

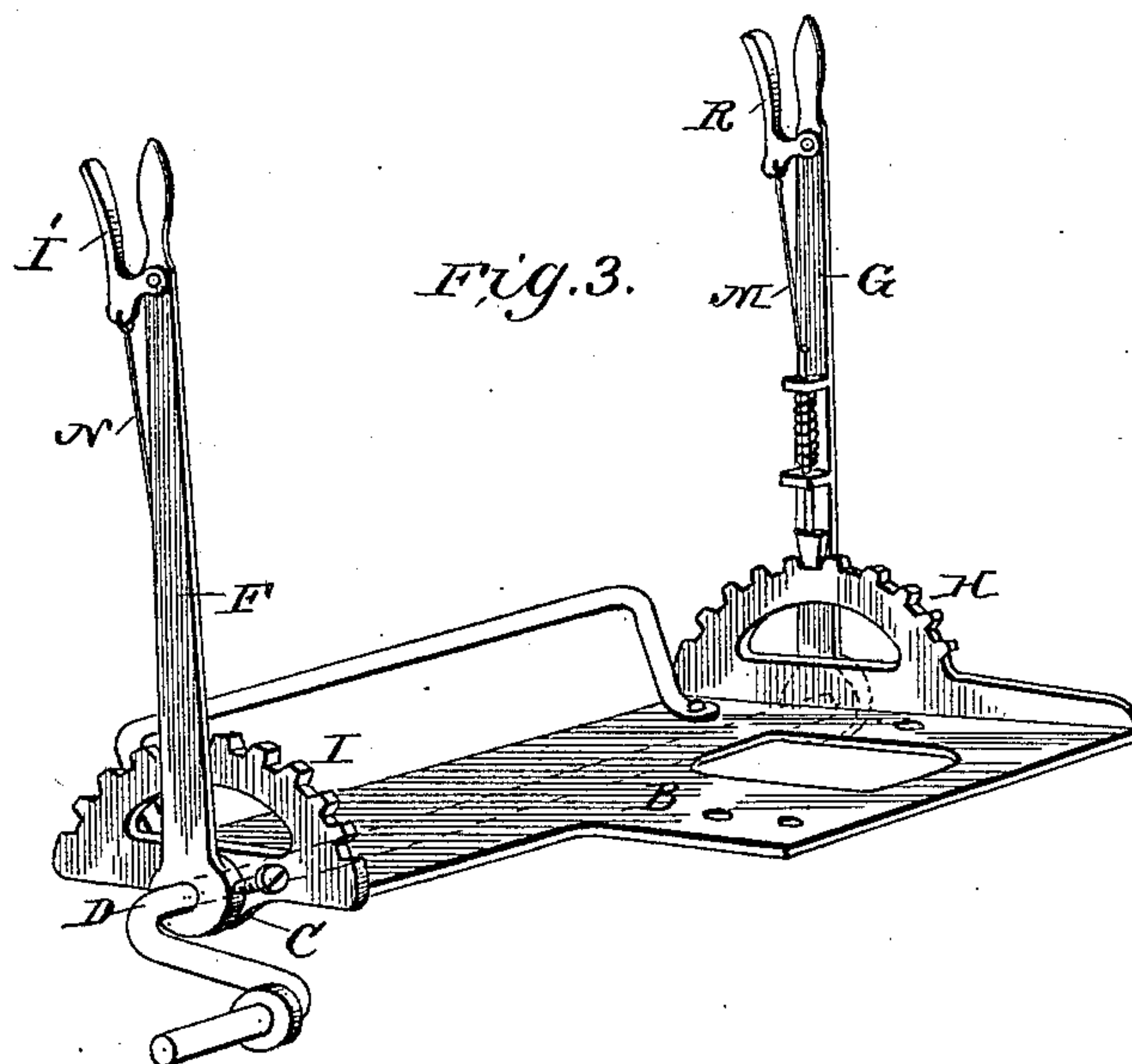
