

No. 734,612.

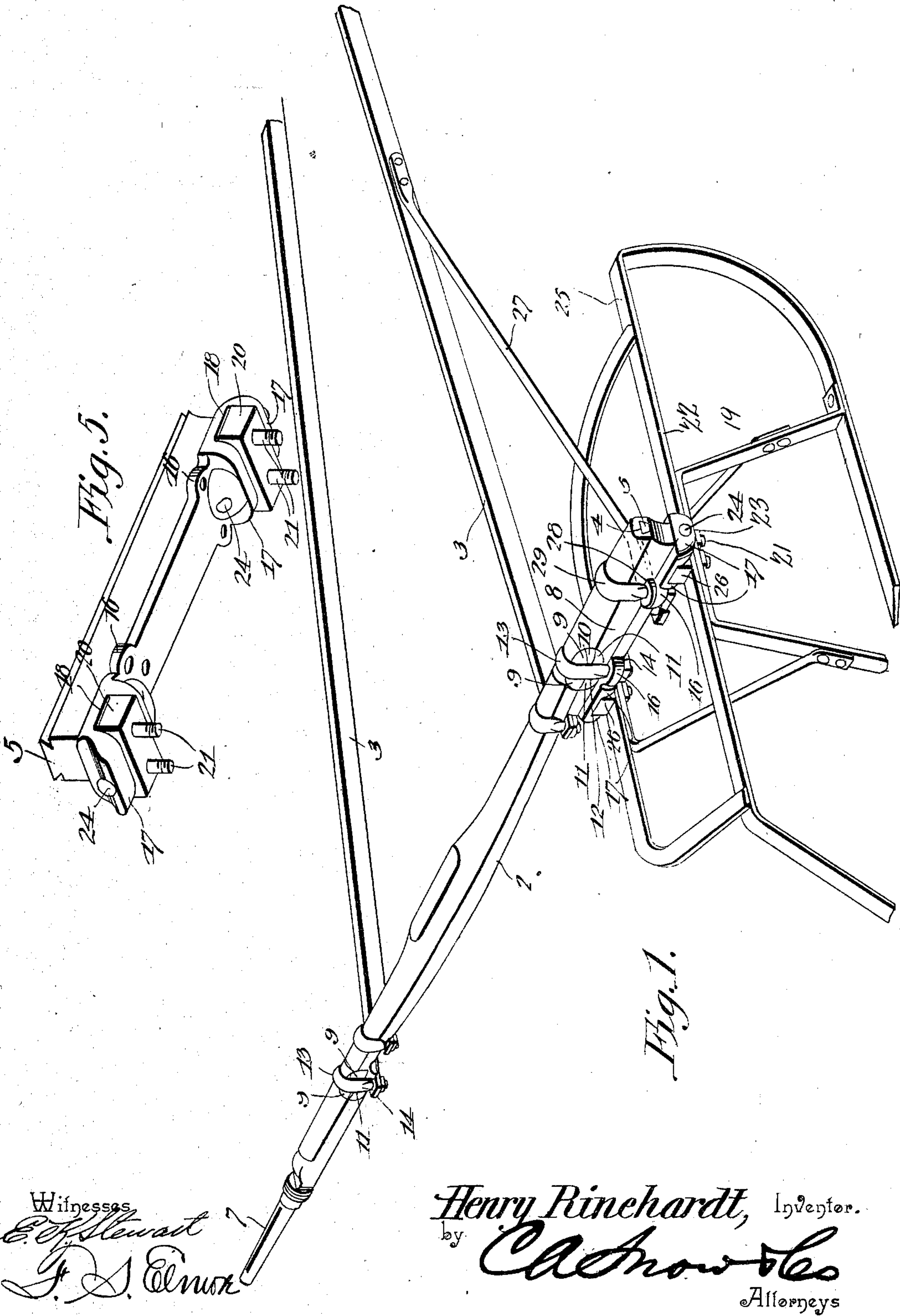
PATENTED JULY 28, 1903.

