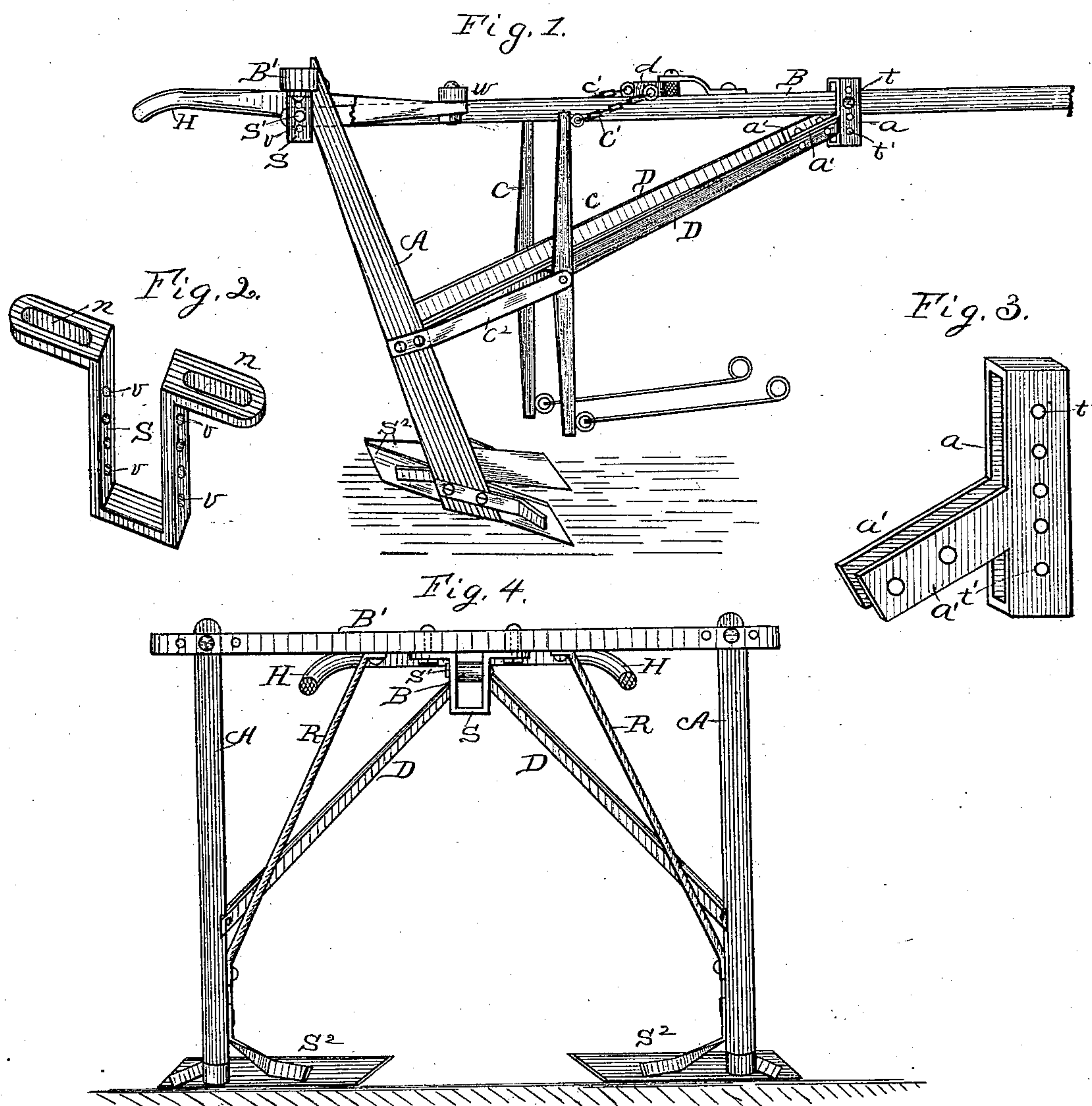


(No Model.)

H. L. MILLER.
SCRAPER CULTIVATOR.

No. 299,415.

Patented May 27, 1884.



Witnesses.

Thos H. Hutchins.
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UNITED STATES PATENT OFFICE.

HENRY L. MILLER, OF MORRIS, ILLINOIS.

SCRAPER-CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 299,415, dated May 27, 1884.

Application filed November 6, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY L. MILLER, a citizen of the United States of America, residing at Morris, in the county of Grundy and State of Illinois, have invented certain new and useful Improvements in Scraper-Cultivators, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a side elevation of the cultivator; Figs. 2 and 3, perspective views of the tongue-clips, and Fig. 4 a rear view of the cultivator.

This invention relates to certain improvements in scraper-cultivators; and it consists in certain means for elevating and lowering the outer end of the tongue, so as to cause the scrapers to run either deep or shallow.

Referring to the drawings for an explanation and description of my invention, and looking at Fig. 1, B is the tongue.

B' is a cross-bar running transversely across the rear end of the cultivator, to the outer ends of which are pivoted the plow-beams A A, as shown in Fig. 3.

S is a clip, (shown in perspective in Fig. 2,) which is bolted to the center of the under side of the beam B', which bolts pass up through the slots *n n*, so as to permit lateral adjustment of said clip. The rear end of the tongue B enters said clip and is held therein by a bolt, S', and a row of holes, V, in said clip permits vertical adjustment of the rear end of the tongue.

The braces D D attach to the plow-beams A A in the ordinary manner, and are provided at their outer or front end with the clip *a*, (shown in perspective in Fig. 3,) to the arms *a' a'* of which said braces are bolted or otherwise secured, as shown in Fig. 1. The tongue passes through the vertical slot in said clip *a*, as shown in Fig. 1, and is held therein by a bolt, *t*, and a row of holes, *t'*, permits vertical

adjustment of that end of the tongue. It is obvious that by means of such adjustment of the tongue in the said clips any desired pitch may be given to the scrapers S², to cause them to run shallow or deep, as may be desired. It is in this vertical adjustment of the tongue at these two points that my principal improvement consists.

The handles H attach to the frame by means of bolts securing them to the cross-bars B' and W, which cross-bar W is short, so as to contract that end of the handles, and is bolted rigidly to the tongue.

Brace-rods R R brace the plow-beams A A laterally, and the double-tree *d*, pivoted across the top of the tongue B, connects by means of the short chains or rods *c'* to the upper ends of the vertical whiffletrees *c*, which pivot at their centers by means of the draft-rods *c''* to the plow-beams A A, as shown. The team pulls the cultivator from the rods *y y*, attached to the lower ends of the vertical whiffletrees, as shown, so as to have the draft nearer the scrapers than the tongue, or so it can be regulated at any desired height between the scrapers and the tongue.

This adjustable tongue may be used on any cultivator having blades, shovels, or scrapers where such a tongue would be of service.

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

In the scraper-cultivator described, the combination of the tongue B, frame B', clip S, having the slots *n n* for lateral adjustment, and vertical row of holes V, and clip *a*, having the vertical row of holes *t*, and arms *a' a'*, as and for the purpose set forth.

HENRY L. MILLER.

Witnesses:

H. C. CLAYPOOL,
H. T. WARNER.