(No Model.)

J. L. MASON

SLEIGH RUNNER.

No. 323,177. Patented July 28, 1885.

Fig. 6

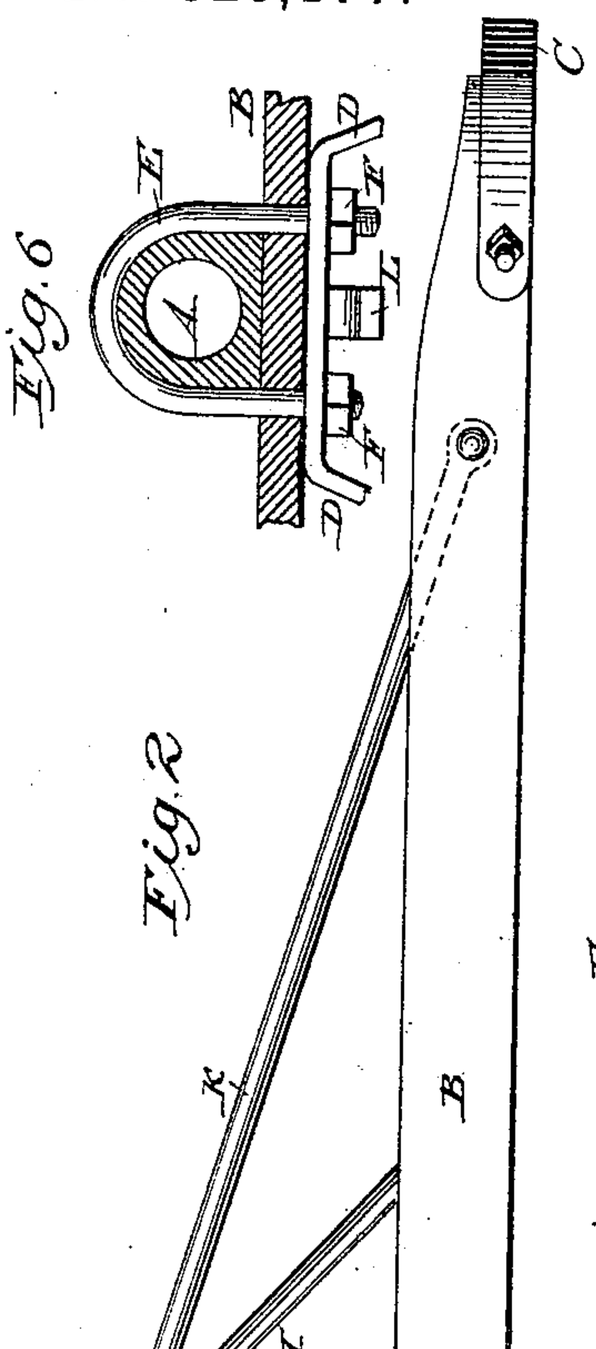


Fig. 2

Fig. 5.

