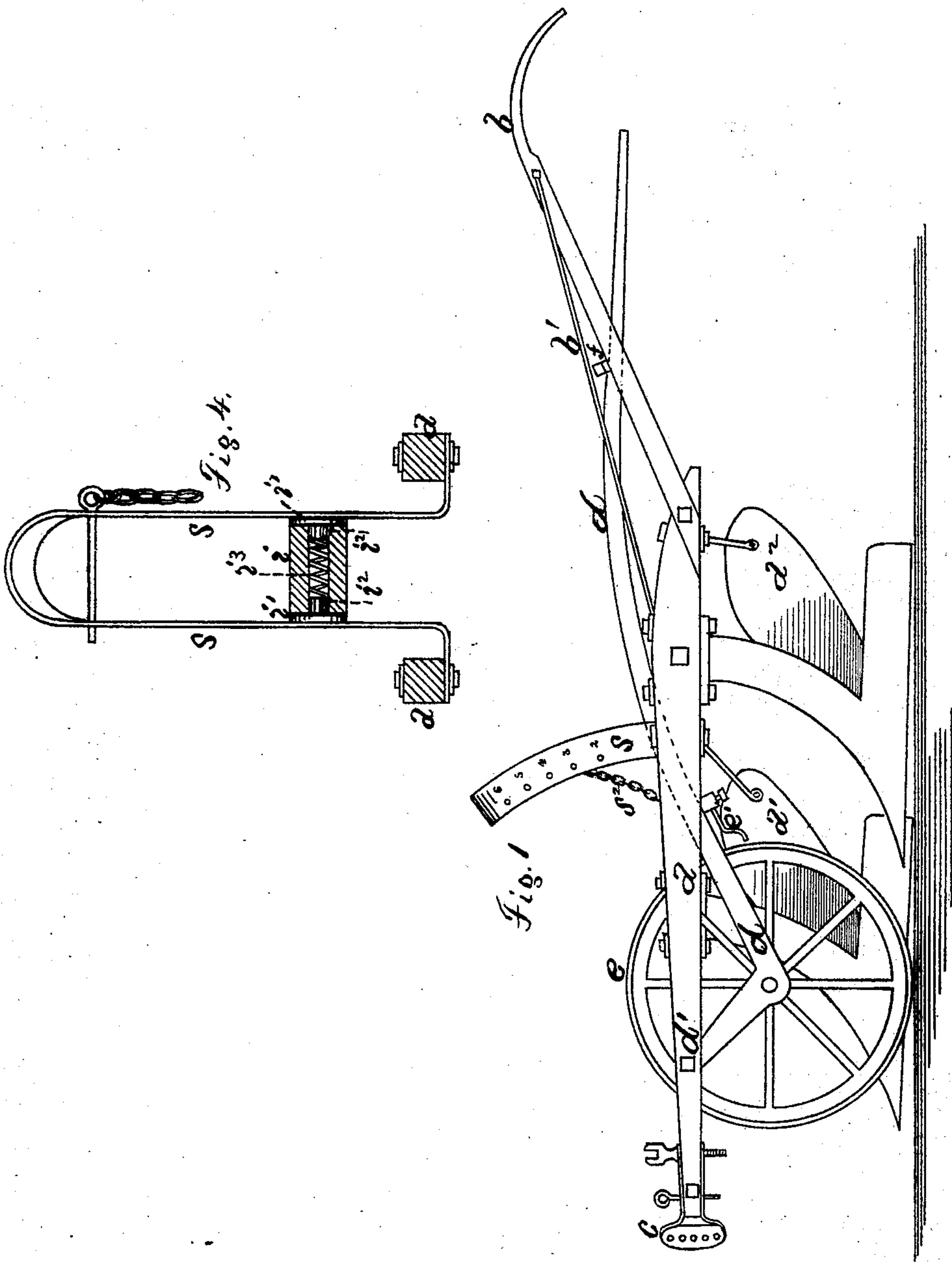


L. CHAPMAN.
Double-Furrow Plows.

No. 146,987.

Patented Feb. 3, 1874.



Witnesses.

John Pollitt
T. E. Steele

Inventor.

