

B. F. ADAMS.
Carriage Running-Gear.

No. 93,791.

Patented Aug. 17, 1869.

Fig: 1.

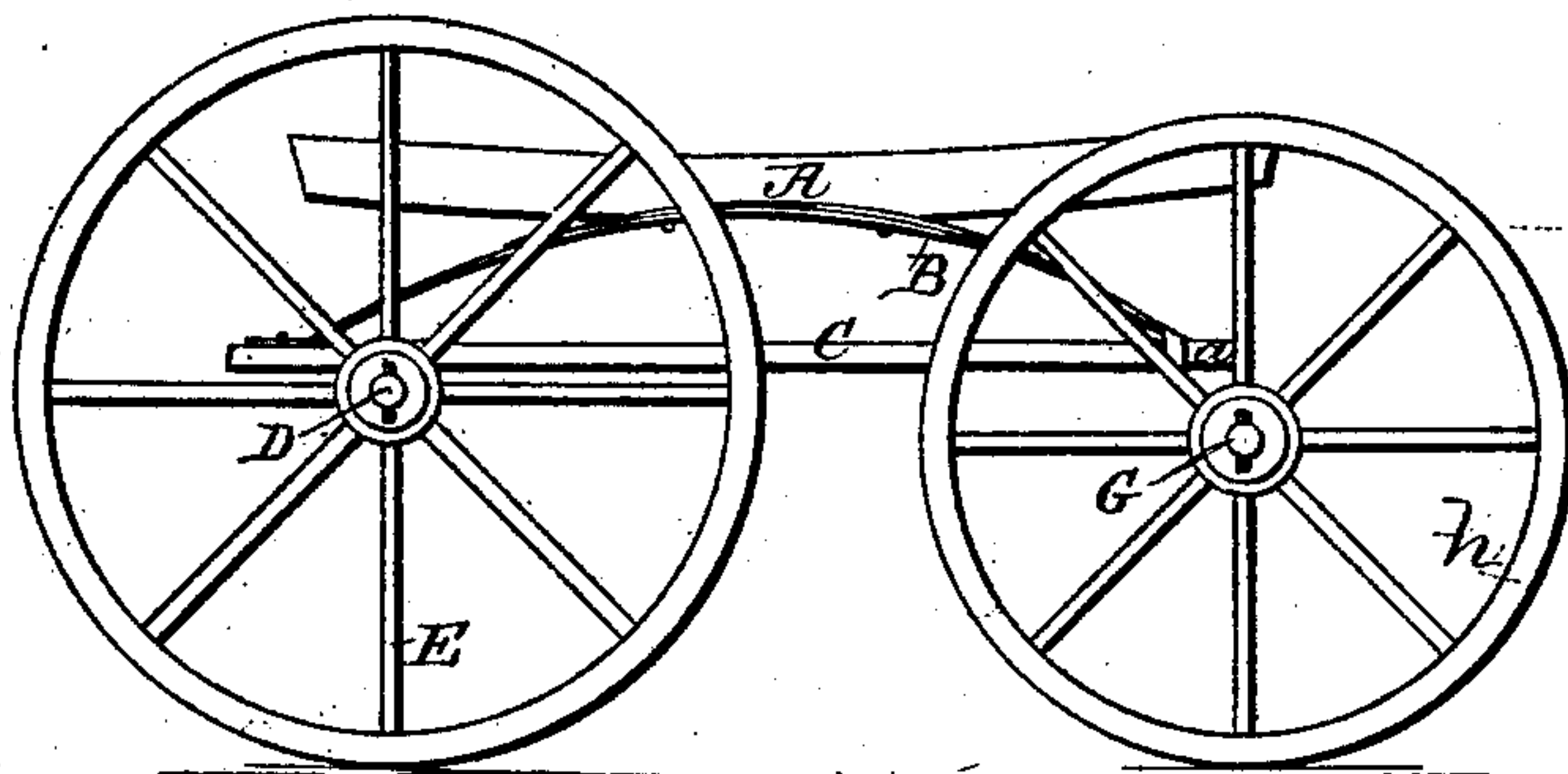


Fig: 2.

