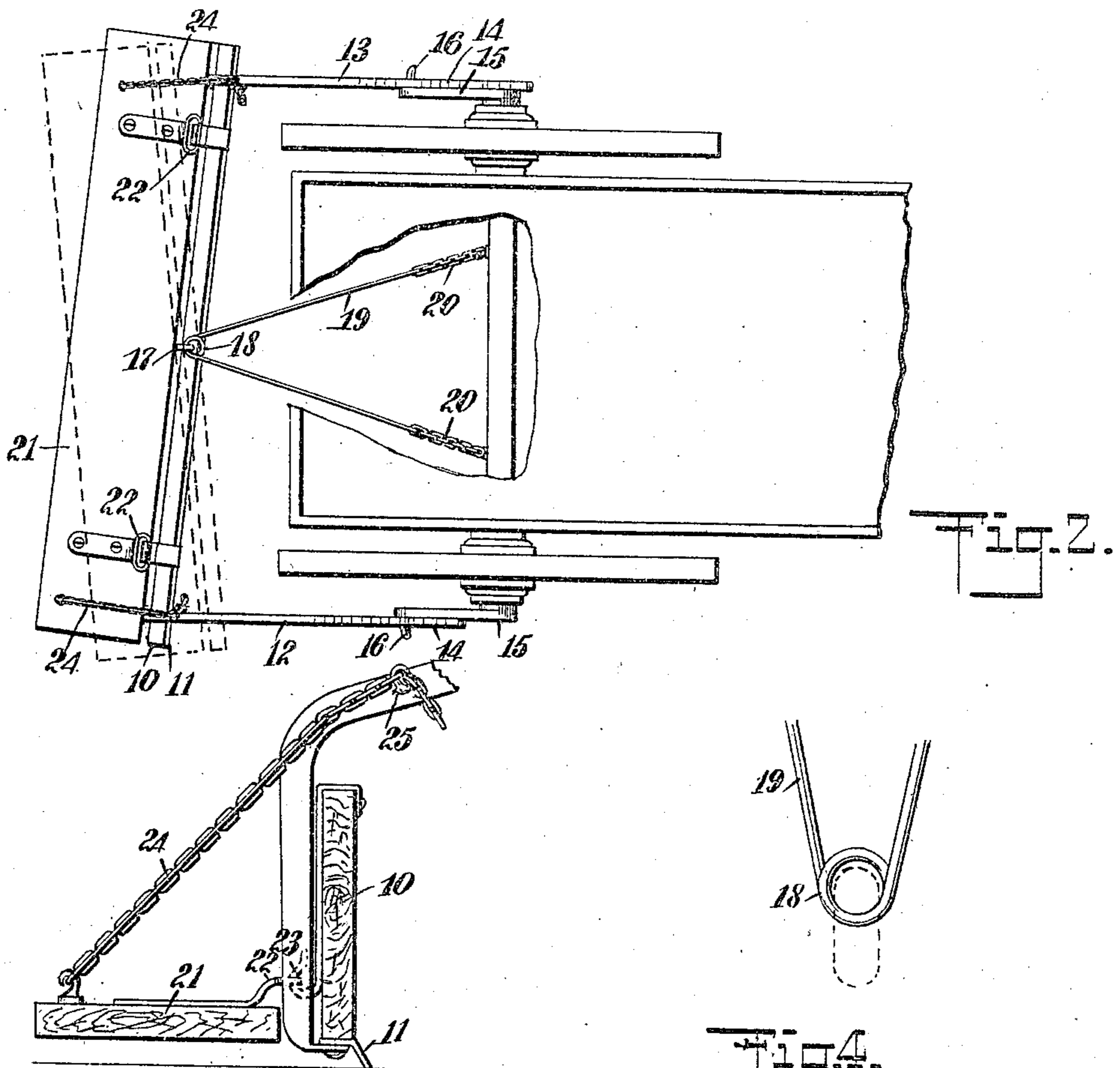
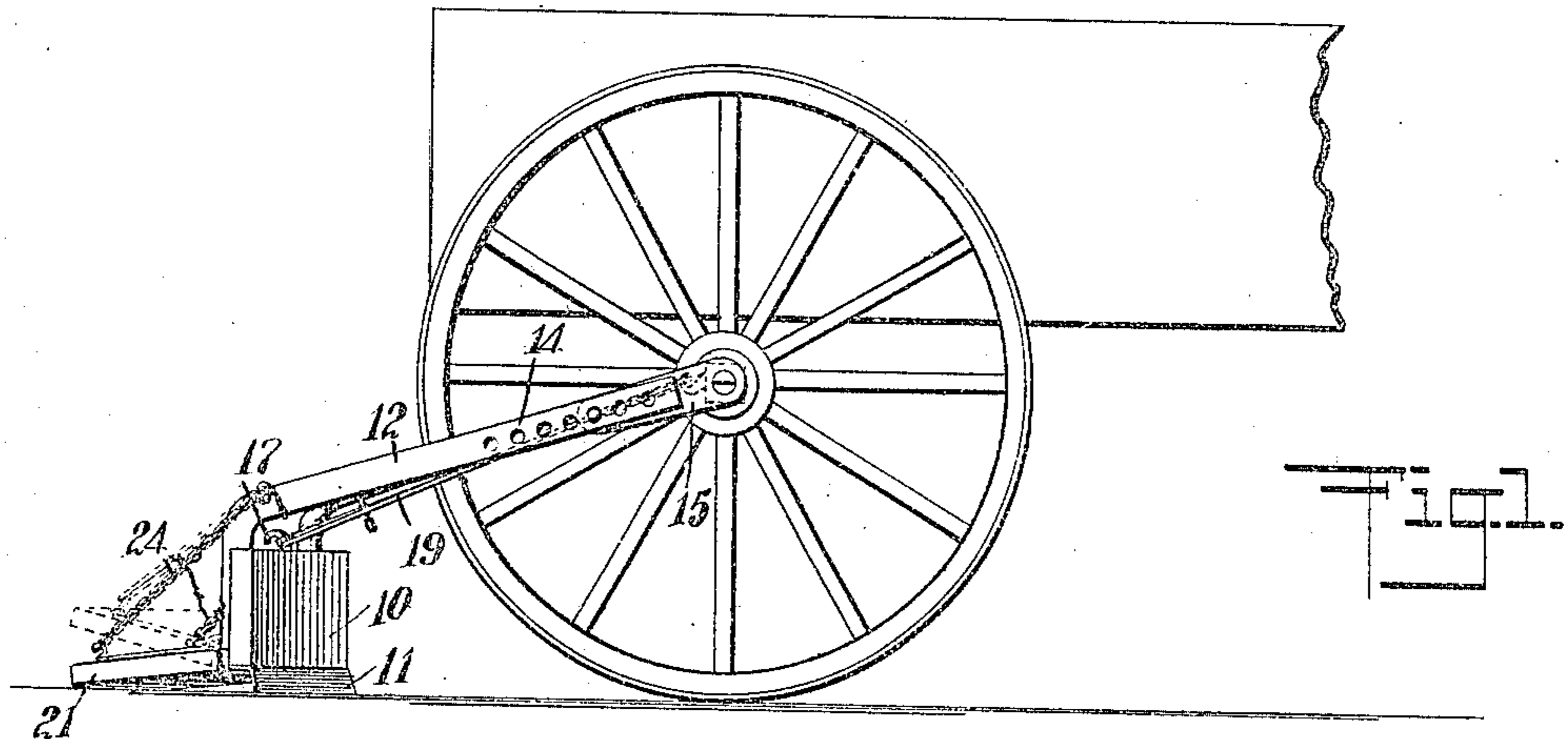


