No. 839,801. PATENTED JAN. 1, 1907.

F. ADIX.

RIDER ATTACHMENT FOR HARROWS.

APPLICATION FILED SEPT. 13, 1906.

FIG. 1

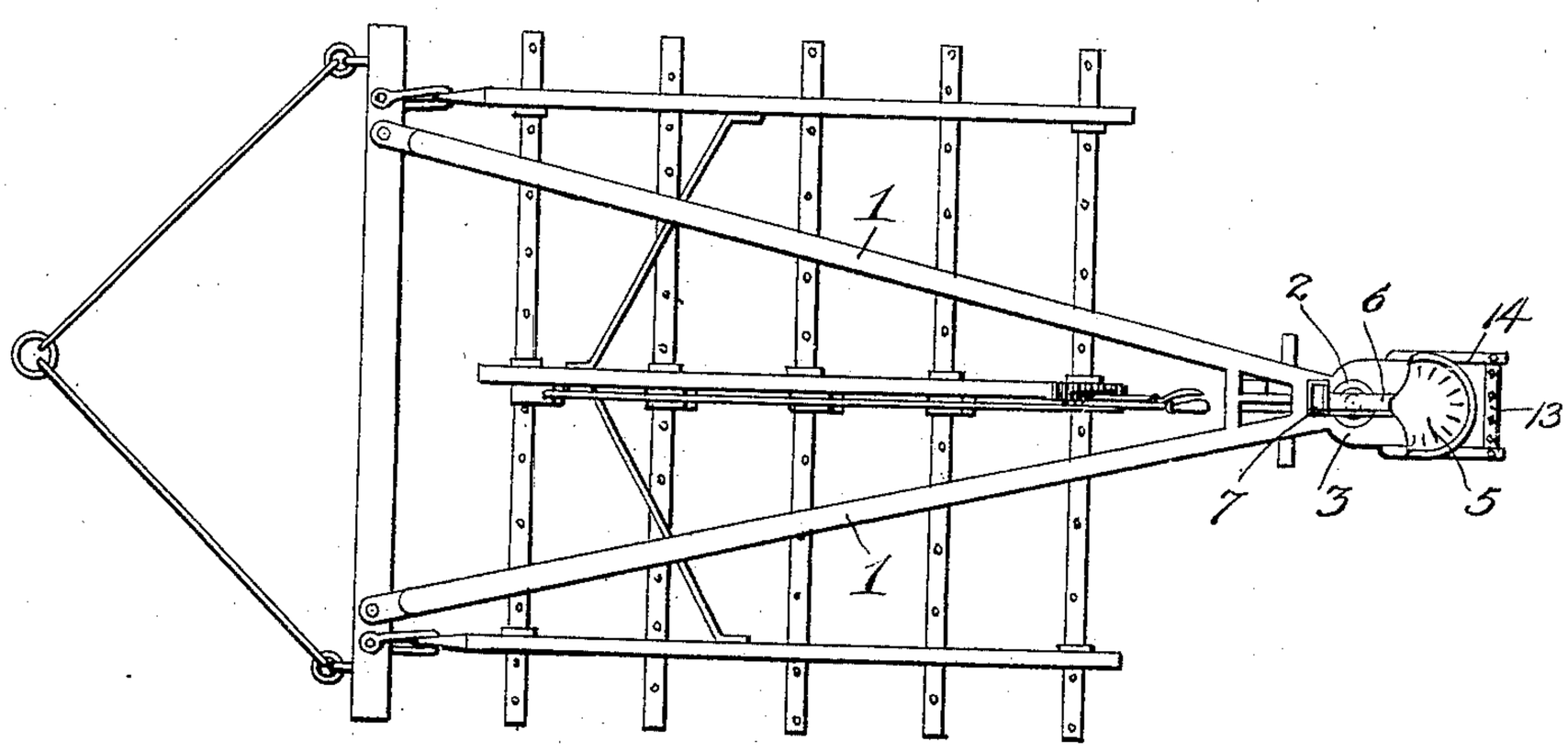


FIG. 2

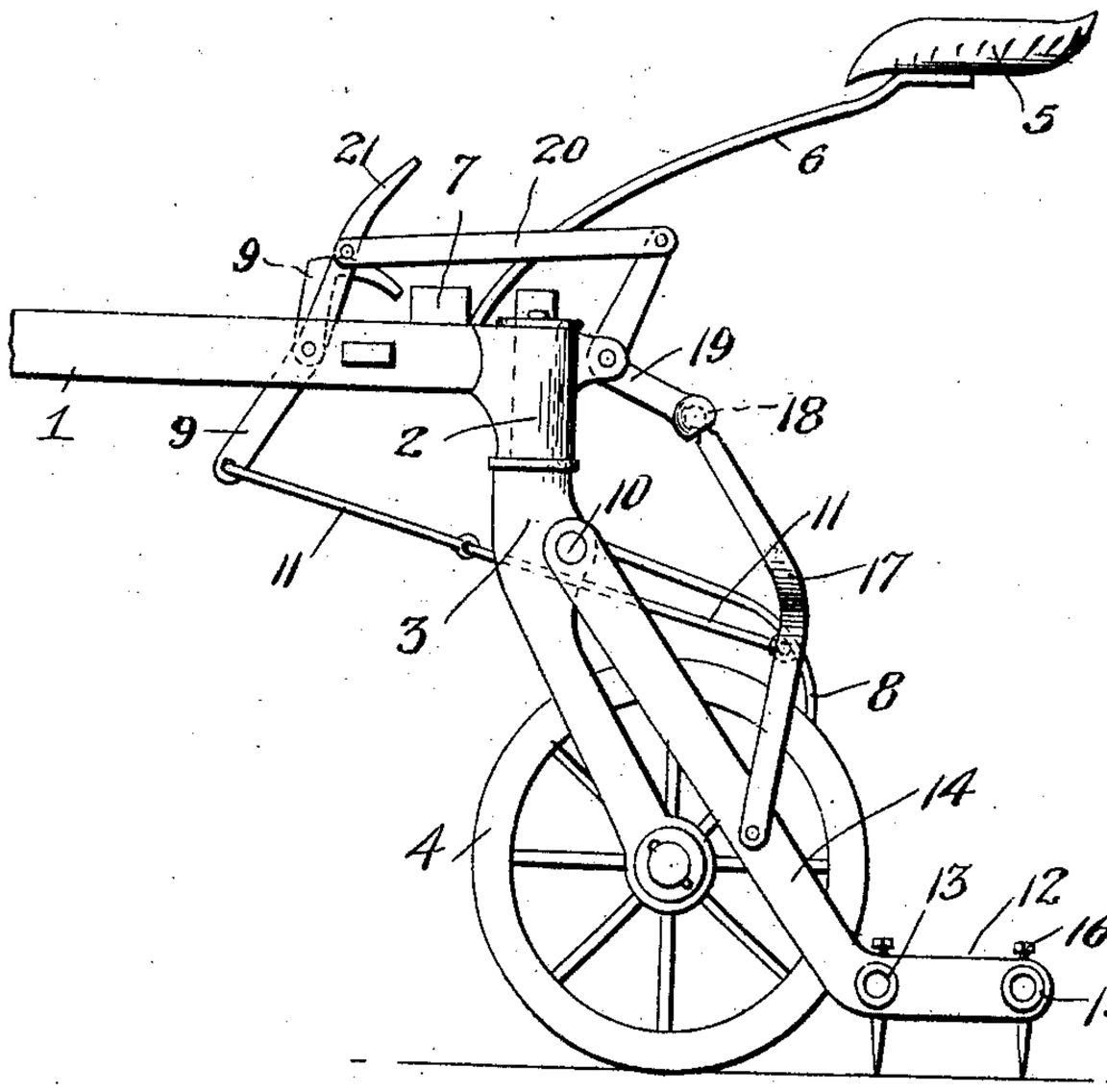
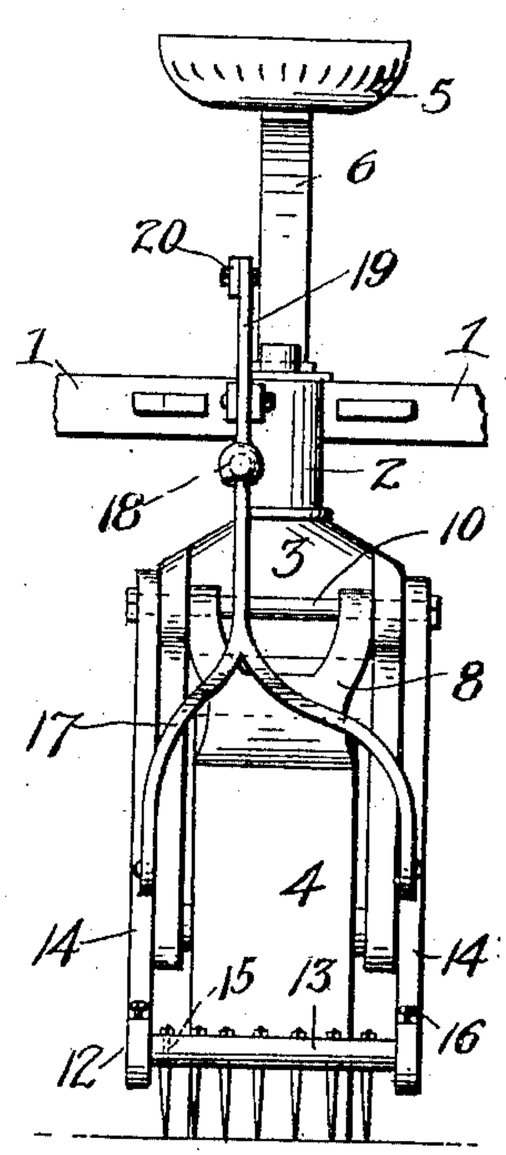