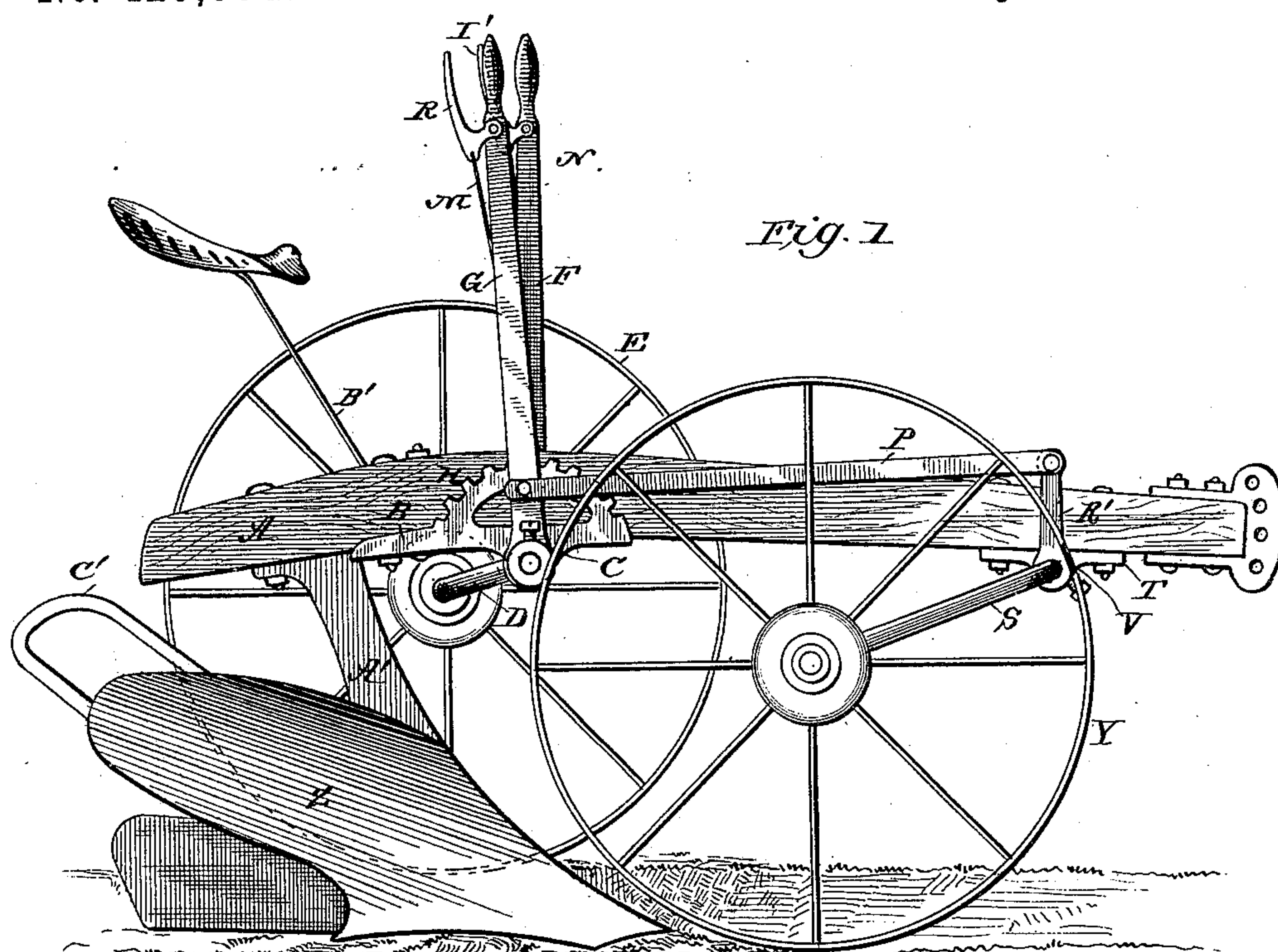
(No Model.)

