(No Model.) 2 Sheets—Sheet 1.

J. T. YERBY.

HARROW.

No. 462,346. Patented Nov. 3, 1891.

FIG. 1.

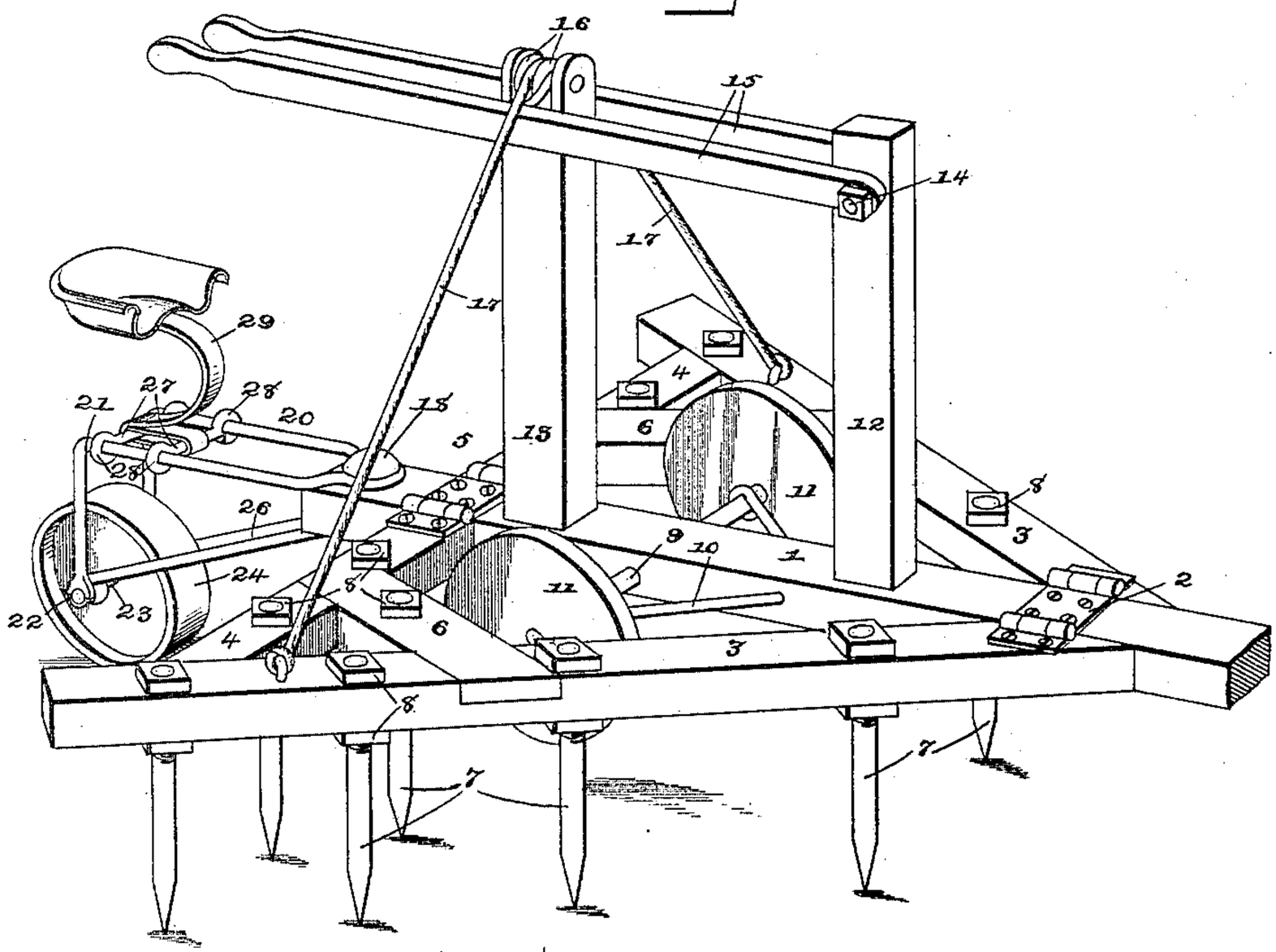
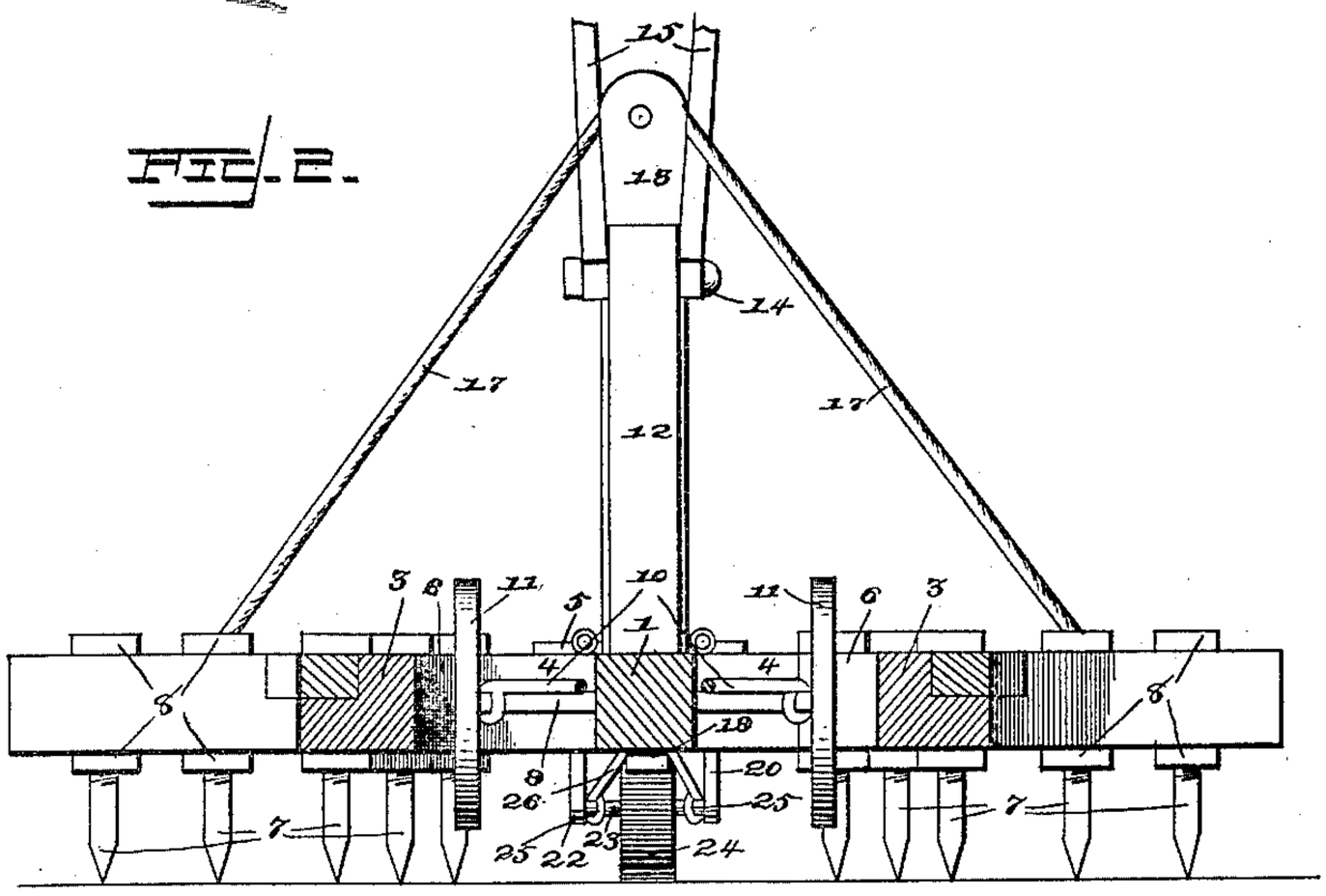


FIG. 2.



