

R. A. FISH.---Cultivators.

No. 141,707.

Patented August 12, 1873.

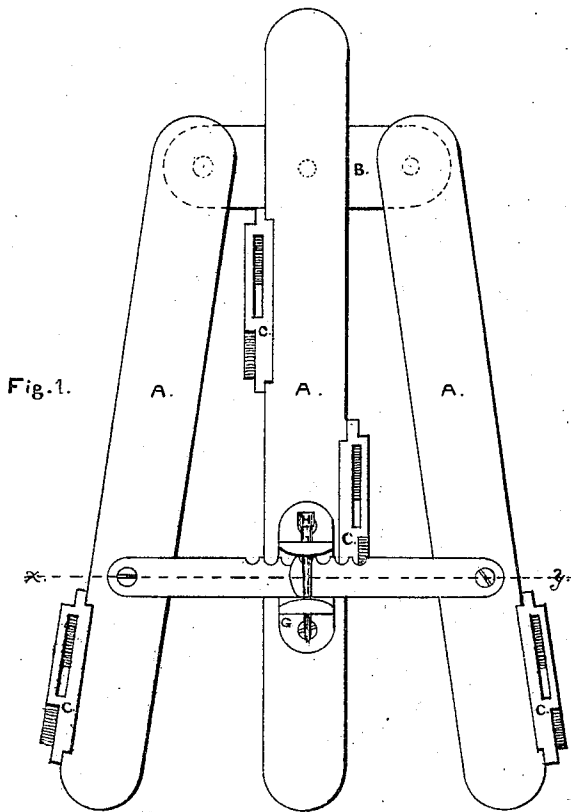


Fig. 1.

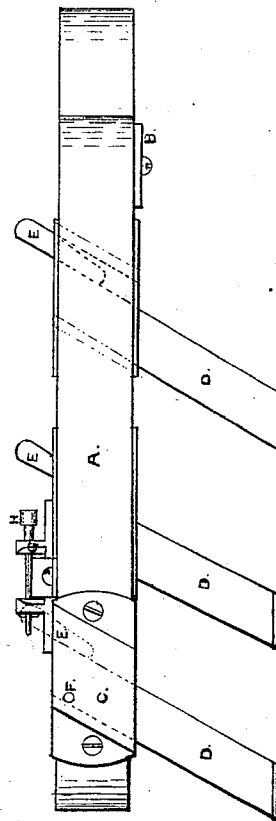


Fig. 2.

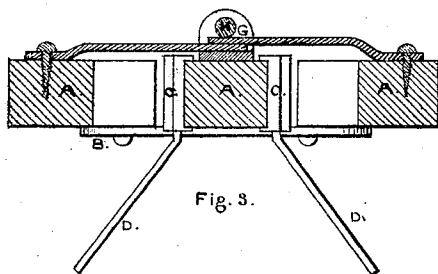


Fig. 3.



Fig. 4.

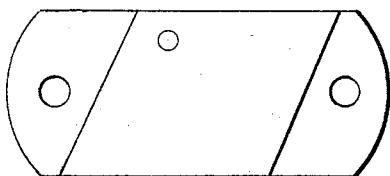


Fig. 8.

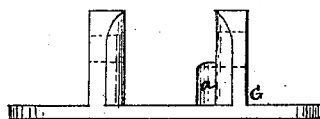


Fig. 5.

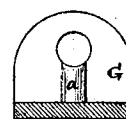


Fig. 6.

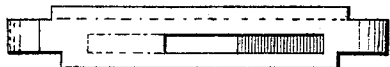


Fig. 9.

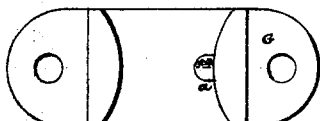


Fig. 7.

WITNESSES

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IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 141,707, dated August 12, 1873; application filed January 3, 1873.

To all whom it may concern:

Be it known that I, RUFUS A. FISH, of Worcester, in the county of Worcester and the State of Massachusetts, have invented certain Improvements in Cultivators, of which the following is a specification:

The first part of my invention relates to the flat tooth set on any angle best adapted for cultivating the ground, and also the socket for retaining the tooth in position. The second part of my invention relates to the expanding bars for regulating the gage of the cultivator, and also the method of fastening the expanding bars with a pin.

The advantages I claim in this cultivator over others now in use are, that the tooth, being set on an angle, cuts the ground without the disadvantage of clogging and catching on rocks, and, also, the ease with which the teeth may be repaired or replaced in the cultivator.

The cultivator may be used with or without handles.

Figure 1 is a top view of cultivator. Fig. 2 is a side view of the same. Fig. 3 is a section of the cultivator on line *x y* on Fig. 1, showing the form of the expanding bars and section of pin fastening the same, and those parts of the machine which are at the top of the line *x y*. Fig. 4 shows top view of expanding bar. Fig. 5 shows side view of a metal frame for holding the expanding bars. Figs. 6 and 7 show enlarged end and top views of the same. Figs. 8 and 9 show enlarged side and top views of socket for holding tooth in position.

A is the frame of the cultivator. B is a metal plate fastening frame together. C is the socket for holding the tooth in position.

Figs. 8 and 9 show enlarged views of the same. This socket may be placed in any position on the machine. D is the tooth set on an angle. E shows the wedge holding tooth in the socket and forcing slot in tooth against pin F, making the tooth secure when in use. G shows the holder for holding the expanding bars, and H the pin for retaining the same in the frame. The holder consists of a plate provided with ears, between which the expanding bars are held, and in these ears are holes formed for passage of the pin H. On the inner side of one ear is formed a lug or projection, *a*, which enters one of the notches on the contiguous faces of each of the expanding bars, and thus serves to hold them in place.

I make no claim to the frame or method of fastening the same together; nor the expanding bars, for I am aware that these are not new; but

I claim as my invention—

1. In combination with the cultivator-frame, the independent metallic socket C, tooth D, and wedge for holding the tooth in said socket, as set forth.

2. The socket C and pin or key F, in combination with the tooth D, formed with a slot to engage said key, and the wedge, or its equivalent, substantially as shown and set forth.

3. The combination, with the notched expanding bars, of the holder G and pin H, substantially as shown and set forth.

RUFUS A. FISH.

Witnesses:

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