

S. E. PARR.
Gang-Plows.

No. 135,357.

Patented Jan. 28, 1873.

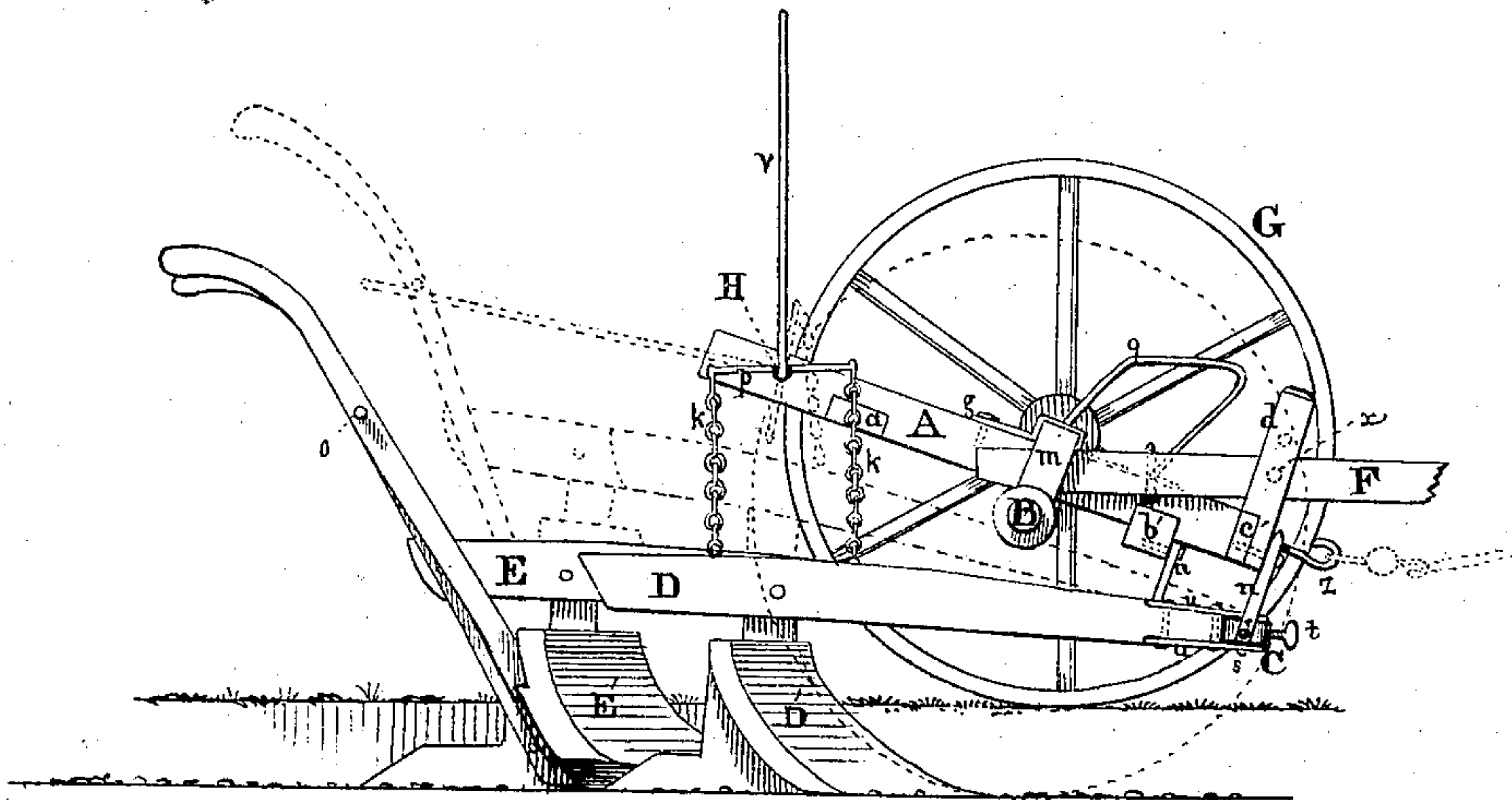


Fig. 1.

