

(No Model.)

J. B. ATON.
HARROW.

No. 496,037.

Patented Apr. 25, 1893.

Fig. 1.

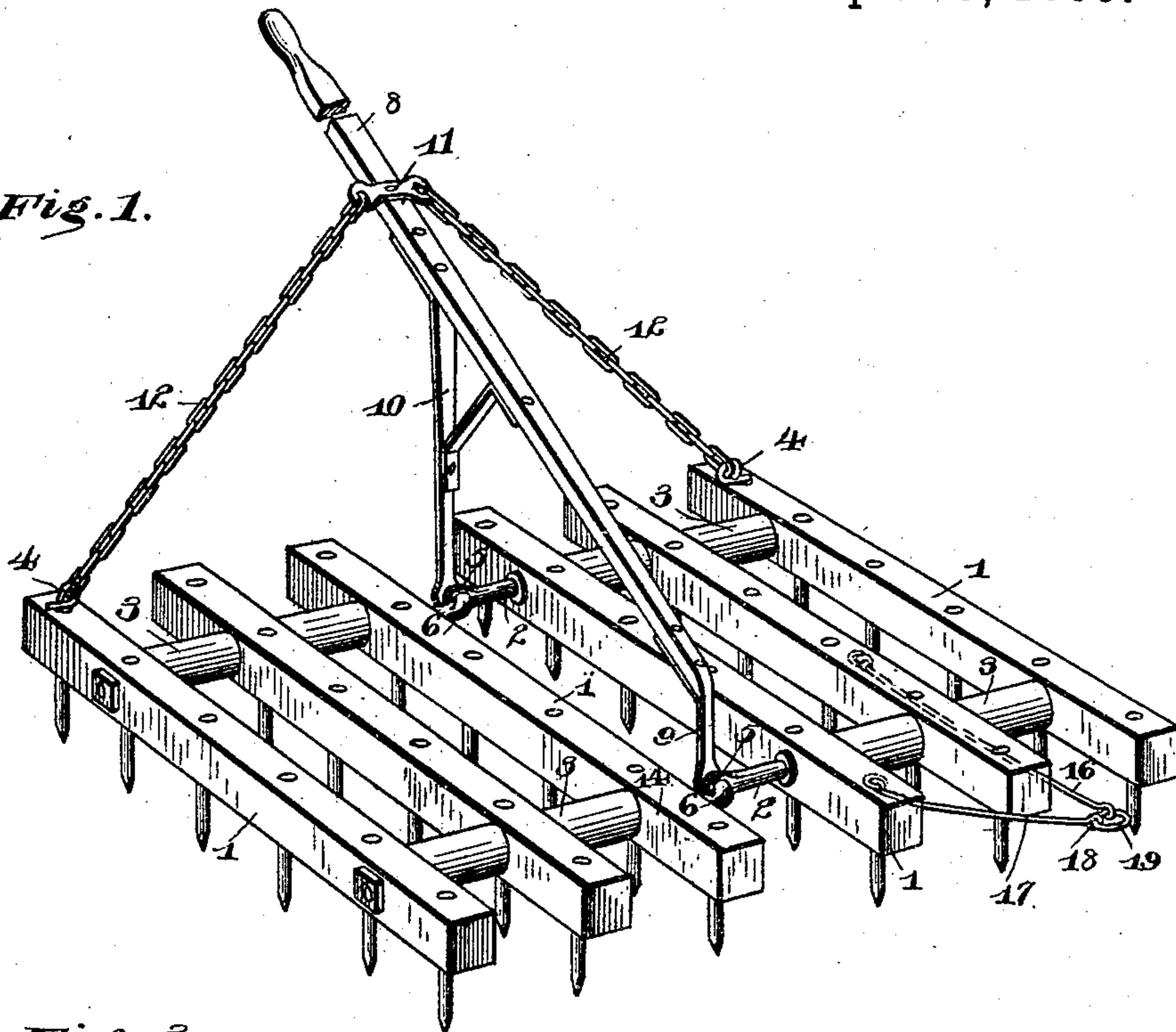
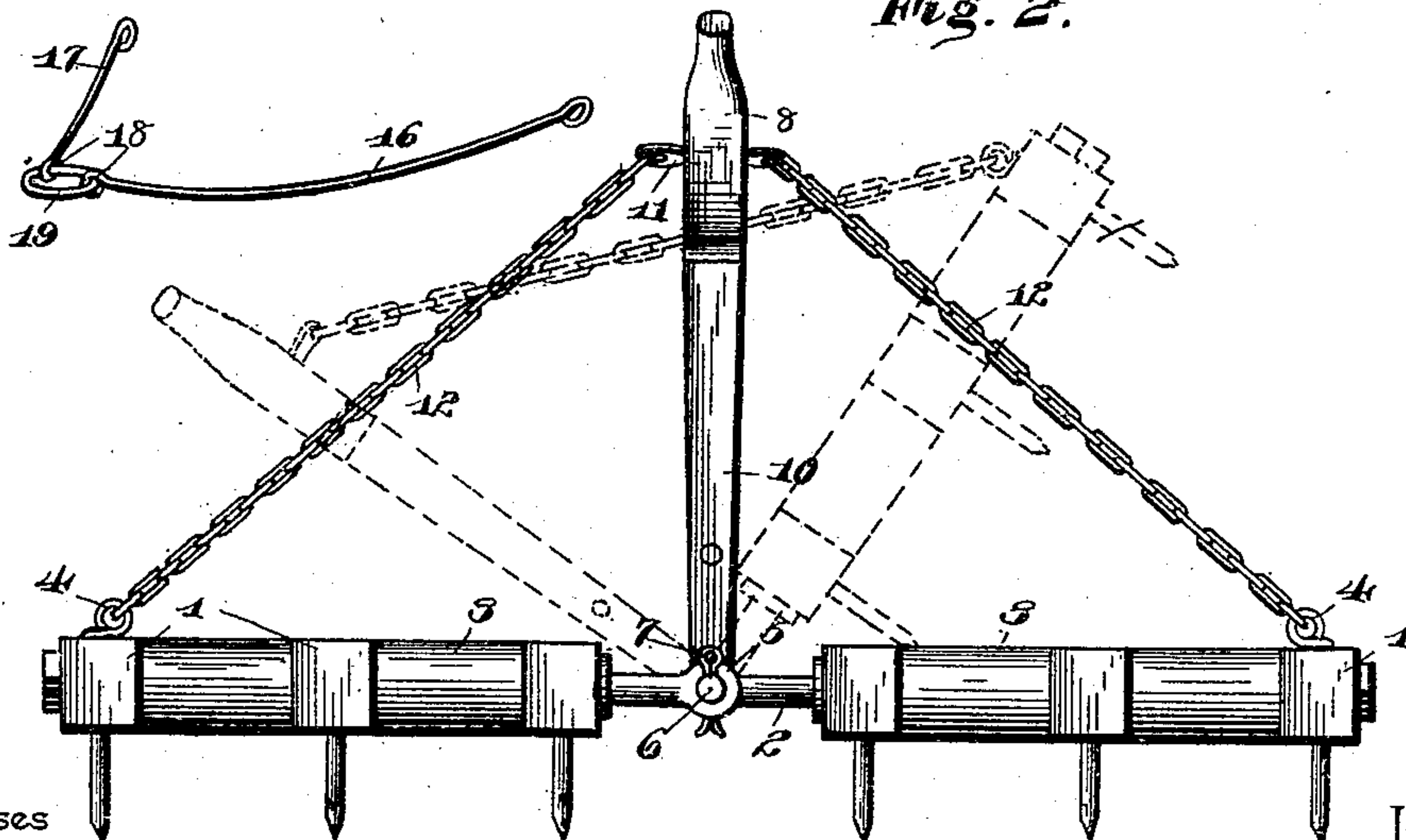


