

(No Model.)

T. DUKE.  
TWO WHEELED VEHICLE.

No. 285,592.

Patented Sept. 25, 1883.

Fig. 1.

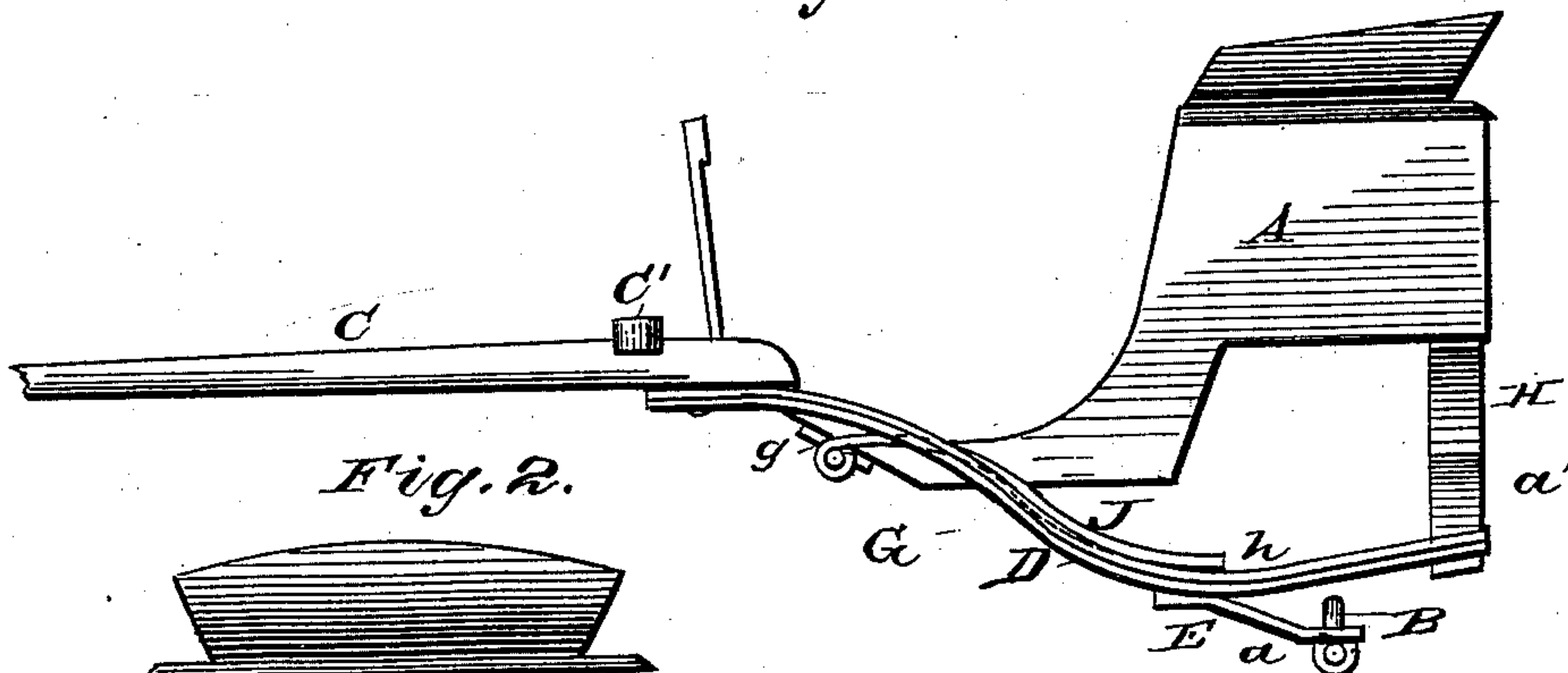


Fig. 2.

