

(No Model.)

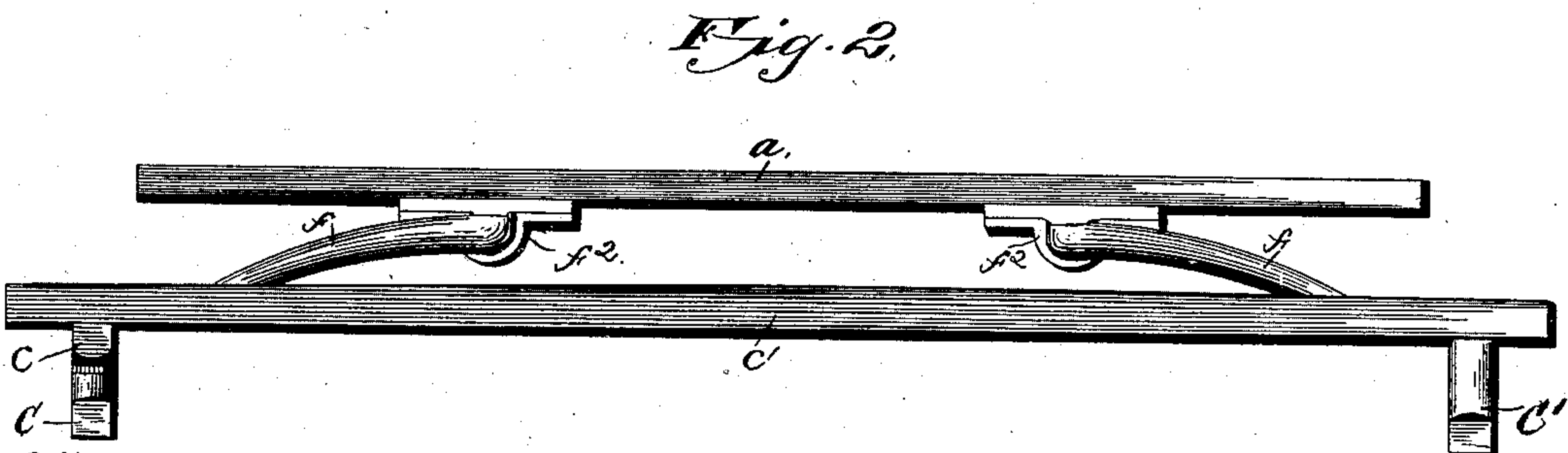
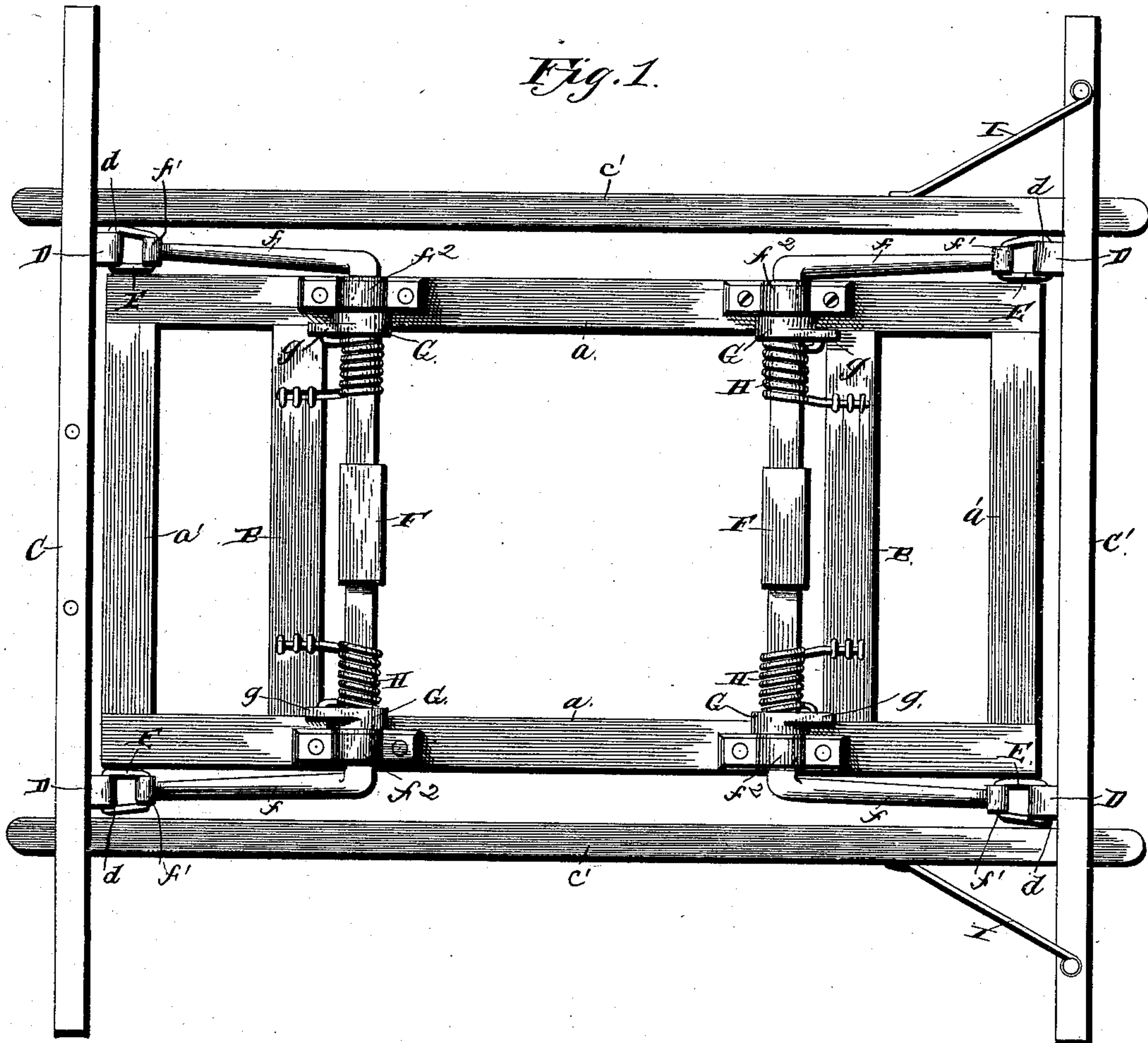
2 Sheets—Sheet 1.

