S. D. Tuttle.

Sub-Soil Plow.

No. 76275 Patented Mar. 31, 1868.

Fig. 1.

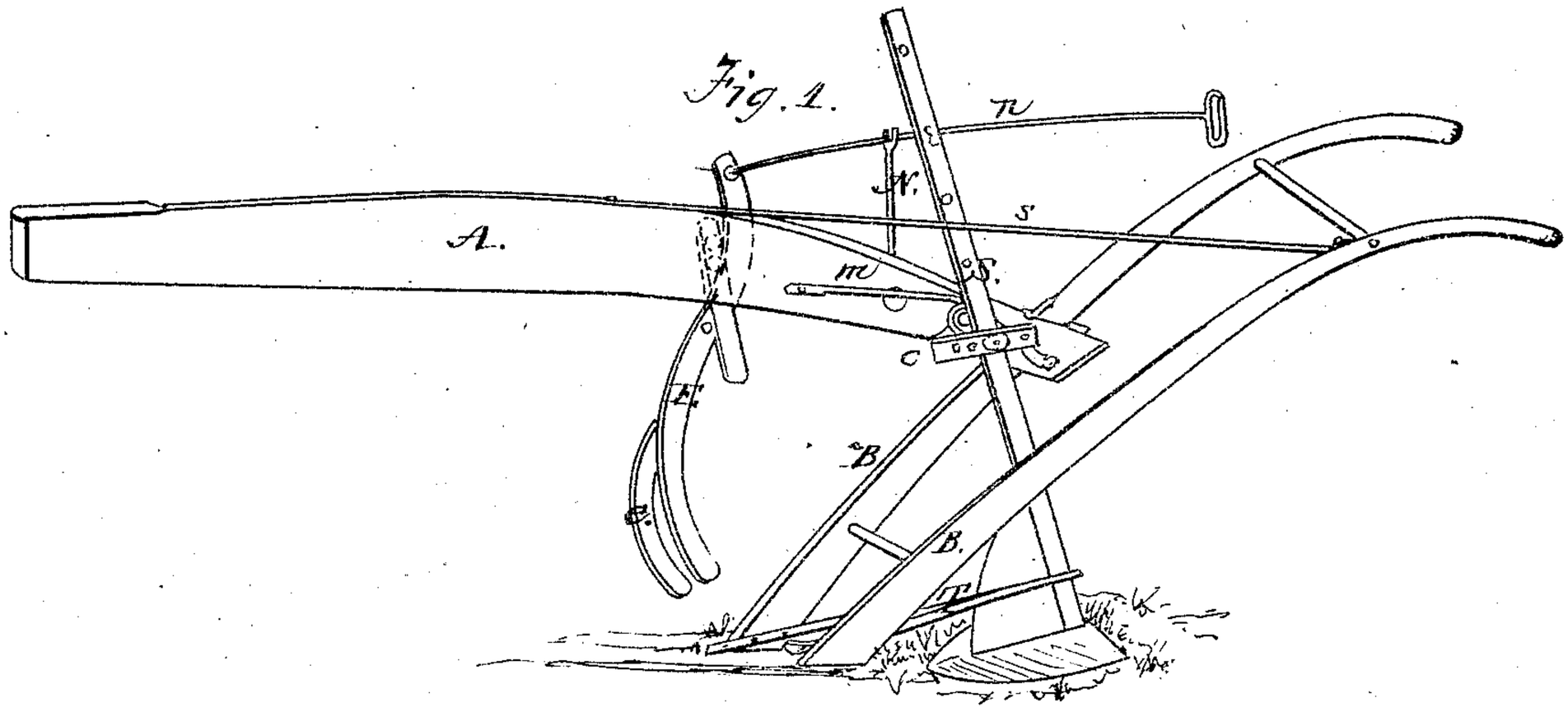
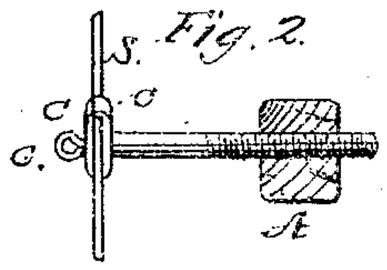


Fig. 2.



Attest:
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S. D. TUTTLE, OF EATON, OHIO.

