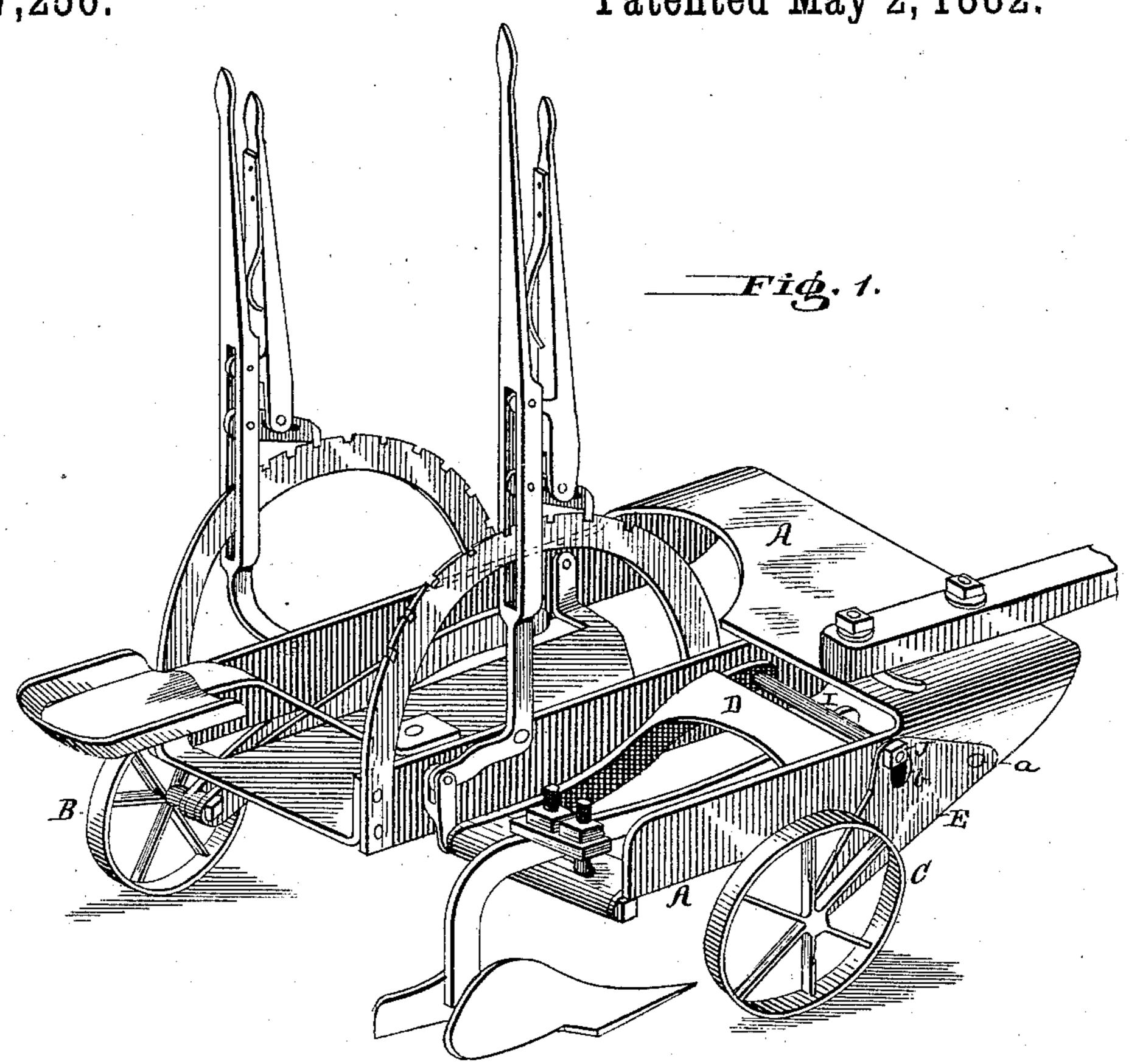
(No Model.)