FIG. 3



Witnesses
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UNITED STATES PATENT OFFICE.

FRANCIS ADIX, OF BOONE, IOWA.

RIDER ATTACHMENT FOR HARROWS.

No. 839,801. Specification of Letters Patent. Patented Jan. 1, 1907.

Application filed September 13, 1906. Serial No. 334,447.

To all whom it may concern:

Be it known that I, FRANCIS ADIX, a citizen of the United States, residing at Boone, in the county of Boone and State of Iowa, have invented certain new and useful Improvements in Rider Attachments for Harrows, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to riding attachments for harrows, one of the objects being to provide an attachment of the character described that may be applied to any harrow, and particularly to folding sectional steel frame harrows, such as shown and described in an application for patent, Serial No. 324,691, heretofore and on July 3, 1906, filed by me in the United States Patent Office.

A further object of the invention is to provide a riding attachment wherein a single wheel is used, said wheel being followed by a small supplemental harrow, the purpose of which is to loosen or harrow the ground over which the wheel is run, said attachment being arranged to follow the harrow.

Other objects and advantages of the invention, as well as the structural features by means of which such objects are attained, will be apparent from an inspection of the specification, taken in connection with the accompanying drawings, in which—

Figure 1 is a top plan view showing my attachment applied to a harrow. Fig. 2 is a side elevation showing the draft-beams broken away, and Fig. 3 is a rear end elevation.

The attachment comprises two rearwardly-converging bars 1, which are disposed above the harrow-section, to which my improved attachment is generally applied, and bolted or otherwise secured at their forward ends upon the draft-bar or other suitable portion of the harrow. The rear ends of these draft-bars are united by a head 2, in which is swiveled or rotatably mounted the upper end of a forked frame 3. In the fork of the latter is journaled a wheel 4, which supports the rear of the riding attachment and the weight of the rider who is seated on a seat 5. The latter is provided upon one end of a spring 6, which has its other end secured on the head 2, and on this head is also secured a tool-box 7.