2 Sheets—Sheet 1.

A. V. RYDER.
SULKY PLOW.

No. 429,064.

Patented May 27, 1890.



Witnesses

Jos. A. Ryan
C. W. Davis

Inventor

Andrew V. Ryder

By his Attorney

C. M. Alexander

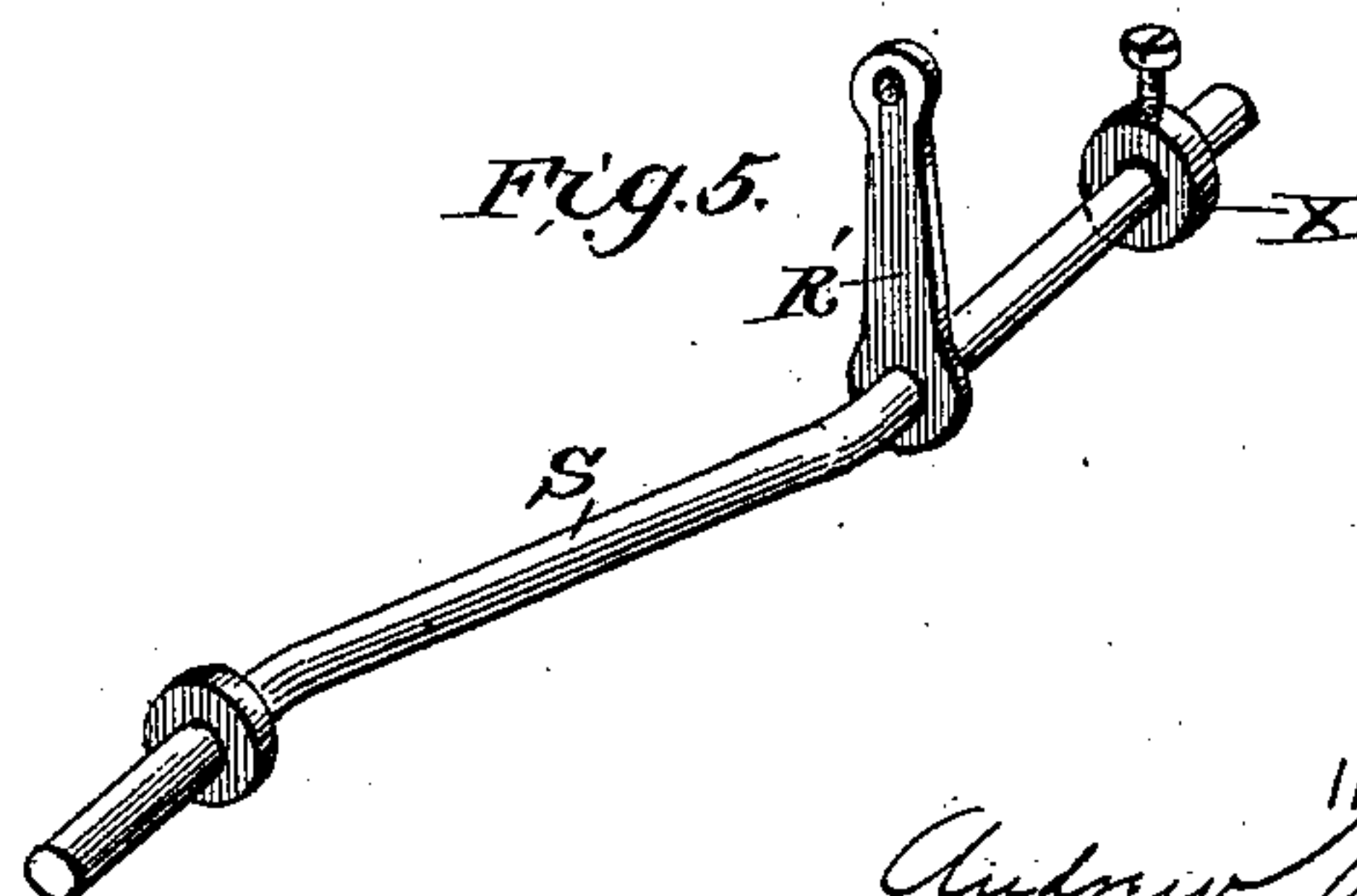
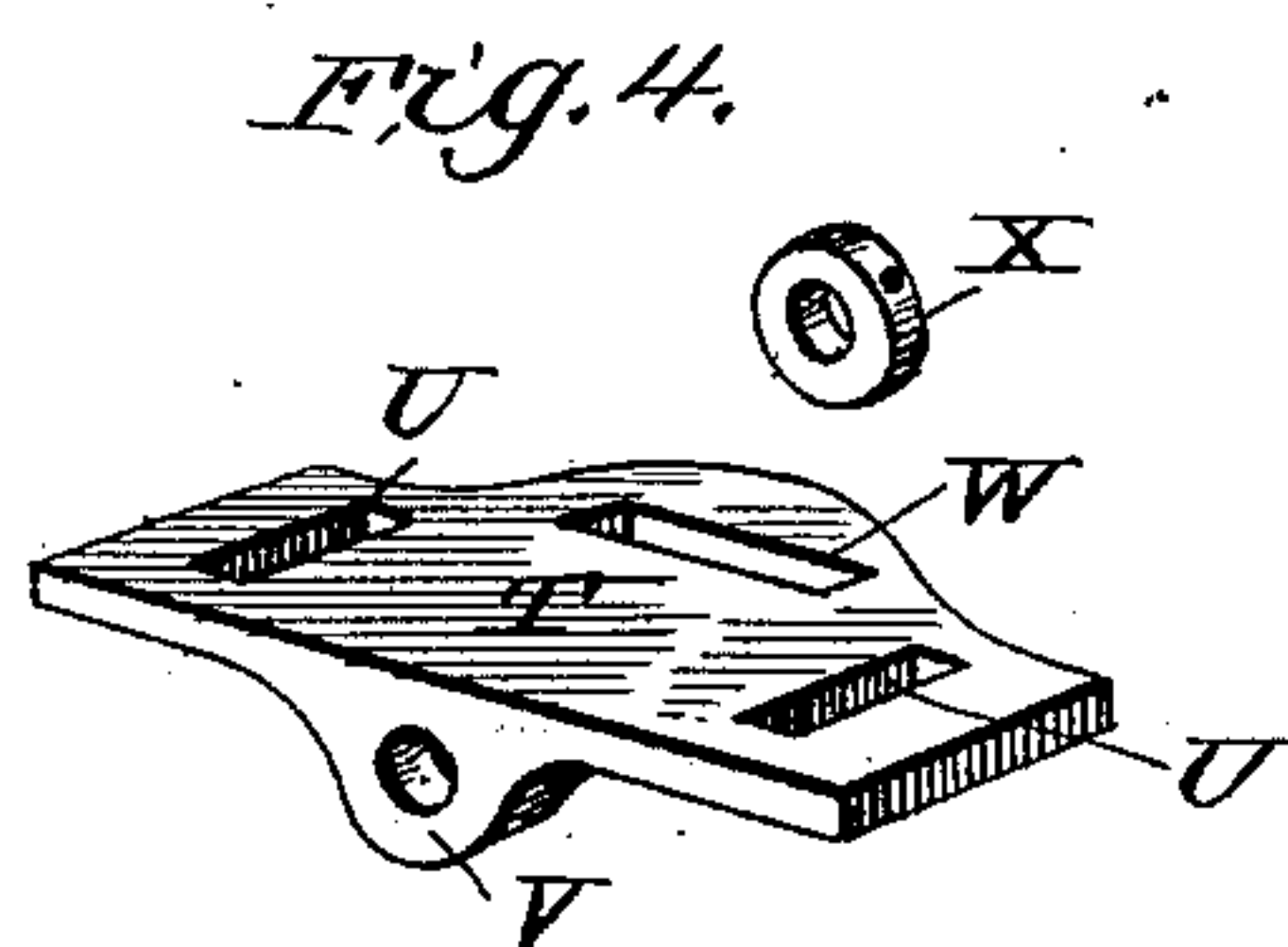
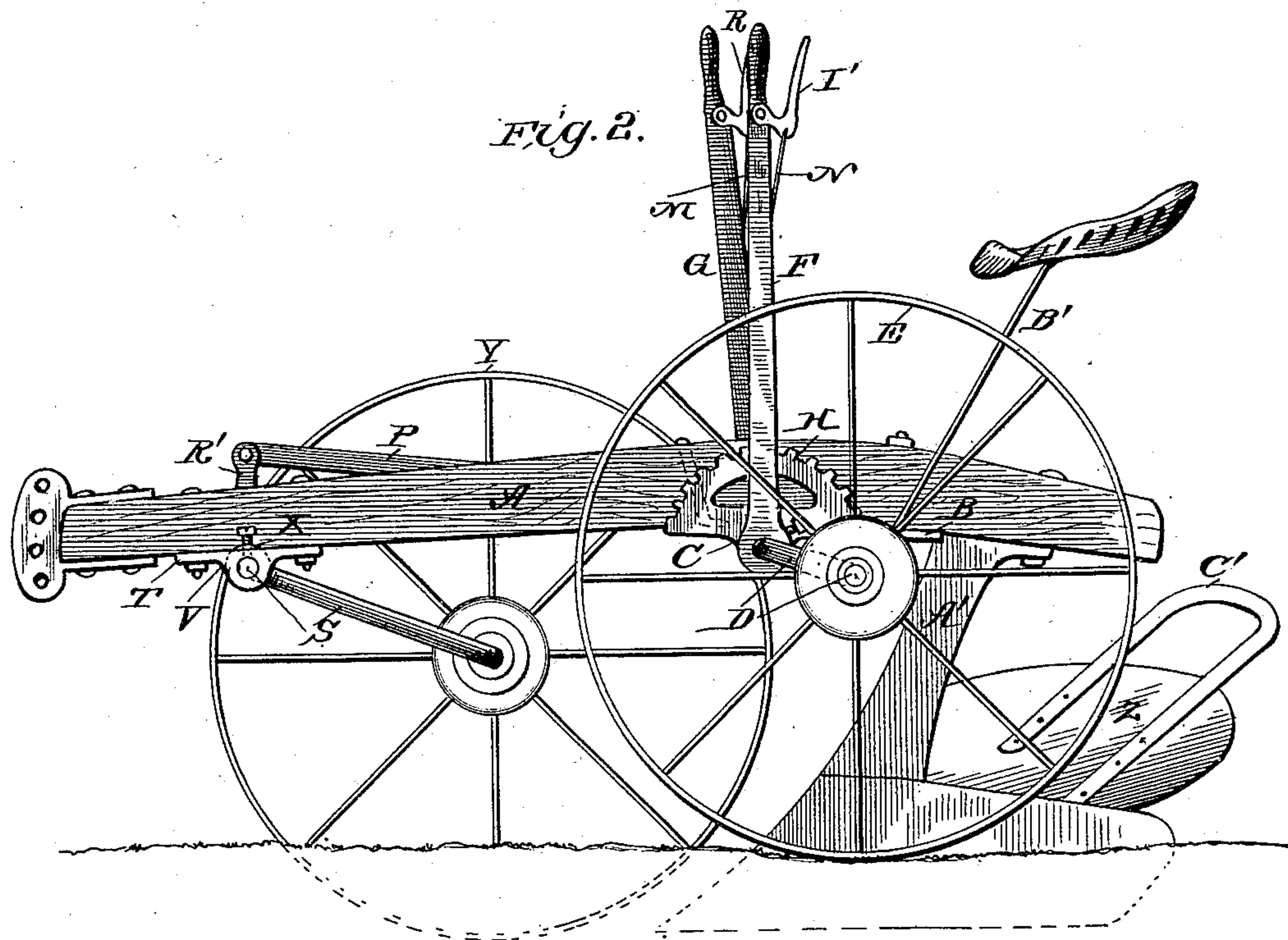
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WITNESSES:

