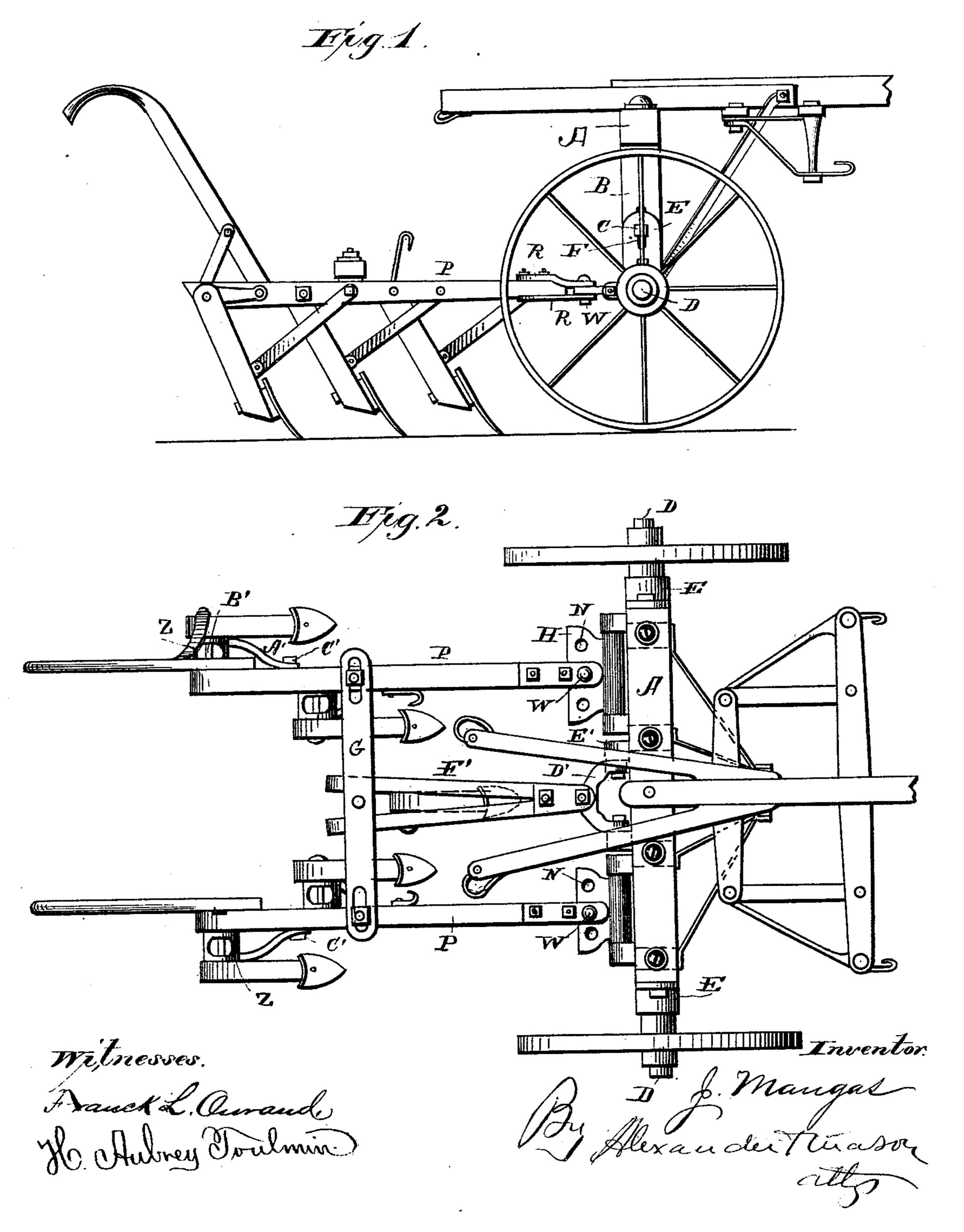
(No Model.)

J. MANGAS. Sulky Plow.

No. 234,046.

