C. L. WALL.

BLADE HARROW.

APPLICATION FILED NOV. 17, 1909.

963,670.

Patented July 5, 1910.

2 SHEETS—SHEET 1.

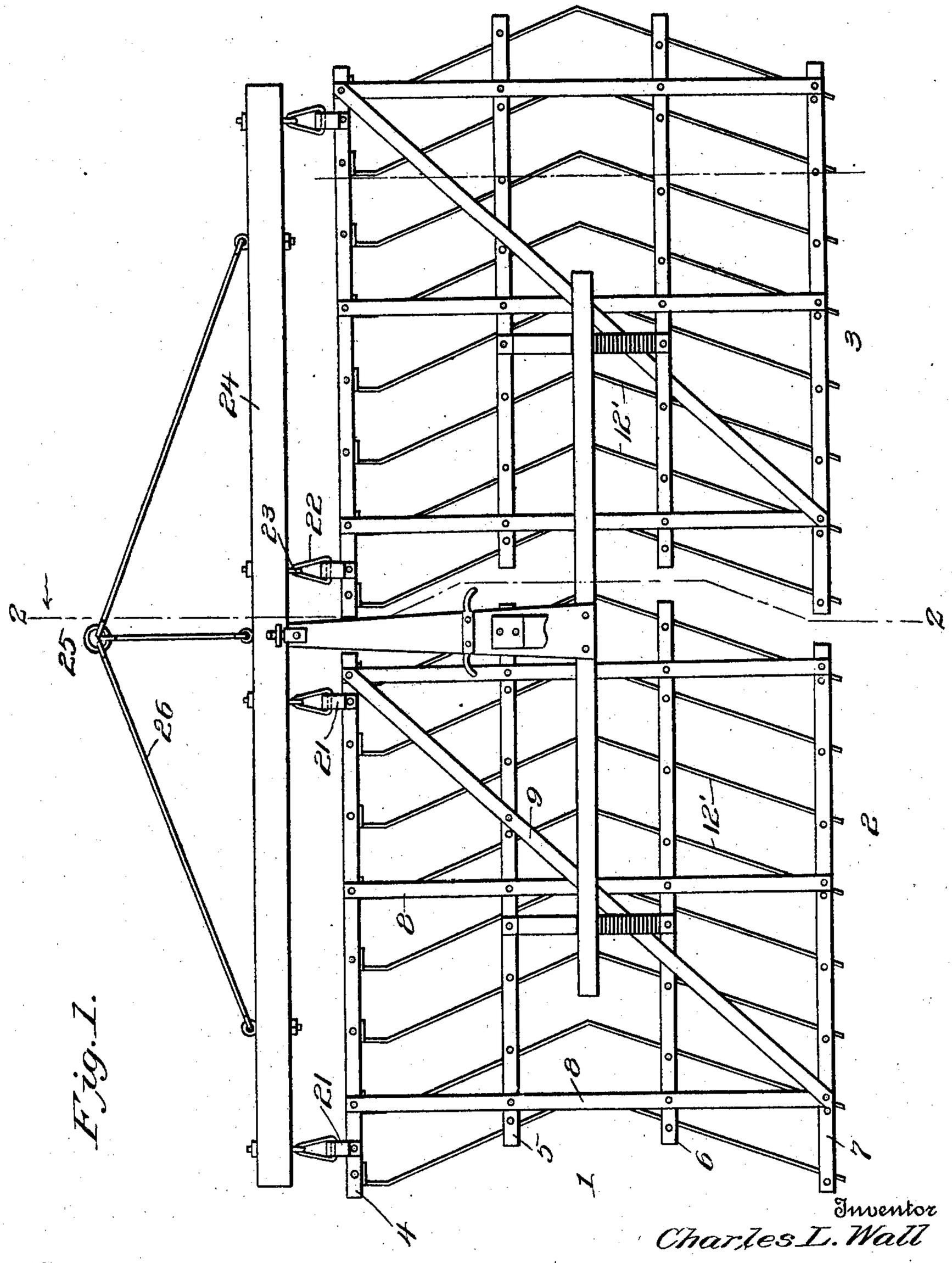

Fig. 1.