H. RINEHARDT.
RUNNER ATTACHMENT FOR VEHICLES.

APPLICATION FILED MAR. 21, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
E. H. Stewart
J. J. Elmer

Henry Rinehardt, Inventor.
by C. A. Snow & Co.
Attorneys

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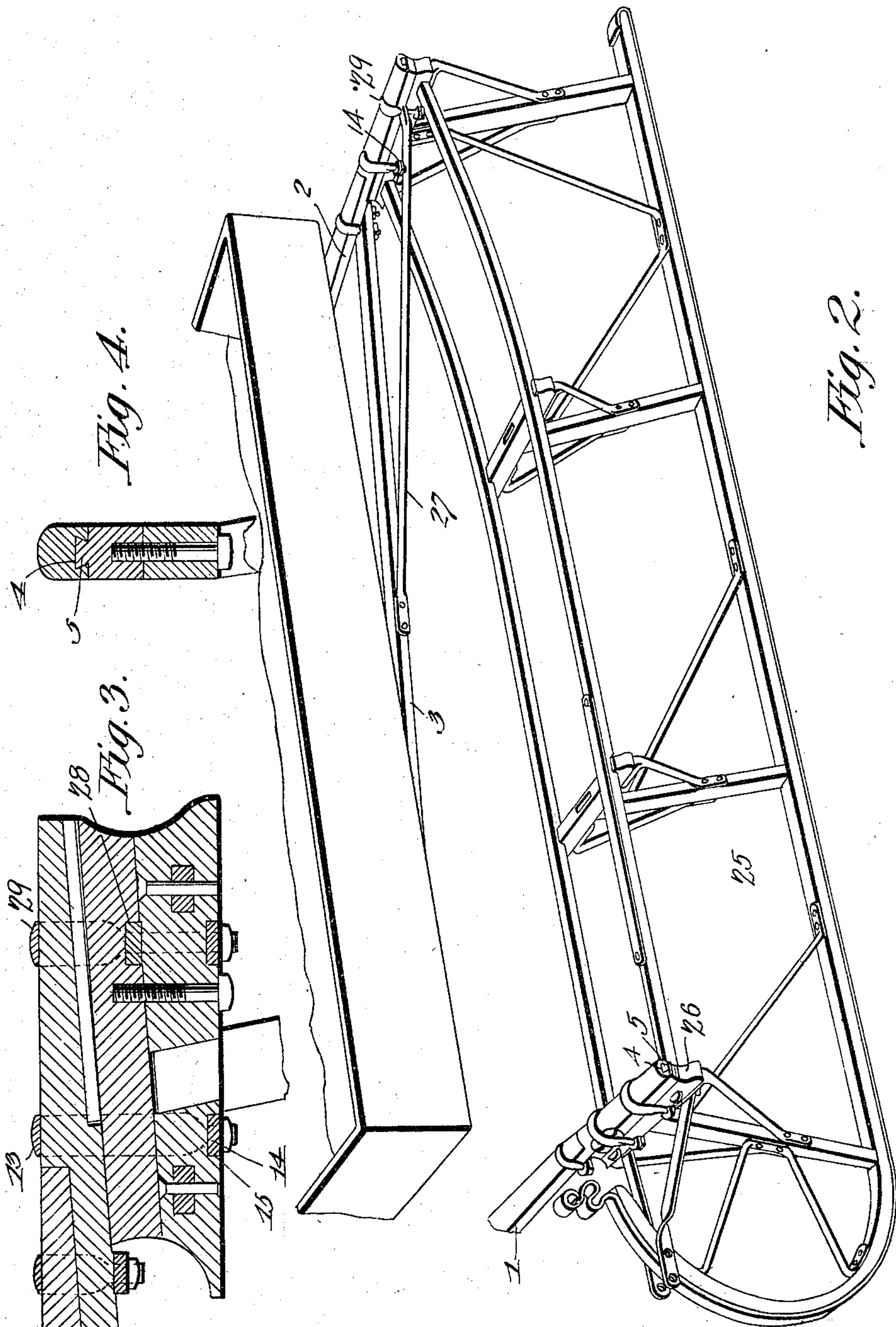
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by *Chas. Snow*
Attorneys

UNITED STATES PATENT OFFICE.

HENRY RINEHARDT, OF MONROE, WISCONSIN.

RUNNER ATTACHMENT FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 734,612, dated July 28, 1903.

Application filed March 21, 1903. Serial No. 148,972. (No model.)

To all whom it may concern:

Be it known that I, HENRY RINEHARDT, a citizen of the United States, residing at Monroe, in the county of Green and State of Wisconsin, have invented a new and useful Runner Attachment for Vehicles, of which the following is a specification.

My invention relates to runner attachments for vehicles, and has for its objects to produce a device of this character which may be readily applied to the vehicle-axle as a substitute for the usual wheel-spindle, and which when in position will be strong and rigid for all practical purposes and one in which the parts will be simple and inexpensive of construction and efficient in operation.

