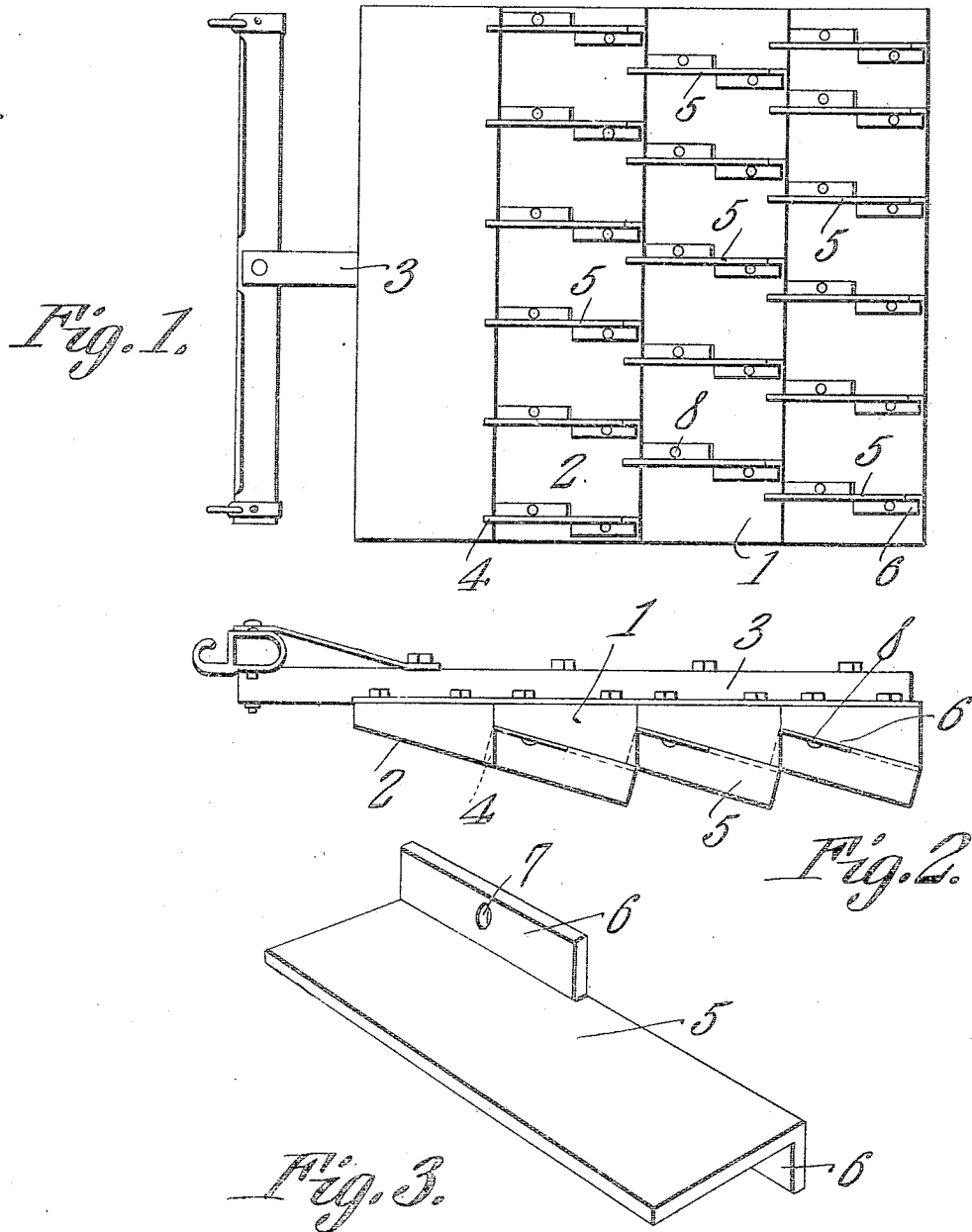


W. B. MITCHELL.
HARROW, DRAG, AND PULVERIZER.
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953,792.

Patented Apr. 5, 1910.



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UNITED STATES PATENT OFFICE.