Jos. A. Ryan
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INVENTOR:

Andrew V. Ryder

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ATTORNEYS

UNITED STATES PATENT OFFICE.

ANDREW V. RYDER, OF UNIONPORT, OHIO.

SULKY-PLOW.

SPECIFICATION forming part of Letters Patent No. 429,064, dated May 27, 1890.

Application filed November 25, 1889. Serial No. 331,489. (No model.)

To all whom it may concern:

Be it known that I, ANDREW V. RYDER, a citizen of the United States, residing at Unionport, in the State of Ohio, have invented certain new and useful Improvements in Sulky-Plows, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain improvements in that class of cultivators known as "sulky-plows;" and it has for its object to provide for adjusting the plow-beam with respect to the wheels, so as to cause the plow to penetrate the soil to a greater or less degree, and thus vary the depth of the furrow; to provide for adjusting the furrow-wheel so as to regulate the width of the space between the furrows, and to provide certain details of construction, whereby the above-mentioned objects are effected, as more fully hereinafter specified.

In the accompanying drawings, Figure 1 represents an elevation of the furrow-wheel side of the plow. Fig. 2 represents a similar view of the opposite side thereof. Fig. 3 represents a perspective view of a frame or supporting-plate for a portion of the plow mechanism. Fig. 4 represents a perspective view of a plate having bearings for the axle of the furrow-wheel. Fig. 5 represents a perspective view of the said axle and its attachments detached.

