

No. 810,874.

PATENTED JAN. 23, 1906.

J. D. MARTIN.  
DITCHER AND ROAD GRADER.  
APPLICATION FILED JULY 18, 1905.

2 SHEETS--SHEET 1.

Fig. I.

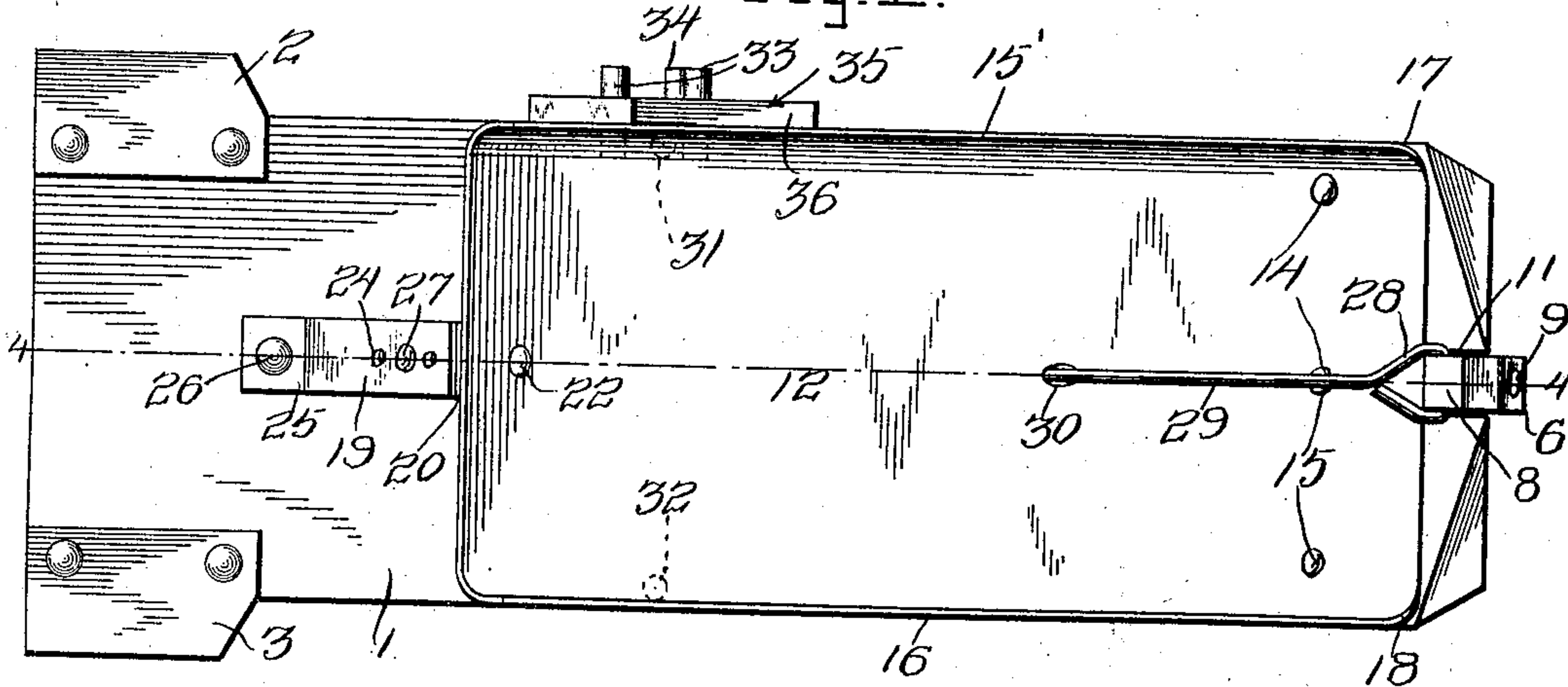
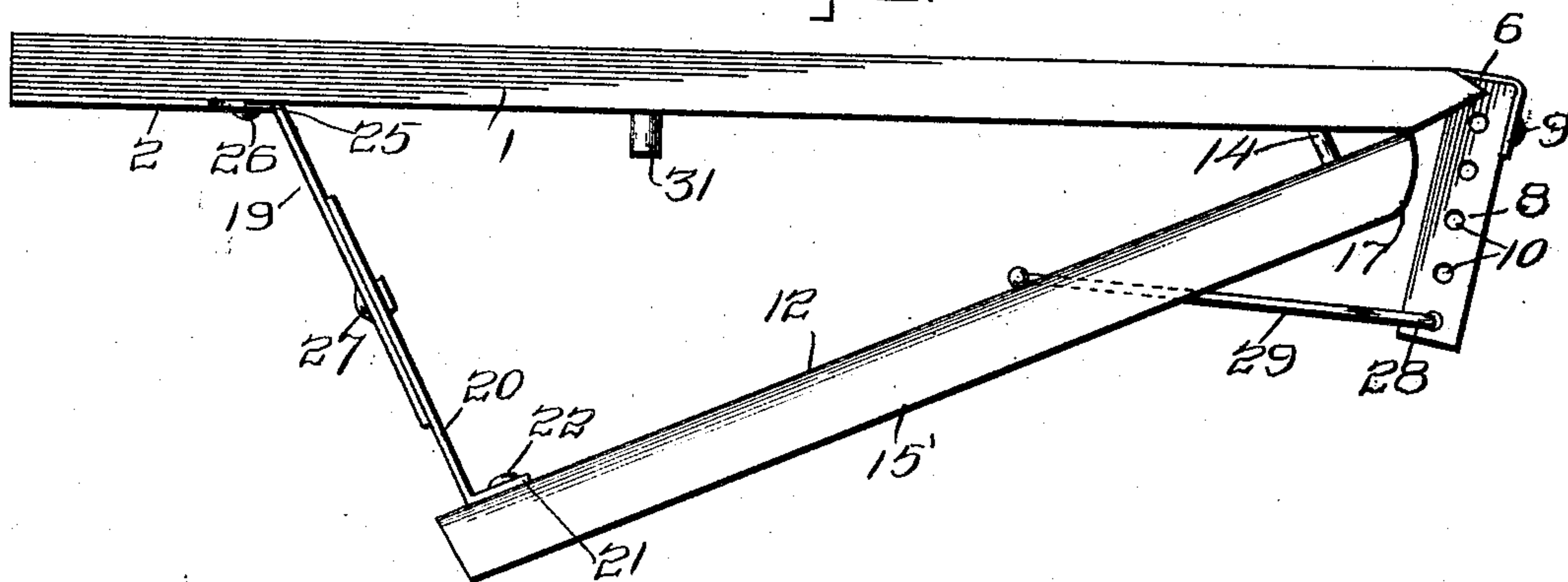


