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Patented Aug. 5, 1902.

H. T. FAURE.

SULKY ATTACHMENT FOR HARROWS.

(Application filed Apr. 14, 1902.)

(No Model.)

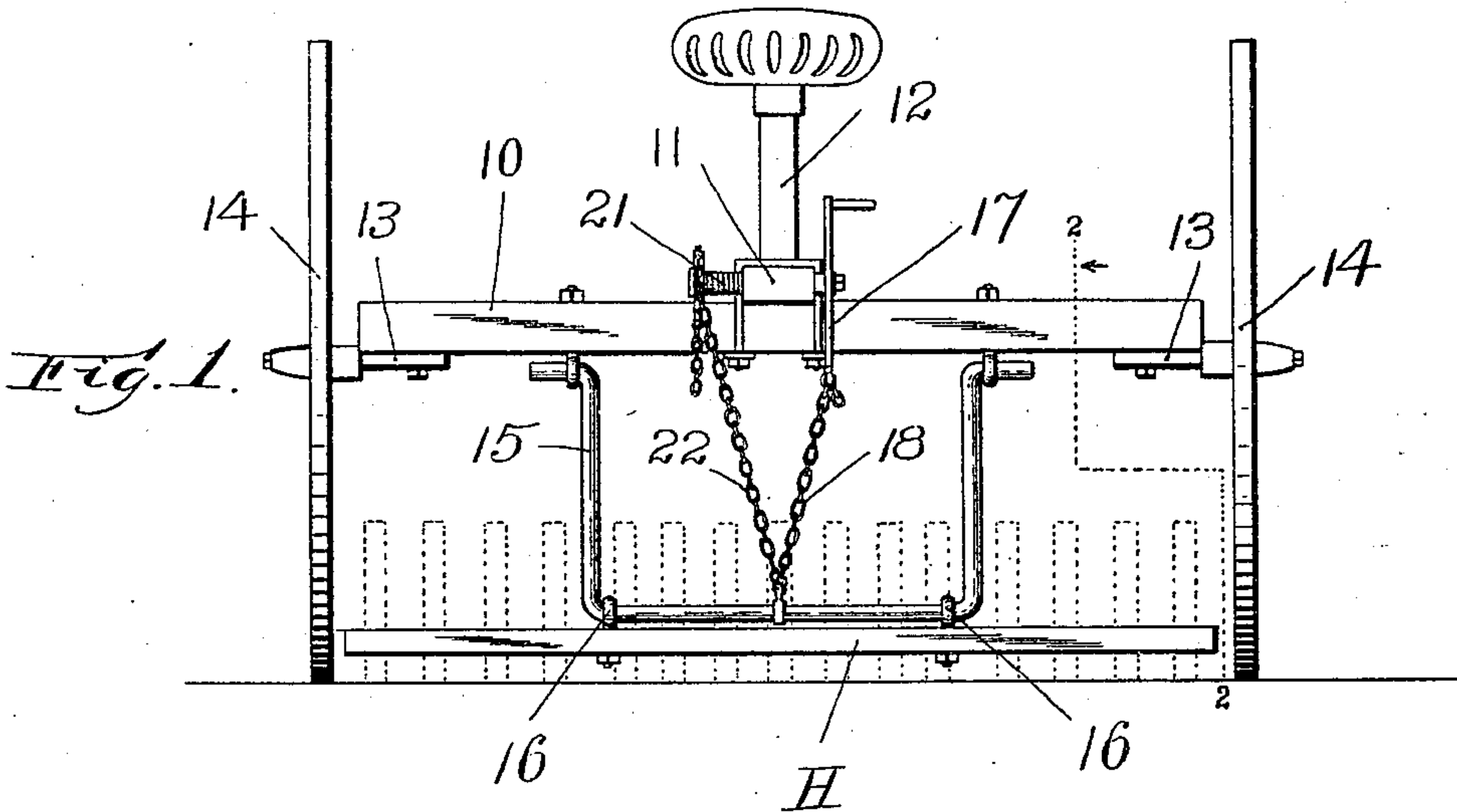
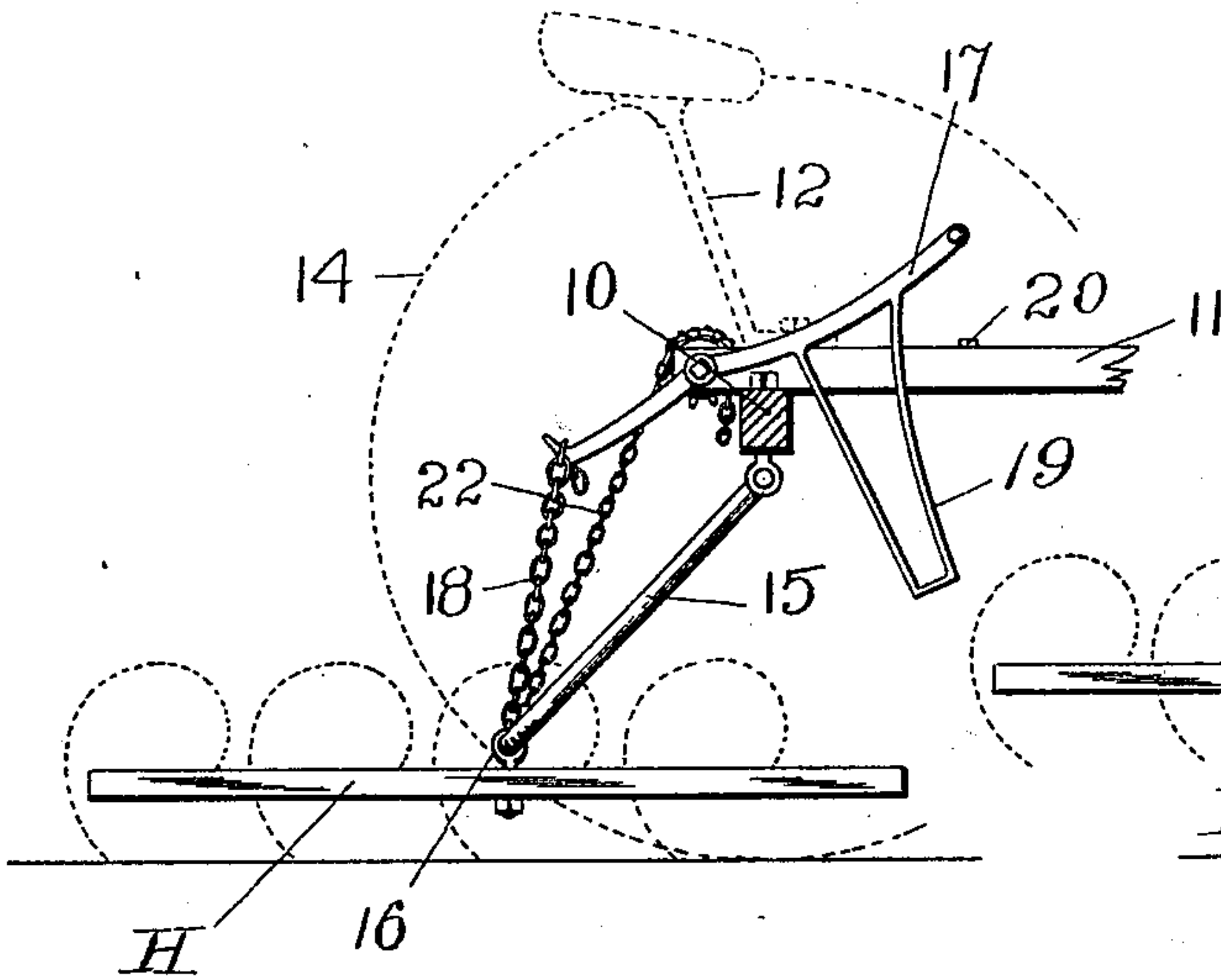