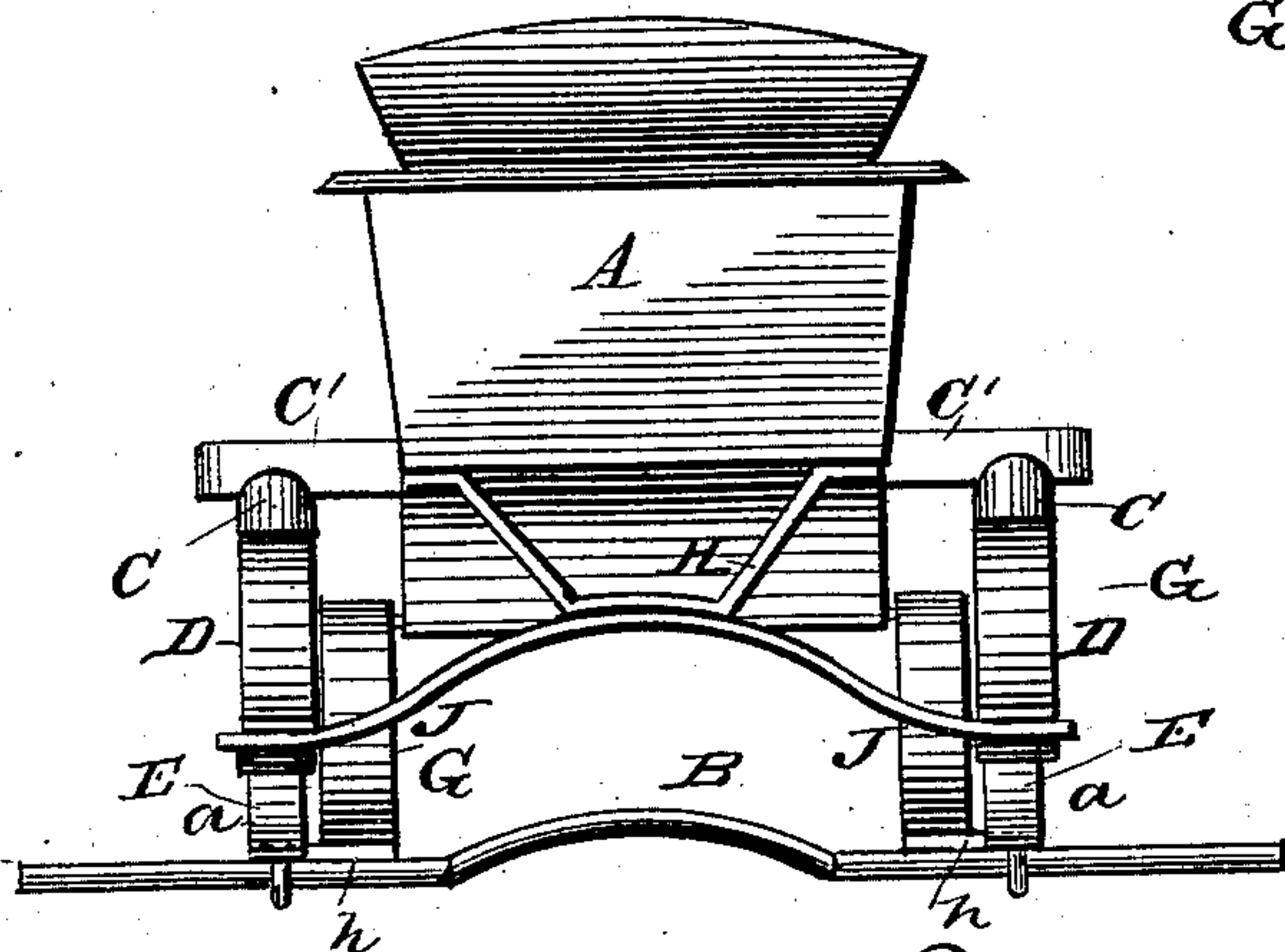


Fig. 3.

