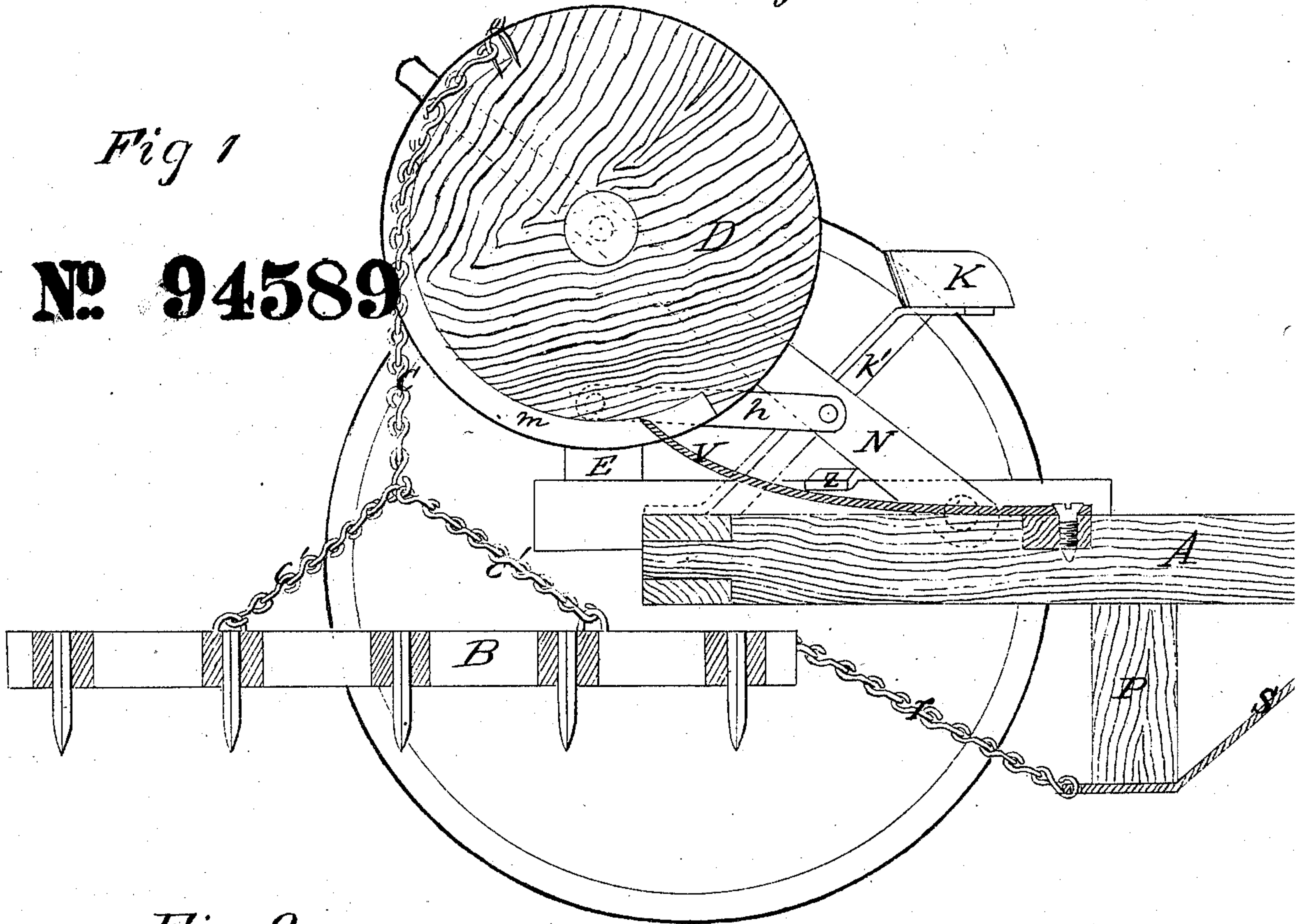


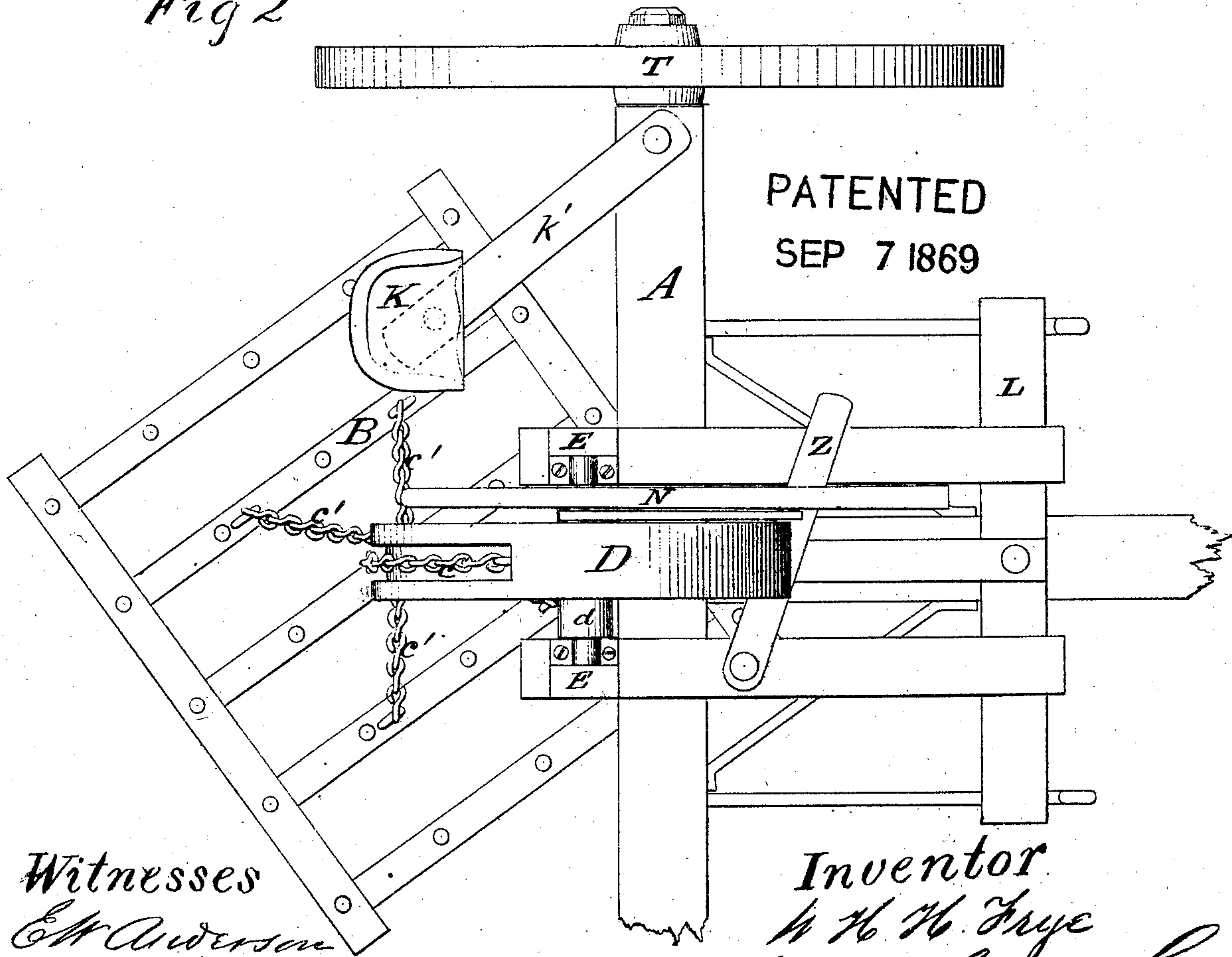
Dulky Harrow

*Fig 1*

**№ 94589**



*Fig 2*



PATENTED  
SEP 7 1869

Witnesses  
E. M. Anderson  
D. D. Kane

Inventor  
H. H. Frye  
Chapman Hosmer & Co



# United States Patent Office.

W. H. H. FRYE, OF NORTH FRYEBURG, MAINE.

Letters Patent No. 94,589, dated September 7, 1869.

## IMPROVEMENT IN SULKY-HARROWS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, W. H. H. FRYE, of North Fryeburg, in the county of Oxford, and State of Maine, have invented a new and valuable Improvement in Sulky-Harrows; 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 drawings, is a vertical central section of my invention.

Figure 2 is a top view of my invention.

My invention relates to that class of harrows which is used in combination with sulky-wagons, and consists, mainly, in the construction and novel arrangement of devices, whereby the harrow can be raised or lowered at the will of the operator.

The letter A, of the drawings, designates a sulky; B, a harrow, attached thereto by means of four short chains, *c c*, which meet at their upper ends, and are connected to the wheel D by a trace-chain, *e*, and staple, *e*.

The journals of the shaft *d* of the wheel D revolve in beds formed in the upper ends of two perpendicular bars, E E, rigidly attached to the frame of the sulky.

The wheel D is grooved in its rim for at least one-half of its circumference, and in this groove *m* works the chain *c*.

To the lower part of the wheel D is pivoted a connecting-rod, *h*, whose other end is pivoted to the lever N near its fulcrum in its lower end.