F. DUPEE.

RUNNING GEAR FOR VEHICLES.

No. 389,798.

Patented Sept. 18, 1888.



Witnesses

*Geo. W. Hoyle*  
*J. H. Figgers*

Inventor

*Frank Dupee*

By *his* Attorneys

*C. H. Howland*

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Fig. 3.

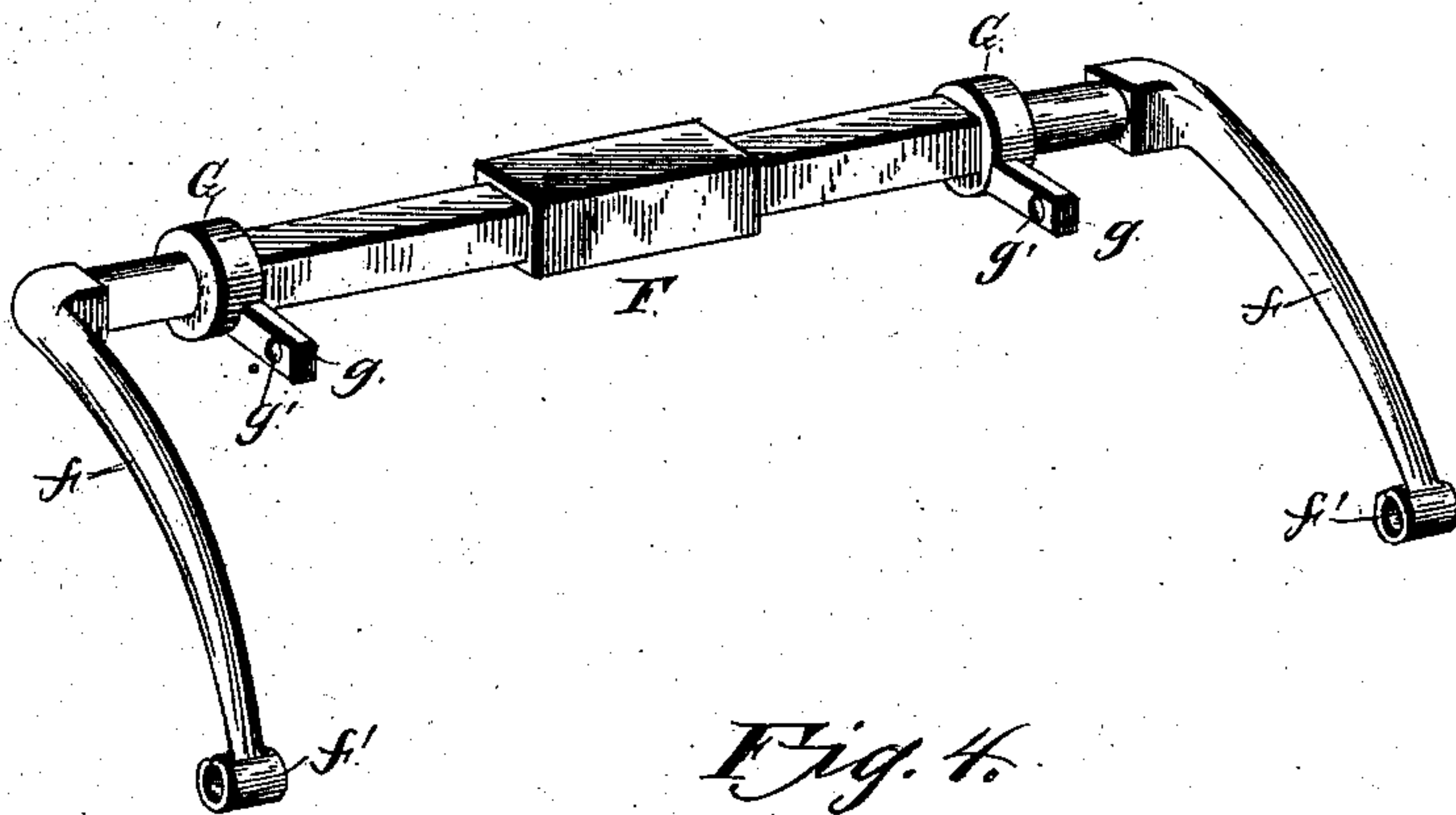
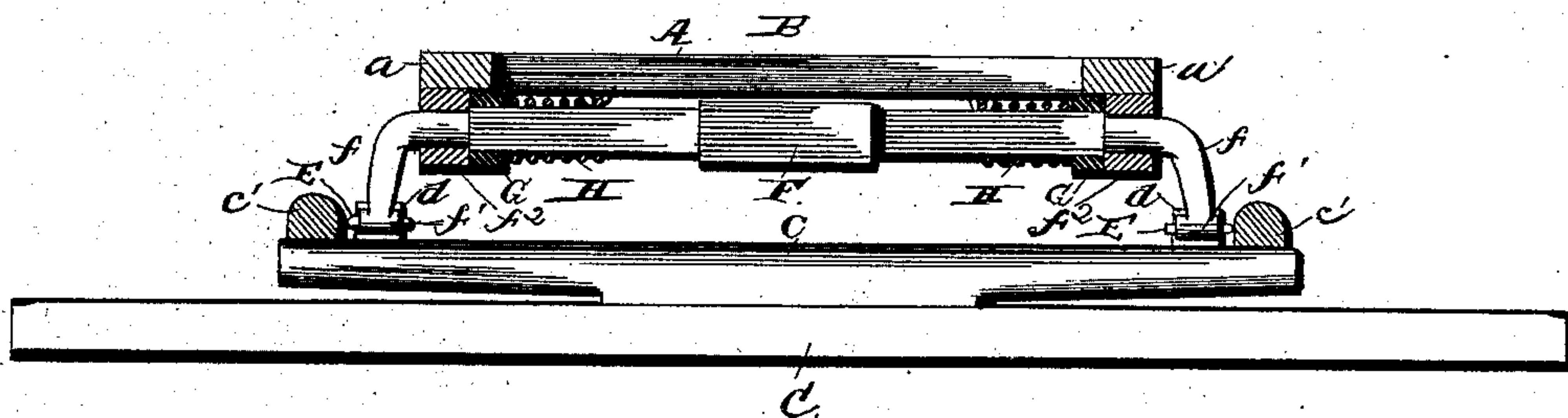


Fig. 4.

Witnesses,

Geo. J. Phelps.  
J. H. Figgers.

Inventor

Frank Dupee.

By his Attorneys

C. H. Shaw & Co.



# UNITED STATES PATENT OFFICE.

FRANK DUPEE, OF HELENA, NEW YORK.