Fig. 3.



Witnesses

Inventor

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UNITED STATES PATENT OFFICE.

JAMES B. ATON, OF MORGANFIELD, KENTUCKY.

HARROW.

SPECIFICATION forming part of Letters Patent No. 496,037, dated April 25, 1893.

Application filed July 2, 1892. Serial No. 438,817. (No model.)

To all whom it may concern:

Be it known that I, JAMES B. ATON, a citizen of the United States, residing at Morganfield, in the county of Union and State of Kentucky, have invented a new and useful Harrow, of which the following is a specification.

My invention relates to improvements in harrows, and to that particular class thereof in which two sections or wings are employed; the objects in view being to provide a harrow of this class, and means for raising and lowering either of the wings or sections for the purpose of clearing stumps and ridding the sections of trash, to lighten the harrow by the omission of certain draft devices and the substitution therefor of such devices as will permit of the tilting of the sections, and to avoid the necessity of stooping or walking to that end of the harrow which is to be raised.

With these objects in view, the invention consists in certain features of construction hereinafter specified and particularly pointed out in the claims.

Referring to the drawings: Figure 1 is a perspective view of a harrow provided with my improvements. Fig. 2 is a rear elevation of the same. Fig. 3 is a detail in perspective of the draft device.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I may employ various constructions of harrow-sections; but in the present instance I have illustrated one well-known construction of sections, and each of the sections, as will be seen, consists of a series of parallel longitudinally-disposed harrow-bars or beams 1, which are connected near their front and rear ends by transverse tie-bars 2, upon which for the purpose of spacing the beams apart space blocks or sleeves 3 are located. The beams are provided with the usual depending teeth, and each section has its outer beam provided at its rear end with a hook 4. The inner ends of the two tie-rods 2 of one section terminate in eyes 5, while the corresponding ends of the tie-rods of the opposite section, after extending through the inner beams, are rearwardly bent forming hooks 6, which, as shown, removably engage the eyes of the tie-rods of the companion section. It will be obvious that such hooks and eyes may be provided independent of the tie-

rods and secured to the inner beams or inner edges of the harrow sections in such constructions of sections that do not include the tie-rods. The extremities of the hooks 6 are perforated, and in each perforation a linch-pin 7 is removably mounted.

8 designates an inclined handle-bar or lever, and the same is provided at its front end with a depending bracket 9 having an eye which removably engages the front hook 6 in rear of the eye of the harrow-section. Near its rear end a Y-shaped bracket has its terminals secured to the under side of the handle-bar or lever, such bracket being indicated as 10, and near its lower end it is provided with an eye which engages loosely with the rear extremity of the rear hook formed at the inner end of the tie-rod and indicated as 6. The linch-pin retains the lever in position upon the hooks and prevents a longitudinal withdrawal rearwardly of the same, yet at the same time the lever is free to swing or oscillate laterally upon the hooks as will be obvious. A transverse plate 11 has its center connected to the upper side of the handle-bar or lever, and is provided with perforations at opposite sides of the same. Light chains 12 have their inner ends connected to the opposite eyes of the transverse plate, are of equal length and have their outer extremities connected to the before-mentioned eyes or hooks 4. These chains being of equal length support the lever directly over the center of the harrow and in a vertical position.

To the inner side of the inner harrow-bar of one of the sections, in this instance the left section, an eye 14 is secured and a similar eye 15 is secured to the corresponding side of the next adjacent or intermediate harrow-bar of the same section, the latter eye 15 being arranged in rear of the eye 14 a short distance, as shown. A long rod 16, and a short rod 17, having their rear ends terminating in eyes, are connected to the eyes 15 and 14, respectively. The front ends of these rods terminate opposite each other, and are provided with eyes 18, which engage with a draft-ring 19. By this construction or connection of the draft devices with the harrow-sections, it will be seen that either section may be tilted or inclined for the purpose of ridding the same of trash or avoiding stumps, rocks, &c., and

that the draft devices will not in any way im-
pede such operation, for the reason that they
are practically connected with the harrow-
sections at substantially longitudinally-oppo-
5 site points instead of transversely opposite as
is usually the case. Such tilting upon the
part of the sections, or raising of the same, I
accomplish by means of the lever 8, which may
be swung to either side, as will readily be ob-
10 vious, and through the medium of its proper
chain-connection, either the right or left-hand
section can be raised or lowered for the pur-
pose specified without the necessity of walk-
ing from one corner of the harrow to the other,
15 stooping and grasping the section. It will be
seen that when the lever is swung to the right,
the front end of the lever and the Y-shaped
bracket bear upon the inner corner of the in-
ner bar of the right section, which bar serves
20 as a fulcrum to facilitate the operation of
raising, and when the lever is swung to the
left, the corresponding bar of the left section

serves as the fulcrum against which these
parts bear. A release of the lever returns the
parts to their normal condition.

Having described my invention, what I
claim is—

The combination with the harrow-sections,
hinge-connections between the adjacent edges
of the two, a lever, brackets depending from 30
the lever and journaled on the hinges, connec-
tions between the opposite sides of the sec-
tions and the lever, of the front and rear eyes
arranged upon adjacent side harrow-bars, the
long and short rods loosely connected to the 35
eyes, and the draft-ring engaging the front
ends of the rods, substantially as specified.

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

JAMES B. ATON.

Witnesses:

C. N. ATON,

H. J. GREENWELL.