The upper end of the lever N forms a handle, whereby an operator, seated in the adjustable seat K, can, by pulling, with very little exertion, raise the harrow to any height desired in practice, and, by pushing for-

ward with his foot the keeping-bar Z, pivoted to the sulky-frame, the spring V will be released, and allowed to press its movable end into the groove *m*, at the lower part of the same, thereby securing the wheel in any desired position, either with the harrow suspended or dragging.

The forward end of the spring V is secured by or screws to the cross-bar L.

Mortised into the under and rear part of the pole, just in front of the cross-bar L, is a block, P, under the lower end of which is secured a metal bar, extending in rear to form a ring at *s*, and in front to form a brace, S.

To the ring *s* is attached the forward end of a short drag-chain, *r*, while to a staple fixed into the frame of the harrow, near its forward corner, is attached the rear end thereof.

The seat K is attached to the upper part of the bar *k* by a pivot, and the lower end of the bar *k* is pivoted to the upper part of the end of the axle-tree, just within the left-hand wheel T of the sulky.

What I claim as my invention, and desire to secure by Letters Patent, is—

The sulky-harrow herein described, having sulky A, harrow B, wheel D, lever N, pitman *h*, chains *c*, and *c*, and *r*, block P, brace S, staple *e*, spring V, keeper Z, and adjustable seat K, arranged to operate substantially as set forth and described.

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

W. H. H. FRYE.

Witnesses:

PHINEAS B. SMITH, Jr.,  
SAMUEL L. CHANDLER.