Witnesses:

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(No Model.) 2 Sheets—Sheet 2.

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HARROW.

No. 462,346. Patented Nov. 3, 1891.

FIG. 3.

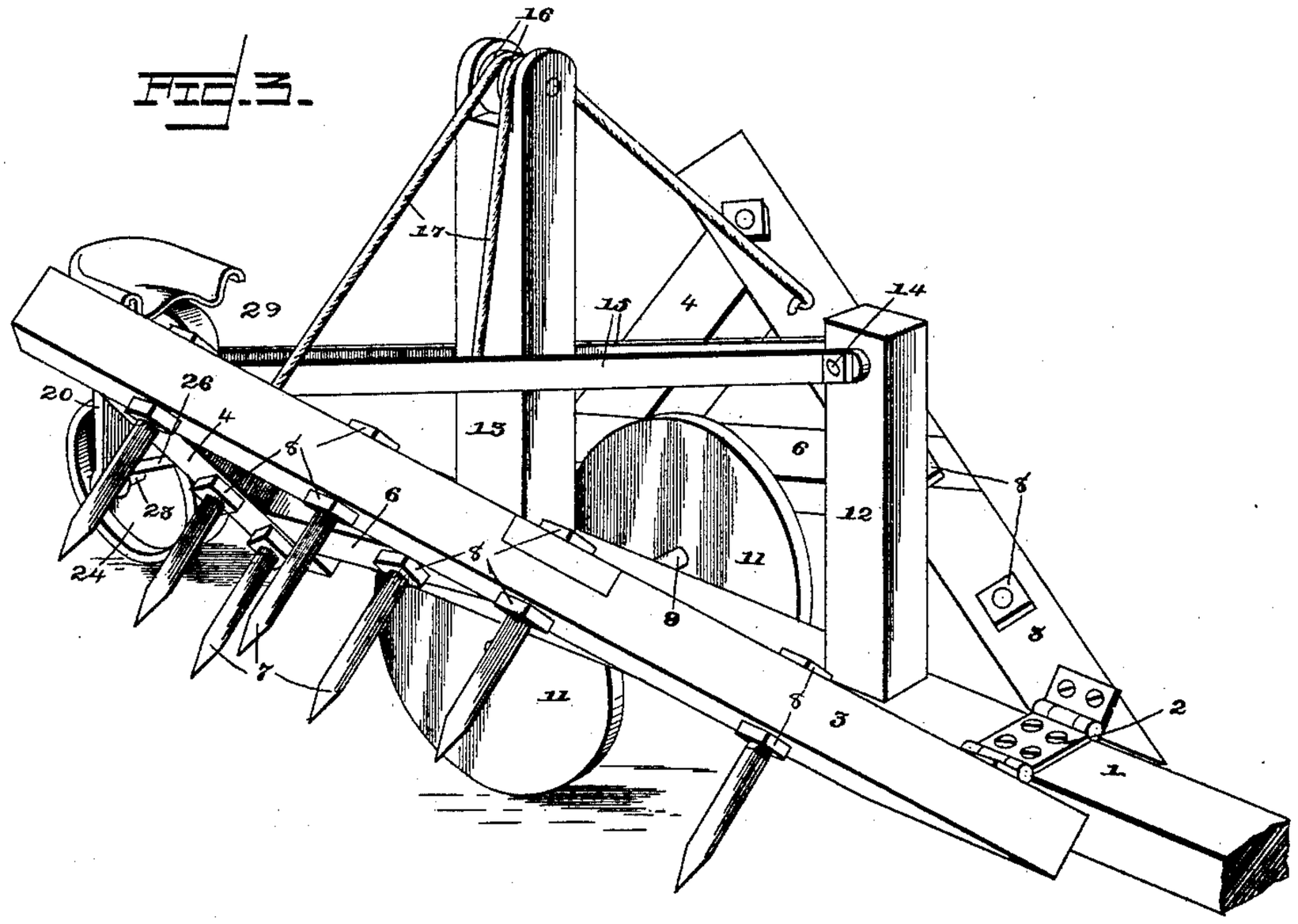

FIG. 4.

