No. 841,794. PATENTED JAN. 22, 1907.

C. H. LINE.

WEED CUTTING ATTACHMENT.

APPLICATION FILED AUG. 16, 1906.

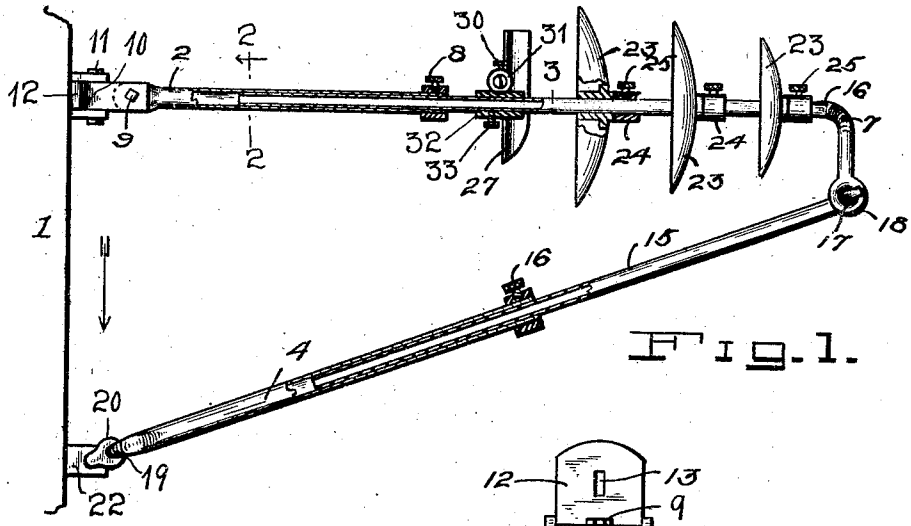


Fig. 1.

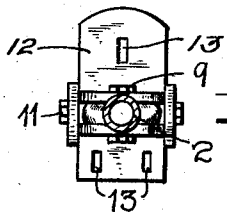


Fig. 2.

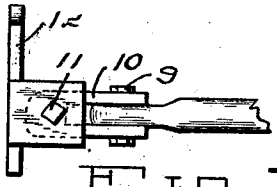


Fig. 3.

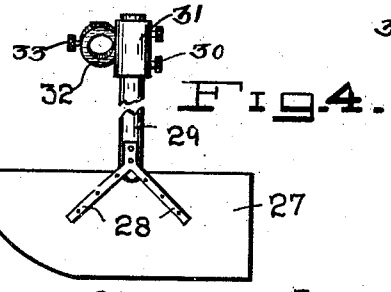


Fig. 4.

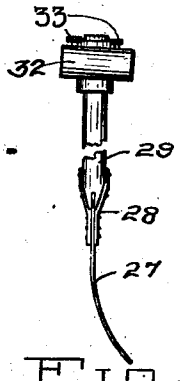


Fig. 5.

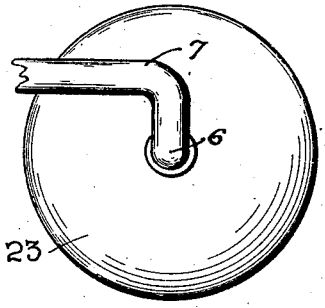


Fig. 6.

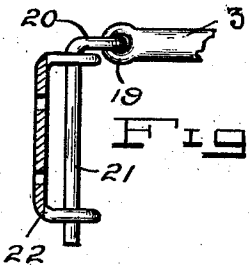


Fig. 7.

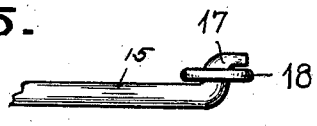


Fig. 8.

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UNITED STATES PATENT OFFICE.

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WEED-CUTTING ATTACHMENT.

No. 841,784. Specification of Letters Patent. Patented Jan. 22, 1907.

Application filed August 16, 1906. Serial No. 330,809.

To all whom it may concern:

Be it known that I, CHARLES H. LINE, a citizen of the United States, residing at Vermilion, in the county of Clay and State of South Dakota, have invented certain new and useful Improvements in Weed-Cutting Attachments; and I do 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 is a device adapted to be mounted upon a railway hand-car or any other railway-car for the purpose of cutting weeds along a railway-track or otherwise operating upon the sides of the road-bed of the track.

The object of the invention is to provide a simple and practical device of this character which may be readily attached to a hand-car or other railway-car and adjusted so that its cutters may be disposed at any distances from the track or rails to cut the weeds, or build up or reduce the gravel, dirt, or other ballast of the road-bed.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a top plan view, partly in section, of the improved weed-cutting attachment, showing it mounted upon the side of a hand-car or the like. Fig. 2 is a detail vertical section taken on the plane indicated by the line 2 2 in Fig. 1 and showing one of the couplings by means of which the device is applied to the car. Fig. 3 is a side elevation of the parts shown in Fig. 2. Fig. 4 is a side elevation of one of the cutting devices. Fig. 5 is a front end elevation of the same. Fig. 6 is a detail view showing the outermost cutting-disk and the offset outer end of the rod upon which it is mounted. Fig. 7 is a detail elevation, partly in section, of the coupling by means of which one of the rods is connected to the car; and Fig. 8 is a detail view showing the detachable connection for one of the rods of the device.

