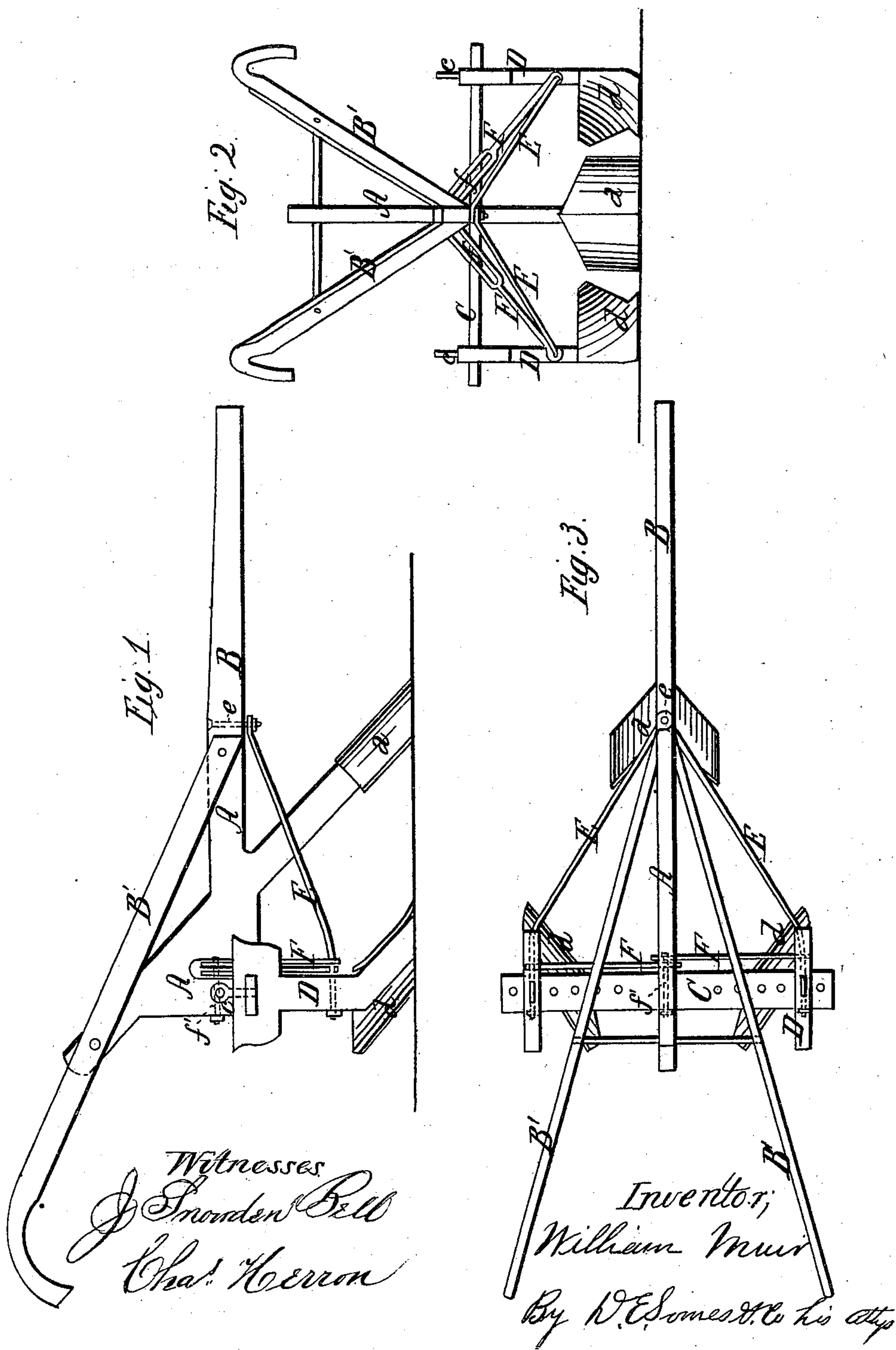


W. Muir

Horse Hoe.

No. 87,060.

Patented Feb. 16, 1869.



United States Patent Office.

WILLIAM MUIR, OF WAUCONDA, ILLINOIS.

Letters Patent No. 87,060, dated February 16, 1869.

IMPROVEMENT IN HORSE-HOES.

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, WILLIAM MUIR, of Wauconda, in the county of Lake, and in the State of Illinois, have invented a new and useful Improvement in Horse-Hoes, or Corn-Cultivators; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which make part of this specification, and in which—

Figure 1 represents a side elevation of my improved horse-hoe;

Figure 2, a front view, and

Figure 3, a plan or top view of the same.

The object of my invention is to provide a simple and efficient device for regulating the position of the mould-boards of a horse-hoe or cultivator, whereby the same may be adjusted laterally, at pleasure, enabling the distance between the rows or furrows to be changed, when necessary, by the operator, and from its construction causing the earth to be pushed from instead of on the corn, thereby dispensing with the necessity of going twice on the row. To which ends,

My improvements consist in attaching the side mould-boards to vertical standards, which are secured by removable pins to a transverse beam attached to the frame, upon which they can be moved laterally, as desired, the said standards being pivoted to rods, which connect them with a pin upon the lower side of the tongue, and are themselves pivoted by slotted rods to a pin at the centre of the frame.

In the accompanying drawings, which show a convenient arrangement of parts for carrying out the objects of my invention,

A represents the frame of the horse-hoe, and
B, the tongue.

The side mould-boards *d* are secured to the lower ends of vertical standards D, provided with horizontal slots near their tops, through which a transverse beam, C, passes, to which they are secured by pins *c*, which pass through holes in the beam C and standards D.

Rods E pass through the standards D, above the mould-boards, and extend forward to a pin, *e*, on the tongue B, which they embrace by means of eyes, and

are provided with screws and nuts, by which they are connected to the standards D.

The rods E are connected, by means of rods F, with a pin or bolt, *f*', which extends, in a longitudinal direction, through the rear portion of the frame, above the transverse beam C, and at the centre thereof being provided with eyes, which embrace the rods E, and having long slots *f* near their opposite ends, in which the pin *f*' enters.

By removing the pins *c*, the standards D and their mould-boards may be moved nearer together or further apart, as desired, the slotted rods F sliding upon the pin *f*', and, by their connection with the rods E and standards D, maintaining the lower ends of the latter in proper position, when moved in either direction.

The mould-boards *d* are inclined in such direction as to throw the earth toward the centre of the machine, and a centre mould-board, *a*, is attached to a portion of the frame, projecting downward beneath the tongue, and in advance of the mould-boards *d*, being bent or inclined on each side, in reverse direction thereto.

The mould-boards *d* and their standards D can have their positions changed whenever desired.

From the arrangement of the mould-boards, it will be seen that the machine throws the earth from instead of on the corn, and hence requires to go but once on the row.

B' B' represent the handles of the machine.

Having thus fully described my invention,

What I claim therein as new, and desire to secure by Letters Patent, is—

The vertical standards D, transverse beam C, and pins *c*, in combination with the rods E, slotted rods F, and pin *f*', constructed and operating substantially as and for the purpose described.

The above specification signed by me, this 18th day of August, 1868.

Witnesses:

J. H. ANDERSON,
H. S. TRUMBULL.

WILLIAM MUIR.