WICKLIFF B. MITCHELL, OF BEDFORD, INDIANA.

HARROW, DRAG, AND PULVERIZER.

953,792.

Specification of Letters Patent.

Patented Apr. 5, 1910.

Application filed January 3, 1910. Serial No. 535,903.

To all whom it may concern:

Be it known that I, WICKLIFF B. MITCHELL, a citizen of the United States, residing at Bedford, in the county of Lawrence and State of Indiana, have invented a new and useful Harrow, Drag, and Pulverizer, of which the following is a specification.

This invention has relation to a combined harrow, drag and pulverizer and it consists in the novel construction and arrangement of parts as hereinafter shown and described.

The object of the invention is to provide an implement of the character stated which is of simple and durable structure and which includes a series of means secured together in close order and carrying a series of blades so mounted that they may be readily reversed in their positions upon said beam. The beams are provided with inclined under surfaces and it is upon these surfaces that the said blades are mounted and all of the beams except the last beam of the series are provided in their rear edges with slots or kerfs adapted to receive the forward end portions of the blades upon the next adjacent beam toward the rear of the structure. The foremost beam of the series is preferably devoid of the said blades. The blades are formed from sheet metal having at their upper edges laterally disposed flanges, the flanges at the rear ends of the blades extending from the blades in the opposite direction from the flanges at the forward ends thereof. The said flanges are disposed at right angles to the body portions of the blades.

In the accompanying drawings: Figure 1 is a bottom plan view of the harrow, drag and pulverizer. Fig. 2 is a side elevation of the same. Fig. 3 is a perspective view of one of the blades detached.

The implement includes a series of beams 1 arranged in close order and having lower inclined surfaces 2. The said beams may be secured together by means of a bar or bars 3 or any other suitable means. All of the beams 1 except the rearmost beam of the series are provided at their rear edges with vertically disposed slots or kerfs 4.

On all of the beams 1 except the foremost beam of the series are mounted blades 5. The said blades 5 are formed from sheet metal and consist of plane body portions having at their upper edges laterally dis-

posed flanges 6. The flanges 6 at the forward ends of the blades 5 extend in the opposite direction from the flanges 6 at the rear ends of the said blades and all of the said flanges lie at right angles to the body portions of the blades. The flanges 6 are provided with bolt perforations 7 which are adapted to receive bolts 8 whereby the said blades are secured in position against the under inclined sides or faces of the beams 1. The blades 5 may be positioned upon the beams 1 in any desired relative relation and it will be seen that when the rear ends of the blades 6 have become worn in consequence of use the said blades may be reversed in their positions by removing the securing devices 8 and turning the blades around and replacing the said securing devices. The forward ends of the blades 5 are inserted in the slots or kerfs 4 of the beams 1 just ahead of that beam upon which the blades are mounted and that the forward portions of the blades are braced against lateral strain. The bolts 8 hold the blades against rearward movement or movement away from the beams 1. Inasmuch as the blades are relatively long and are in an inclined position as the harrow is drawn over the surface of the ground they will cleave the soil effectually and cut any material that may lie at the surface or just below the surface of the same. The blades are securely held in place by three instrumentalities namely, the two bolts, one located at each side of the blade and the kerfs or slots which receive the forward ends of the blades. By reason of the fact that the blades are of such configuration that they may be reversed in their positions upon the beams when the rear ends of the blades, as first positioned, have become worn to such an extent as to be ineffective the unworn ends are disposed toward the rear and the usefulness of the implement is prolonged.

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

A harrow composed of beams having inclined under surfaces, and provided at their rear edges with vertically disposed slots, blades formed from sheet metal and having laterally disposed flanges at their upper edges, the flanges at the forward ends of the blades extending in the opposite direction from the flanges at the rear ends of the

blades, securing devices passing through
said flanges and attaching the blades to the
inclined surfaces of the beams, the blades
upon one beam having their forward end
5 portions lying in the slots at the rear edge
of the next adjacent beam toward the front
of the structure.

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

WICKLIFF B. MITCHELL.

Witnesses:

WALTER G. OURUS,
HORATIO HARRYMAN.