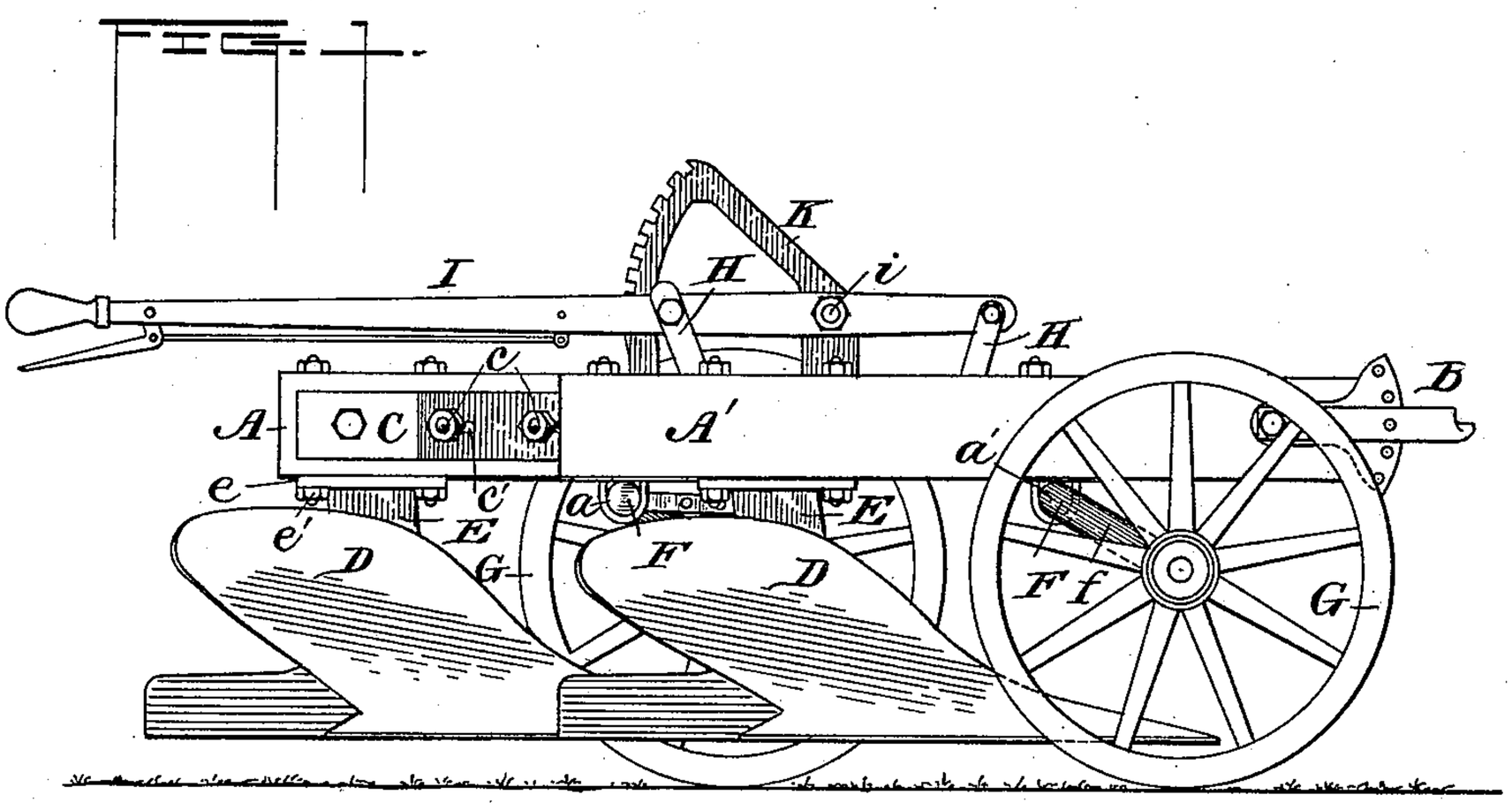
(No Model.)

G. A. BISHMAN.

SULKY PLOW.

No. 465,914. Patented Dec. 29, 1891.



