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L. W. TRUE.
Sulky-Plow.

No. 162,126. Patented April 13, 1875.

Fig 1

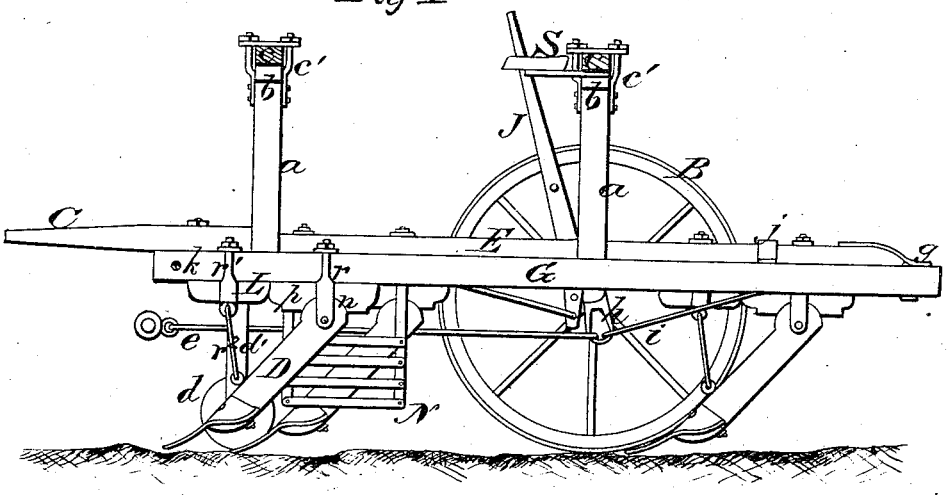

Fig. 2

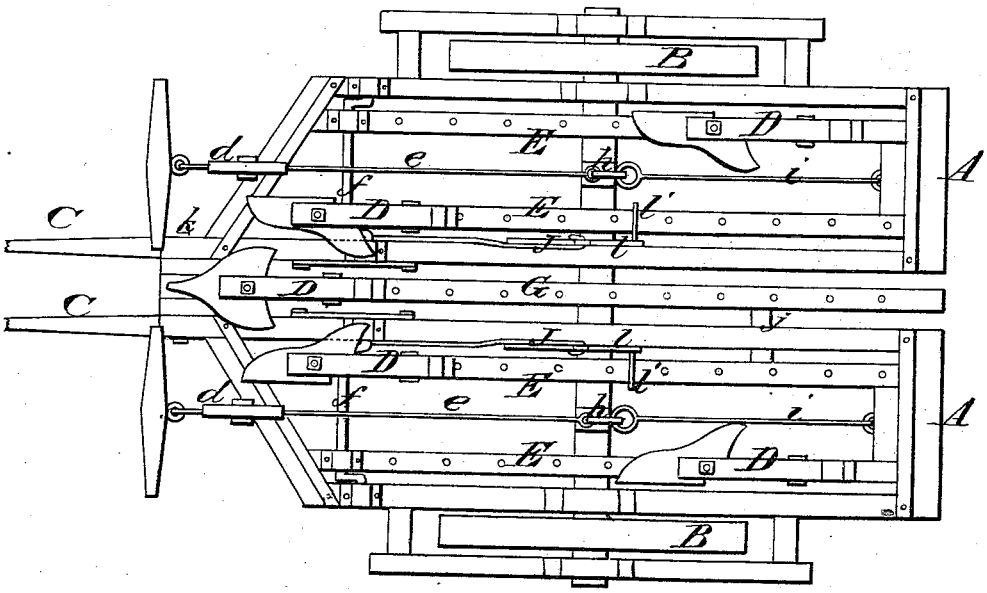

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Fig. 3

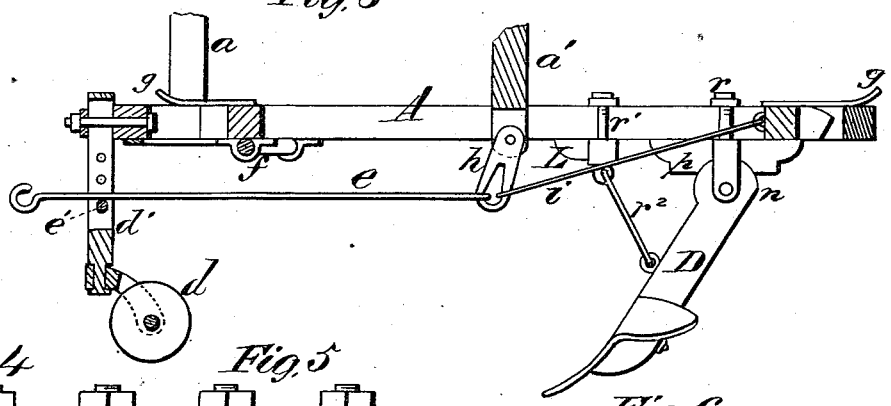

Fig. 4

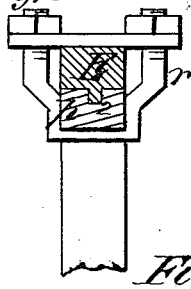

Fig. 5

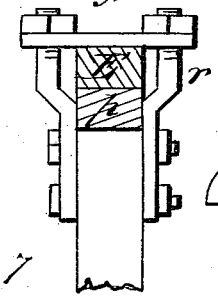

Fig. 6

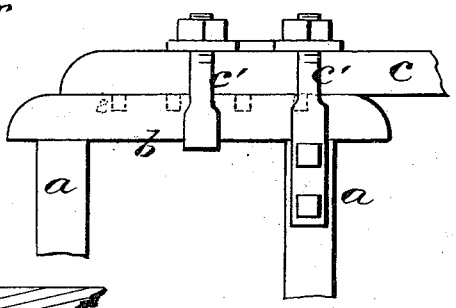

Fig. 7

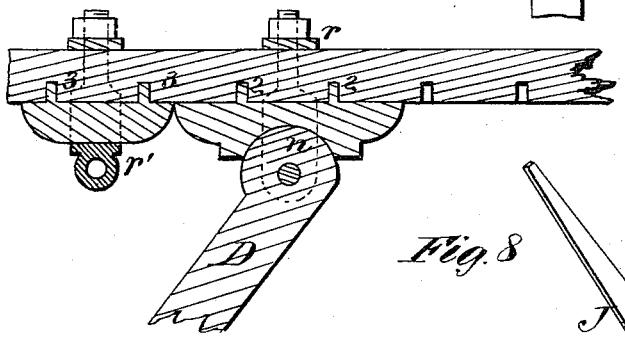

Fig. 8

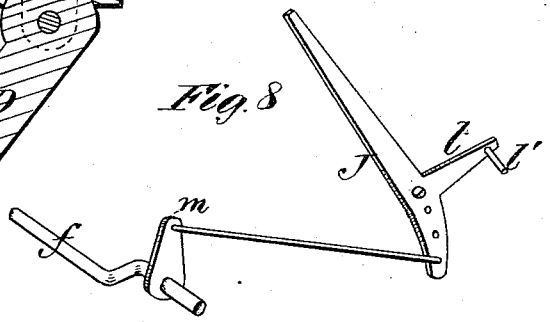

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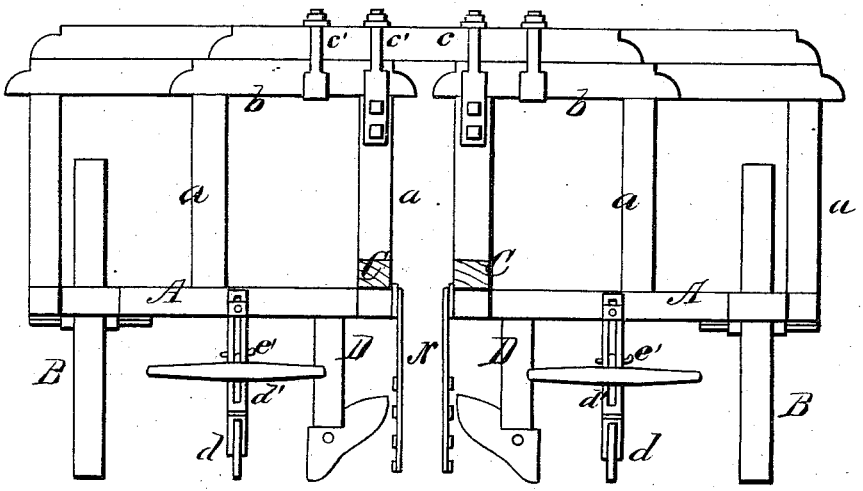
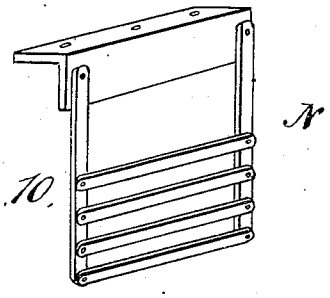
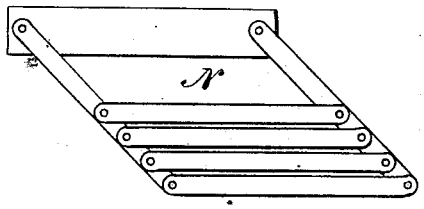
Fig. 9.



Figs. 10.





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UNITED STATES PATENT OFFICE.

LORENZO W. TRUE, OF TALLADEGA, ALABAMA.

IMPROVEMENT IN SULKY-PLOWS.

Specification forming part of Letters Patent No. **162,126**, dated April 13, 1875; application filed February 27, 1875.

To all whom it may concern:

Be it known that I, LORENZO W. TRUE, of Talladega, in the county of Talladega and State of Alabama, have invented a new and valuable Improvement in Sulky-Plows; 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 annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a side view of my plow. Fig. 2 is a plan view of the same; and Figs. 3, 4, 5, 6, 7, 8, 9, and 10 are detail views.