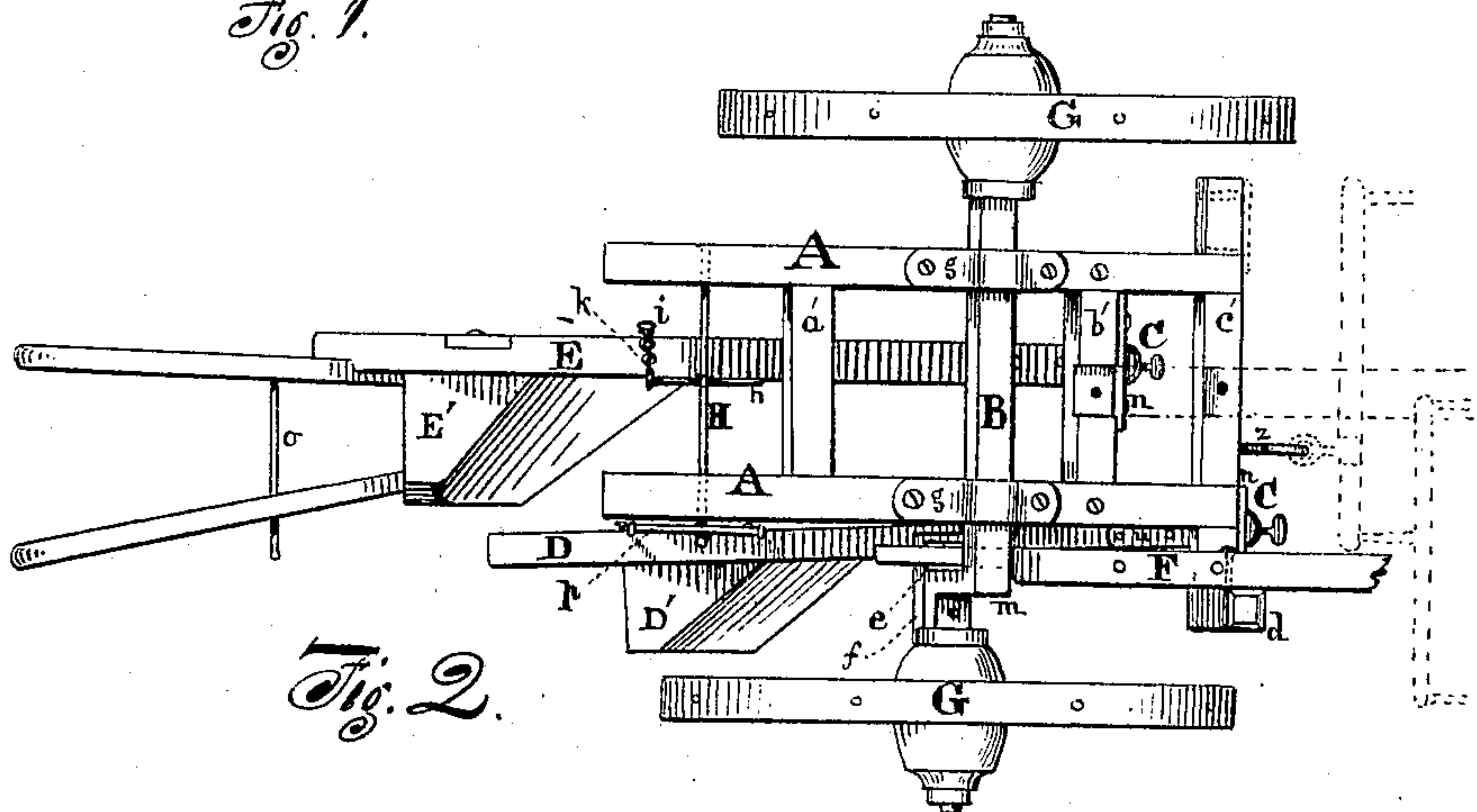


Fig. 2.