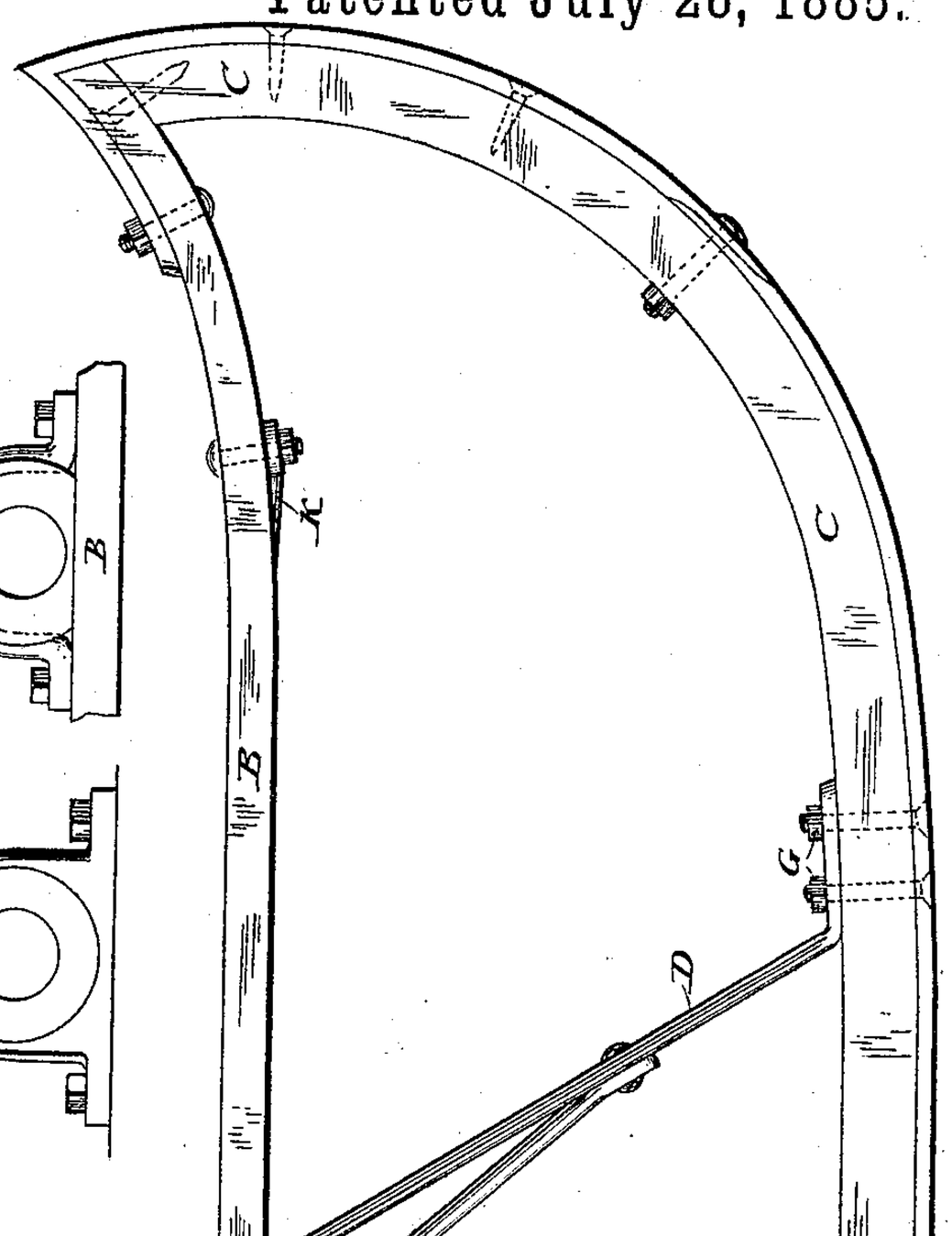