F. W. LECHNER.
ROAD SMOOTHING DEVICE.
APPLICATION FILED JULY 13, 1909.

952,338.

Patented Mar. 15, 1910.



WITNESSES
Ben. J. [Signature]
C. W. Fairbank

Fig. 4.
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UNITED STATES PATENT OFFICE.

FREDERICK W. LECHNER, OF WENONA, ILLINOIS.

ROAD-SMOOTHING DEVICE.

952,338.

Specification of Letters Patent. Patented Mar. 15, 1910.

Application filed July 13, 1909. Serial No. 507,297.

To all whom it may concern:

Be it known that I, FREDERICK W. LECHNER, a citizen of the United States, and a resident of Wenona, in the county of Marshall and State of Illinois, have invented a new and Improved Road-Smoothing Device, of which the following is a full, clear, and exact description.

This invention relates to road-scraping and smoothing devices adapted to be drawn over wagon roads, or by attaching them to ordinary vehicles or to vehicles especially designed for the purpose. A device of this type is shown in my prior patent No. 848,472, issued March 26, 1907.

One object of my present invention is to provide an improved form of scraping device which may be adjusted angularly to direct the dirt toward the center or toward the side of the road, as may be desired.

A further object is to provide an improved platform which may carry a person or a weight to increase the scraping action of the blade, or which may be allowed to drag on the ground to smooth the ground behind the scraper.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures, and in which—

Figure 1 is a side elevation of a device constructed in accordance with my invention; Fig. 2 is a top plan view thereof; Fig. 3 is an enlarged end view; and Fig. 4 is a detail showing a portion of the smoother securing means.