The invention comprises the details of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a perspective view of a vehicle running-gear, showing a bob-runner attached to the end of one of the axles in accordance with my invention and a wheel-spindle similarly attached to the other end. Fig. 2 is a similar view illustrating a cutter-runner attached at its ends to the respective axles in accordance with my invention. Fig. 3 is a vertical transverse longitudinal detail section on an enlarged scale. Fig. 4 is a vertical transverse detail section. Fig. 5 is a detail perspective view of the runner-supporting head.

Referring to the drawings, 1 indicates the front axle, 2 the rear axle, and 3 the reach-beams, of a vehicle running-gear. These parts may all be of the usual or any desired construction, with the exception of the changes made therein in accordance with my invention, as hereinafter set forth, and of any suitable material.

Each of the axles has formed in its under side and extending inward from its ends a suitable distance a central longitudinal dove-tailed groove 4, adapted to receive a dove-tailed tongue 5, formed on a removable member, which may be either in the form of a wheel-sustaining spindle 7 or a runner-supporting head 8. The axle is provided with laterally-projecting lugs 9, arranged in pairs on either side to form vertically-disposed recesses 10, and the removable members are each provided with similar lugs 11, forming

recesses 12, which when the member is in position on the axle register with the recesses 10 to receive a U-shaped clip 13, having screw-threaded lower ends which receive a cross-piece 14, engaging a transverse groove 15 in the under side of the removable member, the cross-piece being held in engagement with the clip by means of nuts tapped thereon. By this means the parts are not only securely braced and strengthened, but are also locked against longitudinal movement to prevent accidental escape of the removable member from the axle. By this construction it is obvious that when it is desired to employ wheels on the vehicle the runner-supporting heads may be quickly removed and the wheel-sustaining spindles substituted, or vice versa. The runner-sustaining head is provided with lateral horizontally-disposed perforated ears 16, which receive the lower threaded ends of the U-shaped clamps for clamping the head to the axle, and is further provided with vertically-disposed perforated ears 17, depending from its lower face and arranged in pairs, one pair at either end of the head. These ears are spaced apart to form recesses 18, which when it is desired to attach to the vehicle a bob-runner 19, as illustrated in Fig. 1, receive blocks 20, provided with vertically-depending threaded spindles 21, adapted to be tapped through the top bar 22 of the runner and to receive clamping-nuts 23, which lie beneath the top bar to pivotally attach the runner to the head. The blocks 20 are pivoted in the recesses 18 by means of horizontal bolts 24, extended through the perforated ears 17, and similar perforations formed transversely through the body of the block. The upper face of the block, which lies adjacent to the lower face of the runner-head, is curved longitudinally from end to end to permit of the block having a certain amount of play or movement on its pivoting-bolt to permit the runner to give freely under the influence of surface irregularities or the like without straining the parts. When it is desired to attach to the axle a cutter-runner 25, the members carrying blocks 20 are removed and the groove 4 of the axle receives instead a tongue 5, formed directly on the cross-bar 26 of the runner, which in turn is engaged by the U-shaped clip 13, as above described.

27 indicates metal brace-bars or hounds attached to the reach-beams 3 of the vehicle by bolts or otherwise at their inner ends and having their outer ends extended through
5 slots 28, formed transversely through the runner-supporting head 8 near its outer end and engaged by U-shaped axle-clips 29, having threaded lower ends passed through suitable perforations in the end of the hound and en-
10 gaged by suitable nuts.

From the foregoing description it will be seen that I produce a device which may be readily applied to or removed from a vehicle-axle and one which when in position will
15 be strong and rigid, and in attaining these ends I do not limit or confine myself to the details herein shown and described, as various changes may be made therein without departing from the spirit or scope of my in-
20 vention.

Having thus described my invention, what I claim is—

1. In a device of the class described, the combination with an axle having a longitudi-
25 nal dovetailed groove formed directly there-

in and lateral spaced lugs forming recesses, of a removable member provided with a dovetailed tongue adapted to engage the groove, said member also provided with lateral spaced
lugs forming recesses adapted to register with
30 the recesses of the axle, and a clamping member embracing the parts and engaging in the recesses between the lugs.

2. In a device of the class described, the combination with an axle provided with a
35 longitudinal dovetailed groove formed directly therein, of a removable member provided with a longitudinal dovetailed tongue adapted to engage the groove, a clamping member embracing the parts, vertically-de-
40 pending ears carried by the said removable member, blocks pivoted between the ears, and runners carried by the blocks.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in
45 the presence of two witnesses.

HENRY RINEHARDT.

Witnesses:

ANDREW SHARER,
WILL METCALF.