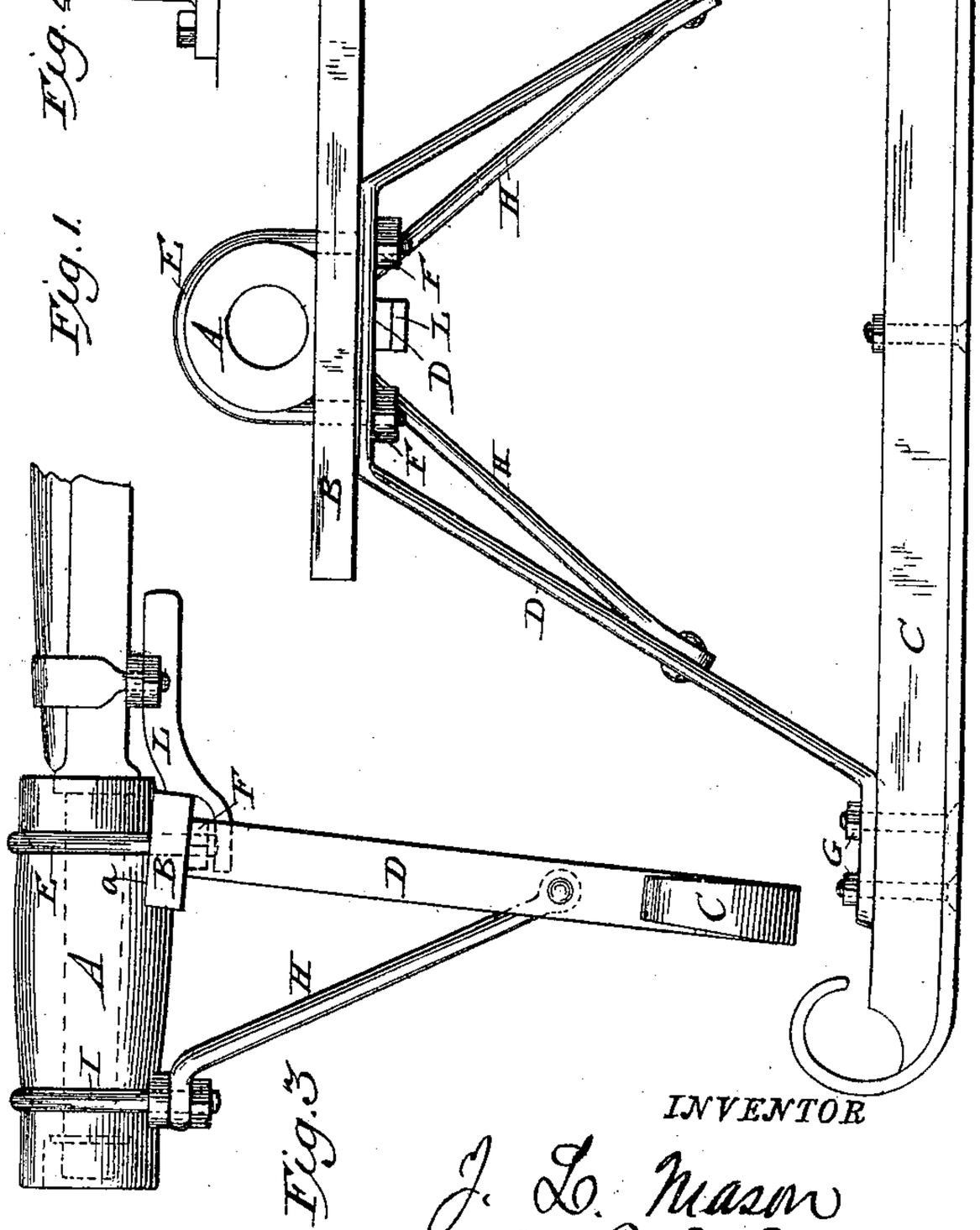