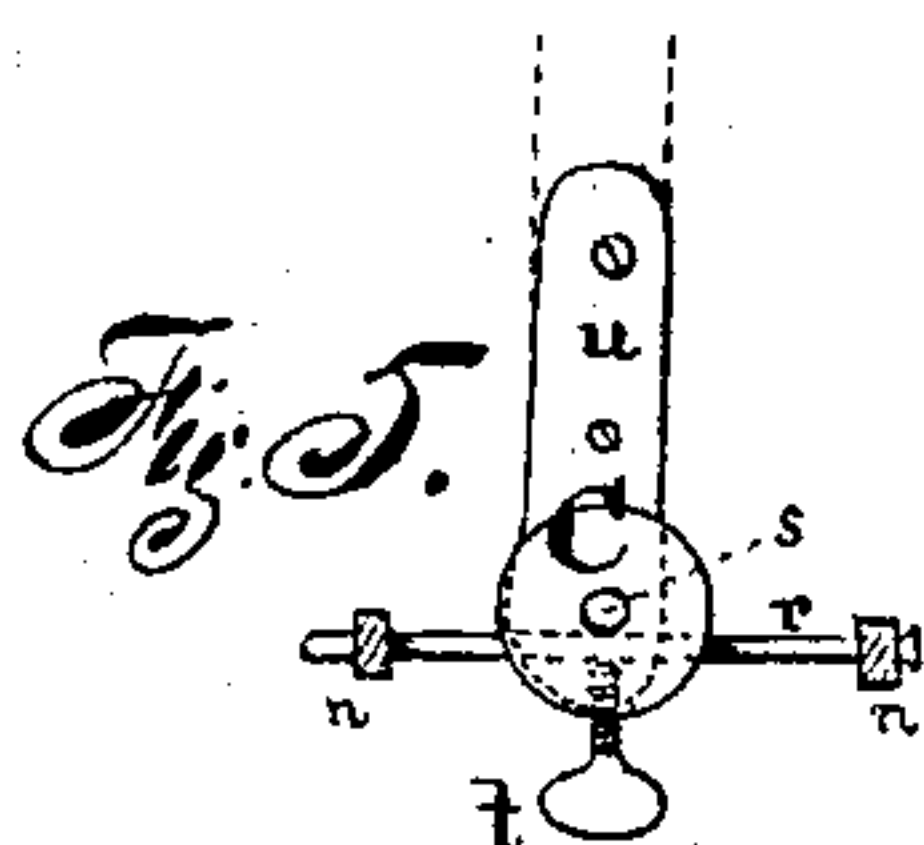


Fig. 5.

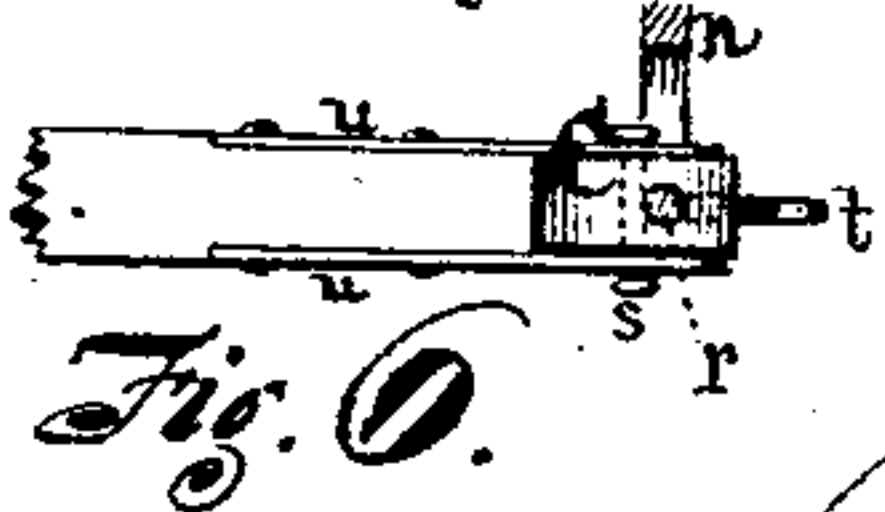


Fig. 6.

