(No Model.)

E. K. VAN GORDEN.

SLEIGH RUNNER.

No. 385,289. Patented June 26, 1888.

Fig 1

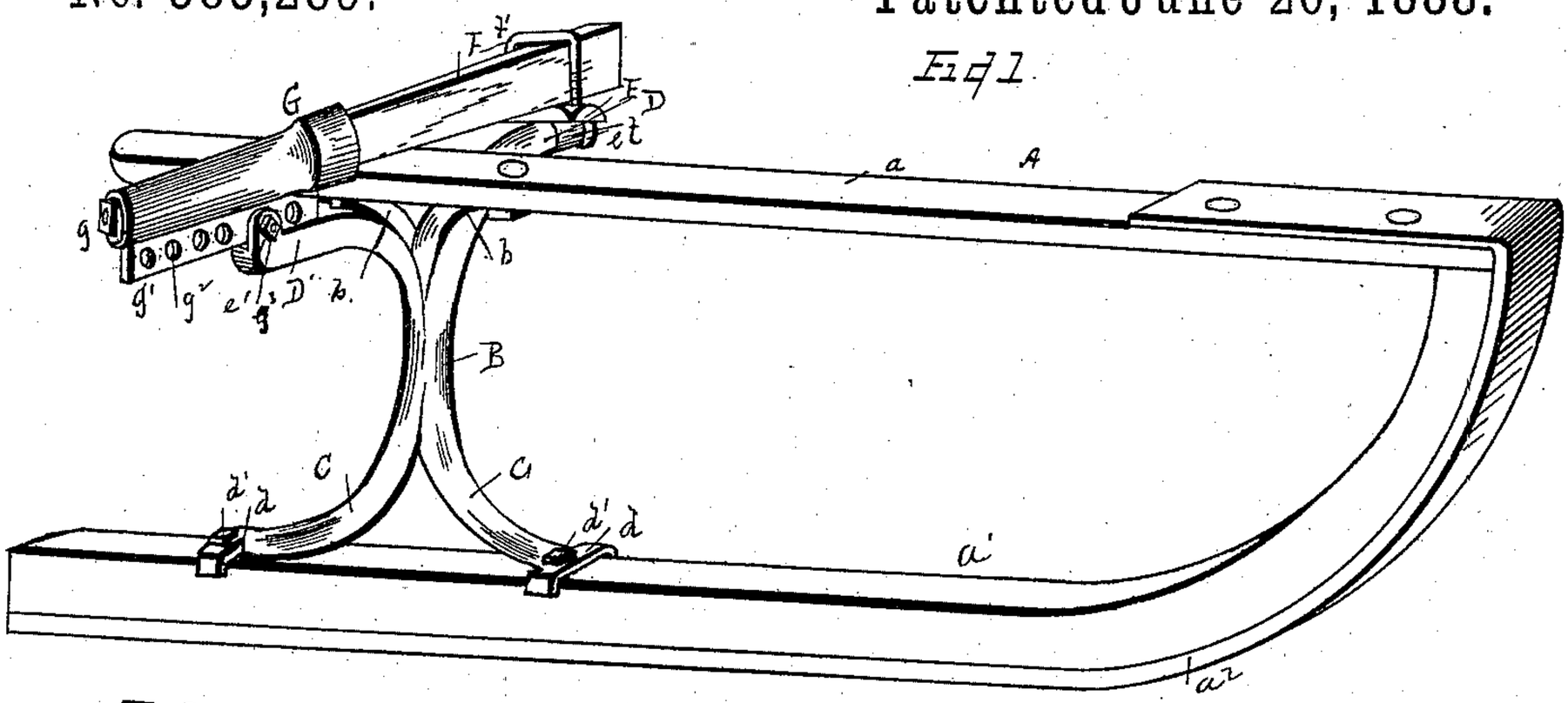


Fig 2

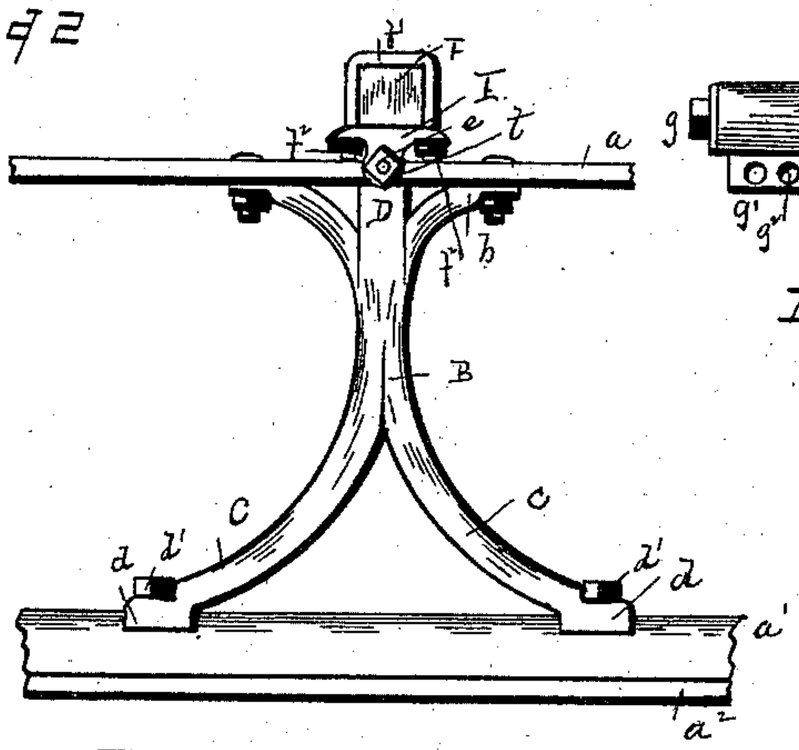


Fig 3

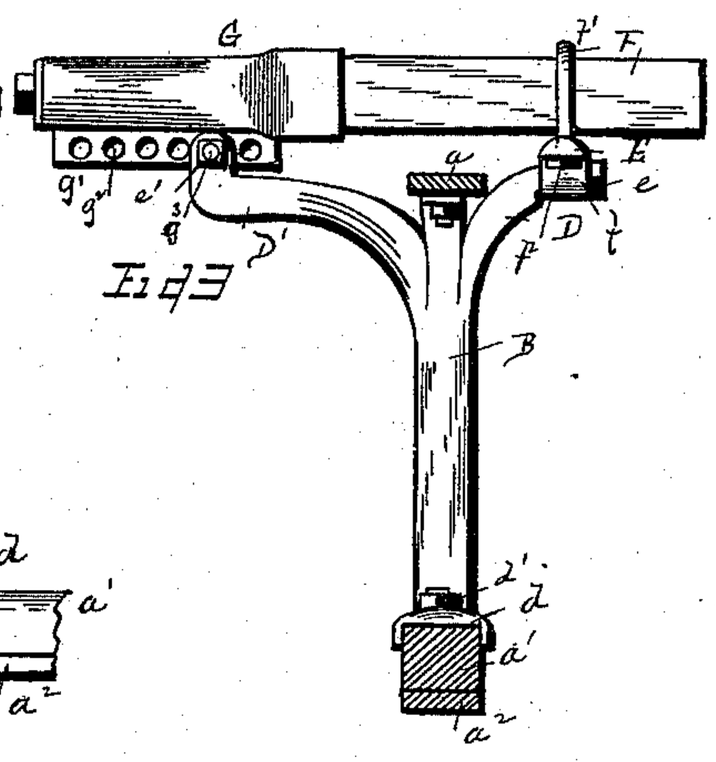


Fig 4

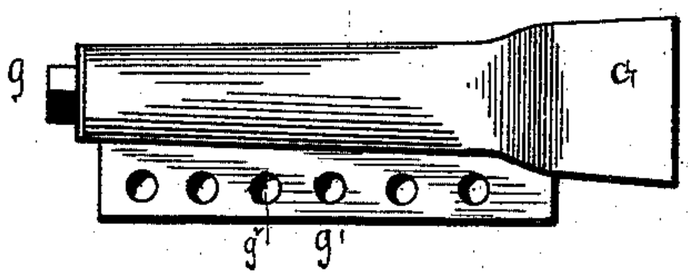
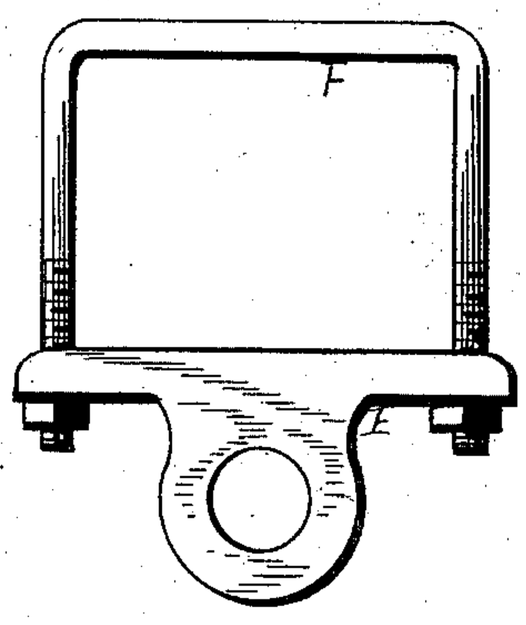


Fig 5



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UNITED STATES PATENT OFFICE.

EDWARD K. VAN GORDEN, OF HORSEHEADS, NEW YORK.

SLEIGH-RUNNER.

SPECIFICATION forming part of Letters Patent No. 385,289, dated June 26, 1888.

Application filed March 8, 1888. Serial No. 266,593. (No model.)