## RUNNING-GEAR FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 389,798, dated September 18, 1888.

Application filed May 18, 1888. Serial No. 274,309. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK DUPEE, a citizen of the United States, residing at Helena, in the county of St. Lawrence and State of New York, have invented a new and useful Improvement in Running-Gear, of which the following is a specification.

The invention relates to improvements in the running-gear of vehicles; and it consists in the construction and novel combination of parts hereinafter described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

Figure 1 of the drawings represents a bottom plan of a vehicle-gear embodying the invention. Fig. 2 is a side elevation of the same. Fig. 3 is a transverse section of the same. Fig. 4 is a perspective view of the brace-bar detached from the frame.

Referring to the drawings by letter, A designates the support-frame for the body, which frame is composed of the side sills, *a a*, the front and rear sills, *a' a'*, and the transverse bars B at suitable distances from said front and rear sills.

C is the front axle; C', the rear axle. *c* is the head-block, and *c' c'* are the side rails connecting the corresponding lateral portions of the head-block and rear axle, the gear having no sand-board.

D D are clips secured to the upper edges of the head-block and rear axle near the rails *c'* on each side, and provided with the transverse eyes *d*, in which the metal loops E swing. The said loops are nearly rectangular and their inner transverse end portions pass through transverse eyes *f'* of the outwardly-extending longitudinal arms *f* of the corresponding transverse bars F. The said bars have journals *f*<sup>2</sup> adjoining the rectangular bends from which the arms *f* extend, which journals have bearings in blocks secured to the lower surfaces of the side sills, *a*, at suitable distances from the ends of the frame A.

G G are collars secured upon the bars F, inwardly adjoining the journals of said bars, and provided with the outwardly-standing arms *g*, having transverse perforations *g'*, the bars being squared and passing through squared openings in the collars at the points where the latter rest on said bars.

H H are strong coiled springs surrounding the bars F, having their inner ends flattened and bolted to the under sides of the bars B, and their outer ends passing through the perforations *g'* of the arms *g* of the corresponding collars G.

It is evident that the springs H will keep the frame A, formed of the sills, elevated, and that whatever pressure bears on said frame, whether on one side or near the front or the rear end thereof, will be distributed regularly and equally over said frame by the spring-connections, and the frame will always maintain its horizontal position.

I I are brace-rods connecting the side rails, *c'*, with the rear axle and staying the former on the latter.

The springs H, besides keeping the sill-frame A in a horizontal position, perform all the functions of the ordinary elliptic or transverse springs of a vehicle.

Having described my invention, I claim—

1. In a vehicle-gear, the combination of the frame, the transverse bars F, journaled in bearings secured to said frame, and having their longitudinal arms loosely connected to the head-block and rear axle, and the coiled springs surrounding said bars, having their inner ends secured to the sill-frame and their outer ends secured to arms outstanding from collars rigidly fixed to said bars F, substantially as specified.

2. In a vehicle gear, the combination of the frame A, the bars F, journaled in bearings secured to said frame, and provided with outstanding arms *f*, having their ends loosely connected to the head-block and rear axle, respectively, the coiled springs H, having their inner ends secured to the lower surfaces of the frame A, and the collars G, secured on the bars and provided with the outwardly-standing arms *g*, having the perforations *g'*, through which the outer ends of the corresponding springs pass, substantially as specified.

3. The combination, with the rectangular sill-frame A, having the transverse rails B, and the journal-blocks *f*<sup>3</sup>, secured to the lower surfaces of the side sills, *a*, of the transverse bars F, having the journals *f*<sup>2</sup> thereon, and squared or made angular at the inner sides of said journals, the collars G, having squared or

angular openings to fit on the squared portions of said bars F and not turn thereon, and the springs H, secured at their inner ends to the bars or rails B, and having their outer ends  
5 inserted in perforations  $g'$  in the arms  $g$  of said collars.

4. The combination, with the rectangular sill-frame A, the bearing-blocks  $f^3$ , the head-block  $e$ , and the rear axle, C', of the clips D,  
10 attached to the head-block and front axle, and provided with the transverse eyes  $d$ , the metal loops E, the transverse bars F, having the arms

$f$ , provided at their ends with the transverse eyes  $f'$ , the collars G, having the perforated arms  $g$ , and the coiled springs H, all constructed and arranged substantially as and for  
15 the purpose described.

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

FRANK DUPEE.

Witnesses:

CALVIN T. FLETCHER,

ARCHIE MCKANE.