Witnesses

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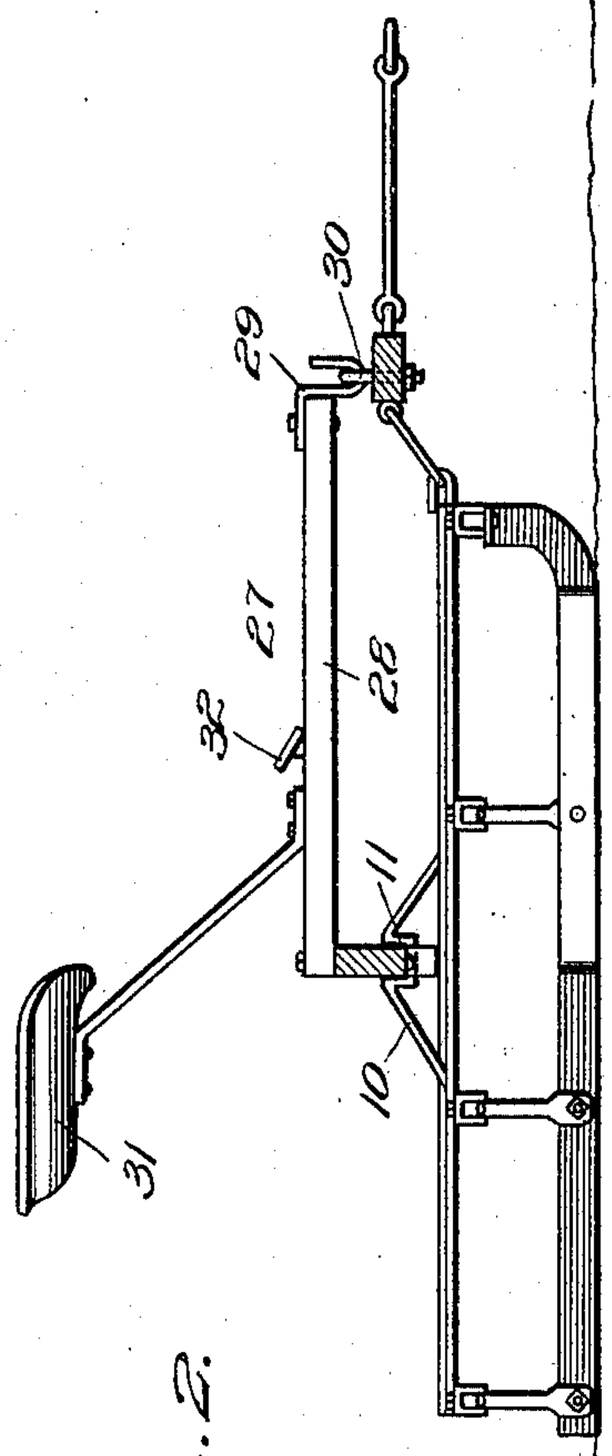

Fig. 2.