This invention has relation to sulky or wheel plows, which are constructed with a view to the use of large or small plows or cultivator-teeth, according as the farmer may wish to cultivate his land and prepare it for seed; and the nature of my invention consists mainly in draft chains or rods so arranged that the draft of the horses operates to hold the plows down to their work. It also consists in a novel mode of securing the plow-stocks to their beams, for the purpose of adjusting the plows to run at different depths, and also for setting the plows forward or backward, as circumstances require. It also consists in applying springs to the ends of the beams of the side plows, for the purpose of allowing a certain degree of elasticity to these plows, and also for preventing shocks when the machine is in operation.

The draft-frame is composed of two sections, A A, from which rise standards *a*. One row of the standards is arranged across the front of the frame, and the other row is arranged across the frame at or near the middle of its length. The upper ends of the standards *a* are connected together in pairs by cross-beams *b*, on which long beams *c* are rigidly secured by means of clasps *c'*. When these clasps are loosened the sections A A can be extended or contracted laterally. The draft-frame is mounted on two transporting-wheels, B B, having short axles, and applied in offsets on the sides of the sections A. In front the draft-frame is mounted on two caster-wheels, *d d*, which swivel on the lower ends of standards *d' d'*. The standards *d'* have slots through them, through which draft-rods *e e* pass, which rods are sustained upon vertically-adjustable pins *e'*, which allow the line of draft to be raised or lowered. The standards *d'* are vertically adjustable for raising or depressing the front end of the frame. The front end of the draft-frame is contracted, as shown in Fig. 2, and on each section of this frame is a draft-pole, C, which is used with a neck-yoke. The plow-standards D are applied to beams E, which are connected together at their front and rear ends, and arranged in the sections A, as shown. The front ends of the beams E are pivoted to cranks *f*, the ends of which are free to oscillate in bearings applied beneath the longitudinal beams of the sections A A. The front and rear ends of the beams E have springs *g* secured to them, the free ends of which bear upon the front and rear ends of frame-sections A when the machine is in operation, and allow the plow-beams to spring up and down, thus facilitating the passage of the plows through the ground.

The draft-rods *e* are linked loosely to slotted arms *h*, which are pivoted to pendants *a'*, and these arms are connected to the rear cross-pieces of the beams E by means of links *i*. By this arrangement the draft of the animals will hold the plows down to their work. G designates a plow-beam, which, when it is in use, is between the two frame-sections A. This beam G is pivoted to the draft-frame in front, and it is connected to the rear end of one of the beams E by means of a strap, *j*. By removing the pivot-pin *k*, which connects beam G to the two sections A, this beam can be detached from the machine, when a space will be left between the frame-sections for the passage of plants while cultivating them. On each side of the driver's seat S is a lever, J, having an arm, *l*, rigidly secured to it near its lower end; and on the rear end of this arm *l* is a pin, *l'*, which extends under one of the beams E. When the levers J are pressed forward the pins *l'* will lift the rear ends of the beams E, and as beam G is connected to one of the beams E this beam G will also be lifted. On each one of the cranks *f* an arm, *m*, is rigidly secured, which arm is connected to the lower end of a lever, J; consequently, when the levers J are pressed forward, the

plows will be moved upward, and at the same time backward, which is the proper movement for withdrawing them from the ground. The upper ends *n* of the plow-standards D are semicircular, and these ends are fitted into corresponding sockets formed in blocks *p*. The blocks *p* have studs 2 on their upper edges, which are fitted into holes made in the lower edges of the plow-beams. The standards D are confined in their places and the blocks *p* firmly held by means of clips *r*, which embrace the beams, and to which the standards D are pivoted. L L designate blocks, with studs 3 on their upper edges, which enter holes in the beams, and serve, in combination with clips r^1, to confine the blocks rigidly to their respective beams. Rods r^2 secure the standards D to eyes formed on the clips r^1.

I make holes equidistant from each other from the front to the rear ends of the plow-beams, which receive the studs on the blocks *p* L, and allow the standards to be adjusted and fixed at different points between the ends of their beams. By adjusting the blocks L, the blocks *p* remaining in their places, the plows can be made to run any desired depth.

I do not confine myself to any particular shape or size of plows, shovels, or teeth used on the standards.

When I cultivate young plants I use fenders or guards N, composed of narrow strips pivoted loosely together, as shown in Fig. 10. The upper ends of the vertical strips of these fenders are pivoted to the inner beams of the sections A. Fenders thus constructed will adjust themselves vertically, and they will allow none but loose fine earth to pass through them.

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

1. In combination with the beams E, pivoted to cranks *f*, the draft-rods *e*, slotted arms *h*, and links *i*, the rods *e* passing through slotted standards *d'* of caster-wheels *d*, substantially as described.

2. Plow-standards D, having rounded ends *n*, secured to their beams by means of studded blocks *p* L, clips *r* r^1, and rods r^2, substantially as described.

3. Springs *g*, applied to the ends of plow-beams E, as and for the purpose described.

4. The levers J, having lifters *l l'* on their lower ends, and connected to arms *m* on cranks *f*, in combination with the plow-beams E, pivoted to said cranks, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in presence of two witnesses.

LORENZO W. TRUE.

Witnesses:

T. S. PLOWMAN,

E. B. FREEMAN, M. D.