No. 771,466. PATENTED OCT. 4, 1904.

J. W. DOBBERPUHL, JR.

RIDING AND OPERATING ATTACHMENT FOR HARROWS.

APPLICATION FILED APR. 27, 1904.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

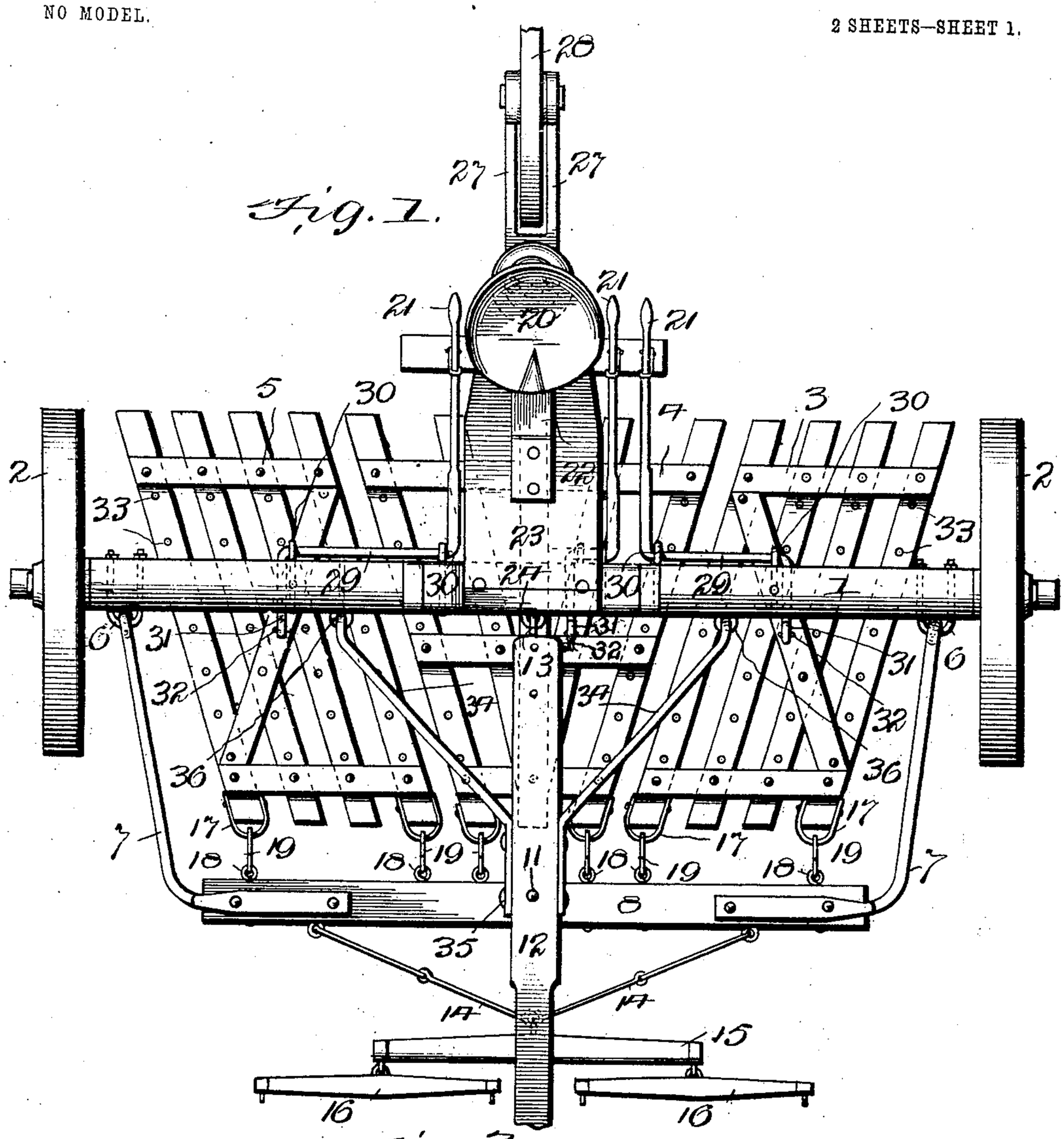
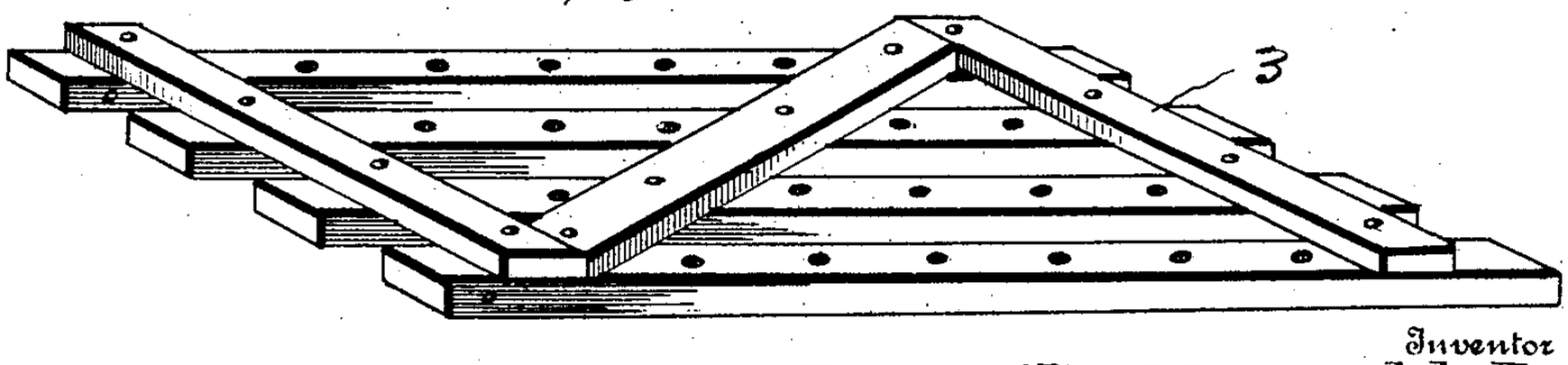