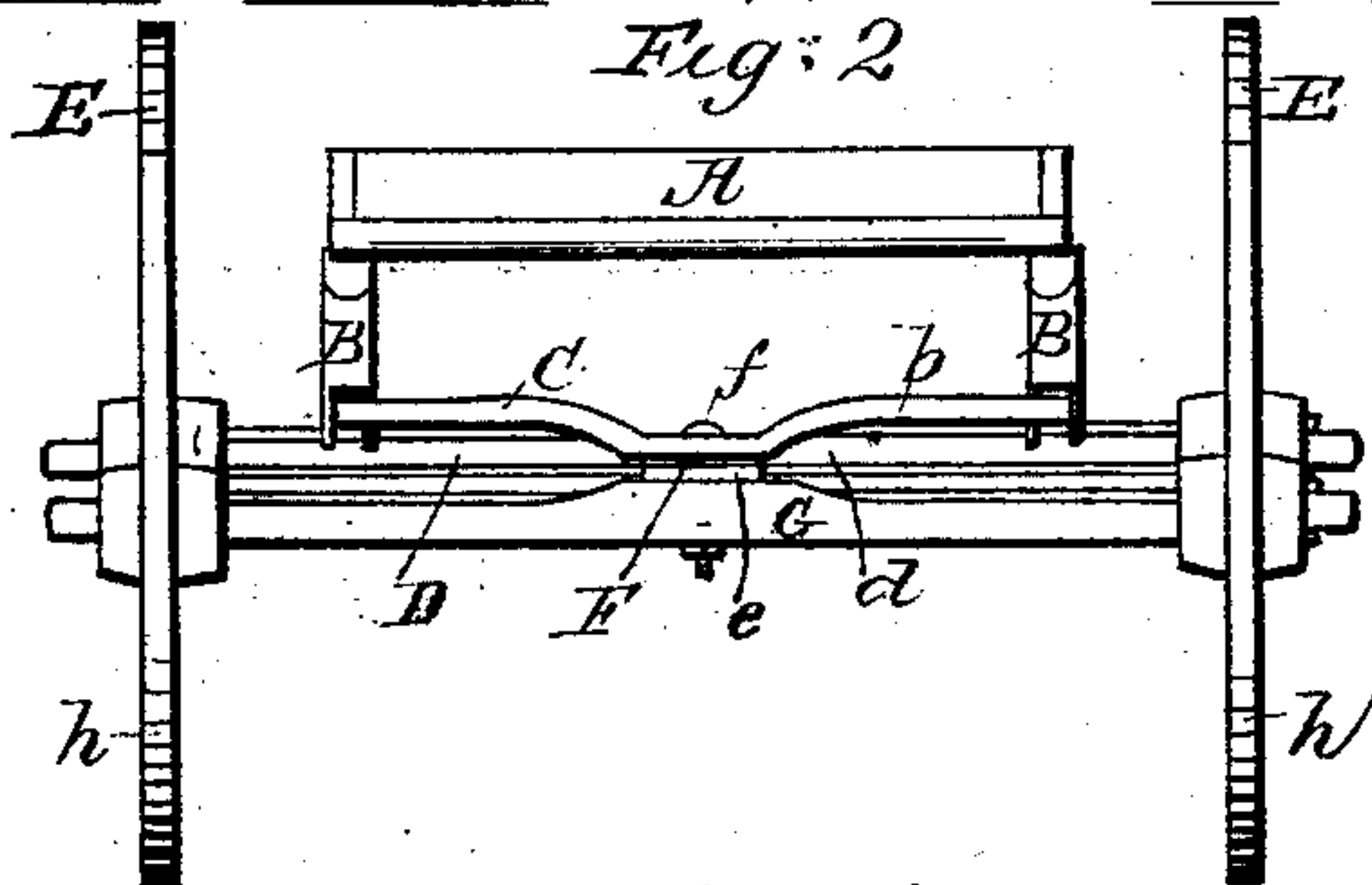


Fig: 3.