Referring to the drawings, 1 denotes a portion of one side of a hand-car or other railway-car, to which is attached the improved weed-cutting attachment. The latter consists, in part, of two tubular arms which have their inner ends pivotally connected to the car 1, so that they may swing both vertically and horizontally. The rear arm consists of an inner tubular section 2 and an outer section 3, which telescopes into the section 2 and has at its outer end an offset portion 7, as shown in Figs. 1 and 6. The inner end of the section 3 is adjustably secured in the section 2 by a set-screw 8, provided in a collar or sleeve upon the outer end of said section 2. The inner end of the latter is apertured to receive a vertical pivot 9, which also extends through a U-shape plate or clip 10, which is in turn mounted upon a horizontal pivot 11, provided in lugs upon a bracket-plate 12. This plate is adjustably mounted upon the side of the car 1 by bolts or the like passed through vertical slots 13 formed in it, as seen in Fig. 2. The front arm of the device also comprises a tubular inner section 4, within which telescopes an outer section 15, adapted to be adjustably secured by a set-screw 16 in the collar or sleeve upon the section 4. The outer end of the section 15 is formed with an offset portion or hook 17, which is adapted to enter an eye 18, formed in the elevated rearwardly-extending portion 7 of the rod 3. The hook 17 and eye 18 provide a loose pivotal connection between the outer ends of the sections 3 and 15 and permit them to be readily disconnected. The inner end of the section 4 is formed with an eye 19, which is engaged by an eye 20 upon the upper end of a pivot-bolt 21. The latter is detachably engaged with alining apertures in the ends of a substantially U-shaped bracket-plate 22. This plate or bracket is disposed vertically and secured by screws, bolts, or the like upon the side of the car 1, as shown in Fig. 1.

Weed-cutting and earth-working devices of any description may be mounted upon either or both of the sections 3 and 15; but I preferably adjustably secure upon the outer section 3 of the rear section 2 one or more rotary disks or cutters 23. These disks have their hubs rotatively mounted upon the section 3, and their endwise movement on said section is prevented by stop-collars 24, which are adjustably secured by means of set-screws 25.

The size, number, and arrangement of the disks may be varied according to the work which the device is to perform; but when a number of the disks are employed they are preferably graduated in size, as shown in Fig. 1. In addition to the rotary disks I may em-

ploy the stationary cutter-blade 27. (Shown in Figs. 1, 4, and 5 of the drawings.) This blade is curved transversely with a rounded front edge and is secured by straps 28 in a kerf in the lower end of a standard 29. The latter is adjustably secured by set-screws 30 in a tubular socket 31, provided upon a sleeve 32, which is adjustably mounted upon the section 3 of the rod 2 by a set-screw 33.

In operation the inner ends of the sections 2 and 4 are mounted upon the side of the car 1, as shown in Fig. 1. The cutting blades or devices are then secured in their proper position upon the section 3 according to the work which it is desired the device to perform, and the sections 3 15 of the rods are secured in the tubular sections 2 and 4, so that said sections 3 and 15 will be disposed at the desired angle with respect to each other and the car 1. By varying the angle of the section 2 with respect to the side of the car it will be seen that the cutters may be disposed at any desired angle.

By reason of the various adjustments the device may be used for cutting weeds or other vegetable growth along a railway-track at any distance from its rails and their cross-ties. It may also be used for shouldering up the gravel, dirt, or other ballast of the track. When not in use, it may be swung to a vertical position, or, if desired, detached from the side of the car. It will also be noted that by properly adjusting its parts it may be used for cutting away the gravel or earth at the sides of the track, throwing the same outwardly.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined by the appended claims.

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

1. The combination with a car, of an extensible frame projecting from one side of said car, and a plurality of rotary cutting-disks adjustably mounted upon said frame.

2. The combination with a car, of arms connected together at their outer ends and to said car at their inner ends to swing vertically, and cutters adjustably mounted upon one of said arms.

3. The combination with a car, of extensible arms loosely connected at their outer ends, couplings connecting the inner ends of said arms to said car, and a cutter upon one of said arms.

4. The combination with a car, of arms each consisting of telescoping sections, the outer sections being loosely connected, universal couplings connecting the inner sections to said car, and a cutter carried by the outer section of one of said arms.

5. An attachment of the character described comprising extensible arms loosely connected at their outer ends, couplings at their inner ends, and a cutter upon one of the arm-sections.

6. An attachment of the character described comprising extensible arms each consisting of telescoping sections, the outer sections being loosely connected, couplings carried by the inner sections of the arms and a cutter adjustably mounted upon the outer section of one of the arms.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES H. LINE.

Witnesses:

THOS. CRUICKSHANK,

CHARLES J. GUNDERSON.