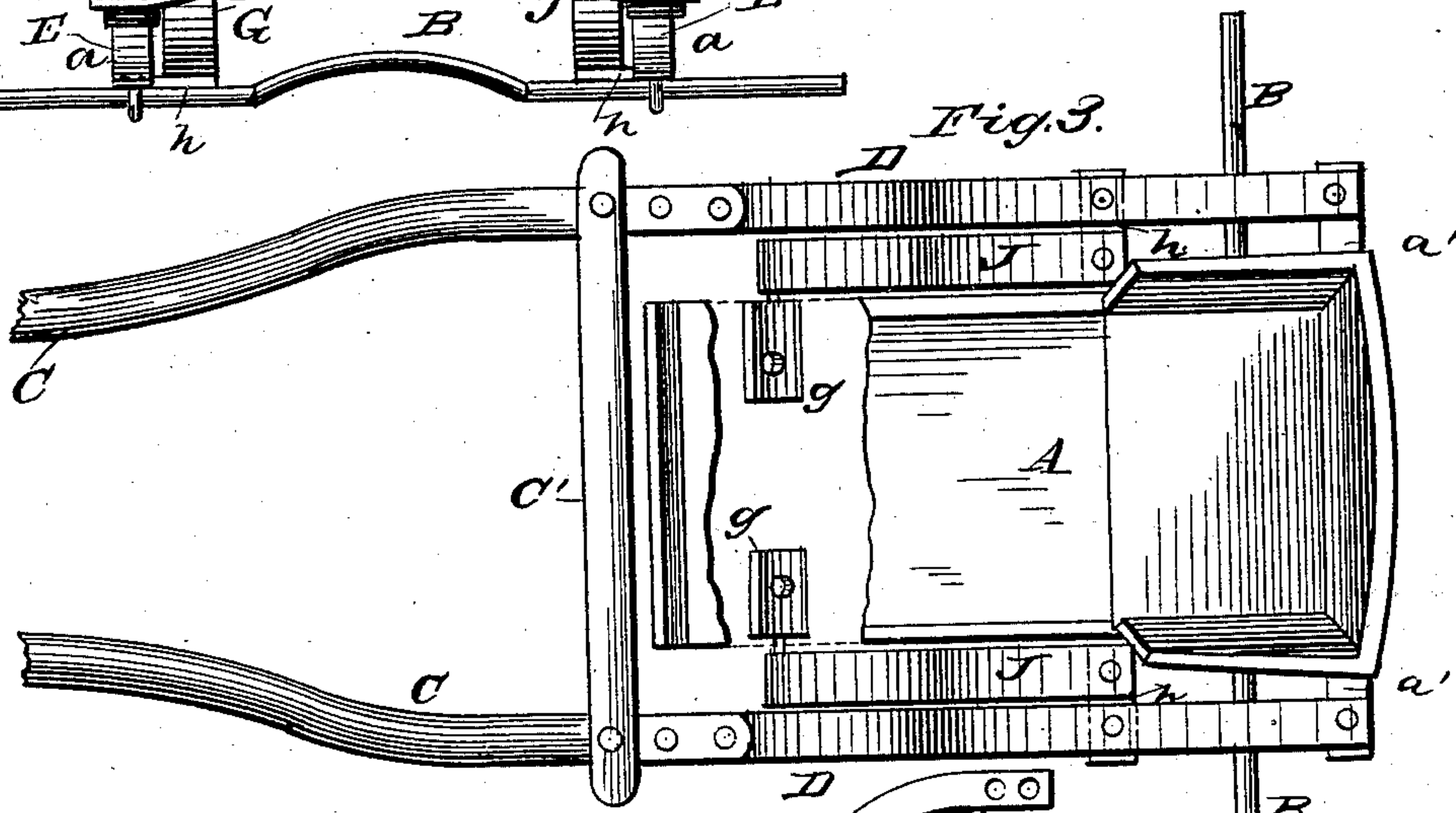
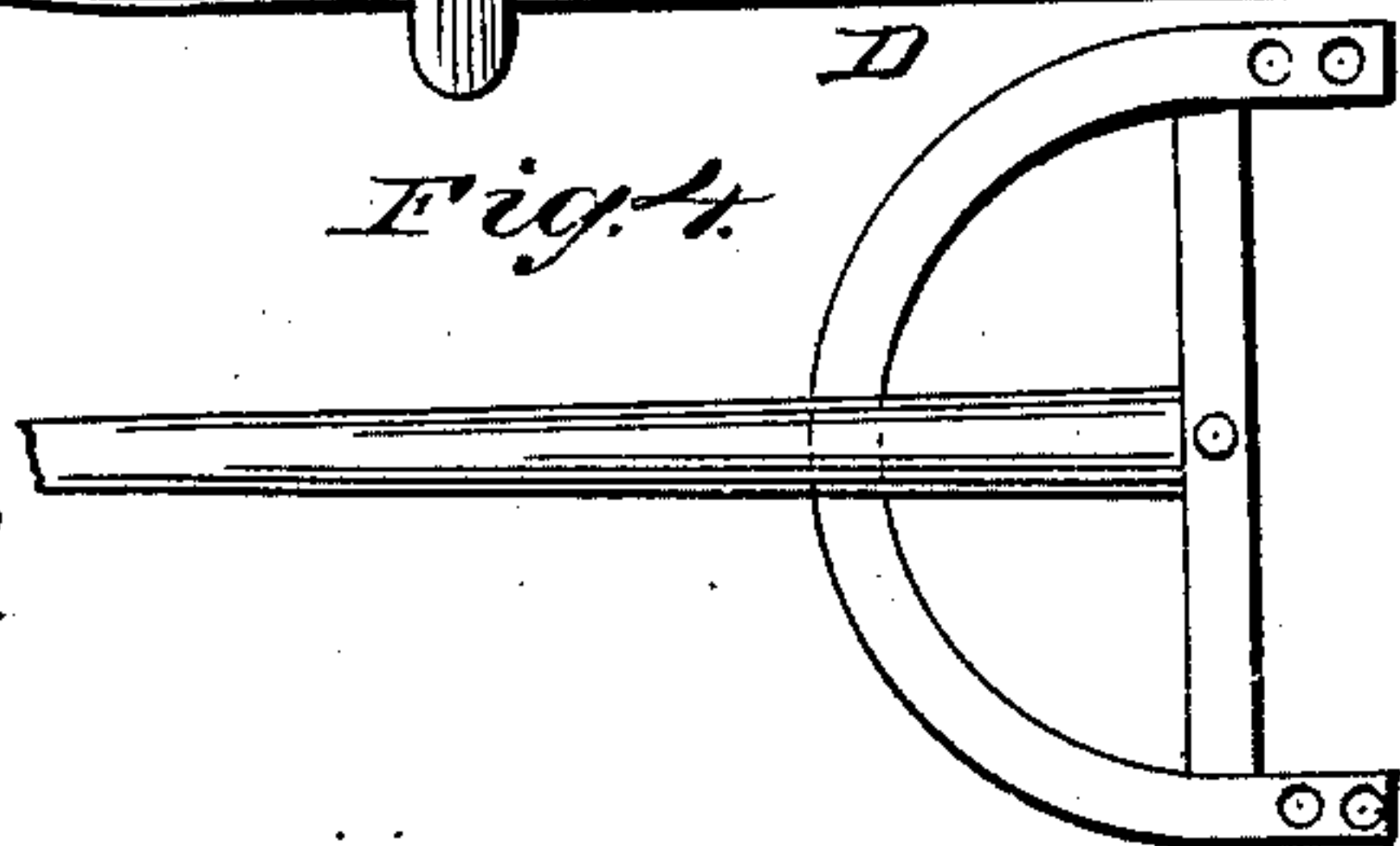