Fig. 3.



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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 2.

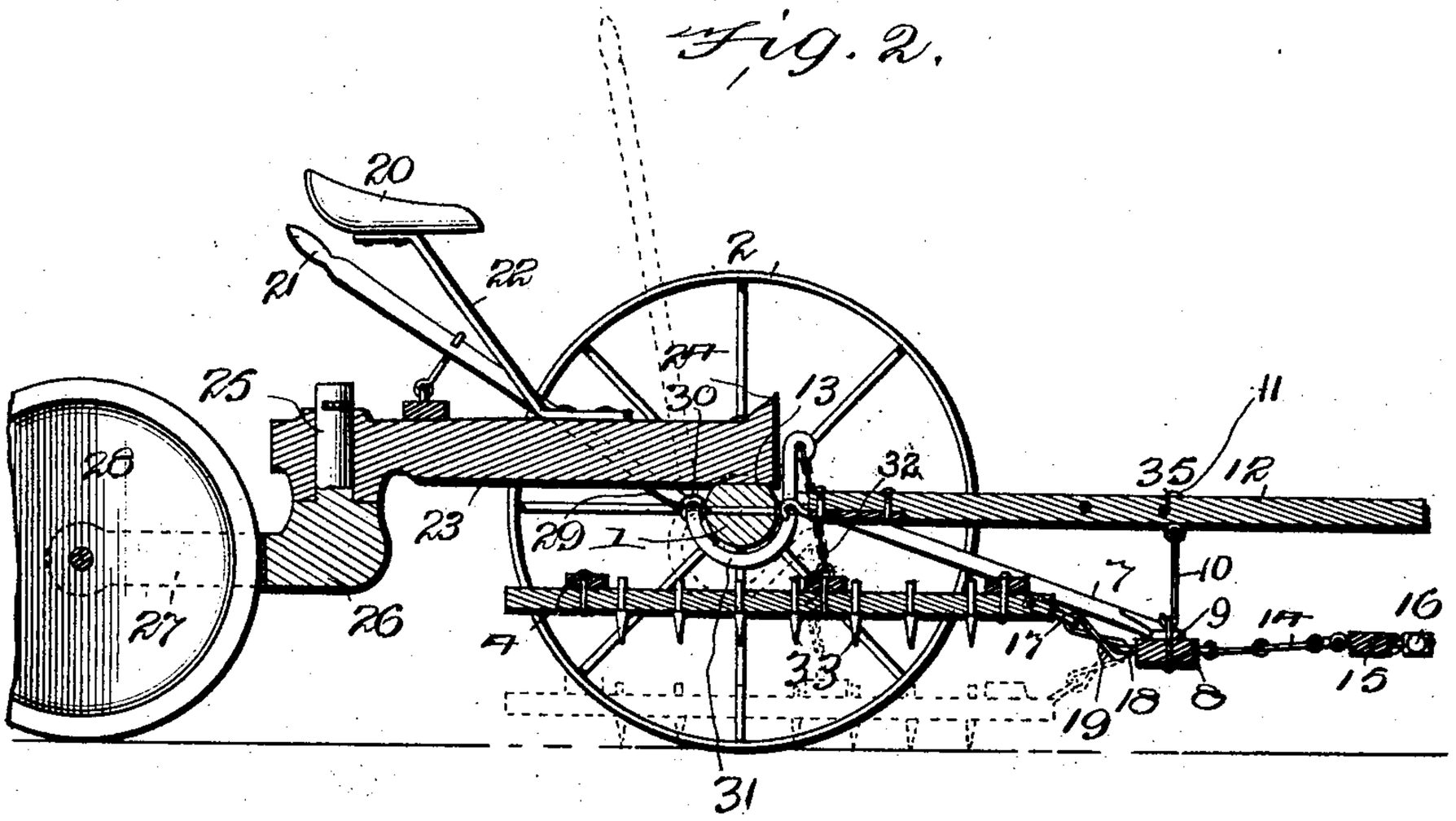
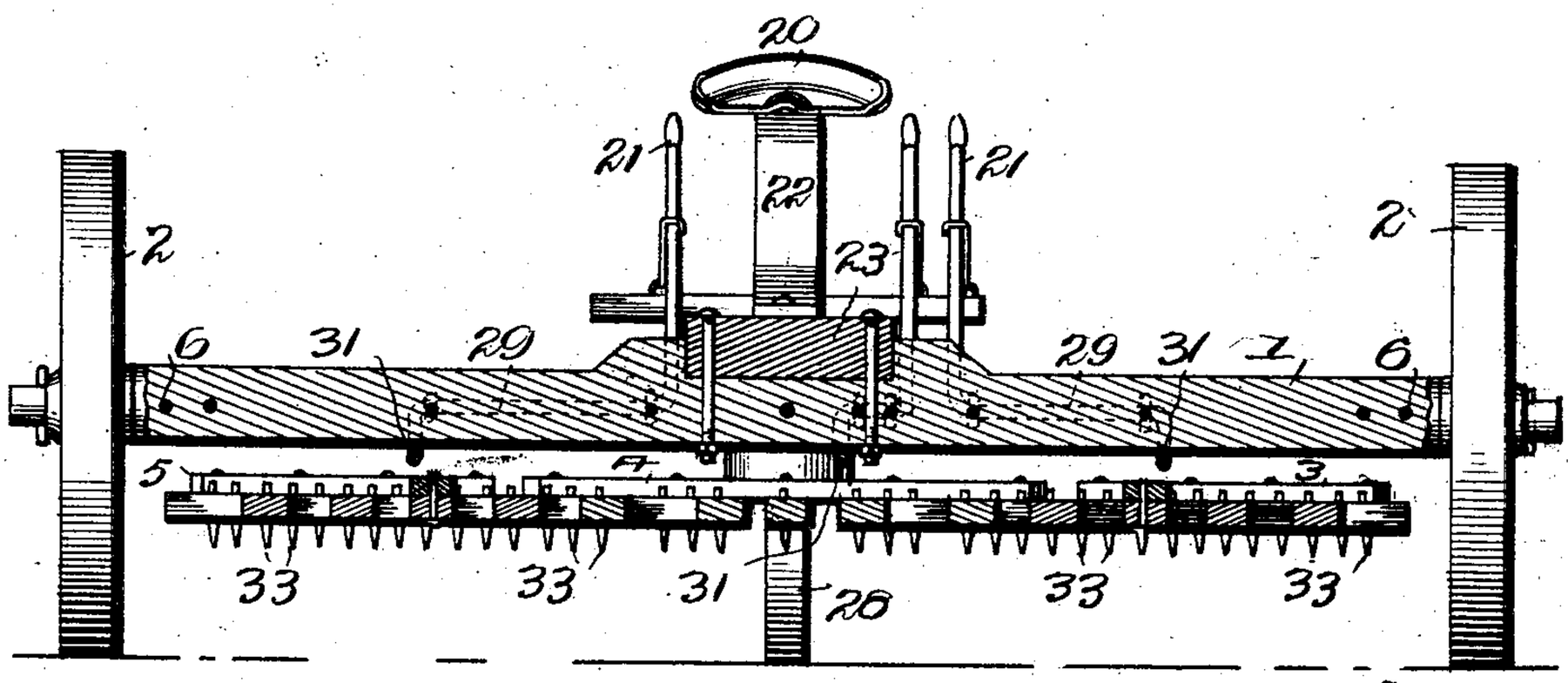