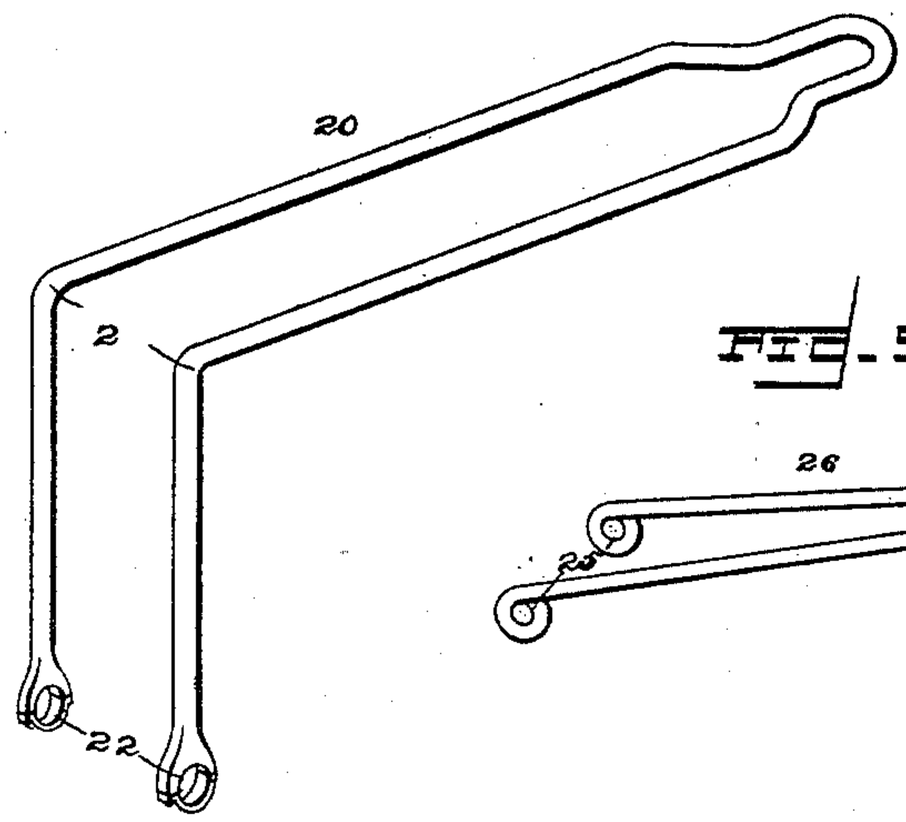

FIG. 5.

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UNITED STATES PATENT OFFICE.

JOHN THOMAS YERBY, OF CENTRE HILL, ARKANSAS.

HARROW.

SPECIFICATION forming part of Letters Patent No. 462,346, dated November 3, 1891.

Application filed March 24, 1891. Serial No. 386,276. (No model.)

To all whom it may concern:

Be it known that I, JOHN THOMAS YERBY, a citizen of the United States, residing at Centre Hill, in the county of White and State of Arkansas, have invented a new and useful Harrow, of which the following is a specification.

This invention relates to improvements in riding-harrows, and to that class thereof known as the "butterfly-harrow;" and the objects in view are to provide a harrow of cheap and simple construction adapted to be supported upon wheels, that is easily controlled, and whose wings or harrow-sections may be readily elevated to pass over stumps, bowlders, &c.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a harrow constructed in accordance with my invention. Fig. 2 is a transverse section in front of the axle. Fig. 3 is a perspective view, the wings being raised and the harrow adapted for transportation to and from the field. Fig. 4 is a detail in perspective of the caster-frame for supporting the driver's seat. Fig. 5 is a detail view of the frame for supporting the caster-wheel.

