H. FULLER & T. L. BOYD.

SULKY-PLOW.

No. 186,673. Patented Jan. 30, 1877.

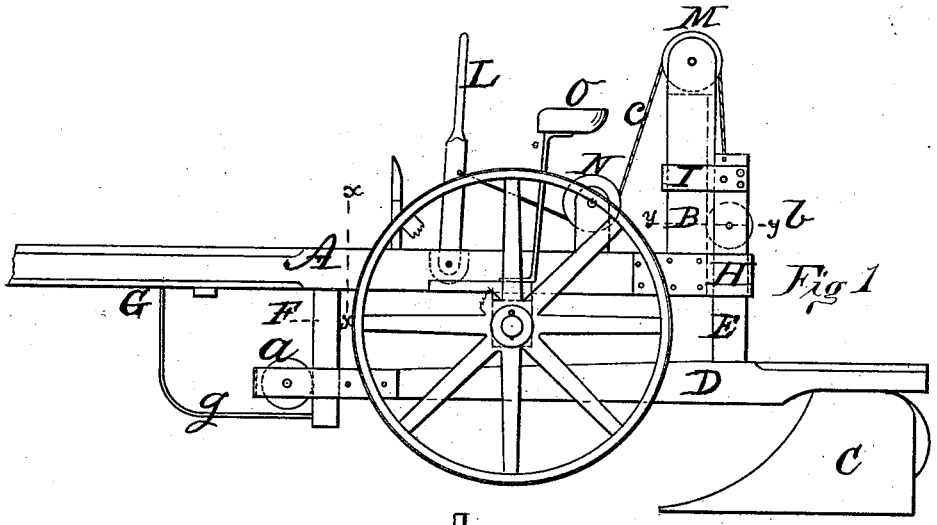

Fig 1

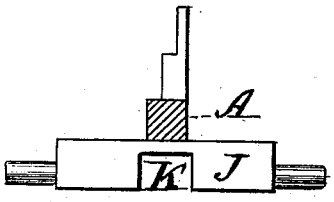

Fig. 2.

Fig 3

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UNITED STATES PATENT OFFICE.

HENRY FULLER AND THOMAS L. BOYD, OF FRANKLIN, OHIO.

IMPROVEMENT IN SULKY-PLOWS.

Specification forming part of Letters Patent No. **186,673**, dated January 30, 1877; application filed May 12, 1876.

To all whom it may concern:

Be it known that we, HENRY FULLER and THOMAS L. BOYD, of Franklin, in the county of Warren and State of Ohio, have invented a new and useful Improvement in Sulky-Plows; and we 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.

Figure 1 represents a side elevation of our improved plow. Fig. 2 is a transverse section of the tongue, forming part of the frame, in a plane indicated by the line *x x*, Fig. 1, showing also the notched axle of the frame; and Fig. 3 represents a transverse section of the vertical portion of the frame, in a plane indicated by the line *y y'*, Fig. 1.

Our invention relates to the combination of a self-adjustable plow with the frame of a two-wheeled carriage, by which the plow is propelled, as hereinafter more fully described.

The frame consists of the single longitudinal timber A, which also serves as the tongue for the team, and the timber B firmly secured to its rear end.

The plow C is secured at the rear end of its beam D, which has the vertical standard E rigidly secured to it, as represented in Fig. 1.

To the front end of beam D a metal loop is secured, in which the friction-wheel *a* is journaled; and a slot is formed in standard E, in which friction-wheel *b* is located. The friction-wheel *a* works against the front side of the draft-stud or pendent frame-piece F, which is secured to the frame-timber A, and an iron rod or bar connects the lower end of draft-stud F with the tongue at G.

The friction-wheel *b* works in a groove formed in the rear side of the vertical frame-timber B.

The plow is connected to the carriage-frame by two metal loops, H I. The loop H is secured to the rear end of the frame-timber A, and embraces the standard E of the plow, and loop I is secured to the standard E, and embraces the vertical frame-timber B.

Frame-piece A, which serves as the tongue, is centrally located upon axle J, which is cut away underneath at K, to allow the plow-beam D to be raised to the plane of the lower surface of the frame. The metal loops H and I will be of suitable capacity to permit a free motion of the parts E B, which they respectively embrace, to allow the frame of the carriage to rise and fall and adjust itself to the plow when the carrying-wheels pass over uneven surfaces or obstructions; and to facilitate this operation the friction-wheels *a b* are employed. A cord, *c*, connecting the upper end of standard E with the hand-lever L, pivoted to timber A, passes around pulley M at the upper end of upright B, and pulley N, journaled in bearings connected with timber A, by which means the attendant upon seat O may raise the plow out of the ground, or adjust it to plow to any desired depth. The brace-bar *g* and loop H serve to limit the depth of the furrows plowed when the cord *c* is slackened, as then the friction-rollers *a* and *b* will rest upon the bar *g* and loop H, respectively.

It will be seen from the foregoing description that the plow will run in a horizontal plane, or a plane parallel with the general surface of the ground without being affected by ordinary irregularities or obstructions upon the surface over which the wheels may pass; and as the team will be hitched to the carriage frame or tongue, instead of to the front end of the plow-beam, the latter will not be thereby prevented from following in the regular horizontal plane desired, as the draft cannot affect the free adjustability of the plow in relation to the frame of the carriage. When it is necessary to "back the team" the plow need not first to be elevated, as the backward movement of the carriage will force the plow backward. This capability obviates the necessity of the driver to dismount, and by manual force disengage the plow from roots or other impediments which are often encountered and stop the team.

Having fully described our invention, we claim and desire to secure by Letters Patent—

1. The combination of the plow-beam D, provided with the standard E and friction-wheels *a b*, and the frame A, provided with

the standard B and draft-stud F, substantially as and for the purpose herein specified.

2. The combination and arrangement of the plow-standard E, upright B, loops H I, and suspending and elevating mechanism *c* L M N, substantially in the manner and for the purposes described.

Witness our hands this 3d day of May, 1876.

HENRY FULLER.
THOMAS L. BOYD.

Witnesses:
H. P. K. PECK,
W. O. PECK.