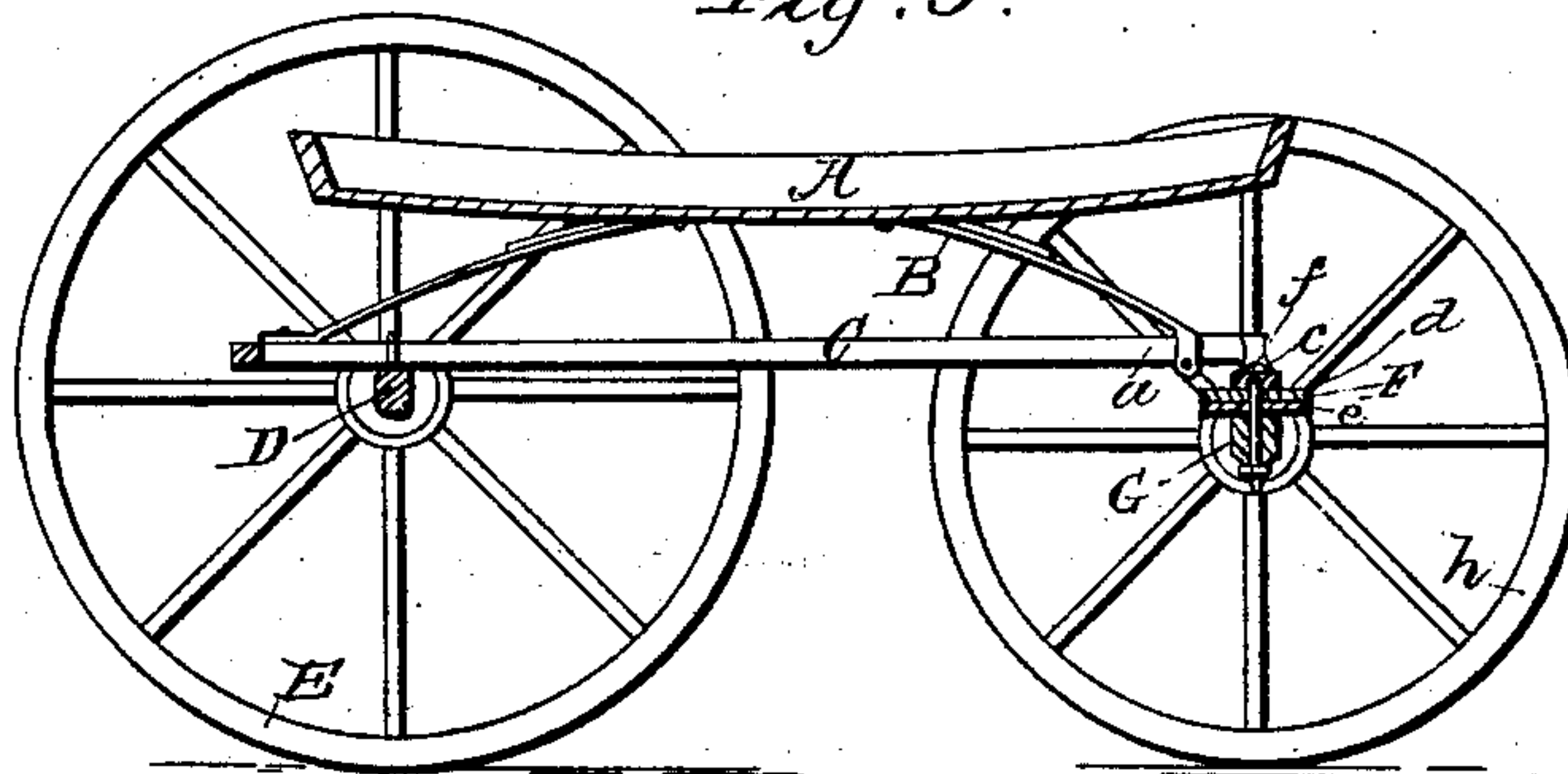
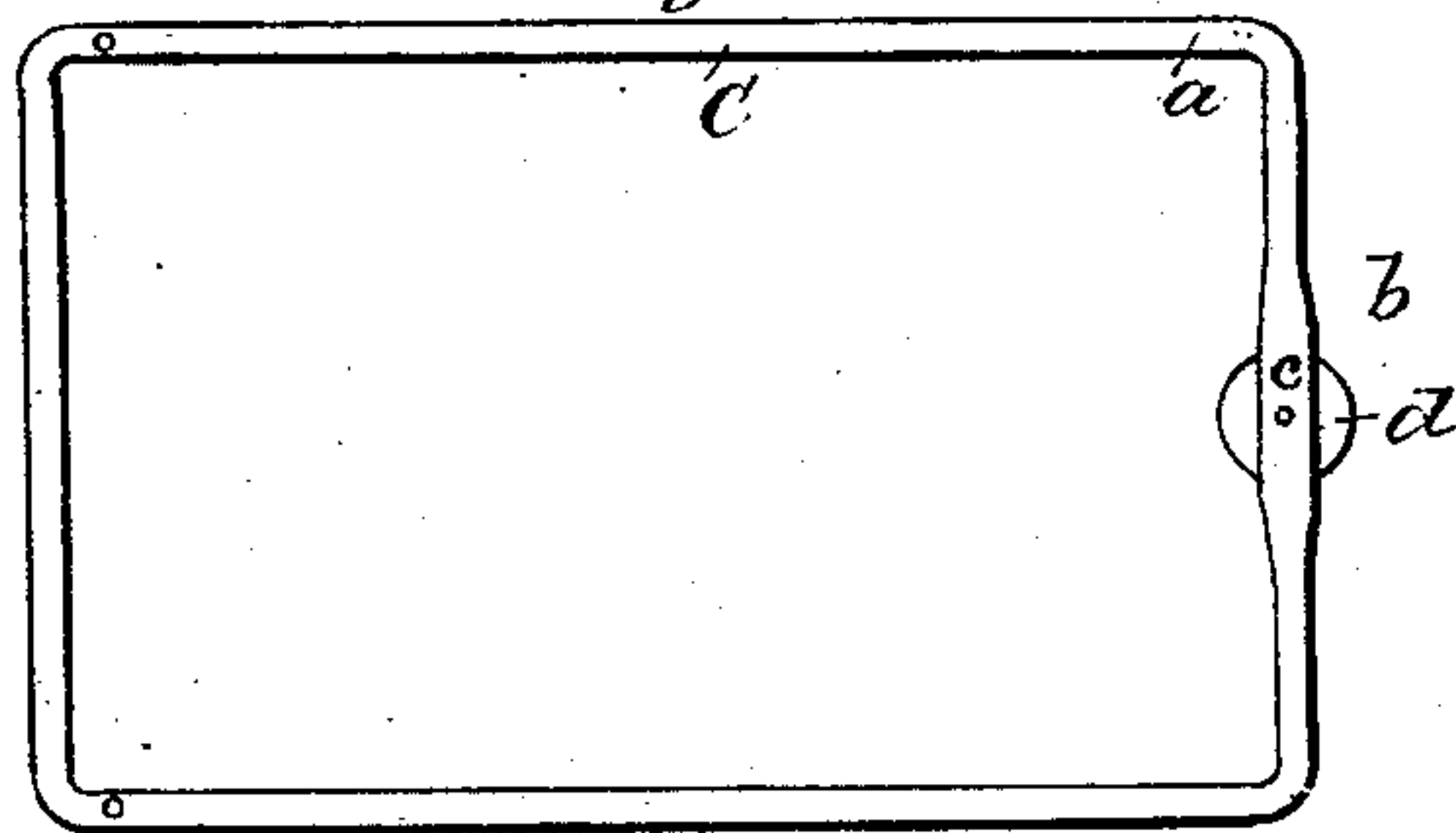