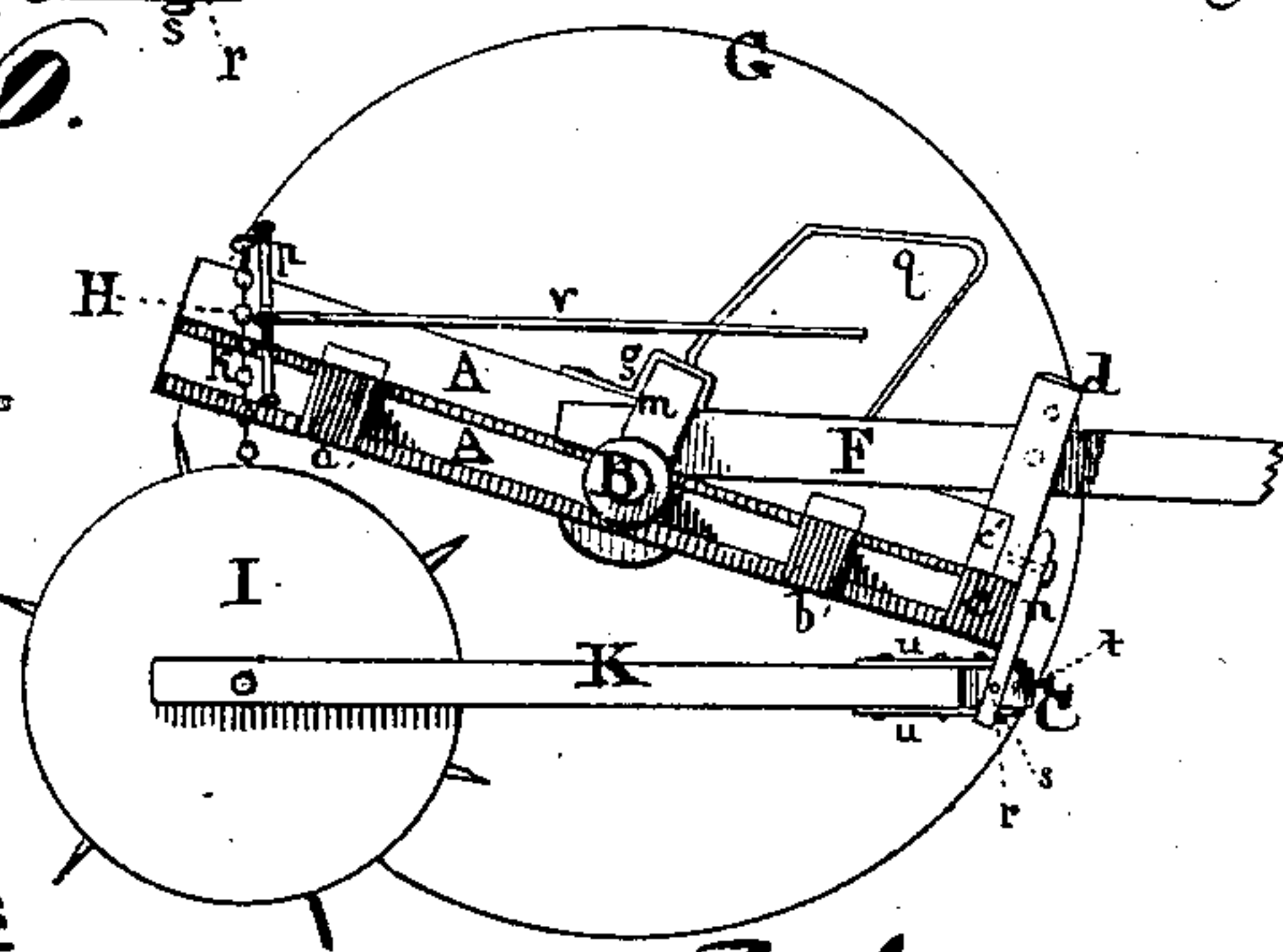
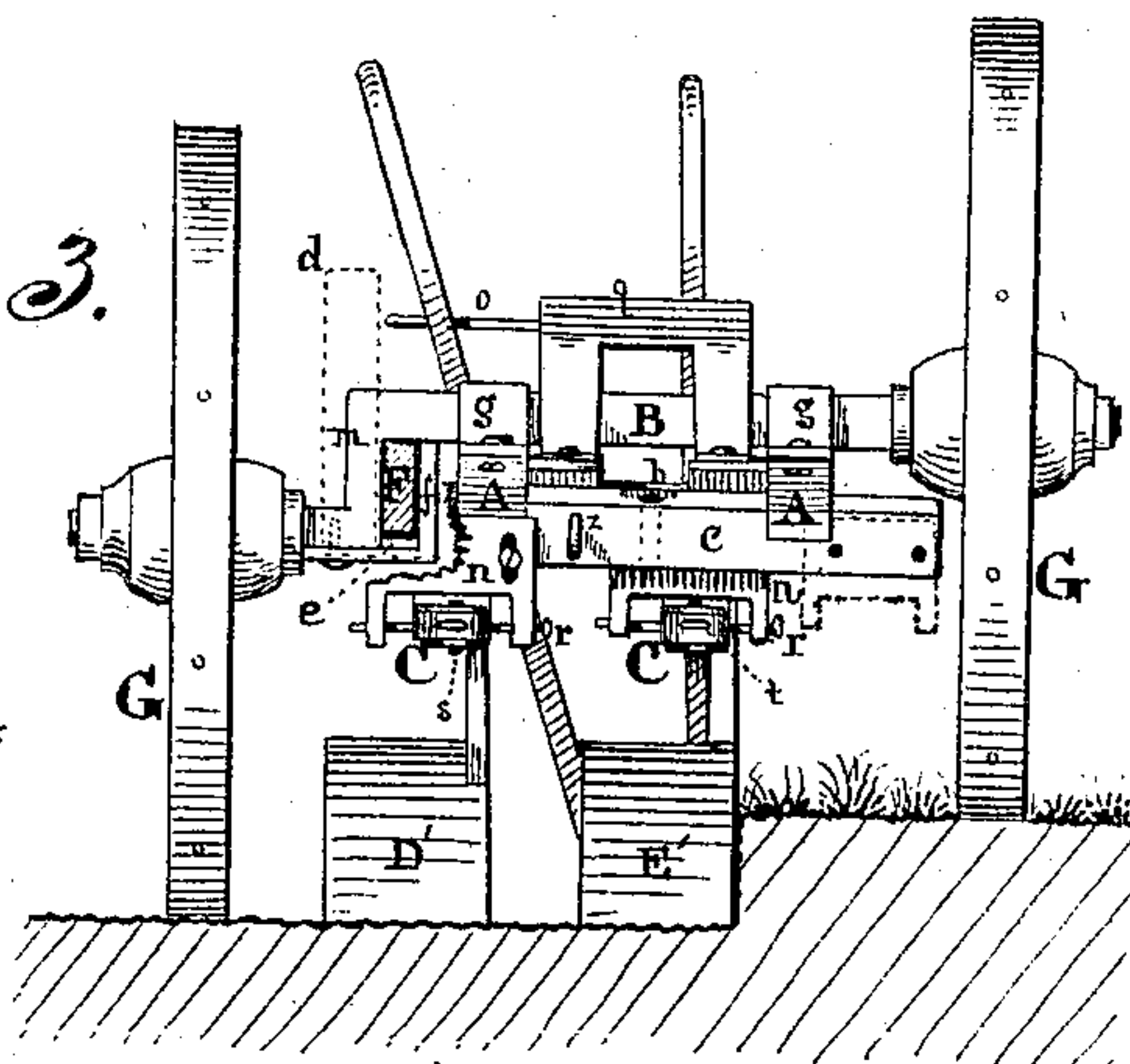