Fig. 2.



Witnesses  
C. H. Reichenbach.  
E. M. Delford.

Inventor

J. R. Martin.

334 *Chamaeleon Chamaele*

Attorneys.





# UNITED STATES PATENT OFFICE.

JOHN D. MARTIN, OF HAYNESVILLE, KENTUCKY.

## DITCHER AND ROAD-GRADER.

No. 810,874.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed July 18, 1905. Serial No. 270,264.

*To all whom it may concern:*

Be it known that I, JOHN D. MARTIN, a citizen of the United States, residing at Haynesville, in the county of Ohio, State of Kentucky, have invented certain new and useful Improvements in Ditchers and Road-Graders; 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 appertains to make and use the same.

This invention relates to a ditching and road-scraping machine.

One object of the invention is to provide an exceedingly simple, inexpensive, durable, and efficient device of the nature stated embodying such characteristics that it may throw the dirt upon one side regardless of the direction of travel of the device.

A still further object of the invention is to provide a device of the character stated wherein the parts thereof will be so associated as to provide for a reversible ditcher or road-scrapers.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will hereinafter be more fully described, shown in the accompanying drawings, and more particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the present invention.

In the drawings, Figure 1 is a side elevation of the invention. Fig. 2 is a top plan view with the seat removed. Fig. 3 is a rear view with the seat in position. Fig. 4 is a sectional view on the line *a a* of Fig. 1, and Fig. 5 is a detail view of the seat.

Referring now more particularly to the accompanying drawings, the reference character 1 designates a runner having upper and lower blades 2 and 3 at one end and a groove 5 in the outer face of its opposite end. These blades 2 and 3 are designed to guide the runner and prevent sidewise movement of the latter, the said groove 5 being designed for the reception of a metallic iron 6, which is secured in said groove at one end by means of a suitable fastening 7, the opposite end of the said iron 6 being secured to the outer face of a draft-attaching device 8 by means of suitable fastenings 9, the said attaching member 8 being provided with a series of perforations 10,

whereby the draft appliance may be adjustably secured thereto, the inner end of said attaching part 8 being disposed in a notch 11, formed in the forward end of the runner 1 and entering the aforesaid groove 5. The angle member 6 is preferably of resilient metal to permit of a lateral swinging movement of the said attaching device 8 with respect to the runner 1 for a purpose presently explained.