Referring to the drawings, the letter A indicates a plow-beam of ordinary construction, and B a metallic frame or plate secured to the under side thereof about one-third of the length of the beam from the rear end thereof. The said plate at opposite sides is provided with downwardly-projecting flanges or extensions C, having bearings for the axle D, upon one end of which is mounted the land-wheel E of the plow, the axle being bent into the form of a crank at said end, for the purpose hereinafter explained. To the said axle, near the upper end, is fastened an upwardly-extending lever F, by means of which the axle may be turned partially to elevate or depress the beam on the land-wheel. To the opposite end of said axle is fulcrumed a lever G, which turns freely thereon. The frame or plate B at opposite sides, above the flanges or extensions C, is provided with slotted or

ratcheted segment-plates H I, with which are adapted to engage the latches or pawls attached to the levers F G and controlled by the levers R I', fulcrumed to said levers F G near their upper ends, the said pawls being connected with the levers R I by means of connecting-rods M N, so that the levers F G may be locked in any desired position. The lever G is connected by means of a connecting-bar P with an arm R', which is adjustably secured to an axle S, fitted in bearings in a plate T, secured to the under side of the plow-beam near its forward end. The said plate is provided with transverse slots U, through which bolts or screws may be passed to secure it adjustably to the beam. The said plate is also provided with downwardly-turned flanges V, in which the bearings for the axle S are formed. The plate is also provided with a longitudinal slot W near one side, in which a collar X, adjustably secured to the axle S, may play, for the purpose hereinafter explained. The axle S is bent at one end into the form of a crank, terminating in a spindle, upon which the furrow-wheel Y is mounted and turns.

The letter Z indicates the plowshare, which is secured to the plow-beam just back of the frame B by means of a standard A', secured to and depending from the plow-beam. The plate or frame B extends to one side of the plow-beam and forms a platform for the seat-spring B', which is attached thereto. The frame along its forward edge is also provided with a foot-rail, on which the driver of the plow may rest his feet while driving.

The letter C' indicates a rail or handle secured to the mold-board and landside of the plow, to direct it when backing or being moved from place to place—that is, from one field of operation to another.

The operation of my improved plow is as follows: The furrow-wheel is intended to run in a furrow already made, and to guide and lead the plowshare parallel thereto in making the furrow next succeeding. To adjust it for this purpose is the object of the plate T, which, by means of the transverse slots and the bolts passing through the same, may be set in proper position for the purpose. To adjust the plow to vary the distance between the furrows, the axle S may be set lat-

erally to a greater or less extent to either side by loosening the collar X and arm R, and then clamping them in position by means of the set-screws, the collar preventing the axle
5 from working laterally in its bearings. To elevate or depress the beam with respect to the land and furrow wheels, it is only necessary to operate the hand-levers F or G, as occasion may desire.

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

1. In a sulky-plow, the combination, with the plow-beam, of the supporting-plate secured to the lower side thereof, the said plate
15 being provided with downward projections having bearings for the axle, the landside-wheel, and upwardly-extending toothed segments serving as locks for the pawl of the operating-levers of the plow, substantially as
20 specified.

2. The combination, in a sulky-plow, of the adjustable plate slotted transversely and longitudinally, the furrow-plow axle setting in
25 bearings in said plates, and the adjustable collar secured to the axle and playing in the

longitudinal slot, whereby the furrow-wheel may be adjusted to or from the plowshare to regulate the space between the furrows, substantially as described. 30

3. The combination of the plow-beam, the plate T, secured adjustably to the forward end of the beam, the cranked axle S, journaled adjustably in bearings in the said plate T, a wheel journaled on the cranked axle S, another plate B, secured to the plow-beam near
35 its rear end, this plate being provided with segments I H, a cranked axle D, journaled in bearings on this plate and carrying a wheel E, a lever G, journaled loosely on the axle D
40 and connected to a rigid arm on the axle S, and a lever F, rigidly secured to the axle D, both levers being provided with means to engage the segments I H, substantially as described. 45

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

ANDREW V. RYDER.

Witnesses:

J. W. POWELL,
SAMUEL VORHES.