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN W. DOBBERPUHL, JR., OF GROTON, SOUTH DAKOTA.

RIDING AND OPERATING ATTACHMENT FOR HARROWS.

SPECIFICATION forming part of Letters Patent No. 771,466, dated October 4, 1904.

Application filed April 27, 1904. Serial No. 205,179. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. DOBBERPUHL, Jr., a citizen of the United States, residing at Groton, in the county of Brown and State of South Dakota, have invented certain new and useful Improvements in Riding and Operating Attachments for Harrows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a riding and operating or controlling attachment for harrows, which latter may be of the usual or any preferred construction; and my invention consists of certain novel features of combination and construction of parts, the preferred form whereof will be hereinafter clearly set forth, and pointed out in the claim.

The prime object of my invention, among others, is to provide a reliably-efficient riding attachment for harrows which will be entirely safe both for the operator and for the draft-animals, by which the harrow or harrow-sections, as the case may be, will be placed under the complete control of the operator.

A further object of my invention is to provide a set of carrying-wheels designed, primarily, for carrying the attendant or driver and which also serves as a controlling means for the harrow or harrow-sections placed in coöperation therewith.

Other objects and advantages will be hereinafter made clearly apparent, reference being had to the accompanying drawings, which are made a part of this application, and in which—

Figure 1 shows a top plan view of my invention complete ready for use. Fig. 2 is a central section of Fig. 1, showing the position of one of the levers by dotted lines. Fig. 3 shows a perspective view of one of the harrow-sections removed and ready to have a plurality of teeth located therein in the usual manner. Fig. 4 is a transverse section on a line with the main or carrying axle.

In order to conveniently refer to the various details and coöperating accessories, numerals will be employed, the same numeral applying to a similar part throughout the several views.

It will be understood that any preferred construction and any desired material may be adopted, the construction and arrangement of parts herein illustrated being but one of many possible ways my invention can be carried out or applied to practice, and I therefore do not wish to be confined strictly to the exact presentation herein disclosed.

Referring to the numerals on the drawings, 1 designates the main or carrying axle, which may be made in the manner illustrated of a solid piece of material or may be made tubular, as from a section of piping of suitable size. Upon the ends of the axle I rotatably secure the carrying-wheels 2. In the present instance I have illustrated three harrow-sections, which are designated by the numerals 3, 4, and 5; but it will be understood that any desired number of harrow-sections may be used, according to the needs of the operator.

Near each end of the axle 1 I secure the clips or eyebolts 6, and pivotally secured to said clips are the forwardly-extending bars 7, the ends of which are rigidly attached to the ends of the cross-bar 8, which latter is provided at its central part with a staple-like member 9, adapted to be connected to the hook member 10, the upper end of the hook member being attached to the eyebolt 11, passing through the tongue 12, as clearly shown in Figs. 1 and 2. The rear end of the tongue is pivotally connected to the central portion of the axle, as designated by the numeral 13; but the draft-animals are connected to the cross-bar 8 by means of the chain or plurality of link members 14, it being understood that a suitable doubletree or evener 15 is provided in the usual manner, each end whereof is provided with swingletrees 16 for connection with the trace-chains of the harness. The harrow-sections 3, 4, and 5 are each provided with a pair of clevises 17, whereby they may be placed in pivotal connection with the eyebolts 18 by means of the lap-rings 19 or equivalent devices. It will thus be observed that the draft-animals are attached directly to the harrow-sections and not indirectly, as is common when the doubletree is attached to the draft-tongue, a most valuable and important desideratum.