In order to clean the broad periphery or rim of the wheel 4, a scraper 8 is provided, said scraper being operated by a foot-lever 9. This scraper has its bifurcated upper end pivoted upon a rod 10, mounted in apertured lugs upon the caster-wheel frame 3, and it is connected by links 11 to the lower end of the foot-lever 9, as clearly shown in Fig. 2.

In order to loosen or harrow the soil over which the wheel 4 runs, a small supplemental harrow-section 12 is provided, said section consisting, preferably, of two toothed bars 13, rotatably mounted in the lower rear ends of two side bars 14, which have their upper ends pivoted upon the rod 10. The bars 13 are provided with a suitable number of teeth similar to the teeth shown in the application filed by me July 3, 1906, heretofore referred to. These teeth have the lower ends of their square bodies pointed, and their upper ends are formed with reduced stems or shanks 15, which extend through openings in the bars and are secured by nuts. In order to hold the bars 13 at the desired angle, I provide set-screws 16, as shown.

In order to raise the harrow-section 12 off the ground, its two side bars 14 are pivoted to the lower forked end of a link 17, the upper end of which is pivoted by a ball-and-socket joint 18 to one end of a bell-crank 19. The latter is pivoted upon the head 2 and has its other arm connected by a link 20 to a foot-lever 21, as shown in Fig. 2. It will be manifest that when the lever 21 is pushed forwardly the harrow-section 12 will be elevated off the ground.

From the foregoing description it is thought that the construction, operation, and advantages of my improved attachment will be obvious and that further explanation is not necessary.

Having thus described my said invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A riding attachment for harrows comprising a frame, a wheel-supported element pivotally mounted upon the same for lateral swinging movement in a horizontal plane, and a harrow-section mounted upon said element to swing laterally with the same and to travel in rear of its supporting-wheel.

2. A riding attachment for harrows comprising a frame, a wheel-supported element pivotally mounted upon the same for lateral swinging movement in a horizontal plane, a harrow-section pivoted upon said element for vertical swinging movement, said har-

row-section being adapted to travel after the supporting-wheel of said element and to swing laterally with said element, and means connecting said harrow-section and said frame for raising and lowering the former.

3. A riding attachment for harrows comprising a frame, a wheel-supported element pivotally mounted upon the same for lateral swinging movement in a horizontal plane, a harrow-section pivoted upon said element for vertical swinging movement, said harrow-section being adapted to travel after the supporting-wheel of said element and to swing laterally with said element, a lever pivotally mounted upon said frame, a link pivotally connected to said harrow-section, and a universal joint between said link and said lever.

4. A riding attachment for harrows, comprising a frame having a vertical bearing, a head having a forked lower end and a journal at its upper end mounted for rotation in said vertical bearing, said head being also formed with apertured ears, a wheel journaled in the forked end of said head, a pivot-rod projecting through said apertured ears, and a harrow-section to travel after said wheel, said harrow-section having side bars formed with angularly and upwardly projecting forward ends pivotally engaged with said pivot-rod.

5. A riding attachment for harrows, comprising a frame having a vertical bearing, a head having a forked lower end and a journal at its upper end mounted for rotation in said vertical bearing, said head being also formed with apertured ears, a wheel journaled in the forked end of said head, a pivot-rod projecting through said apertured ears, a harrow-section having angular side bars pivoted at their upper ends upon said pivot-rod, a lever pivoted upon said frame, a link having a bifurcated lower end pivoted upon the side bars of said harrow-section, and a universal joint connecting said link and lever.

6. A riding attachment for harrows, comprising a frame having a vertical bearing, a head having a forked lower end and a journal at its upper end mounted for rotation in said vertical bearing, said head being also formed with apertured ears, a pivot-rod mounted in said apertured ears, a harrow-section pivotally suspended from the projecting ends of said pivot-rod and adapted to travel after said wheel, a scraper for said wheel pivotally mounted upon the central portion of said rod intermediate said apertured ears, a lever pivotally mounted upon said frame and links connecting said lever and said scraper, substantially as described and for the purpose set forth.

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

FRANCIS ADIX.

Witnesses:
N. A. WALKER,
CARL OLANDER.