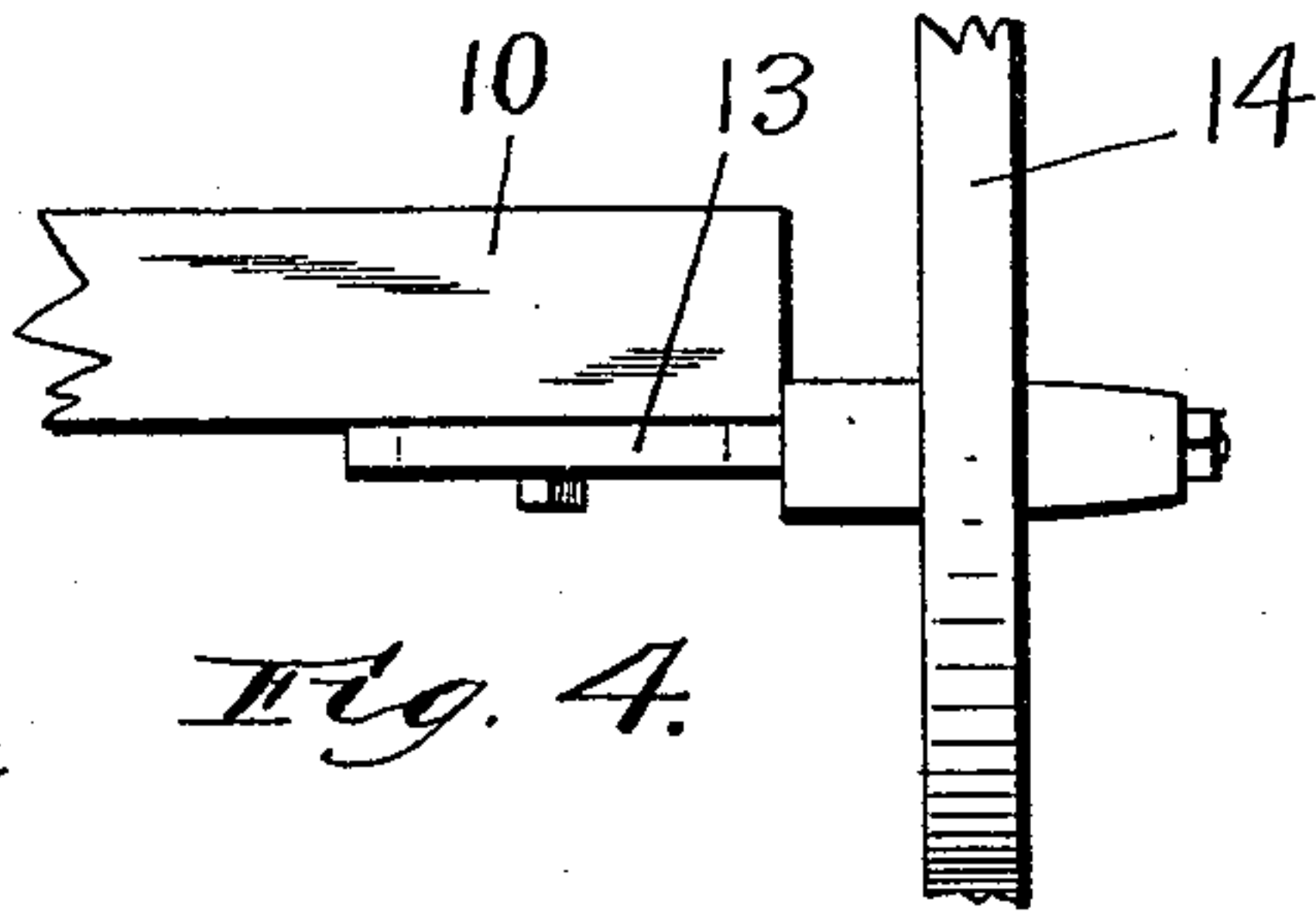
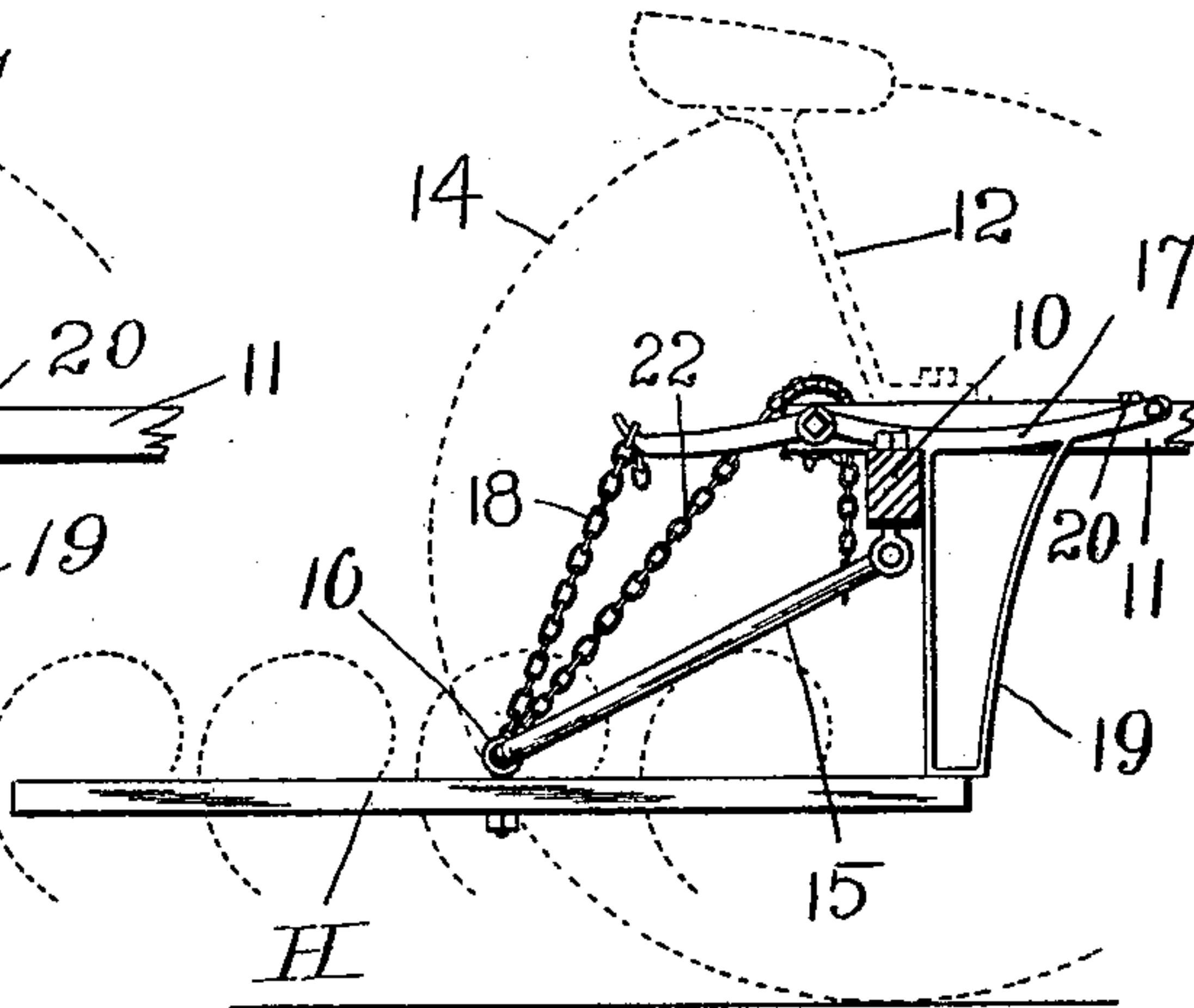