Letters Patent No. 76,275, *dated March* 31, 1868.

IMPROVEMENT IN SUBSOIL 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, S. D. TUTTLE, of Eaton, in the county of Preble, and State of Ohio, have invented certain new and useful Improvements in Subsoil Ploughs; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 represents a perspective, and

Figure 2 a view of the clip, to which is secured the subsoil attachment by means of a thumb-screw.

The object of my invention consists in providing a subsoil plough with a weed- or rubbish-clearer, and also with a subsoil attachment, by means of which the plough can be adjusted at any angle or inclination, and the nature of it, therefore, is to plough in any quality of ground, and at the same time clear the plough of rubbish or weeds, substantially in the manner hereinafter set forth.

To enable others to avail themselves of the benefits of my invention, I will proceed to describe its construction and operation.

A represents the beam of the plough, attached at its inner end to one of the handles, and secured to the other handle by means of a metal rod, *s*, in the common way. The handles B B are made in the usual manner, and held together by means of two bars. C indicates a clip, formed as shown in fig. 2, and furnished with holes. Said clip is also provided with a screw, which passes through holes made in the beam A. By means of this clip, the plough can be adjusted at the desired angle or inclination by turning the same in the required direction, which will be allowed to operate by means of its screw. *m* is a metal brace, twisted or passed around the screw of the clip C, and secured at each of its ends to the side of the beam A. Said brace is intended to strengthen the screw, and prevent it from being bent. S is a bar or shaft, attached at its lower end to the under side of the plough, and extending upward a suitable distance through the clip C. Said bar is also furnished with holes, by means of which it can be raised or lowered, adjusting the plough to the desired depth of the intended furrow. *c* is a thumb-screw, which is inserted in the holes in the clip C, and intended to secure the bar or shaft S in place. T represents a metal brace, formed with a loop, as shown in fig. 1, which loop passes around or braces the bar of the plough, and is secured at its inner ends to the handles B B. The object of said brace is to prevent the plough from slipping from its required position or inclination. It also serves to strengthen the bar S. This brace is also provided with holes, by means of which it can be adjusted, to suit the angle or inclination to which the plough is set or placed. E designates a main arm, curved as indicated in fig. 1, and pivoted to a small metal plate, said plate being secured loosely to the land-side of the plough-beam A. The main arm E is also furnished with an additional arm, *e*. The object of this arrangement is for the purpose of removing weeds, brush, or any rubbish that may be in front of the plough. To the upper end of the arm E is secured or fastened a rod or lever, *n*, said rod extending back to or near the handles B B, where it may be conveniently grasped by means of its handle. N is a rest or guide, attached at its lower end to the side of the beam A, parallel with the arm E. In the upper end of said guide-piece is a slot, which allows the rod or lever *n* to play back and forth when operated.

The operation of my invention is as follows: The plough is first adjusted to the required depth of the intended furrow. In order to do this, the thumb-screw *c* must be loosed or withdrawn from the clip C, releasing the bar or shaft S of the plough, which may then be raised or lowered to suit the depth of said plough. The thumb-screw will now be inserted in the clip, again firmly securing the bars or shaft of the plough in place. When it is desired to place or set the plough at the required angle or inclination, it is done simply by turning the clip C, to suit the inclination of said plough. The plough is now braced by means of the brace T, to prevent it from slipping from its position, and is now ready for operation. When the plough is moved forward or operated, the handle of the rod or lever *n* is grasped, operating the weeding-attachment or arms E *e*, and thus clearing the rubbish and weeds from the plough.

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

1. The screw-clip C, furnished with the thumb-screw *c*, substantially as and for the purpose set forth.

2. The screw-clip C, in combination with the subsoil attachment S, substantially in the manner and for the purposes specified.

3. The brace T, in combination with said subsoil attachment, as and for the purpose described.

4. The weeding-attachment E, substantially as and for the purpose set forth.

5. I claim the combination of the lever or rod *n* with the guide N, as and for the purpose specified.

6. The clip C, subsoil attachment S, brace T, handles B B, weeding-attachment E, rod or lever *n*, and guide N, the whole being constructed and arranged substantially in the manner and for the purpose set forth.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

S. D. TUTTLE.

Witnesses:

JOHN W. KING,

B. F. LARSH.