Fig. 4.

Fig. 3.



Witnesses

M. Arden
John Camotas

Samuel E. Parr (Inventor)
by Edmund Thurston
his Atty. in fact

UNITED STATES PATENT OFFICE.

SAMUEL E. PARR, OF SMITHVILLE, ILLINOIS.

IMPROVEMENT IN GANG-PLOWS.

Specification forming part of Letters Patent No. 135,357, dated January 28, 1873.

To all whom it may concern:

Be it known that I, SAMUEL E. PARR, of Smithville, in the county of Peoria and State of Illinois, have invented a Convertible Gang-Plow; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a longitudinal elevation. Fig. 2 is a plan view with the seat removed. Fig. 3 is a front view, the right end of the front bar of the frame being broken off to show the angle in the axle and section of the heel of the tongue. Fig. 4 is a side elevation, showing the machine converted into a corn-stalk cutter. Fig. 5 is a plan view of one of the joints for attaching plow-beam to the machine, and Fig. 6 is a side view of the same.

Like letters in all the figures of the drawing indicate like parts.

This invention relates to a bent axle, having a slot formed at the angle or bend thereof, in combination with the frame of the machine, provided with a vertical post, adjustable tongue, and joint constructed and arranged so that the beams of a gang-plow or corn-stalk cutter can be readily attached, as will be hereinafter more fully explained.

In the drawing, A represents the frame, which is a parallelogram suspended on the axle B at *g g*, and having cross-bars *a' b' c'*, the latter bar forming the front of the machine. The two latter bars have recesses on their surfaces to receive the tongue F when the frame is used for a stalk-cutter, bolt-holes in the recesses being provided for this purpose. The bar *c'* extends beyond the frame on the right side of the latter and terminates in a vertical post, *d*, to which is adjusted at the required height the tongue F by means of a pin or bolt, *x*. The draft is attached to a hook, *z*, in the front bar *c'* of the frame. B, the axle, which, after passing horizontally across the frame A A, is bent downward at a sharp angle, *m*, for the depth of several inches, and then terminates in the wheel-hub. An iron, *f*, fastened to the lower side of the axle near the hub, and extending beyond the lower angle of the bend, turns up at a right angle and abuts against the lower surface of the axle, leaving a slot, *e*, about two inches in

