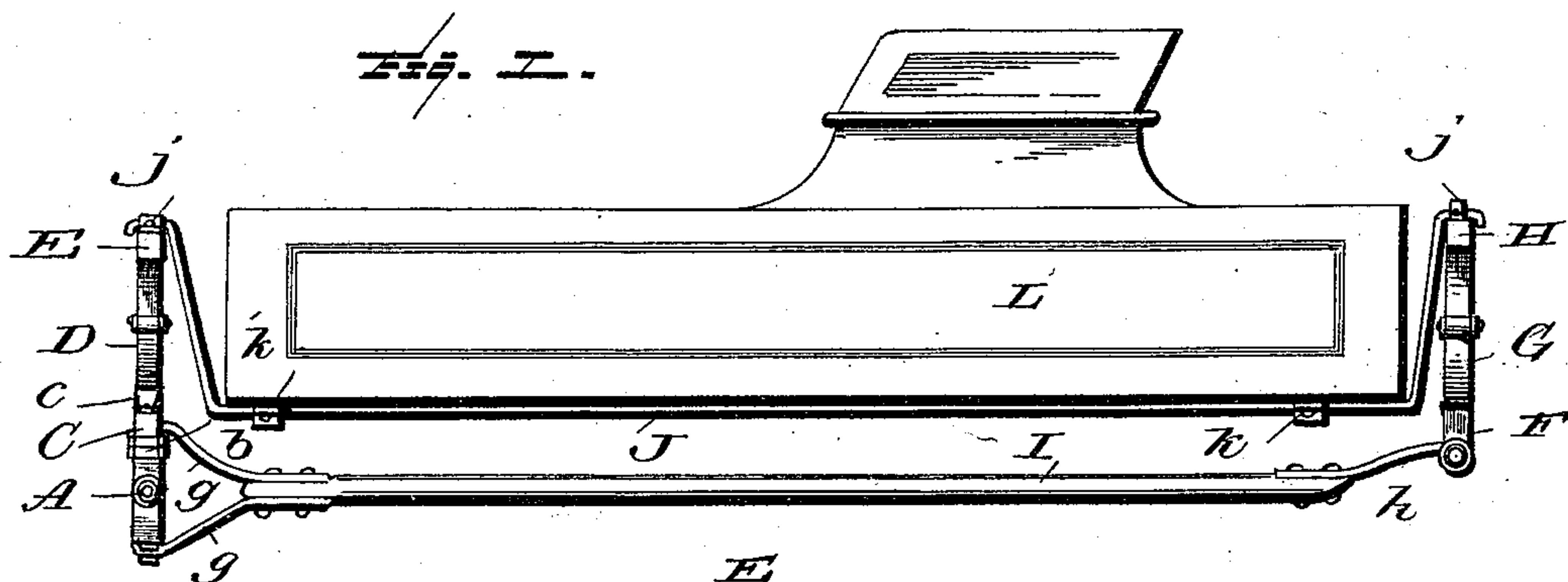


(No Model.)

P. WEIDNER.  
RUNNING GEAR FOR VEHICLES.

No. 485,673.

Patented Nov. 8, 1892.



Witnesses

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E. A. Bond

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# UNITED STATES PATENT OFFICE.

PHILLIP WEIDNER, OF SAILOR SPRINGS, ILLINOIS.

## RUNNING-GEAR FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 485,673, dated November 8, 1892.

Application filed July 30, 1892. Serial No. 441,722. (No model.)

*To all whom it may concern:*

Be it known that I, PHILLIP WEIDNER, a citizen of the United States, residing at Sailor Springs, in the county of Clay and State of Illinois, have invented certain new and useful Improvements in Running-Gear; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

This invention relates to certain new and useful improvements in running-gear for vehicles; and it has for its objects, among others, to provide an improved running-gear which will allow the vehicle to turn within small space and which will prevent hard side jolts. I provide a swinging spring-support for the body and novel form of axle and manner of connecting the spring thereto.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation of my improvements. Fig. 2 is a view looking toward the forward end. Fig. 3 is a rear end view. Fig. 4 is a perspective view of the body-supporting springs. Fig. 5 is a perspective view of one of the plates employed on the front axle.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the front axle, which is of the form shown in Fig. 2, having at the ends the axle-skins, the axle being of truss form of a single piece or diamond-shaped in end view.

B is a plate upon the under side of the central part of the axle, and b is a similar plate upon the upper face of the central part, as seen in Fig. 2, and upon this top plate is a plate C, which has upwardly-extending hooked arms c, as seen in Fig. 2. Suitable securing means, as bolts d, are employed to connect these plates, as seen in Fig. 2, and upon the hooked arms of the plate C is supported the elliptic spring D,

through the lower half of which pass the bolts e, as seen in Fig. 2. The front bolster E is supported upon the upper part of the spring D.

F is the rear axle. It is of truss form, as seen in Fig. 3, the upper bar of the truss portion being concaved, as seen in said Fig. 3, and in this concave portion rests the lower part of the elliptic spring G, which is secured thereto by suitable means. On the upper part of this spring rests and is supported the rear bolster H.

I is the reach. It is connected at its rear end to the lower bar of the rear axle by a spring-bar h, as seen in Fig. 1, and at its forward end it is connected with the upper and lower bars of the front axle by the upper and lower spring-plates g, as seen in Fig. 1.

J are spring-bars arranged lengthwise of the vehicle and having their ends turned substantially vertically and then horizontally, which ends are swiveled in suitable bearings or boxes j on the front and rear bolsters or bars, as seen best in Fig. 4, the bars J being also journaled, so as to be free to partially revolve in boxes or bearings k on the under side of the body L, as seen in Fig. 1. By this means I get a spring-supported body, which is free to move with the varied movements of the wheels in passing over rough roads or obstructions and which will yield if the wheel comes in contact therewith, as in turning a sharp corner, and thus the wheel will be prevented from locking.

The truss form of the axles provides a very strong axle with minimum weight.

What I claim as new is—

The combination, with the front and rear axles and the elliptic springs supported thereon and the bars on the springs, of the longitudinal bars having vertical end portions with their ends journaled in bearings on the said bars and the main portions of the longitudinal bars journaled on the under side of the body, as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

PHILLIP WEIDNER.

Witnesses:

JOHN W. PHILLIPS,  
PETER JORGENSEN.