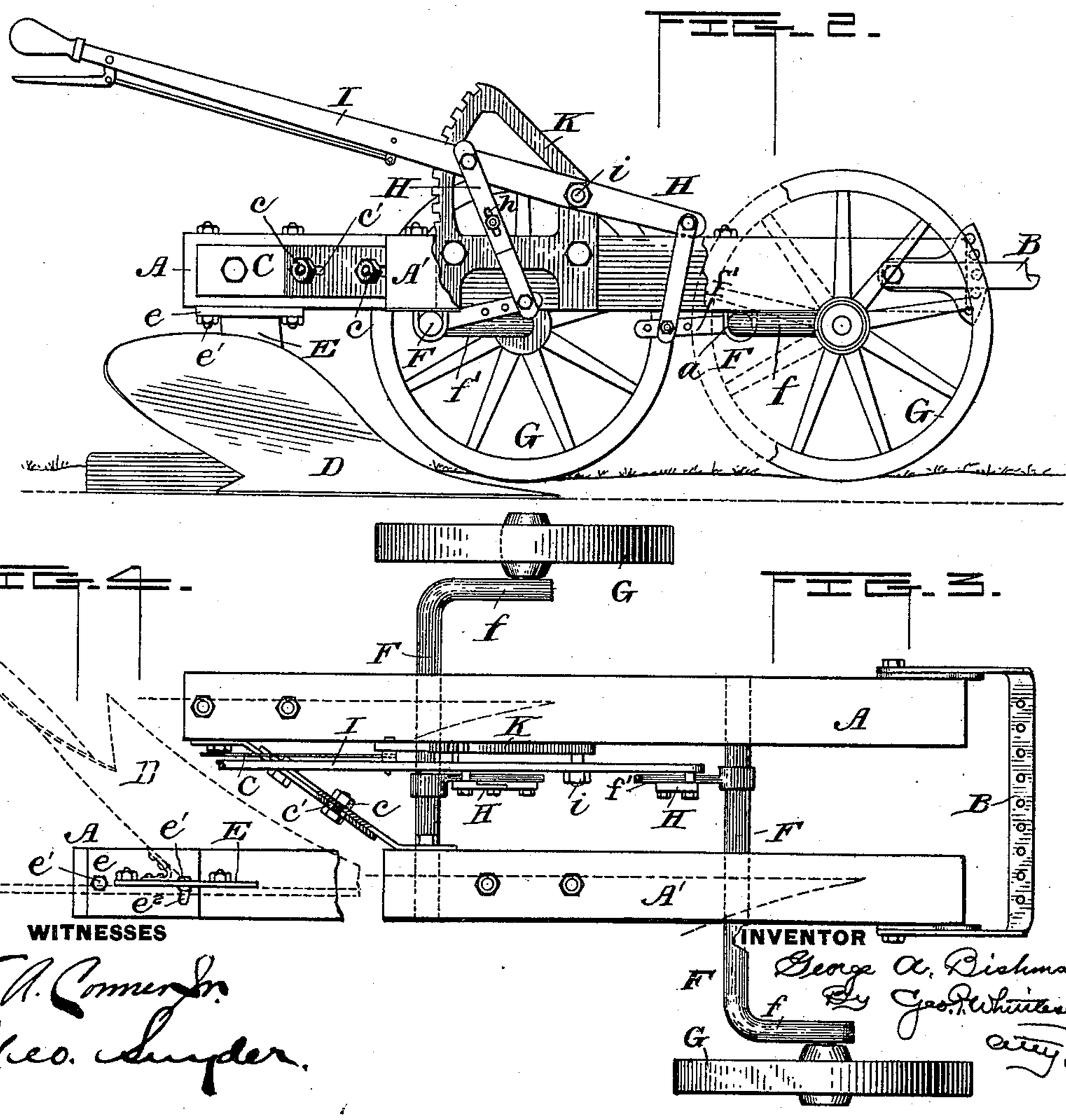


FIG. 2.

FIG. 3.

FIG. 4.

UNITED STATES PATENT OFFICE.

GEORGE A. BISHMAN, OF BROOKINGS, SOUTH DAKOTA.

SULKY-PLOW.

SPECIFICATION forming part of Letters Patent No. 465,914, dated December 29, 1891.

Application filed June 17, 1891. Serial No. 396,567. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. BISHMAN, a citizen of the United States, residing at Brookings, in the county of Brookings and State of South Dakota, have invented certain new and useful Improvements in Sulky Plows; and I do 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 the letters of reference marked thereon, which form a part of this specification.