Fig. 4

Fig. 1

Fig. 3



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN LAWRANCE MASON, OF DAVENPORT, IOWA.

SLEIGH-RUNNER.

SPECIFICATION forming part of Letters Patent No. 323,177, dated July 28, 1885.

Application filed March 20, 1885. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. MASON, of Davenport, in the county of Scott and State of Iowa, have invented certain Improvements in Sleigh-Runners, of which the following is a specification.

This invention has reference to that class of runners which are designed for application, independently of each other, to the axles of ordinary carriage or wagon gear; and it is the object of the invention to simplify the construction and increase the strength as compared with the constructions in general use.

In the accompanying drawings, Figure 1 represents a side elevation of my improved runner; Fig. 2, a top plan view of the same; Fig. 3, a rear elevation of the same. Figs. 4 and 5 are side views showing metal bands or sleeves which may be used as substitutes for the stirrup-bolts shown in the preceding figures. Fig. 6 is a cross-section through the axle, adjacent to the runner, illustrating the arrangement and operation of the stop device.

In proceeding to construct a runner I first provide a hub, A, with or without the usual pipe-box adapted to fit upon an ordinary axle as a substitute for the wheel. Near each end I provide the hub with a circumferential groove, and at its inner end I cut away the under side in such manner as to form a flat shoulder, *a*. To the under side of the hub, against the shoulder or bearing *a*, I seat the rear end of the rave B, which extends forward at right angles to the axis of the hub, its forward end being fashioned as fancy may dictate and curved upward to a greater or less extent. To the forward end of the rave I secure the forward upturned end of the runner C, which is of substantially the usual form, and which extends backward below and beyond the rave. I support the rear end of the rave and the hub thereon from the runner by means of the iron standard D, consisting of a single piece bent in substantially a ∧ form. The top of the standard is flattened and seated firmly beneath the rave, and is united thereto and to the hub by means of a ∩-shaped clip, E. This clip encircles the inner end of the hub, being seated in the groove therein, and having its two threaded ends extended downward through the rave and the standard, and provided with fastening-nuts F at the lower extremities. The two legs of the standard diverge in a fore-and-aft direction and are secured at their lower extremities firmly to the top of the runner by means of bolts G, which also assist in securing the metal shoe or tire against the under face of the runner. As shown in Fig. 3, the standard is given an outward inclination toward its lower end, the rave and the seat *a* of the hub being inclined to correspond in order that the parts may have a uniform bearing upon each other. The standard is held against lateral motion by means of a ∧-shaped brace, H, the middle portion of which is secured firmly beneath the outer end of the hub by means of the clip-bolt I, while the two ends are extended downward and inward and bolted firmly to the respective arms of the standard D at a greater or less distance from their lower ends. For the purpose of holding and guiding the forward end of the runner a brace, *k*, is bolted to the rave or runner, near its forward end, and extended thence backward beneath the outer end of the hub, where it is seated upon and secured by the lower ends of the clip-bolt I, this bolt serving, it will be observed, to hold both the braces H and K. The two clip-bolts E and I, seated as they are in the grooves of the hub, serve not only as a means of connecting the other parts thereto, but also as substitutes for the usual bands to strengthen the hub and prevent it from splitting, and to prevent the braces from spreading.

In order to prevent the possibility of the runner being revolved upon the axle so far as to be overturned, I provide a check or stop to limit such rotation. This check consists, as shown in the drawings, of an arm, L, bolted firmly to the upper end of the standard D, and extending thence inward beneath the axle in such position that it will encounter the ends of the axle-clip bolt or other appropriate device connected with the axle or with the body of the vehicle.

In place of the clip-bolts above described, metal bands or collars, such as shown in Figs. 4 and 5, may be used, and secured by bolts passing down through the other parts in the same manner as the clip-bolts.

I am aware that runners provided with hubs

have been constructed and provided with braces in a great variety of forms; but I believe myself to be the first to provide the particular construction represented in the drawings and specified in the claims.

Having thus described my invention, what I claim is—

1. In a sleigh-runner for use on an ordinary carriage-axle, a hub provided with circumferential grooves at its two ends, in combination with the runner, the rave underlying the hub, the standard D, the brace H, and the two clip-bolts E and I, seated in the grooves and connecting the upper parts therewith in the manner described and shown.

2. The combination of the runner, the standard D, the rave B, the hub A, the clip-bolt E, encircling the hub and extending through the rave and standard, and the clip-bolt encircling the hub and passing through both the brace H and the brace K.

3. In a runner for use on an ordinary carriage-axle, a hub, A, the runner, standard, and rave located beneath the inner end of the hub, and united thereto by a clip, E, in combination with the forked brace H, extending from the standard to the outer end of the hub and connected thereto by the clip I, whereby the runner is suitably braced from the outer side.

4. The combination of the axle and axle-clip with the runner journaled on the axle, and the stop-arm L, secured rigidly to the runner and adapted to encounter the clip to prevent the overturning of the runner.

In testimony whereof I hereunto set my hand this 10th day of March, 1885, in the presence of two attesting witnesses.

JOHN LAWRANCE MASON.

Witnesses:

SAM C. MASON,

W. E. RIGBY.