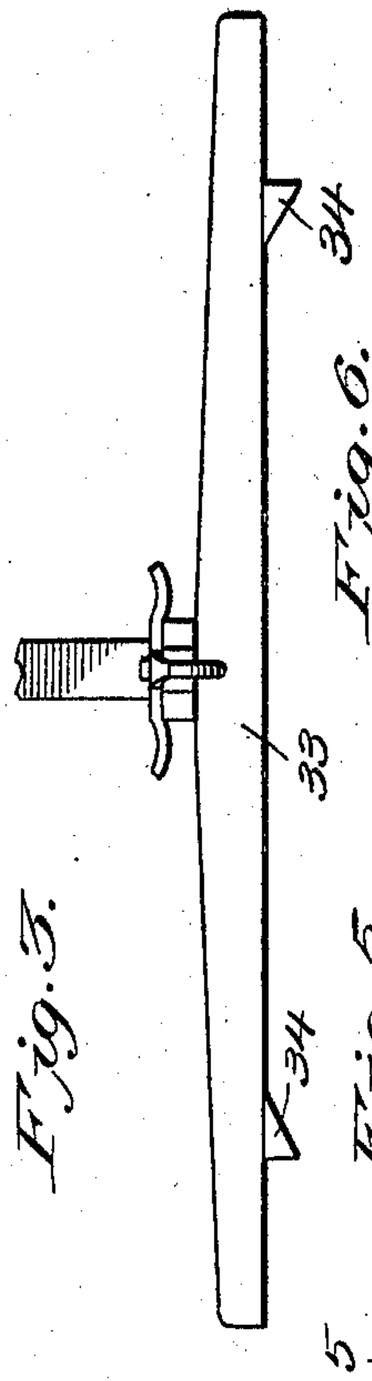

Fig. 3.

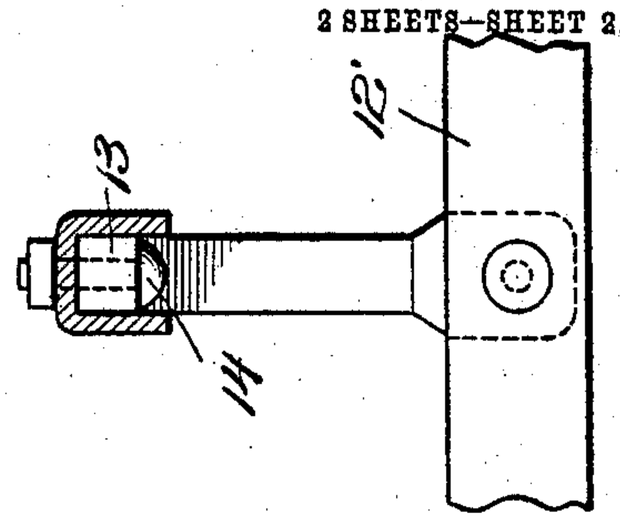

Fig. 7.

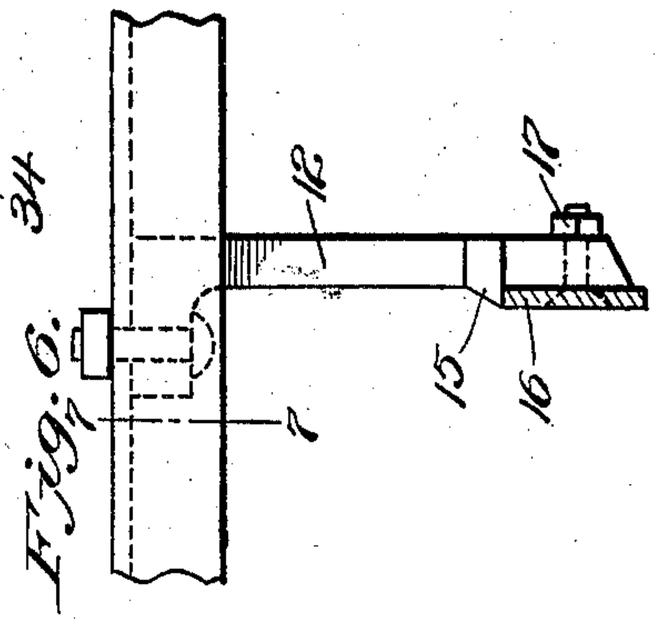

Fig. 6.

