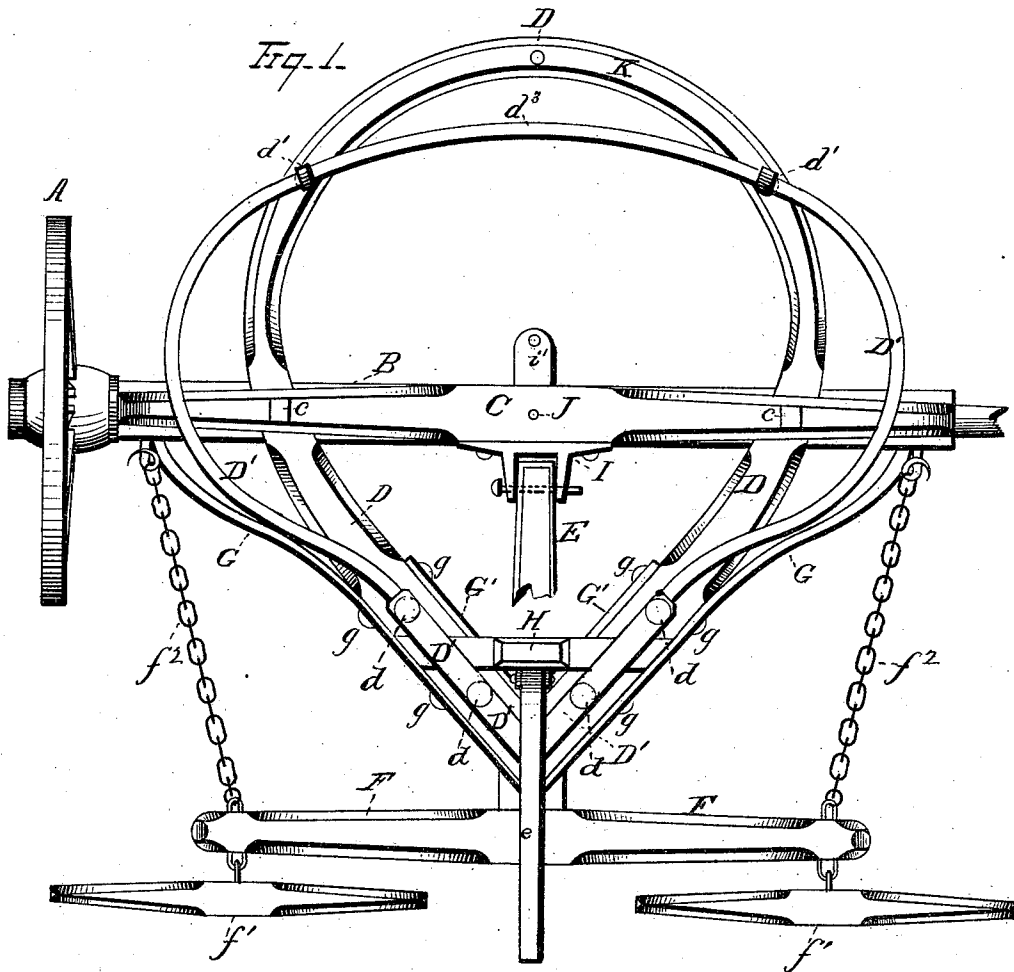


W. BAIRD.  
RUNNING-GEAR.

No. 173,256.

Patented Feb. 8, 1876.