Fig: 4.



Witnesses

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BENJAMIN F. ADAMS, OF BANGOR, MAINE.

Letters Patent No. 93,791, dated August 17, 1869.

IMPROVEMENT IN CARRIAGES.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come:

Be it known that I, BENJAMIN F. ADAMS, of the city of Bangor, of the county of Penobscot, and State of Maine, have invented a new and useful Improvement in Wagons; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side elevation,

Figure 2, a front-end view, and

Figure 3, a longitudinal section of a wagon provided with my improvement.

Figure 4 is a top view of its spring-supporting frame.

In these drawings—

The body or platform A of the wagon is represented as supported by two arched or bow-springs B B, arranged on opposite sides of the body, and fixed thereto, at or near the middles of the springs.

These springs, at their ends, rest on the two side-bars of a rectangular metallic frame, C, formed as represented in the drawings, the rear end of each spring firmly fastened or connected to the frame. The front end, however, of the spring is left free to slide on the frame-bar *a* lengthwise thereof, and should be supported thereon by projections, or such devices as will preserve the said end of the spring in suitable connection with the bar, and still permit the end of the spring to slide on the bar, in manner as above mentioned.

The frame C is fastened to, and rests on the rear axle D, whose wheels are shown at E E. The front-end bar *b*, however, of the frame C, has an inverted arch, or is bent or bowed down at its middle, as shown at *c*, and is there fastened to the upper part *d* of the sweep or fifth-wheel F.

The two parts of the sweep are shown at *d e*, and, with the latter, fastened to the top of the forward axle G.

A king-bolt, *f*, goes down through the front bar *b*, the parts *d e*, and the front axle, the wheels of such axle being represented at *h h*.

The open frame C, made as described, not only serves

to support the springs of the carriage-body, but to connect such body with the axles.

This frame is usually composed of a single bar of metal, bent around into the form as represented, and having its ends welded together.

The inverted arch of the front bar of the frame C permits the necessary lateral rocking of the frame C on the front axle.

The bow-springs of the carriage-body are fixed to and slide on the frame C, their pivots or places of fixation being at one end only of each.

This construction of the wagon-frame C, and the peculiar arrangement and application of the springs with respect to it and the body of the wagon, are believed to be novel, and enable a wagon to be very economically made, and cause it to possess great strength, and to operate with remarkable ease.

I am aware that it is not new (and therefore do not claim it as my invention) to connect the axles of a carriage by a frame or perch, and to support the springs of the body, the said springs, generally speaking, being arranged crosswise of the wagon, and over the axles, or at the ends of the frame, and being what are termed "double elliptic springs." My mode of applying each spring to the body and perch-frame C—that is, by connecting the spring at one end to the frame, and at the middle to the body, and having the other end of the spring so connected with the frame as to be capable of sliding thereon, in manner as described—is very advantageous, as it enables the wagon-body to move vertically, as well as laterally, as may be required, over the frame, and with great ease, and with little or no danger of injury to the springs.

I claim the frame C, as made with the reversed arch *c*, arranged as set forth, and with the bearing-plate *d*, combined therewith, in combination with the two springs B B, applied to such frame and the carriage-body A, and arranged therewith, in manner substantially as described.

Witnesses:

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