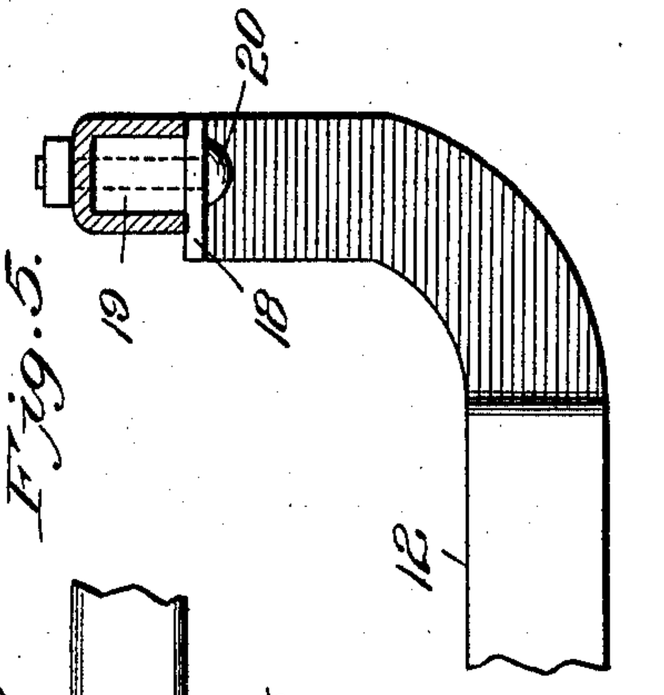

Fig. 5.

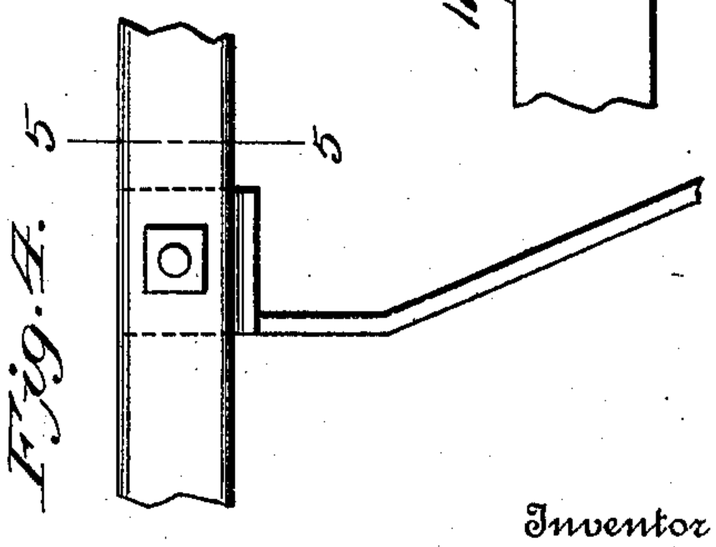

Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES L. WALL, OF LAWRENCE, KANSAS.

BLADE-HARROW.

963,670. Specification of Letters Patent. **Patented July 5, 1910.**

Application filed November 17, 1909. Serial No. 528,509.

To all whom it may concern:

Be it known that I, CHARLES L. WALL, a citizen of the United States, residing at Lawrence, in the county of Douglas and State of Kansas, have invented new and useful Improvements in Blade-Harrows, of which the following is a specification.

This invention relates to blade harrows, and the object of the invention is to simplify and improve the existing art by providing a device of this character intended for use in preparing ground for a better seed bed, for cultivating listed corn, etc., the device being so constructed as to scrape the dirt off high places and deposit it in the depressions so as to provide a level field.

Another object of the invention is to provide a device of this character having its blades so constructed and arranged as to pulverize the dirt by rolling it from one blade toward the adjacent blade, and which at the same time provides a ready outlet for trash gathered with the dirt.

With the above, and other objects in view which will be more apparent as the description progresses the invention resides in the novel construction and arrangement of parts hereinafter fully described and claimed.

In the accompanying drawings there has been illustrated a simple and preferred embodiment of the device, in which drawings,

Figure 1 is a top plan view of a blade harrow constructed in accordance with the present invention. Fig. 2 is a longitudinal sectional view upon the line 2—2 Fig. 1. Fig. 3 is a rear elevation of the seat supporting frame. Fig. 4 is a partial elevation of one of the blades. Fig. 5 is a sectional view upon the line 5—5 Fig. 4. Fig. 6 is a side elevation of the intermediate blade support, the blade being shown in section. Fig. 7 is a sectional view upon the line 7—7 Fig. 6.