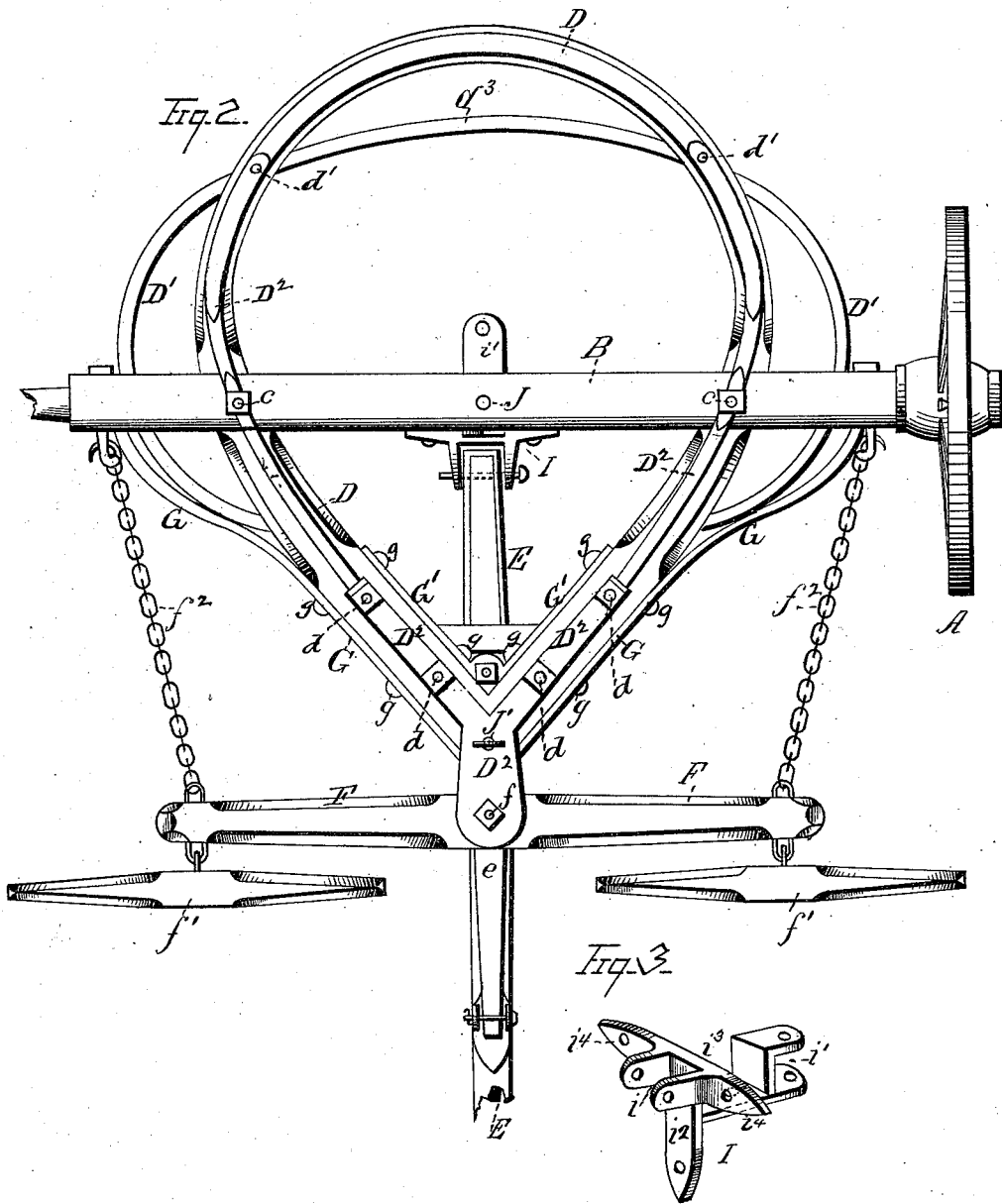
WITNESSES  
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*W. D. Newman,*  
*Chas. M. Barr.*

By

*William Baird* INVENTOR  
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# UNITED STATES PATENT OFFICE.

WILLIAM BAIRD, OF WEST CARLISLE, OHIO.

## IMPROVEMENT IN RUNNING-GEARS.

Specification forming part of Letters Patent No. **173,256**, dated February 8, 1876; application filed June 12, 1875.

*To all whom it may concern:*

Be it known that I, WILLIAM BAIRD, of West Carlisle, in the county of Coshocton and State of Ohio, have invented certain new and useful Improvements in Running-Gear for Vehicles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention has relation to certain new and useful improvements in vehicles; and consists in a peculiar combination and arrangement of parts and appliances to strengthen, protect, and secure the hounds, front axle, tongue, and double-tree of vehicles, as and for the purposes hereinafter more fully set forth and claimed.

In the drawings, Figure 1 is a plan view, with the tongue removed, and Fig. 2 an inverted plan view; Fig. 3, a detached view of the device or part for uniting and securing the cross-bar or sand-board to the axle, the tongue to the vehicle, and the reach to the front axle.

A A are the front wheels; B, the axle; C, the sand-board; D, the hounds; E, the tongue, and F the double-tree. The hounds D are formed of a single piece of wood, bent around in an arch or curve at the rear, and united or coming to a point in front. D' is a brace or iron, which extends entirely around the hounds, projecting slightly in front thereof, and secured thereto, at the front flat V portion, by bolts *d*, and at the rear by bolts *d'*. On the bottom of the hounds D is another brace, D<sup>2</sup>, correspondingly shaped at the front to the brace D', and also projecting a little in front of the hounds. This brace extends rearward around the hounds, over the axle B, and to a certain point at the rear, and is secured at the front flat V portion by the bolts *d*, and at the rear by bolts *d'*, which project through the top brace D', the hounds, and the bottom brace D<sup>2</sup>, securing the parts together. It is also secured to the axle B by bolts *e*, which pass through the brace C, hounds D, axle B, and lower brace D<sup>2</sup>, securing these parts together. G is another V-shaped brace secured at its

middle to the front part or edge of the hounds by bolts *g*, and at each end to each extremity of the axle B. The bolts *g* pass through the brace G, the hounds, and through a brace, G', on the inside of the hounds, securing these parts together. Between the projecting portions of the braces D<sup>1</sup> D<sup>2</sup> is secured, by a bolt or pin, *f*, the double-tree F, carrying the single-trees *f*<sup>1</sup> and equalizing-chains *f*<sup>2</sup> at each end. E is the tongue, passing through a guide or yoke, H, secured to the hounds, and secured at the end to the piece or iron I, Fig. 3. Beneath the tongue is a spring, *e*, which holds the tongue in an elevated position.