To all whom it may concern:

Be it known that I, EDWARD K. VAN GORDEN, a citizen of the United States of America, residing at Horseheads, in the county of Chemung and State of New York, have invented certain new and useful Improvements in Attachable Runners, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention pertains to certain new and useful improvements in attachable runners for carriages, wagons, and other vehicles, the same being designed to be attached to the axles thereof when the wheels are removed, so as to convert the same into a sleigh.

The object of the invention is the provision of simple and highly-efficient means for rendering the runners adjustable, whereby the same are applicable to different-width tracks, and to provide means for allowing the runner to have a slight tilting movement for adjusting itself to any irregularity in the road-bed; and a further object of the invention is to provide means for so securing the lower arm of the runner that the same will be strengthened at the points of attachment.

The invention therefore comprises the detail construction, combination, and arrangement of parts, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of my invention. Fig. 2 is a side elevation thereof. Fig. 3 is a cross-sectional view on the line *x x*, Fig. 1; and Figs. 4 and 5 are detail views.

Referring to the drawings, A indicates a runner of ordinary construction, the same comprising the upper normally-horizontal bar, *a*, and the curved lower horizontal bar or arm, *a'*, to the under surface of which is secured by suitable means the steel plate a^2, as shown.

B is a bracket from whose upper end project four arms, the longitudinal arms *b b* of which project in opposite directions and are apertured at their outer flattened ends, through which apertures nutted bolts are inserted, also passed through corresponding apertures in the upper horizontal bar, *a*, of the runner, whereby said bar is braced or held in position. This bracket B at its lower end has two longitudinally-projecting arms, C C, the outer ends of which have short vertical flanges *d d*, which are designed to enclasp or hug the lower horizontal curved bar or arm, *a'*, and through the ends of these arms C are inserted nutted bolts *d' d'*, passed up through the plate a^2 and bar or arm *a'*, the nuts being fitted on the upper projecting ends thereof. The short vertical flanges on the ends of the arms C hug or enclasp the bar or arm *a'* at the points where the bolts are inserted, whereby the strength of said bar or arm at these points, instead of being weakened, as is ordinarily the case, is greatly strengthened, and the liability of the splitting thereof is prevented.

D D' are two transverse arms projecting from the upper end of the bracket B. The inner slightly-curved arm, D, is provided with a groove or recess and with a threaded extension, whereon is screwed a nut, *e*, while the outer end of the outer arm, D', is provided with two upwardly-projecting apertured ears or lugs, *e'*, as shown.

E is a T-shaped collar having a lower cylindrical portion, *f*, inserted on the outer grooved end of the arm D, the same being held thereon by the nut *e*, and in the outer ends of the normally-horizontal part of this T-shaped collar are formed apertures, through which the threaded ends of a clip, *f'*, are passed, said clip being passed over the axle F of the vehicle and secured at its ends by means of nuts f^2, whereby a firm connection is established between the axle of the vehicle and the arm D. By reason of cylindrical portion of the T-shaped collar secured on the rounded or grooved portion of the arm D the same is free to slightly move thereon, whereby the runners are permitted to tilt in practice, thereby adjusting itself to irregularities in the road-bed.

G is the axle-box, designed to be secured on the outer end of the axle F by means of the ordinary nut, *g*, and from the lower portion of this axle-box projects a check, *g'*, formed or cast integral therewith, said check being provided with a series of apertures, g^2, as shown. This apertured check is designed to fit between the two upwardly-projecting ears or lugs *e' e'* of the arm D', and is secured at the desired point by means of the nutted bolt g^3, passed through said ears or lugs and through any one

of the series of apertures of said check. By this arrangement the runner can be adjusted to different-width tracks by simply inserting the bolt through the desired one of the apertures of the check g', as is obvious.

From the foregoing description it will be seen that I have produced a runner that permits of the adjustment thereof to different-width tracks—one that is permitted to have a limited tilting movement, so as to conform to any irregularities in the road-bed, and by means of which the lower bar or arm of the runner is greatly strengthened at the point where it is ordinarily mostly impaired.

The advantages of my invention will be apparent to those skilled in the art to which it appertains, and it will be seen that my invention embodies advantages in parts of simplicity, durability, general efficiency, and inexpensiveness.

I claim as my invention—

1. The combination, with the bracket having an outwardly-projecting curved arm provided with a groove or recess, of the T-shaped collar having a lower cylindrical portion fitted in said groove or recess and an upper normally-horizontal portion, and the clip having its ends secured to said collar, substantially as shown and described.

2. The combination, with the bracket having the outwardly-projecting arms, one of which is provided with two opposite ears or lugs integral therewith, of the axle-box having the apertured cheek secured between said ears or lugs, the T-shaped collar having a lower cylindrical portion fitted on one of said arms and having an upper normally-horizontal portion, and the clip having its ends secured thereto, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD K. VAN GORDEN.

Witnesses:

SAYM HOLBERT,

JOHN BENNETT.