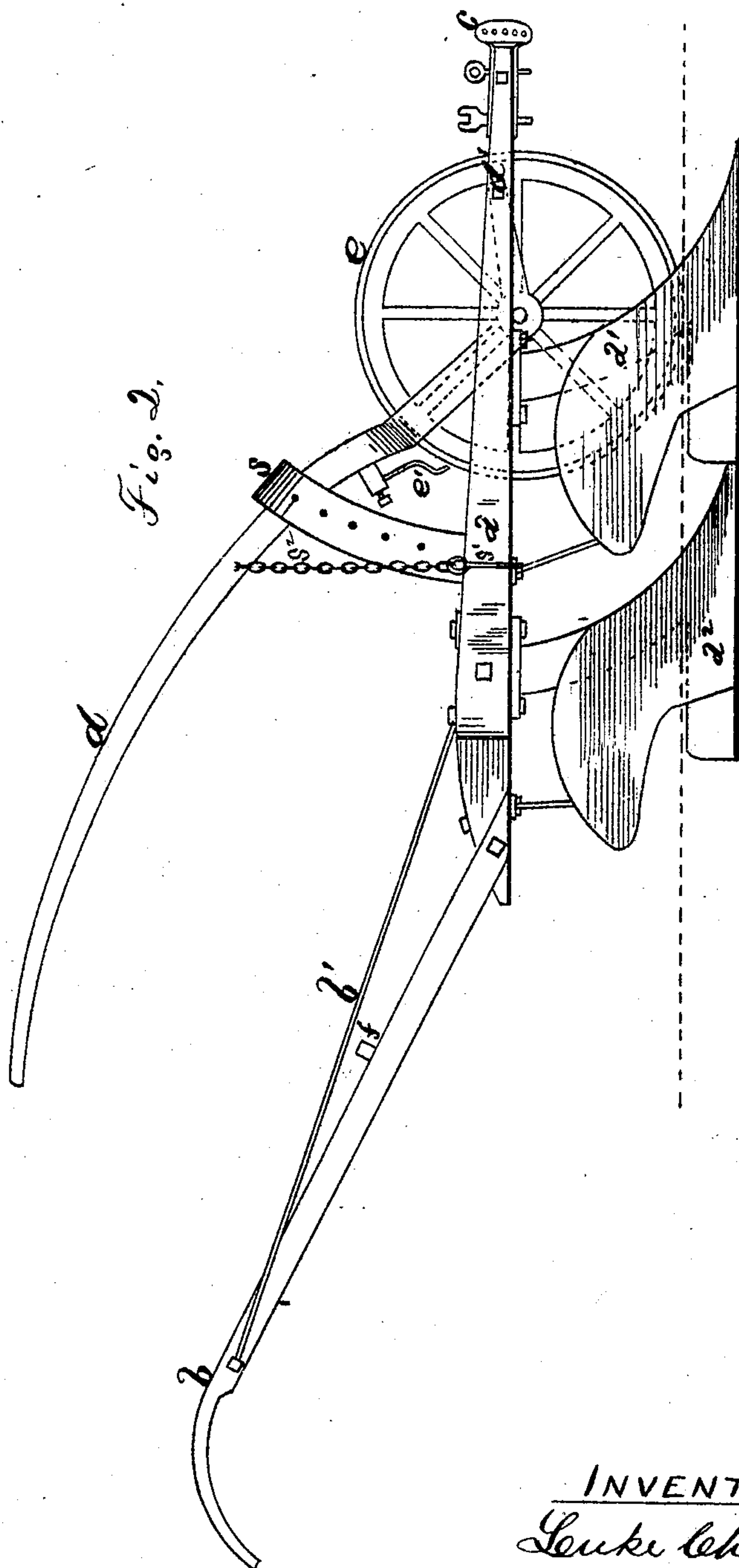
Leuke Chapman
By Wm. E. Simonds
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3 Sheets--Sheet 2.

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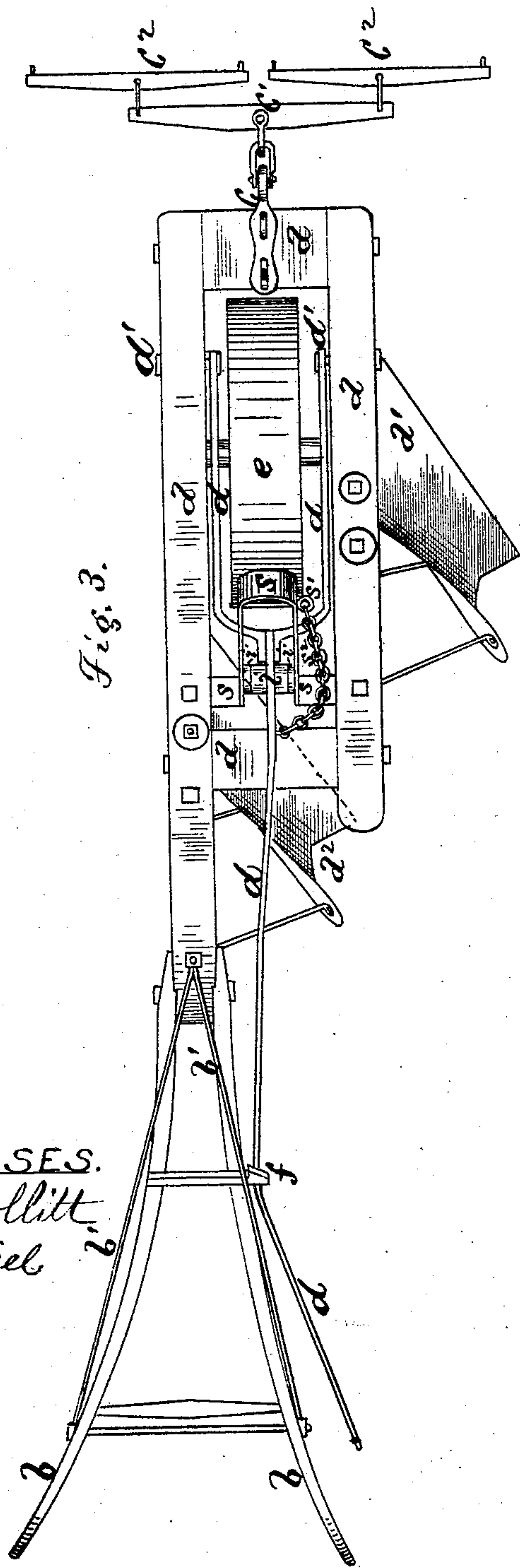