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

In practicing my invention I employ a central beam 1, to which, near its front end, is hinged, as at 2, at each side thereof, a rearwardly-disposed beam 3, which beams diverge toward their rear ends, as shown. The beams 3 are connected to the beam 1 by means of rear beams 4, which are hinged to the beams 1, as at 5. The beams 3 and 4 are each connected by a beam 6, and these three beams 3, 4, and 6, at each side of the beam 1, constitute the wings of the harrow and may fold up above the ground and in a right angle to the beam 1, as will be readily seen. At intervals the beams 3, 4, and 6 are provided with openings through which harrow-teeth 7 are passed, said teeth being screw-threaded and made adjustable by set-nuts 8. An axle 9 passes through the beam 1 at about the center of the latter, is braced by braces 10, and provided with wheels 11. A pair of standards 12 and 13, arranged one in front of the other, are mounted upon the beam 1, and to the front standard 12 there is pivoted, as at 14, a pair of rearwardly-disposed hand-levers 15, the same extending back at each side of the standard 13 and terminating in suitable handles to be grasped by the operator. The upper end of the standard 13 is provided with a pair of pulleys 16. Ropes or chains 17 are connected to each of the harrow sections or wings, pass over one of the pulleys 16 to the opposite side of the standard 13, and are there connected to one of the pair of levers 15. By operating these levers either or both of the wings or sections may be wholly or partially elevated for the purpose of passing over such objects as stones, stumps of trees, &c., liable to cause injury to the teeth, or for the purpose of transporting the harrow to and from the field. A bolt 18 is passed through the rear end of the beam 1 and an L-shaped frame 20, having opposite parallel terminals, is pivotally connected at its front end to the bolt and at its rear end downwardly bent, as at 21, and terminating in bearings 22, in which is mounted the axle 23 of a caster 24, said axle being also mounted in bearing-eyes 25, formed at the rear ends of a rearwardly-disposed V-shaped frame 26, loosely pivoted to the lower end of said bolt 19. A pair of bars 27 are loosely mounted on these terminals of the frame 20 and may be slid thereon, for which purpose they terminate in eyes 28. These bars are embraced by the bent ends of a seat-standard 29, the seat of which is adapted to be occupied by the driver, who is thus supported adjacent to and within easy reaching distance of the levers 15. It will be obvious that all the teeth may be removed but those of the rear bars, if desired, and that said teeth are preserved from injury by raising and lowering the wings in the manner specified. Furthermore, the harrow is supported by the rear caster-wheel and the wheels 11.

The harrow will be found to be easy of draft, light, and durable, and of simple and economical construction.

Having described my invention, what I claim is—

1. In a harrow of the class described, the combination, with the main or central beam,

the opposite hinged wings, the axle passed through the beam and having wheels located inside of said harrow sections or wings, the frame pivoted to the rear end of the central beam depending at its rear end and terminating in bearings, an axle mounted in the bearings, a caster on the axle, a pair of bars mounted to slide upon the frame, a seat supported thereon, and a brace pivoted to the central bar and connected at its rear end to the axle, of the front and rear standards mounted upon the central beams, a pair of levers pivoted to the standard, a standard located between the levers upon the beam, pulleys mounted in the standard, and ropes connected to the wings passed over the pulleys and connected to the levers, substantially as specified.

2. In a harrow, the combined seat-supporting frame and caster-support comprising the L-shaped frame 20, pivotally connected to the harrow-frame and downwardly bent at 21, terminating in bearings, the rearwardly-disposed V-shaped frame 26, also pivoted to the harrow-frame and terminating in bearings, the caster-wheel 24, journaled in the bearings of the frames 20 and 26, the bars 27, sliding on the horizontal part of frame 20, and the seat carried by the bars 27, as set forth.

3. In a harrow, the combined seat-supporting frame and caster-support comprising the L-shaped frame 20, pivotally connected to the harrow-frame and downwardly bent at 21 and terminating in bearings, the caster-wheel 24, journaled in the bearings, the bars 27, sliding on the horizontal part of the frame 20, and the seat carried by the bars 27, as set forth.

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

JOHN THOMAS YERBY.

Witnesses:
JAS. F. REDUS,
JNO. F. IRWIN.