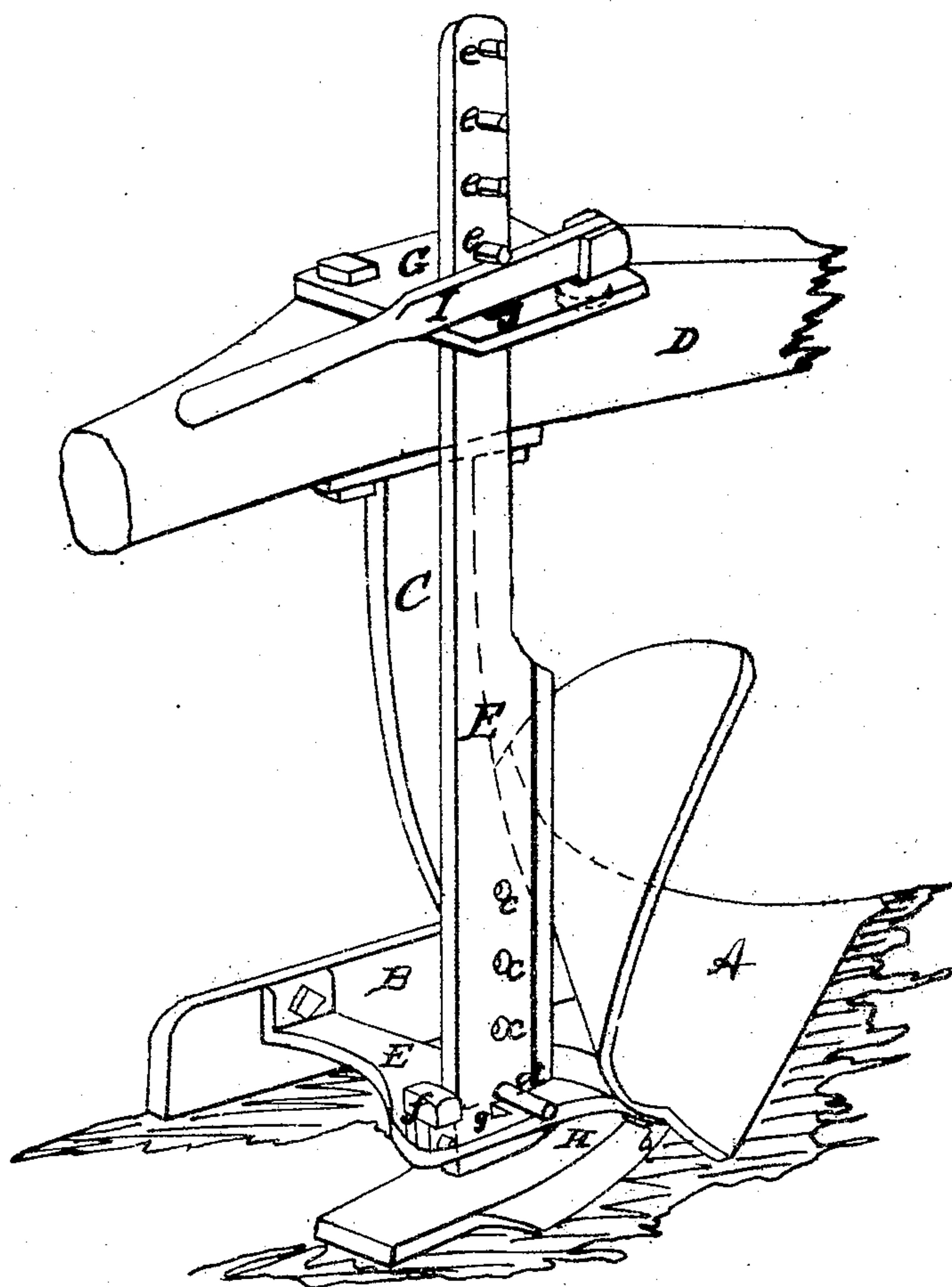


C. Hayden.

## Subsoil Attachment for Plow

N<sup>o</sup> 75419

*Patented Mar. 10, 1868.*



**WITNESSES.**

W. B. Ashketter

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# United States Patent Office.

CHARLES HAYDEN, OF COLLINSVILLE, CONNECTICUT.

*Letters Patent No. 75,419, dated March 10, 1868.*

## IMPROVEMENT IN SUBSOIL-ATTACHMENT FOR PLOUGHS.

*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, CHARLES HAYDEN, of Collinsville, in the county of Hartford, and State of Connecticut, have invented a new and improved Subsoil-Attachment for Ploughs; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and improved mode of attaching a subsoil-plough or share to an ordinary plough, whereby the subsoil-share may be adjusted, raised, or lowered with far greater facility than hitherto, readily detached when not required for use, so that the plough to which it is applied may be used as an ordinary plough, be simple in construction, and capable of being manufactured at a small cost, and be of light or easy draught.

The accompanying drawing is a perspective view of my invention.

A is the mould-board, B the land-side, C the standard, and D the beam of an ordinary plough of usual construction. These parts being well known, do not require a special description. E is a horizontal plate, one end of which is bolted to the land-side B, as shown at *a*, and the other end bolted to the lower part of the mould-board, as shown at *b*. This plate E serves as a guide or bearing for a standard, F, which passes loosely through a slot made in it, the standard extending upward, and passing through a plate, G, which is firmly bolted to the beam D, and projects horizontally from the right-hand side of the same. This standard F may be described as a flat bar of sufficient breadth and thickness to insure a requisite degree of strength, and to its lower end a subsoil-share, H, is attached. This share H is quite flat, and has a horizontal or nearly horizontal position, and a bevelled front edge to facilitate its passage through the earth. Through the lower part of the standard F there is made transversely a series of holes, *c*, one above the other, through any of which a pin, *d*, passes to retain the share H at the desired height; the height being varied, as desired, by placing the pin *d* in a higher or lower hole, *c*, as will be fully understood by reference to the drawing. In the upper part of the standard F, above the plate G, there is secured a series of pins, *e*, placed one above the other, the distance between these pins being equal to the distance between the holes *c* in the lower part of the standard, and to the upper surface of the plate G there is attached a lever, I, on which any one of the pins *e* rests or bears, according to the height the standard F is adjusted. This lever I is for the purpose of temporarily raising the share H whenever required, as, for instance, when the latter comes in contact with obstructions, such as a stone, stump, &c., or when it is not designed to have the share penetrate the earth or subsoil, as in turning at the ends of furrows. The slot in the plate E may be of sufficient length to admit of a wooden key, *f*, being inserted in its rear, and behind the standard, to avoid jars and concussions, and consequent wear and tear, and admitting of the standard being kept snugly in the plate to avoid unnecessary play and rattle. The plate E, as well as the plate G, which is attached to the beam, has a slot, *g*, made in it at right angles with the slot, through which the standard passes to admit of the pins *e*, in the upper part of the standard F, being drawn through them when it is desired to remove or detach the subsoil-share H, the plough being turned over on one side, and the pin *d* withdrawn, to effect this end.

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

1. The share-standard F, fitted in the plates E G, and retained at the desired height by the pin *d*, in one of a series of holes, *c*, substantially as and for the purpose specified.
2. The combination of the lever I and pins *e* with the share-standard F, all constructed, arranged, and applied substantially in the manner as and for the purpose set forth.

CHARLES HAYDEN.

Witnesses:

JOHN R. ANDRUS,  
CHAS. BLISS.