In the specific form illustrated I provide a transverse beam or scraper 10, preferably formed of wood and having a lower cutting edge formed of an angle iron 11. This scraper is adapted to be secured in place behind a vehicle, so that its lower edge will rest on the ground. I preferably connect it directly to the axle of a vehicle and employ two side arms 12 and 13 connected to the ends of the scraper and to the ends of the axle. To prevent the scraper from turning over, these arms preferably extend down across the rear sides of the scraper and are secured to the under edge of the latter, as shown particularly in Fig. 3. Each arm is formed of two sections 14 and 15, one of which is secured to the scraper as above indicated and the other of which is secured to

the end of the axle. The section 14 is provided with a series of apertures therein and the section 15 is provided with an outwardly-extending hook or projection 16 adapted to enter any one of these apertures so as to detachably and adjustably connect together the two sections of the arm. By varying the adjustment of the two arms, the scraper may be secured at right angles to the general direction of movement of the vehicle, or may be inclined in either direction, so as to deflect or direct toward either end of the scraper the dirt raised by the cutting edge 11. These arms do not receive the entire strain of the scraper, but serve largely to insure its remaining at the desired angle.

For holding the scraper intermediate its ends, I provide the scraper at its upper edge and intermediate its ends with a rearwardly-extending hook 17, adapted to engage in a ring 18. This ring is formed by a loop in a wire 19, the opposite ends of which extend toward the axle and terminate in short chain sections 20 adapted to be detachably connected to the axle. The rearward pull of the scraper is largely taken up by the wire and chain sections, while the side arms 12 and 13 hold the scraper at the desired angle.

Pivotaly connected to the scraper upon its rear surface and adjacent the lower edge, is a platform 21 adjustable in respect to the scraper and adapted to receive a weight or to support a person. This platform is provided with loops or eyelets 22 adjacent its front edge and near its opposite ends, and these loops are adapted to engage with hooks 23 carried by the scraper. The hooks may extend upwardly and over the upper edge of the scraper, so as to aid in reinforcing and strengthening the latter. Chains 24 extend from the ends of the platform adjacent the rear edge thereof upwardly to the two arms 12 and 13, where they may be detachably secured to suitable hooks 25. By adjusting the chains 24, the platform may be supported substantially at right angles to the scraper or with its rear edge inclined upwardly, so that it may carry any desired weight to aid in holding the scraper in firm engagement with the ground. If desired, the chains may be detached or loosened so that the rear edge of the platform will engage with the ground and tend to smooth the latter after the scraper has passed over

it. Even in this lowered position, it may bear a weight or a person may stand on it, to facilitate the smoothing action.

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

1. A road-smoothing device, including a scraper, arms attached thereto and adapted to be secured to a vehicle, a platform having its front edge pivotally secured to the lower edge of the rear side of the scraper, and adjustable means for supporting the rear edge of said platform.

2. A road-smoothing device, including a scraper, arms attached thereto and adapted to be secured to a vehicle, a platform having its front edge pivotally secured to the lower edge of the rear side of the scraper, and chains connected to the rear edge of the platform and adjustably supported adjacent the upper edge of the scraper.

3. A road-smoothing device, including a scraper, arms attached thereto and adapted to be secured to the ends of the axle of the vehicle and of adjustable length to permit a variation of the angle of the scraper in respect to the vehicle, and a platform carried by said scraper.

4. A road-scraping and smoothing device, comprising a scraper having a lower cutting edge, arms secured to the end of said scraper and adapted to be detachably secured to a

vehicle, each of said arms being of variable length to vary the angle of the scraper in respect to the vehicle, and means intermediate said arms for connecting said scraper to said vehicle.

5. A road scraping and smoothing device, comprising a scraper having a lower cutting edge, arms secured to the end of said scraper and adapted to be detachably secured to a vehicle, each of said arms being of variable length to vary the angle of the scraper in respect to the vehicle, and means intermediate said arms for connecting said scraper to said vehicle, said last-mentioned means comprising a wire having a loop in engagement with the upper edge of the scraper intermediate its ends and chain connections connecting the ends of said wire to the vehicle.

6. A device of the class described, comprising a scraper, means for connecting the same to a vehicle, a platform adjustably connected to the rear side of said scraper adjacent the lower edge thereof, and means supporting the rear edge of the platform.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK W. LECHNER.

Witnesses:

J. P. KLIEBER,

Mrs. J. P. KLIEBER.