The part I is constructed, as shown in Fig. 3, with a front mouth, *i*, to receive the tongue, a rear mouth, *i*<sup>1</sup>, to receive the reach, a downwardly-projecting piece, *i*<sup>2</sup>, which fits against, and is secured to, the axle, a central portion, *i*<sup>3</sup>, through which the linchpin J passes, and in which the bar C rests, and lateral projecting pieces *i*<sup>4</sup>, for securing the part to the bar C. Thus this piece, by its construction, secures the axle and cross-bar at their center, forms the bearing for the linchpin, secures the tongue to the wagon, and the reach to the front axle.

Through the front portion of the braces D<sup>1</sup> D<sup>2</sup> and hounds D passes a thumb-screw, J', which assists in securing these parts together, and projects against the under side of the spring *e*, forming a set or adjustment screw therefor to limit its play. On the top rear curved part of the hounds D is a plate, K, secured by the bolts *d*<sup>1</sup>, on which plate the reach rests. The bolts *d*<sup>1</sup> also form a stop for the reach. The rear curved part *d*<sup>3</sup> of the brace D<sup>1</sup> extends upward and over the reach, and thus prevents any vertical movement or displacement of the front and rear parts of the vehicle.

Thus it will be seen that by this construction and arrangement of parts and appliances, the front portion, axle, hounds, reach, pole, double-trees, &c., of vehicles, are rigidly and permanently secured together, and in a simple, durable, and effective manner, making the parts very strong and substantial, the parts being applied in such manner that they secure and bind each other, and are mutually strengthening and protective.

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

1. In combination with the hounds D, made in a single piece of wood, curved around at the rear and united and meeting in a point at the front, the top brace D<sup>1</sup>, extending entirely around the hounds, and constructed with a projecting flat front V portion for uniting the front portion of the hounds together, as described and shown.

2. In combination with the hounds D and brace D<sup>1</sup>, constructed and arranged as described, the bottom brace D<sup>2</sup>, constructed with a similarly-formed flat projecting front V portion as the brace D<sup>1</sup>, and extending partially around the hounds, over the axle, and secured thereto, as described.

3. The combination and arrangement of axle B, hounds D, cross-bar C, top brace D<sup>1</sup>, and lower brace D<sup>2</sup>, all united or secured together by bolts *d* *d*<sup>1</sup>, which unite the braces to the hounds and the hounds together, and bolts *e*, passing through the brace D<sup>2</sup>, hounds, cross-bar, and axle, and securing them together, as and for the purposes described.

4. In combination with the hounds D and axle B the brace G, secured at its middle portion to the front of the hounds, and at each extremity to the ends of the axle, and brace G' secured on the inside of the hounds by bolts *g*, which secure the braces G G' together and to the hounds, as described.

5. The iron or part I, constructed, as shown in Fig. 3, with front and rear mouths *i* *i*<sup>1</sup>, downwardly and lateral projecting pieces *i*<sup>2</sup> *i*<sup>4</sup>, and central portion *i*<sup>3</sup>, for securing the axle, cross-bar, tongue, and reach together, as described.

6. The tongue E, secured at its end directly to the axle and cross-bar by the part I, and provided on its under side with a spring *e*, and yoke H to limit the movement of the tongue, as and for the purposes described.

7. The braces D<sup>1</sup> D<sup>2</sup>, secured to the top and bottom of the hounds, constructed with projecting front portion to form the bearing for the double-tree F, in combination with said double-tree.

8. In combination with the braces D<sup>1</sup> D<sup>2</sup> and spring *e* the screw J', passing through and securing the braces D<sup>1</sup> D<sup>2</sup> together and to the hounds, and forming a set-screw or gage for the spring *e*, as and for the purposes described.

9. The combination and arrangement of axle B, hounds D, bar C, top and bottom braces D<sup>1</sup> D<sup>2</sup>, front and inner braces G G', part I, tongue E, yoke H, and double-tree F, all as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 4th day of May, 1875.

WILLIAM BAIRD. [L. S.]

Witnesses:

THOMAS THOMPSON,  
L. H. BONNETT.