Fig. 4.



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# UNITED STATES PATENT OFFICE.

THOMAS DUKE, OF HENRY, ILLINOIS.

## TWO-WHEELED VEHICLE.

SPECIFICATION forming part of Letters Patent No. 285,592, dated September 25, 1883.

Application filed April 16, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS DUKE, of Henry, in the county of Marshall and State of Illinois, have invented certain new and useful Improve-  
5 ments in Two-Wheel Vehicles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which  
10 form part of this specification, in which—

Figure 1 is a side elevation of my improved vehicle. Fig. 2 is a rear elevation. Fig. 3 is a top view with a portion of the body broken  
15 away. Fig. 4 is a view of a tongue.

My invention relates to means for mounting  
a vehicle-body on an axle, whereby shocks and  
concussions are prevented, not only to the  
driver, but also to the horse, as will be fully  
20 understood from the following description, when taken in connection with the annexed drawings.

A designates the body of a buggy, gig, or other vehicle; and B, the axle thereof, which is preferably arched in the usual manner.

25 C C are the thills, and C' the cross-bar thereof. I make the thill-irons D of springy metal, and I attach them rigidly to the axle B at *a* by means of auxiliary arms E. These thill-springs constitute the frame for the body of  
30 the vehicle. In fact, I dispense altogether with the well-known rigid thill-irons and clips, and use a rectangular frame formed of spring metal. This frame, for the purpose of description, I now letter G, and it is divided into thill-irons,  
35 which serve a twofold purpose of longitudinal bow-springs inverted, and at their termini there is a transverse spring, *a'*, on which the rear portion of the body of the vehicle is sustained by an angular brace, H. The forward  
40 portion of the body has secured to its floor pivots *g*, which pass through eyes formed on the forward ends of intermediate springs, J J, shaped somewhat like the italic letter *f*. The

rear portions of these springs are rigidly secured to transverse portions *h* of the above-  
45 named auxiliary springs.

It will be seen from what has been described that the thill-irons are continuous, and that I have one continuous frame which constitutes  
50 thill-irons, longitudinal springs, and a transverse spring. This frame also serves as a rear support for the buggy-body; also a support for the rear parts of the *f* springs, which support the forward part of the said body.

It will also be seen from what I have above  
55 described that I have flexible thill irons or connections with the axle, and that these thill-connections are springs for the body of the vehicle.

It will furthermore be seen that the thill-  
60 frame is a compound bow-spring, and that it affords such elasticity for the body of the vehicle as could not be obtained by any other practicable means.

In Fig. 4 I have shown a tongue or pole  
65 which may be used in connection with my invention, which may be used in place of the thills or shafts.

Having thus fully described my invention, what I claim as new, and desire to secure by  
70 Letters Patent, is—

The combination, in a gig or other vehicle, of the curved springs D *a'*, thills C, the supporting-arms E, secured to the axle and to the side thill-springs, and the intermediate springs,  
75 J, secured to the side thill-springs and pivoted to the body of the vehicle, all constructed and adapted to operate substantially in the manner and for the purposes described.

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

THOMAS DUKE.

Witnesses:

R. H. WATERFALL,  
JOHN HORAN.