Fig. 2.



Feb. 3.



Witnesses:
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Fig. 4.

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UNITED STATES PATENT OFFICE.

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SULKY ATTACHMENT FOR HARROWS.

SPECIFICATION forming part of Letters Patent No. 706,040, dated August 5, 1902.

Application filed April 14, 1902. Serial No. 102,706. (No model.)

To all whom it may concern:

Be it known that I, HENRY T. FAURE, a citizen of the United States, residing at Spencer, in the county of Worcester and State of Massachusetts, have invented a new and useful Sulky Attachment for Harrows, of which the following is a specification.

This invention relates to a riding attachment for harrows, which has been especially designed to provide a strong, simple, and inexpensive wheeled vehicle or riding attachment which may be used in connection with any of the ordinary forms of drag-harrows and which is provided with simple, direct, and efficient connections for giving the operator perfect control of the harrow.

To these ends this invention consists of the parts and combinations of parts, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a rear view of a riding attachment for harrows constructed according to my invention. Fig. 2 is a sectional view thereof, taken on the line 2 2 of Fig. 1. Fig. 3 is a similar view showing the harrow-frame in its lifted position, and Fig. 4 is an enlarged detail view of the means for adjusting the tread of the vehicle to adapt the same to different styles of harrows.

The harrows now employed may be divided into two classes of construction. The lighter, simpler, and less expensive form of harrows are those harrows which are used as ordinary drag-harrows. Harrows of this class are usually comparatively inexpensive, but are not adapted for the best grades of work by reason of the imperfect control that the user has of the operation of the apparatus—that is to say, in using an ordinary drag-harrow it is impossible to make sharp turns or work cleanly up into corners of fields being harrowed, as there is no way in which the harrow can be backed by the team which draws the same, so that working into a corner with an ordinary drag-harrow the harrow has to be pulled up into the corner by hand. Furthermore, in the use of the ordinary drag-harrow there is no means of regulating the depth to which the harrow-teeth will seat themselves into the ground. The second class of har-

rows are known as the “sulky-harrows” or “riding-harrows.” Harrows of this construction have heretofore been of comparatively heavy and unwieldy construction, and the operating connections of such sulky-harrows have been comparatively complicated and unreliable.

The especial object of my present invention is to provide a riding attachment or vehicle which can be coupled to or used in connection with any of the ordinary forms of drag-harrows and which is provided with simple and efficient connections permitting the operator to have complete control of the same. These operating connections are arranged so that the operator can readily lift the harrow up clear of the ground, so that the harrow will be supported in a suitable fixed position, while when the harrow is let down to operative position it will be supported with sufficient freedom to permit the same to work to best advantage. To accomplish these objects, a riding attachment for harrows constructed according to my invention consists, essentially, of a vehicle, preferably of substantially sulky form, having a pivoted drag-frame for connecting the vehicle with the harrow and having a lifting-lever which is provided with a steadying-arm for engaging the harrow-frame when the same is raised up clear of the ground. To assist in picking up or raising the harrow in its operative position, I provide a coiled spring, the tension of which can be adjusted to assist in any desired degree in drawing the harrow-teeth up out of the ground. The width of the tread of the vehicle is preferably adjustable, and the parts are arranged so that a perfect control of the harrow may be had from the driving-seat.