In order to place the plurality of harrow-

sections under the complete control of the operator, who will occupy the seat 20, I suspend each of the harrow-sections and provide for each section a controlling-lever, said controlling-lever being designated by the numeral 21, there being one lever for each harrow-section.

It will be observed by reference to Fig. 2 and other views that the seat 20 is mounted upon the standard 22, which latter is carried by the rearwardly-extending platform 23, the forward end of the platform being rigidly connected to the central portion of the axle and may be provided with a foot-guard 24 or equivalent device, whereby the operator will be more securely located in the seat 20, as will be obvious.

The rear end of the platform 23 is provided with an aperture designed to receive the upwardly-directed stem or finger 25, said finger forming an integral extension of the swiveled member 26, which latter is bifurcated at its rear end, thereby providing the branches or arms 27, between which I rotatably mount the auxiliary carrying-wheel 28, and inasmuch as said wheel 28 is thus left to move freely to either the right or left a reliable means is thus provided at a simple cost of material and labor for holding the platform 23 and its accompanying seat in proper position.

By reference to Fig. 1 it will be observed that each of the levers 21 is provided with the lateral extension 29, held in place by the eyebolts or staples 30 or equivalent means, said branch or lateral extension 29 also having the forwardly-projecting crank-arm 31, the end of which is pivotally connected to the carrying-chain 32, which extends down to the central portion of one of the harrow-sections, and it is therefore obvious that when the levers 21 are drawn backward the harrow-sections will be lifted, thus enabling the harrow to be readily transported without injury to the teeth, as upon a roadway or from field to field. Inasmuch as any one of the harrow-sections may thus be readily elevated, it is obvious that the entire machine may be drawn over a protruding stone or a small stump, root, or the like, leaving the other harrow-sections free for the performance of their office of pulverizing the surface of the ground.

It will be observed that in the present instance I have shown a plurality of pointed teeth 33; but it is obvious that any form of teeth may be employed and any desired variety of harrow-sections adopted, my object being to place all of the harrow-sections, whether one or a number of them are employed, under the complete control of the driver.

By reference to Fig. 2 it will be understood that the forwardly-projecting crank-arm 31 is curved a portion of its length, whereby it will fit around under the main axle 1, though any preferred formation or construction of said crank may be adopted. It will furthermore be observed that I have provided for the tongue 12 a pair of bracing members or laterally and rearwardly extending arms 34, the forward ends being bolted to the sides of the tongue, as indicated by the numeral 35, while the rear ends are pivotally connected to the eyebolts 36 or equivalent means.

Various changes and modifications in the construction may be made without departing from the spirit or scope of my invention, and believing that the construction and manner of using my improved riding and harrow-carrying appliance have thus been made clearly apparent further description is deemed unnecessary.

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

The herein-described combined riding and harrow-carrying appliance, comprising a carrying-axle 1 having suitable carrying-wheels rotatably mounted thereon; a rearwardly-extending platform rigidly secured to said carrying-axle; an auxiliary carrying-wheel swiveled in the rear end of said platform; a plurality of harrow-sections; a cross-bar 8 having rearwardly-extending arms 7 pivotally connected to said carrying-axle; means to pivotally connect the harrow-sections to said cross-bar and additional means to connect the draft-animals to said bar; a guiding-tongue pivotally secured to said carrying-axle and braced against lateral movement; a carrying-seat for the operator and a controlling-lever for each harrow-section whereby when the levers are operated one or all of the harrow-sections will be elevated or depressed as desired, all combined substantially as specified and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN W. DOBBERPUHL, JR.

Witnesses:
E. S. NELSON,
C. F. GENSNER.