My invention relates to sulky-plows; and its object is to facilitate the adjustment and operation of the various parts of the plow, as hereinafter set forth, and particularly pointed out in the claims.

In the drawings, Figure 1 is a side elevation showing the plowshares raised. Fig. 2 is a similar view, partly broken away, showing the plowshares lowered. Fig. 3 is a top plan view, and Fig. 4 is a bottom plan view, of the left-hand beam and standard.

The two horizontal plow-beams A A′ are united in front by the clevis B and at the rear by the brace C, which is preferably placed diagonally and is composed of two parts, one part being fastened to each beam. The bolts *c*, uniting these parts, pass through slots *c′*, so that the brace can be shortened or lengthened to adjust the space between the plowshares D. Each plowshare is secured to the foot of a standard E, which depends from a plate *e*, fastened to the under side of the beam, preferably by bolts *e′*, one of which passes through a transverse slot e^2, so that the standard can be adjusted laterally to vary the position of the plowshare.

Mounted in bearings *a a′*, secured to the beams, are two transverse axles F, one spaced a suitable distance in front of the other. At one end of each axle is a crank-arm *f*, the two arms lying on opposite sides of the beams. A wheel G is journaled on a wrist-pin or axle-skein at the end of each arm *f*.

Projecting from each axle between the beams A A′ is a horizontal rock-arm *f′*, the arm on one axle extending forward and the other backward. Each arm is connected by a link H with a lever I, fulcrumed at *i* between the points of attachment of the links to a standard K, fastened to one of the beams A A′. One or both of the links may be made in two parts adjustably secured together, as by a bolt *h*, passed through a slot in one of the parts. The rock-arms can be provided with several bolt-holes, as shown, to vary the point of attachment of the link.

Secured to one of the beams, and preferably forming a part of the standard K, is a segment-rack *k*, with which a latch *i′* on the lever I engages to lock the lever. When the lever is depressed, as shown in Fig. 1, both of the crank-arms *f* are thrown simultaneously down, and the beams and plowshares are raised high enough to clear ordinary obstructions as the plow is drawn along the road or across the fields. By means of the adjustable links H the plow can be leveled. The beams can be adjusted toward or apart from each other when smaller or larger plowshares are used or in case the plow becomes worn. The slotted standard-plates *e* enable the share to be aligned should the landside crowd the earth too hard, thus removing the pressure or side draft from the landside and thereby lessening the friction, lightening the draft of the plow, and obviating unnecessary wear.

An important practical advantage is found in the relative arrangement of the wheels and plowshares. By setting one wheel ahead of the other and the plowshares similarly the line joining the hubs of the wheels lies oblique to the line of draft. The plowshares, therefore, can vibrate in vertical planes at right angles with the line of the hubs and oblique to the line of draft. When the lever I is raised and the beams drop, the plow-points strike the earth first and the shares staud tilted to the left. Upon starting the plow the points dig into the ground quickly in an oblique direction until the landsides have become vertical, after which the plowshares follow the line of draft. By this construction the plows attain their full depth almost immediately, which is not the case with the other plows of this class, so far as I am aware.

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

1. A sulky-plow consisting of the combination of the beams A A′, having their front

ends united by the clevis B and their rear ends adjustably connected by the diagonal two-part brace C, a laterally-adjustable plowshare D, attached to each beam, one being set ahead of the other, two transverse axles F, each located above and a little behind the point of the adjacent plowshare, a forwardly-extending crank-arm *f* at the outer end of each axle, a wrist-pin at the end of each crank, a wheel G, journaled on each pin, a rock-arm *f'* on each axle between the beams A A', said arms extending toward each other, and a lever adjustably connected with the rock-arms *f'*, substantially as described.

2. In a sulky-plow, the combination, with two transverse cranked axles, each having a rock-arm, of a standard K, having a segment-rack *k*, a horizontal lever I, fulcrumed on the standard, links H, jointed to the lever on either side of the fulcrum and adjustably connected with the rock-arms, and a latch *i'* on the lever I, adapted to engage with the rack, substantially as described.

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

GEORGE A. BISHMAN.

Witnesses:
P. C. MURPHY,
H. H. ELY.