Referring to the drawings for a detail description of a riding attachment for harrows constructed according to my present invention as herein illustrated, the wheeled vehicle or sulky comprises an axle or beam 10, extending forward from which is a pole 11. Secured on the pole 11 is the ordinary spring driver's seat 12. Pivoted in eyebolts to the under side of the beam 10 is a drag-frame 15, which is connected by eyebolts 16 to the frame of an ordinary drag-harrow H. The point of connection between the drag-frame 15 and the harrow H is preferably slightly in front of the

center of gravity of the harrow, so that as the harrow is drawn along by the vehicle it will be free to operate substantially in the same manner as when pulled or drawn along by a team of horses in the ordinary manner.

Pivoted on a stud at one side of the pole 11 is an operating-lever 17, which is adjustably connected at its rear end by a lifting-chain 18 to the drag-frame 15. Near its front end the lever 17 is preferably provided with a steadying arm or frame 19, and I regard this as an especially desirable feature, as by means of this construction when the harrow-frame is raised up clear of the ground, as illustrated in Fig. 3, the steadying-arm 19 will engage the harrow-frame to hold the same in fixed position. In some cases, however, when a low-wheeled sulky is employed the steadying-arm 19 may be dispensed with, as the front end of the harrow-frame will be raised high enough to engage directly upon the axle or pole of the sulky. In other cases instead of having the steadying-arm 19 carried by the lifting-lever 17 the steadying-arm may be secured to extend down in fixed position from the axle or pole. To assist in drawing the harrow-teeth up out of the ground, I provide a coiled spring 21, which is adjustably connected through a sprocket-wheel and lifting-chain 22 to the drag-frame 15. By means of this construction by properly adjusting the tension of the spring 21 the parts may be substantially counterbalanced, so that the lifting-lever 17 may be operated with the least possible resistance. When the harrow-frame is raised by the lifting-lever and its connections, the parts may be fastened in their raised position by moving the lifting-lever 17 slightly sidewise under a catch 20 on the pole.

To adapt my riding attachment for use in connection with different styles of harrows, the axle-beam 10 may be provided at its ends with adjustable axle-pieces 13, journaled on which are the wheels 14. The axle-pieces 13 are slotted and may be clamped in different positions by bolts, as shown, so that the wheels may be set to different treads or widths when required.

I am aware that numerous changes may be made in practicing my invention by those who are skilled in the art without departing from the scope thereof as expressed in the claims. For example, although I have shown a sulky or vehicle constructed according to

my invention provided with a pole it is obvious that instead of using a pole the same may be provided with shafts or the horses may be otherwise hitched thereto in any ordinary manner. I do not desire, therefore, to be limited to the construction I have herein shown and described; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. In a riding attachment for harrows, the combination of a wheeled vehicle, a drag-frame connecting the vehicle with a harrow, a lifting-lever, a connection from the lifting-lever acting on the harrow-frame in front of its center of gravity, and a part engaged by the front end of the harrow when lifted, holding the harrow from tipping.

2. In a riding attachment for harrows, the combination of a wheeled vehicle, a drag-frame connecting the vehicle with a harrow, a lifting-lever having a steadying-arm engaging the harrow when in raised position, and a connection between the lifting-lever and harrow.

3. In a riding attachment for harrows, the combination of a wheeled vehicle, a drag-frame connecting the vehicle with a harrow, a lifting-lever, a connection between the lifting-lever and harrow, and a spring assisting the operation of the lifting-lever in raising the harrow.

4. In a riding attachment for harrows, the combination of a wheeled vehicle, a drag-frame connecting the vehicle with a harrow, a lifting-lever having a steadying-arm engaging the harrow when in its raised position, and a chain serving as an adjustable connection between the lifting-lever and harrow.

5. In a riding attachment for harrows, the combination of a wheeled vehicle, means connecting the wheeled vehicle with a harrow-frame, a lifting-lever connected to the harrow-frame, a coiled spring, a sprocket-wheel operated by the coiled spring, and a chain adjustably connecting the sprocket-wheel to the harrow-frame.

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

HENRY T. FAURE.

Witnesses:

LOUIS W. SOUTHGATE,
PHILIP W. SOUTHGATE.