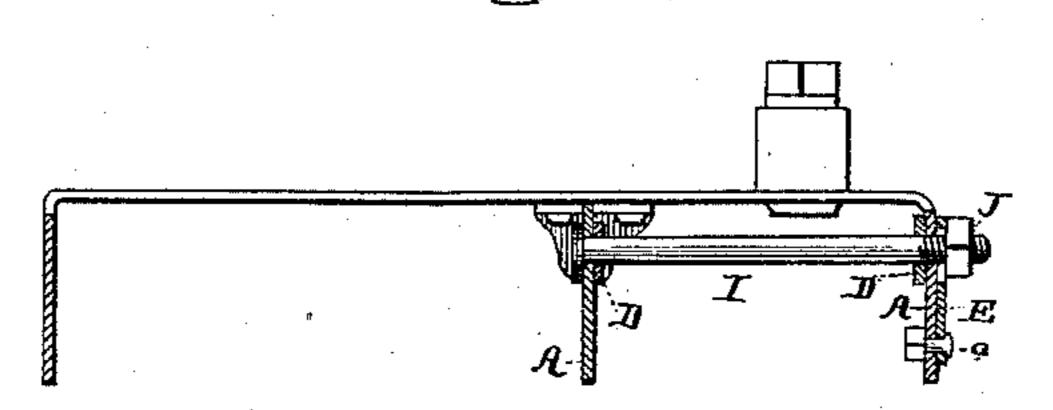
J. WARD.
SULKY PLOW.

No. 257,256.

Patented May 2, 1882.



 $Fi\phi.2.$



Witnesses: A.M. Long. A.M. Jannes James Ward

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United States Patent Office.

JAMES WARD, OF HANDLEY, TEXAS.

SULKY-PLOW.

SPECIFICATION forming part of Letters Patent No. 257,256, dated May 2, 1882.

Application filed January 21, 1882. (No model.)

To all whom it may concern:

Be it known that I, James Ward, a citizen of the United States, residing at Handley, in the county of Tarrant and State of Texas, have invented certain new and useful Improvements in Sulky-Carriages for Plows; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

this specification. The object of the present invention is to obviate certain minor defects of the sulkycarriage for plows forming the subject-matter of Letters Patent No. 247,446, granted jointly to myself and Rufus Washburn on the 20th 20 day of September, 1881. In the patent referred to a caster-wheel travels on the ground directly in rear of the landside portion of the plow, and serves to take the weight thereof. A caster-wheel so located has a tendency to 25 throw too much weight on the necks of the draft animals, and where the ground is uneven, causing the tongue to be raised, the plow is raised in proportion, and when the point of the tongue is lowered the caster-30 wheel is thrown off the ground, in which event the weight on the plow will be too great. Furthermore, a wheel located as in the patent referred to cannot be used to advantage with plows possessing handles, because the 35 wheel must be arranged so close to the landside-bar as to interfere with the handles and prevent the plowman from properly guiding

In the present invention I provide simple and effective means for properly balancing the plow carriage or frame and taking the weight off the horses' necks, provision being also made for using plows with or without guide-handles and of varying heights.

the plow.

To these ends the invention consists in the construction and arrangement of parts here inafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a plow-carriage em-

bodying my improvements: Fig. 2 is a trans- 50 verse section of the sulky-frame, wheel, hanger, or arm, and retaining-bolt.

The letter A designates the frame-work of the sulky-carriage, having at one side a wheel, B, which runs on the auplowed land, and on 55 the other side a wheel, C, adapted to run in the previous furrow. This latter wheel especially, and its combination with devices for attaching the same to the plow-carriage in an adjustable manner, forms the subject of the 60 present invention, all the other parts herein shown, including the means for raising and lowering the land-wheel and the plow-supporting yoke or hanger D, being found in Patent No. 247,446. The wheel C is made 65 larger than in the patent referred to, and is located in front of the plow, so that its location may be said to be at the front end of the mold-board side of the plow-frame, while the land wheel is arranged nearer to the rear end 70 of the landside portion of the frame. In this manner the frame or carriage is evenly balanced, and the weight thereof is taken off the necks of the draft animals. An arm or hanger, E, pivoted to the carriage-frame at 75 the point a by means of a bolt and nut has a spindle at its lower end which receives the wheel C. A slot, b, made in the upper enlarged or plate portion of the arm E and located in line with the pivot a, receives the 80 projecting end of the transverse bolt I, which constitutes the fulcrum and retaining-bolt of the plow yoke or hanger and passes through the parallel frame-bars of the carriage. A nut, J, applied to the screw-threaded end of 85 the bolt I on the outer face of the arm E, serves to clamp the latter to the carriageframe.

The provision of the slot in the wheel-hanger will permit the same to be raised and 90 lowered, so as to adapt the wheel for use in connection with plows of varying heights. It will be obvious that the wheel running in the furrowed ground in the manner described can be adjusted and retained at the desired elevation in relation to the plow proper by the bolt or device which serves to connect the plow-hanger to the frame.

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

The combination of the pivoted and slotted arm or hanger E, carrying furrow-wheel C, and the bolt I passing through said slotted arm, and provided with an end nut, J, with the plow carriage or frame and the plow

hanger or yoke hung on the bolt I, as and for the purpose set forth.

Intestimony whereof I affix my signature in presence of two witnesses.

JAMES WARD.

Witnesses:

S. TERRY,

P. F. COVINGTON.