

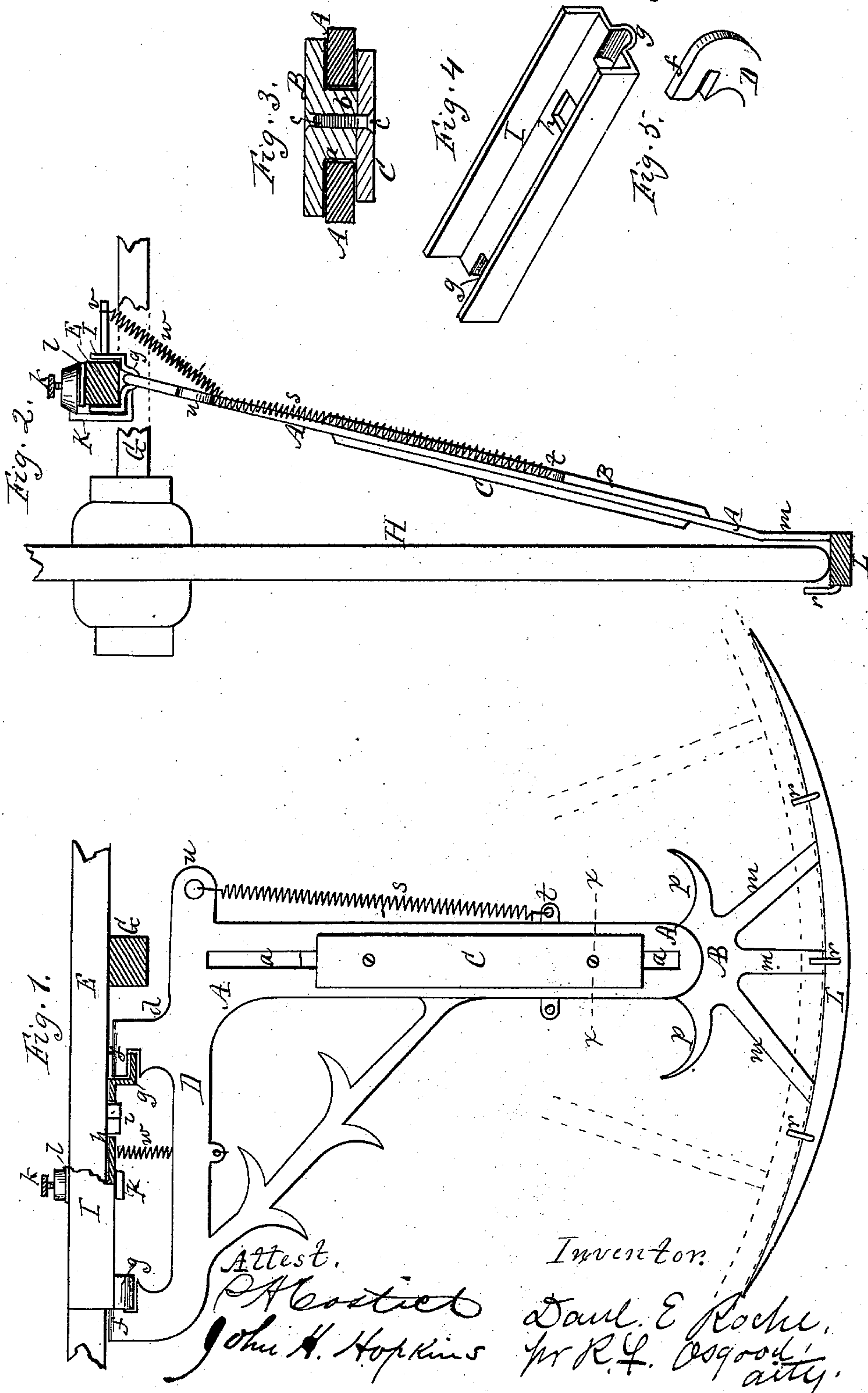
(No Model.)

D. E. ROCHE.

RUNNER ATTACHMENT FOR CARRIAGES.

No. 326,456.

Patented Sept. 15, 1885.



UNITED STATES PATENT OFFICE.

DANIEL E. ROCHE, OF ROCHESTER, NEW YORK.

RUNNER ATTACHMENT FOR CARRIAGES.

SPECIFICATION forming part of Letters Patent No. 326,456, dated September 15, 1885.

Application filed December 29, 1884. (No model.)

To all whom it may concern:

Be it known that I, DANIEL E. ROCHE, of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Runner Attachments for Baby-Carriages; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the attachment. Fig. 2 is an edge elevation of the same applied to a carriage. Fig. 3 is a cross-section in line *x x* of Fig. 1, enlarged. Fig. 4 is a perspective view of the box for attaching the device to the bar of the carriage. Fig. 5 is a view of one of the hook-bearings.