width between it and the vertical part of the said axle, in which the heel of the tongue may vibrate vertically. C C, the joints, one for the support of each plow-beam. Each beam slides on and is supported by a horizontal bar, *r*, which is supported at either end in vertical arms terminating above in the plate *n*, one of which plates is bolted to the right end of the bar *c'* of the frame A, and the other plate *n* to the opposite or left end of the second bar *b'* of said frame. These joints consist of a metal block perforated by a vertical pin or pivot, *s*, passing as well through the metal straps *u u*, which embrace the head of the plow-beam D E and the block. A horizontal bar, *r*, before mentioned, passes horizontally and freely through said block for the purpose of forming a guide on which the block may be set by means of a screw, *t*, entering the block and reaching to the rod or bar *r*. D, plow-beam, carrying the plow D', and attached by the joint C and plate *n* to the front bar *c'* of the frame A A. E, plow, of any common form, attached in the same manner to the second transverse bar *b'* of the frame. The handles of this plow have a transverse rod, *o*, (or other fastening,) projecting from the inner side of the handles, so as to hold the weight of the plow and beam upon the end of the lever *v*. F, the tongue; the heel is inserted in the slot *e* at the angle of the axle B, in which it vibrates vertically in passing over rough soil. It lies nearly horizontally and is attached at adjustable heights to the post *d* by means of a pin, *x*. G, the wheels; H, a horizontal rod pivoted in the rear end of the frame A A, and has two transverse arms, *h p*, one of which is attached to the plow-beam E by a short chain, K; the other arm by a chain attached to either end of the arm, and hooked to the beam D by means of pins. The rod H terminates in a lever, *v*, which remains vertical when the plows are at work. I, the stalk-cutter, of a common form, with radial horizontal knives, and pivoted at either end in a horizontal frame, K, the front ends of which have bolt-holes, by which the same is fastened between the straps *u u* of the joints C C after removing the plow-beams. The plate *n* on the bar *b'* is removed to the front bar *c'* of the frame, and adjusted at the proper height on said bar to bring the cutter-frame level or horizontal, as the wheels

run on level ground when the stalk-cutter is used.

The operation of this machine is as follows: The plow D E may be taken from the frame, if the operator chooses, and attached by the straps *u u* to the joint C on the cross-bar *b'*, the other plow D' being similarly attached to the bar *c'* in advance of the other. The plows are adjusted on the bars *r r* to take more or less land by moving the blocks C C along their respective rods or bars *r r*, and fixed by the set-screws *t t* pressing upon their rods. The points of the beams are kept from vertical oscillation by the action of the slot *e* at the axle B, which allows the heel of the tongue free motion, or so much motion as to counteract the oscillation of the frame A A. When going to or from work the plows are suspended by throwing back the rod *v* horizontally, the arms *p* of the same lifting the forward chain *k*, which is attached to the beam D, and supporting the projecting end of the rod *o* in the handles of the plow E' upon the end of the lever *v*. One horse is attached at the left side of the frame A A to the double-tree, which is hooked to the staple or hook *z* in the front bar *c'*, and the two other horses at either side of the tongue to the single-tree attached to the other end of the double-tree, as shown by the dotted lines in Fig. 2.

When the machine is desired to be adapted to cutting stalks, the plow-beams are taken from the straps *u u u u* of the joints C C, and

the posterior plate *n* is removed and attached to the front bar *c'* of the frame, and the forward end of the stalk-cutter frame K inserted between the straps, (see Fig. 4;) at the same time the tongue F is detached from the post *d* and the slot *e*, and is bolted to the recesses in the bars *b' c'* of the frame A A, as seen in the dotted lines in Fig. 2. The plate *n* taken from the bar *b'* should be placed as high as possible on bar *c'*, in order to accommodate the horizontal position of the cutter-frame K to the inclination of said frame A A, as the wheels now must travel on level ground and throw the frame into an inclined position.

As will be seen from the description of the joint C and its connections, any plow or plows can be readily used as gang or walking plows, the joint allowing the beam and plow to be gaged to take more or less land.

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

The bent axle B, having slot *e*, in combination with the frame A *a' b' c'*, vertical post *d*, adjustable tongue F, and joint C, constructed and arranged so that the beams of a gang-plow or stalk-cutter can be readily attached, substantially in the manner as herein shown and set forth.

SAMUEL E. PARR.

Witnesses:

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JAMES MORSE.