

(No Model.)

J. P. BLACK.
SULKY PLANTING PLOW.

No. 251,089.

Patented Dec. 20, 1881.

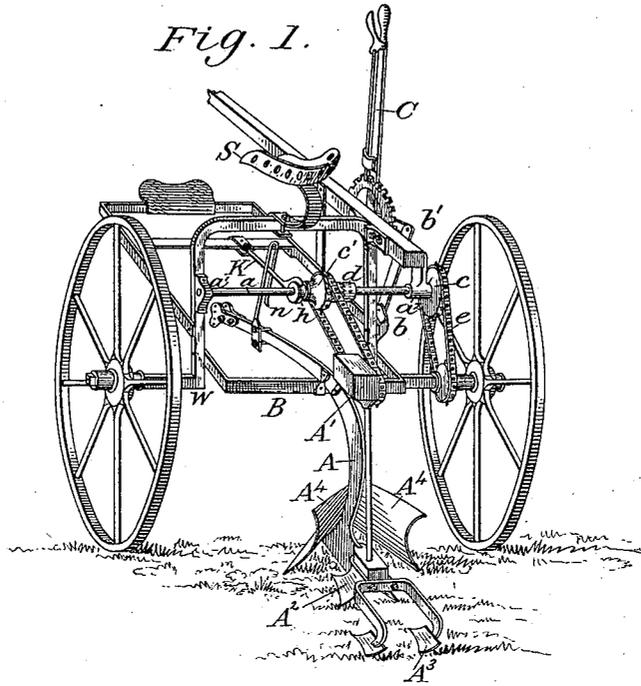


Fig. 2.

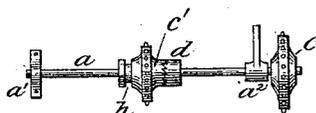
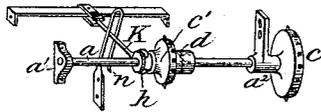


Fig. 3.

Fig. 6.



Fig. 4.

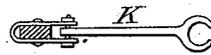


Fig. 5.

Witnesses:
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UNITED STATES PATENT OFFICE.

JOSEPH P. BLACK, OF ALTON, ILLINOIS, ASSIGNOR TO THE HAPGOOD
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SULKY PLANTING-PLOW.

SPECIFICATION forming part of Letters Patent No. 251,089, dated December 20, 1881.

Application filed July 11, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH P. BLACK, of Alton, in the county of Madison and State of Illinois, have invented a new and useful Improvement in Sulky Planting-Plows, which improvement is fully set forth in the following specification and accompanying drawings.

My invention will be understood by the following description and claims, referring to the drawings, in which—

Figure 1 is a view in perspective of my improved sulky planting-plow; Figs. 2, 3, 4, 5, and 6, detail views, hereinafter to be described.

Like letters refer to like parts throughout the several views.

In Fig. 1 is shown an ordinary plow-sulky, the same as is used in an ordinary sulky-plow, in which W is the axle, to which is pivoted the bail B, having one arm, *b*, connected by the link *b'* to the operating-lever C, as shown, and the sulky, being of well-known construction, need not be further described. Connected to the bail B is shown a bent plow-beam, A, supporting a listing-plow, A¹, and carrying a seed-dropping attachment, A', and a planting attachment, A², with covering-blades A³. The seed-dropping attachment is operated by means of drive-chains or belt *e* from one of the wheel-hubs in the sulky, and the drive-chain may operate directly from the wheel-hub or through an intermediate shaft, as is well known, and which I do not claim.

In Fig. 2 is shown the seed-cut-off attachment, and Figs. 3, 4, 5, and 6 are detail views of the same, in which *a* is the intermediate shaft, which is connected to the sulky by the brackets *a'* and *a''*, as shown in Fig. 1. *e* is a pulley-wheel, attached rigidly to one end of the shaft *a*, and drive-chain *e*, leading from a pulley on the sulky-wheel, imparting a revolving motion to the shaft *a*. The shaft *a* carries a clutch, *d*, rigidly attached thereto; and *e'* is a pulley loose on the shaft, having a hub on one side fitting into the clutch *d*, and on the other side extending with grooves *h*, as shown. The fork *k* is seated in the grooves *h*, and keeps the pulley *e'* in position against the clutch *d*. One end part of the keeper-guide *n* is attached to the beam A by a clasp, as shown in the drawings, the other part form-

ing a loop over the fork *k*, as shown, the loop extending above the plow-beam obliquely and in such a manner that when the plow-beam rises in being lifted from work the loop part of guide *n* will slide on the fork *k*, and, being set obliquely, will move the fork and pulley *e'* away from the clutch *d*, and vice versa. As the plow-beam is dropped the pulley *e'* will be moved against the clutch. A drive-chain from pulley *e'* imparts motion to the seed-dropping attachments, as shown. In thus arranging all the seed dropping and planting attachments connected to the beam of the listing-plow and combining the same with an ordinary sulky of a sulky-plow, I am enabled to produce a lighter and more easily-operated sulky planting-plow, and at less expense, than has heretofore been accomplished, and have avoided the necessity and cost of a separate sulky for both the ordinary plow and the planting-plow.

In operating my improved sulky planting-plow the operation is quite the same as the ordinary sulky-plow. The plow-beam A is attached to the bail B, and the lever C controls the plow in its up and down movements out of and into the ground. The operator, sitting in the seat S, moves the lever C, which, lifting the bail B, raises the plow above the ground, and as the plow is lifted the pulley *e'* is moved and parted from the clutch *d*, when the pulley stops revolving, and the seed-dropping is stopped while the plow is being moved from place to place or turning at corners. By a reverse movement of the lever C the plow is dropped to the ground, the pulley is forced against the clutch *d*, and the seed-dropping mechanism is set at work, thus operating the plow, and the seed mechanism dropping into and out of work by the movement of the one operating-lever.

I do not claim, broadly, the combination of planting attachments with a sulky-plow.

Having thus set forth my invention, I claim—

1. In a sulky planting-plow, the combination of the listing-plow A¹ and bent plow-beam A, the drill-tooth A², and the dropping-box A', directly attached to the beam A, the axle W, and the bail B, pivoted to the axle, and the lever C, operating the said bail, all arranged sub-

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stantially as specified, and for the purpose set forth.

2. In a sulky planting plow, the combination of the listing-plow A⁴, the drill-tooth A², and the dropping-box A' with the bent plow-beam A, substantially as shown, and with a sulky plow frame supported on wheels, and with the lever C, adapted in the same move-

ment to operate the plow and stop or start the seed-dropping devices, all arranged to operate substantially as and for the purpose set forth. 10

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Witnesses:

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