(No Model.)

A. F. BERGQVIST.

SULKY PLOW.

No. 264,610. Patented Sept. 19, 1882.

Fig. 1.

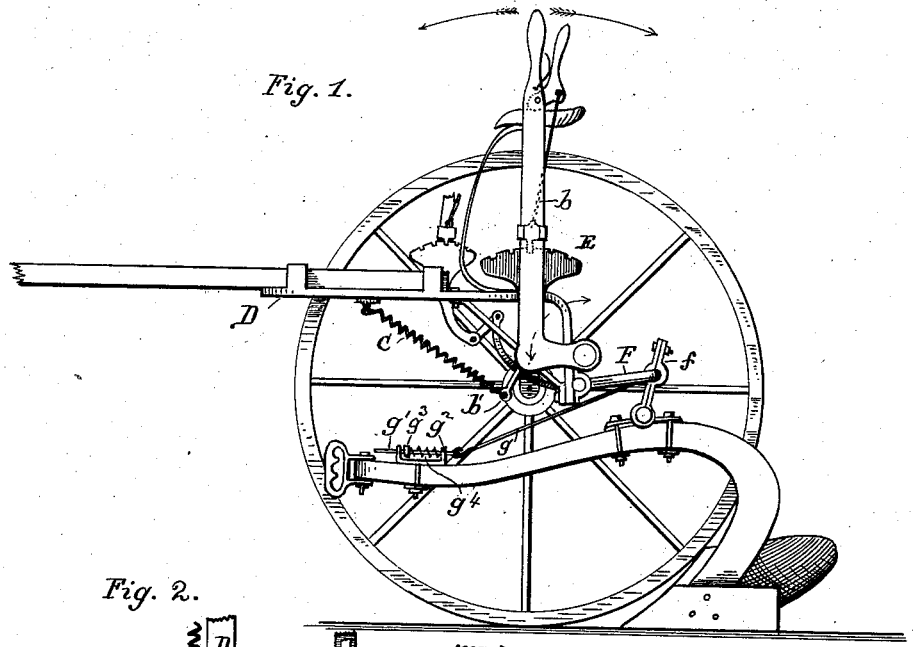


Fig. 2.

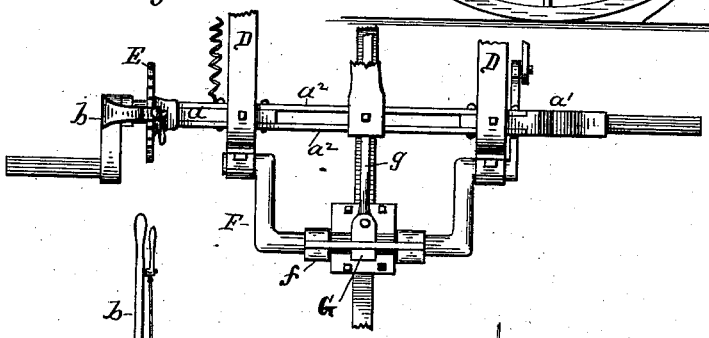
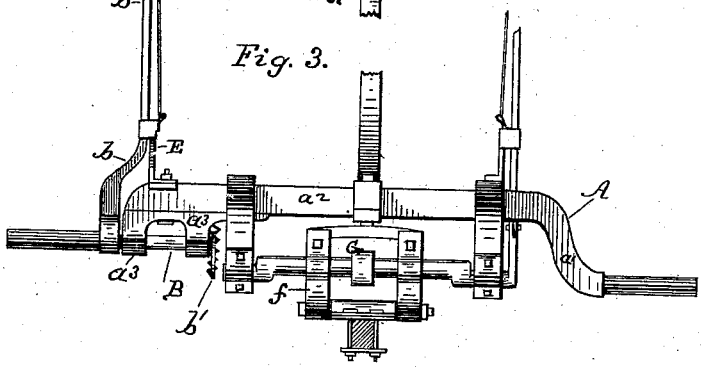


Fig. 3.



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UNITED STATES PATENT OFFICE.

AXEL F. BERGQVIST, OF FAIRFIELD, IOWA.

SULKY-PLOW.

SPECIFICATION forming part of Letters Patent No. 264,610, dated September 19, 1882.

Application filed February 27, 1882. (No model.)

To all whom it may concern:

Be it known that I, AXEL F. BERGQVIST, of Fairfield, in the county of Jefferson and State of Iowa, have invented a new and Improved Sulky-Plow; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to certain improvements upon the plow covered by my Letters Patent No. 234,743, November 23, 1880; and it consists, first, in certain novel features in the construction of the axle; second, in the combination, with the lever for raising the plow out of the ground, of a spring adapted to assist the plowman when using the lever for this purpose; and, third, in the combination, with the frame and plow-beam, of a supporting-rod and spring, by means of which the beam is given a capacity to yield under pressure, as will be fully described hereinafter.

In the accompanying drawings, Figure 1 is a side elevation with the rear wheel removed. Fig. 2 is a plan view with the frame and plow-beam broken away. Fig. 3 is a rear elevation with the plow-beam in section.

A represents the axle, consisting of two end pieces, *a a'*, of proper form, the inner ends of which are united by the bars a^2 a^2, as shown.

a^3 represents a U-shaped block, secured to one end of the axle, which is provided with proper bearings for the crank-spindle B, as shown.

b represents a lever attached to the crank-spindle at the proper point, and *b'* an arm located upon the opposite side of the same, as shown.

C represents a spiral spring, by means of which the end of arm *b'* is connected to the frame D, as shown.

E represents a rack-plate, which is secured to the axle at the proper point by a bolt passing through its base-piece, as shown.

The lever *b* is provided with any proper locking device for engaging with the rack-plate E in the manner well understood.

The operation of this part of my invention is substantially as follows: The lever *b*, when occasion requires, is actuated by the plowman to adjust the land-side wheel and level the sulky in the manner described in my former patent. In accomplishing this result, however, the plowman, by means of this improved construction, is assisted by the reaction of the spring C in adjusting the wheel.

F represents the bail referred to in my former patent, and *f* the swinging plate by means of which the bail is united to the clip-plate of the plow-beam.

G represents a collar or sleeve located on the bail between the side pieces of the swinging plate, which is adjustable in a lateral direction to suit the position of the plow-beam.

g represents a connecting-rod, the rear end of which is united to the sleeve and the front end to the bolt *g'*, held in proper bearings of the clip-plate g^2 upon the plow-beam.

g^3 represents a collar fixed upon the bolt, and g^4 a spiral spring located on the bolt between the collar g^3 and the rear bearing-stud of the clip-plate, as shown.

By means of this special construction the plow-beam is held steadily, while at the same time it is permitted to yield to some extent under pressure. As a result of this capacity for yielding under pressure the draft is materially reduced.

By means of the described improvements more perfect results are obtained than heretofore in the use of the machine.

Having thus described my invention, what I claim as new is—

1. The combination, with the axle A and U-shaped block a^3, of the crank-spindle B, lever *b*, arm *b'*, spring C, and frame D, substantially as described, and for the purpose set forth.

2. In combination with the plow-beam and bail, the swinging plate *f*, the connecting-rod *g*, and spring-bolt *g'*, as described.

AXEL F. BERGQVIST.

Witnesses:

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