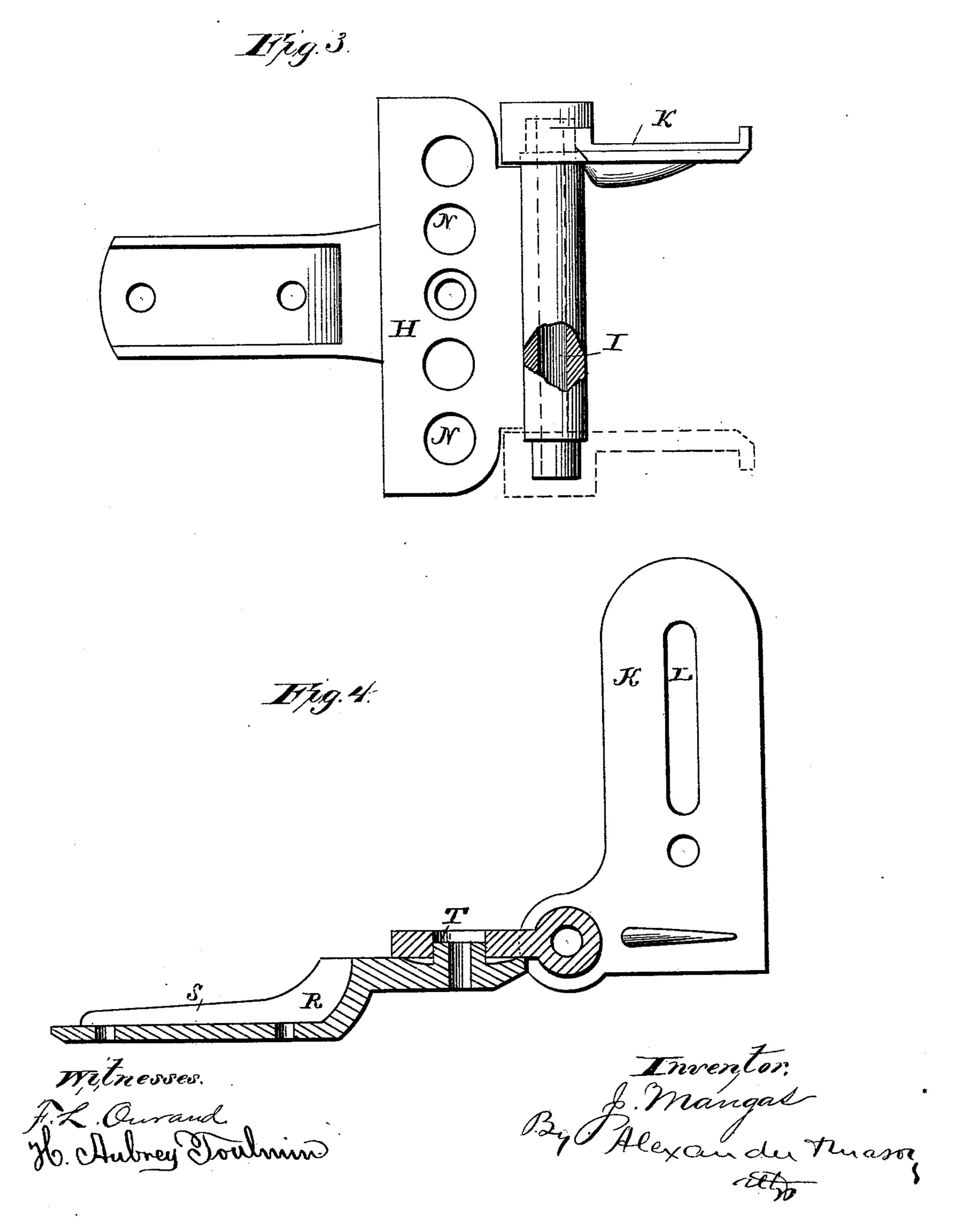
Patented Nov. 2, 1880.



J. MANGAS... Sulky Plow.

No. 234,046.

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United States Patent Office.

JACOB MANGAS, OF LINCOLN, ILLINOIS.

SULKY-PLOW.

SPECIFICATION forming part of Letters Patent No. 234,046, dated November 2, 1880, Application filed August 20, 1880. (No model.)

To all whom it may concern:

Be it known that I, JACOB MANGAS, of Lincoln, in the county of Logan, and in the State of Illinois, have invented certain new and 5 useful Improvements in Sulky-Plows; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, 10 making a part of this specification.

This invention relates to certain improvements in sulky-plows; and the novelty consists in the construction and arrangement of parts, as will be more fully hereinafter set

15 forth.

In the accompanying drawings, Figure 1 represents a side elevation of my improved plow complete. Fig. 2 represents a top-plan view of the same. Fig. 3 represents a detached 20 view of the connections by which the plowbeams are secured to the frame of the apparatus; and Fig. 4 represents a view of said connection, partly in elevation and partly in section.

The letter A indicates the frame or truck of 25 the apparatus, which is constructed of wood or other suitable material, with a series of hangers, B, to which the axles and the plow-

beam connections are attached.

The letter C indicates the axles. These con-30 sist of the wrought-iron spindles D, secured to the cast-metal sections E, the said sections being cast upon the spindles, so as to hold the same securely, and form with them, in each case, vertically, a single piece.

The sections are slotted or perforated, as indicated by the letter F, and are secured to the outer hangers, B, by means of screw-bolts, by means of which the said connections are made

adjustable.

The letter H indicates a cast-metal hinge, which is mounted upon a pintle, I, secured to the cast-metal sections K, which, like the sections E, are slotted at L, and are adjustably secured to the hangers B by means of 45 bolts. The said hinges are provided with apertures N, by means of which the plowbeams are connected thereto. The said plowbeams are indicated by the letter P, and have at their forward ends, properly secured by

means of bolts, rivets, screws, or otherwise, 50 the cast-iron connections R, which are flanged, as indicated by the letter S, so as to set securely on the ends of the plow-beams. The said connections are provided with bosses T, adapted to set in one of the apertures in 55 the hinge, and are secured to said hinge by means of fastening-bolts W. The said bosses relieve the connecting-bolts of all wear, and thus contribute to the durability of the apparatus.

The letter Z indicates the connections by means of which the shovel or share-standards are secured to the plow-beams. These connections consist of open cylindrical castings having braces A' made in one piece with the 65 same, and are interposed between the shovel or share-standards and the plow-beam, the securing-bolts B' passing through them, and the brace being secured to the plow-beam by means of a bolt, C'.

Between the two central hangers, B, is pivoted a carrier, D', secured to sections E', which are attached to said central hangers. To this carrier is secured or pivoted the forward end of the beam of the central plow, F', in a simi- 75 lar manner to that in which the other plowbeams are secured to their respective hinges.

Having thus fully described my invention, what I claim, and desire to secure by Letters

Patent, is—

In combination with the sulky-frame A, the cast-metal sections K, adjustably secured to the hangers B, the hinged connecting-plates H, secured to the said adjustable sections and perforated to allow lateral adjustment of the 85 plow-beams, the said beams and cross-bar G being slotted, as shown, to permit adjustability of the side beams and secure said side beams to the central bifurcated beam, all constructed and adapted to operate substantially 90 as and for the purposes specified.

In testimony that I claim the foregoing I have hereunto set my hand this 10th day of

August, 1880.

JACOB MANGAS.

Witnesses:

EDD. E. M. COCHRAN, D. H. HART.