My improvement relates to runner attachments for baby-carriages, designed to convert the same into a sleigh.

The invention consists in the following construction and arrangement:

The device consists, substantially, of two bars, A B, which are coupled together so that one can slide upon the other, for the purpose of lengthening and shortening the device. To accomplish this the upper bar, A, is provided with a longitudinal slot, *a*, and the lower bar is provided with a projecting tongue or rib, *b*, which fits in the slot and moves up and down therein. On the opposite side from the rib a clamp, C, is secured to the rib by means of rivets *c c*, as shown most clearly in the cross-section, Fig. 3. By this means the two bars are held together, but are allowed to slide freely. The lower bar can be placed on either side of the upper one, so as to make rights or lefts of the attachment.

D is a cross-head at the top of the upper bar, by which it is attached to the bar or sill of the carriage on the under side of the body. E shows this bar or sill, and G shows the axle, and H shows one of the carriage-wheels. The cross-head may be made of any ornamental form desired, but at the front end it has a depression or socket, *d*, to allow the axle to set therein. It is also provided with two inwardly-projecting hooks, *f f*, for the connection of the box that attaches it to the carriage bar or sill.

I is the box, the same being of rectangular

form, closed at its bottom and sides, but open at its top and ends, and simply fitting the outside of the bar. It has depressed sockets *g g*, which receive the hooks *f f*, and also an opening, *h*, in its bottom, which receives the head of the bolt *i*, that fastens the spring to the bar or sill. These parts may all be made of malleable iron or brass, and the box I can be inserted beneath the hooks *f f* by turning it edgewise and working it through till the sockets fit over the hooks. The box is fastened to the sill by means of an open clamp, K, which fits around the box and bar, and is clamped by a set-screw, *k*. To prevent marring of the paint, a thin washer, *l*, is inserted on top of the sill and between it and the set-screw.

By the means above described the attachment is secured to the sill and can swing freely forward and back sidewise.

To the bottom of the lower arm, B, is attached a runner, L, which receives the wheel of the carriage. It may be of any desired form, but inclined on the front to properly run over the snow. In cross-section it stands at a somewhat obtuse angle to the arm, so that when the arm is swung out to bring the runner under the wheel the runner will stand square, as shown in Fig. 2. The runner is connected with the arm by angular connections, *m m m*, which give strength. At the bottom of the arm B are also handles *p p*, by which it can be drawn down. These parts may be modified as desired. The runner is formed at its outer edge with hooks *r r*, which are turned up to stand outside the rim of the wheel, to hold the runner to the wheel. These may be cast into the runner, and then be bent up.

s is a spring connecting lug *t* on the lower arm with a lug, *u*, on the upper arm. This spring draws the lower arm up, so that when released from the wheel the runner will be drawn up away from the ground. *w* is another spring connecting a lug on the cross-head D with an arm, *v*, that projects out laterally from the side of the box I, by which means, when the runner is free from the wheel, the attachment will be drawn inward to a vertical position and away from the wheel.

By the means above described it will be seen that the attachment will be drawn in-

ward and upward, and will ride free from the ground, and therefore it can remain a permanent attachment for the carriage as long as desired, not interfering with the running of the wheels. The carriage can be used as a carriage or a sleigh, as occasion may require. To connect the runners with the wheels, it is only necessary to draw the lower arm downward and outward to bring the runners a little below the wheels, and then when the rim is fitted therein release the arm and the spring will draw the runner up to place and hold it there.

The device is very convenient and effective, and obviates the use of runners which have to be attached and detached and form no permanent attachment to the carriage. The lower arm, B, can be shifted to either side of the upper arm, A, when the parts are put together, thus making rights and lefts, and adapting the fixtures to either side of the carriage.

Instead of the form of the box I as above shown and described, it may be modified in any manner necessary to adapt it to the different forms of children's carriages.

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

1. In a child's carriage, the combination of the upper arm, A, provided with a cross-head,

D, the lower arm, B, provided with a runner, L, and movable up and down on the arm A, and the box I, clamped to the sill or bar of the carriage, the cross-head being pivoted to the box so as to swing laterally, as shown and described, and for the purpose specified.

2. In a child's carriage, the combination of the upper arm, A, provided with a cross-head, D, the lower arm, B, provided with a runner, L, and sliding up and down on the upper arm, the box I, to which the cross-head is pivoted, the spring *s*, connecting the upper and lower arms for drawing up the lower arm, and the spring *w*, connecting the cross-head with an arm, *v*, of the box I, for the purpose of drawing the attachment back from the wheel, as herein shown and described.

3. In a child's carriage, the combination of the open-ended hooks *f f* on the cross-head D, and the box I, provided with depressed open-ended sockets *g g*, which fit the hooks, whereby the box can be entered edgewise under the hooks, as herein shown and described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

DANIEL E. ROCHE.

Witnesses:

R. F. OSGOOD,
P. A. COSTICH.