Fig. 3.

WITNESSES.

John Pollitt
T. E. Steel

INVENTOR,

Luke Chapman.
By *Wm. E. Simonds*
Att'y.

UNITED STATES PATENT OFFICE.

LUKE CHAPMAN, OF COLLINSVILLE, CONNECTICUT, ASSIGNOR TO HIMSELF
AND THE COLLINS COMPANY, OF SAME PLACE.

IMPROVEMENT IN DOUBLE-FURROW PLOWS.

Specification forming part of Letters Patent No. **146,987**, dated February 3, 1874; application filed
July 28, 1873.

To all whom it may concern:

Be it known that I, LUKE CHAPMAN, of Collinsville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Double-Furrow Plows, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the machine in adjustment for transportation from place to place, the gage-wheel projecting below the level of the bottom of the plows. Fig. 2 is an elevation of the opposite side of the machine in adjustment for plowing, the bottom of the gage-wheel being above the level of the bottom of the plows. Fig. 3 is a top view of the machine in the same position of adjustment as in Fig. 1. Fig. 4 is a view showing a longitudinal central section of the frictional device attached to the lever which raises and lowers the gage-wheel.

The machine consists of two plows hung to a frame, to the rear of which two handles, similar to common plow-handles, are attached. A wheel is hung forward of the plows on a lever, by means of which the frame and plows may be raised and lowered relatively to the wheel.

The letter *a* indicates the frame, and *a*¹ and *a*² the two plows hung to the frame. The letters *b b* indicate the plow-handles attached to the rear of the frame, and supported and strengthened by the braces *b*¹ *b*¹. The letter *c* indicates the clevis attached to the front end of the machine, and *c*¹ *c*² *c*³ whiffletrees. The letter *d* indicates a lever forked at the front, and pivoted by its forward ends to the frame at *d*¹ *d*¹. Within the fork of this lever is hung the wheel *e*, which acts as a gage-wheel to regulate the height of the plows. The rear end of the lever swings just to the right of the right plow-handle, and it can be caught under the catch-bar *f*, as shown in Figs. 1 and 3, thus raising the bottom of the plows somewhat above the bottom of the wheel. The end of the catch-bar is beveled off, so that the lever in coming down can slip over it, and the lever has a little spring to permit enough outward play to allow the lever to slip downward over the end of the catch-bar. From the frame rises the double gage-rack *s*, be-

tween the two sides of which the lever plays up and down. At stated points there are holes through both sides of the gage-rack, marked in the drawing 2, 3, 4, 5, 6, through or into which the gage-pin *s*¹ can be inserted, thus regulating the height to which the lever can rise, and, consequently, the depth to which the plows are allowed to enter the soil. This pin is, by preference, attached to a chain, *s*², which is attached at its other end to the lever. When the lever is down, as shown in Figs. 1 and 3, the plows are raised out of the ground, and can be readily drawn about. The plows are raised from the earth by this means at the end of the furrow.

When a furrow is to be commenced, the lever is raised up to the desired height, and the plows will enter the earth readily. To the lever is attached a frictional device to prevent it from swaying up and down from slight accidental impulses. It is shown in section in Fig. 4. It consists of a barrel, *i*, having a hole drilled through it lengthwise. On the ends of the barrel are piston-heads *i*¹, on the inner sides of which are short piston-rods *i*² inserted into and playing in the hole through the barrel. A spring, *i*³, presses both these piston-heads outward, so that they bear against the insides of the gage-racks with force enough to prevent the accidental swaying of the lever. Attached to the under side of the lever is a scraper, *e*¹, which overhangs the tread of the gage-wheel and removes the earth which may stick to and come up with the wheel.

I claim as my invention—

1. The forked lever *d*, carrying the wheel *e* between the plows, and having a spring-adjusting device, in combination with the frame *a* and the plows, all constructed, arranged, and designed for operation substantially as shown and described.

2. The combination of the double-sided rack *s*, the lever *d*, the hollow barrel *i*, the two pistons *i*¹ *i*¹ resting upon the spring within the barrel, the whole arranged, constructed, and designed for operation and use substantially as described.

LUKE CHAPMAN.

Witnesses:

OLIVER F. PERRY,
ALBERT L. THAYER.