In the accompanying drawings the numeral 1 designates the improved harrow. The harrow, as clearly illustrated in Fig. 1 of the drawings comprises a pair of sections or members designated by the numerals 2 and 3. Each of the sections 2 and 3 are of an identical construction and the numerals of reference applying to one of the sections may be understood as equally applicable to the second section. Each of the sections comprises a frame constructed of a plurality of longitudinally extending U-shaped metallic beams designated by the numerals 4, 5, 6 and 7, and the said beams are connected through the medium of a plurality of transversely arranged beams 8. The frame thus provided is of a substantially rectangular formation and the said frame is effectively braced through the medium of a beam 9 arranged at an angle from the inner end of the front beam 4 to nearly the outer end of the rear beam 7. Straddling the inner beams 5 and 6 is a substantially V-shaped metallic member 10, having its central portion depressed as at 11, the purpose of which will presently be set forth.

Secured between the flanges of the U-shaped beams 5, 6 and 7, and at properly spaced positions thereon are the blade supporting members 12. Each of the supporting members is provided with an offset head 13 having a perforation adapted to coincide with a similar perforation in the top of the beams, said openings being adapted for the reception of a suitable headed element 14. The lower ends of the supports 12 are provided with suitable offsets 15 adapted to contact the blades 16, and said blades are connected with the supports below the said offset through the medium of removable securing elements 17. The blades 12′ are each of a substantially V-shaped formation and are so arranged that the apex of one of the blades is extended toward the central depressed portion of the adjacent blade beyond the ends of the second blade, as indicated by the dotted line in Fig. 1 of the drawings. By this arrangement it will be noted that the dirt gathered by one of the blades is rolled toward the other or adjacent blade and that the dirt must contact the apex of the first blade before passing outwardly through the angular passage provided between the blades.

The forward ends of the blades 12′ are curved upwardly and are offset as at 18, the said offset portion being provided with a lug 19 which is adapted to be positioned between the offset arms of the front U-shaped member 4. The face of the said member 4 as well as the lug 19 and offset 18 is provided with suitable openings which are adapted for the reception of a headed securing member 20.

The forward U-shaped beams 4 are provided with a pair of hook members 21 positioned adjacent the ends of the beam 4, and the said hook members are adapted for the reception of suitable bails 22 which are adapted to engage eyes 23 provided upon the

draw bar 24. The draw bar is provided with a suitable eye 25 which is connected thereto through the medium of suitable links 26, one of which is arranged directly central of the line of draft while the remaining pair are arranged at angles to the draw bar as clearly illustrated in Fig. 1 of the drawing.

The numeral 27 is what I term the superstructure of the device. This structure 27 comprises a longitudinally extending seat support 28 which has its forward end provided with a depending hook 29 which is adapted to engage with an eye 30 provided central of the draw beam 24. Upon this beam 28 is positioned the seat 31 and the hook rest 32, while arranged transversely of the said member 28 is a beam 33. This beam 33 has its under face provided with lugs 34 and the said lugs are adapted to engage the sides of the V-shaped metallic members 10 while the beam adjacent the said offsets 34 is positioned within the depression 11 of the said member 10.

From the above description, taken in connection with the accompanying drawings it will be noted that I have provided an extremely simple and effective device for the purpose intended, and it is to be understood that while I have illustrated and described the preferred embodiment of the improvement, as it now appears to me, minor details of construction within the scope of the following claims may be resorted to if desired.

It is to be understood that the offsets 34 provided upon the member 33 contacting the sides of the V-shaped members 10 serve as an effective means for sustaining the sections 2 and 3 in proper spaced relation with each other.

Having thus described the invention, what I claim as new is:—

1. In a device for the purpose set forth, a substantially rectangular frame made up of U-beams provided with laterally connecting members and an angular brace member, depending supporting members connected with the U-beams, said supporting members being provided with offsets, and a plurality of longitudinally extending spaced V-shaped blades removably connected with the supports and engaging the offsets thereof.

2. In a device for the purpose set forth, including substantially rectangular frames, of supports upon the frames arranged in staggered relation with each other, longitudinally extending V-shaped blades connected with the supports, each of said blades being constructed of a single piece of material having flattened faces and parallel edges, and the apex of each blade projecting inwardly beyond the ends of the next blade.

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

CHARLES L. WALL.

Witnesses:
EMMA WALL,
GEORGE D. WALL.