A scraping-blade 12 has its inner end provided with perforations 13, through which are passed suitable fastenings 14, which fastenings are headed, as at 15, with their shank portions fitting loosely in the perforations 13 and piercing the inner face of the runner. This scraping-blade 12 has its upper and lower longitudinal edges bent outwardly from the body of the scraping-blade, as indicated by the reference characters 15' and 16, respectively. These outwardly-directing flanged portions 15' and 16 cooperate, respectively, with the upper and lower edges of the runner 1 according to the position of the latter, the forward edges of the flanges 15' and 16 being curved, as indicated by the reference characters 17 and 18, respectively.

In order to adjust the outer edge of the runner 1 and the scraping-blade 12 toward and away from each other, I provide spacing-brackets 19 and 20, the bracket 20 having its foot portion 21 secured to the rear end of the scraping-blade 12 by means of a suitable fastening 22 and provided in its body portion with a series of perforations 23 in alignment with the perforations 24 of the bracket 19, whose foot 25 is secured to the inner face of the runner 1 by means of a suitable fastening 26, there being a bolt and nut 27 for engagement in corresponding alining perforations 23 and 24 of the brackets to hold the latter together. By reason of the said perforations in the brackets and the inner end of the scraping-blade being loosely connected at its inner end to the runner 1 it is obvious that the rear end of the blade and runner may be adjusted toward and away from each other as desired. Connecting the outermost perforation of the draft-attaching device 8 is the hooked end 28 of a rod 29, whose opposite end is slidably engaged in the perforation 30 of the scraping-blade 12.

Disposed upon the inner face of the runner 1 at the upper and lower edges thereof are pins 31 and 32, respectively. These pins are arranged intermediate the ends of the runner



1 and are designed to cooperate interchangeably with the pins 33 and 34, which project from both faces of the seat 35 and prevent undue backward or forward movement of the latter with respect to the device. Since the device is reversible—that is to say, can have either of the guide-plates 2 or 3 in engagement with the ground—it is obvious that the seat 35 sometimes rests upon the upper edge of the runner 1, with its pins 33 engaging the inner face of the runner upon opposite sides of its pin 31, with the pin 34 engaging the outer face of the runner, and beveled end 36 of the seat upon the upper flange 15' of the scraping-blade. Now when the device is turned over, so that the guide-plate 2 will be in engagement with the ground, it is obvious that the seat must first be removed and then placed upon what was before the lower edge of the runner, with the pins of the seat cooperating with the inner and outer faces of the runner and the pin 32.

From the foregoing it will be understood that the device is of a reversible nature—that is to say, that if the device is being pulled or driven, as shown in Fig. 1, the dirt may be thrown upon one side of the device. Now in order to throw the dirt upon the same side when the device is being driven or pulled in an opposite direction it is simply necessary to turn the device over completely on its forward edge, so that the scraping-blade 12 will still be upon the same side of the runner 1. Of course in order to throw the dirt upon the opposite side it is merely necessary to turn the device laterally with respect to the road-bed.

What is claimed is—

1. A reversible device of the character described comprising a runner having upper and lower guide-plates at its rear end, grooves in the outer face of its forward end, a ditching-blade connected at its inner end with the inner end of the runner for swinging movement with respect to the latter, a resilient strip secured at one end in the aforesaid groove, a draft-attaching device secured to the opposite end of the said resilient strip, the attaching device having a series of perforations therein, a rod connecting said attaching device and the scraper-blade, brackets adjustably connecting the rear end of the runner and the scraper-blade and a seat constructed and arranged for engagement with the upper and lower edges of the runner and scraper-blade.

2. A reversible device of the character described, comprising a runner, a scraper-blade secured at its inner end to the inner end of the runner for swinging movement with respect to the latter, the rear end of the scraper-blade diverging from the runner, brackets secured to the outer end of the scraper-blade and the runner, and a seat constructed to engage the upper or lower edges of the runner and the scraper-blade.

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

JOHN D. MARTIN.

Witnesses:

W. A. STINNETT,  
J. B. JULES.