(No Model.)

E. C. LESTER.

CLAMP FOR CULTIVATOR TEETH.

No. 590,844. Patented Sept. 28, 1897.

Fig. 1.

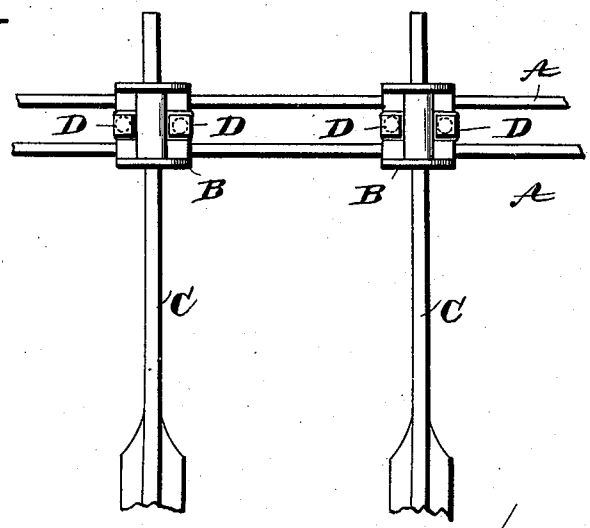


Fig. 2.

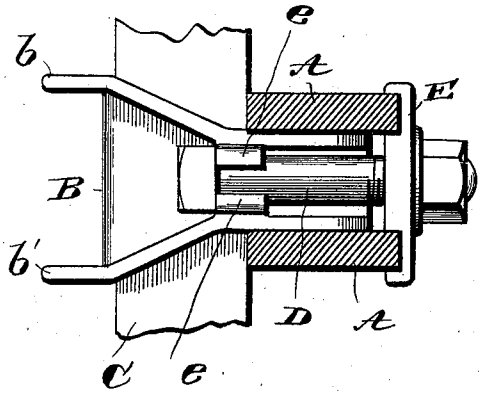


Fig. 3.

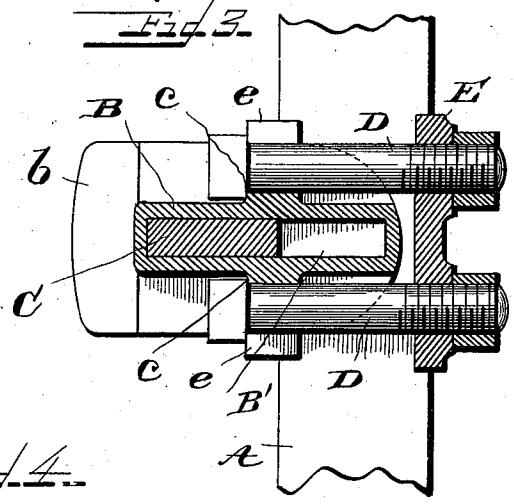
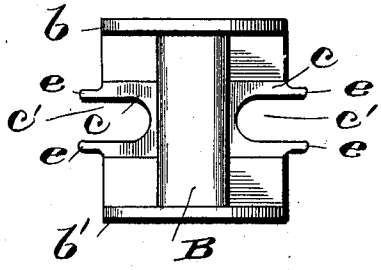


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

EUGENE C. LESTER, OF ALBION, MICHIGAN, ASSIGNOR TO THE GALE MANUFACTURING COMPANY, OF SAME PLACE.

CLAMP FOR CULTIVATOR-TEETH.

SPECIFICATION forming part of Letters Patent No. 590,844, dated September 28, 1897.

Application filed June 21, 1897. Serial No. 641,692. (No model.)

To all whom it may concern:

Be it known that I, EUGENE C. LESTER, a citizen of the United States, residing at Albion, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Clamps for Cultivator-Teeth; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to cultivators; and it consists in a new construction and new combination of parts forming an improved clamp for holding the cultivator-tooth to the beam.

In the drawings I have shown the best form in which I have contemplated embodying my invention, and my said invention is disclosed in the following description and claims.

In the drawings, Figure 1 is a partial rear view of a cultivator bar or beam with two teeth attached thereto by my improved fastening. Figs. 2, 3, and 4 are detail views, on a larger scale, to more clearly illustrate the construction of my device, Fig. 2 being a vertical sectional view through the beam, Fig. 3 a horizontal section between the two bars or plates forming the beam, and Fig. 4 a rear elevation of the clamp with the bolts removed.

In cultivators, and more especially in the class of orchard-cultivators, the beam to which the teeth are attached is frequently made of two flat bars or plates and the teeth are secured in place by clamping the tooth-stem against the two bars by a bolt drawing a casting which passes part way between the two bars and which is drawn against the tooth by a bolt. In my improved construction I employ two bolts and in other ways strengthen and improve the parts.

In the drawings, A A are the two flat bars or plates forming the tooth-beam of the cultivator.

B is the casting or clamp. This casting, which will be of malleable cast metal, is of the general shape shown in Figs. 2, 3, and 4. The forward part of the casting or clamp is made of a size to pass between the bars A A of the beam. This forward end is rounded from side to side, as shown in Fig. 3, and does not extend entirely through between the bars A A. Rearwardly of the beam the clamp or casting inclines upwardly and downwardly to give a broad bearing upon the rear edge of the tooth stem or shank. The clamp is provided with a slot B′, running lengthwise thereof, to receive the shank or stem of the tooth C. Around the back and sides the clamp or casting is provided with outwardly-extending flanges *b b′*, giving additional strength without greatly increasing the weight. Between the front and rear of the casting or clamp the two flanges *b b′* are connected by a broad web *c*, which is provided with an open slot *c′* to receive the body of an attaching-bolt D. The space between the flanges *b b′* at this point is but little more than the width of the head of the bolts employed, so that when placed in position the head of the bolt will be held from turning, while the head will engage the web on all sides except one.

The webs *c* are provided with lips *e*, which extend outwardly a short distance beyond the flanges *b b′*, and these lips are bent inwardly upon the bolts when the tooth has been secured to the beam, thereby holding the bolts in their slots and preventing their displacement.

The securing-bolts D D pass to the front of the beam and through the bolt-plate E, the nuts of the bolts being turned up against this plate. This securing-plate is preferably notched or grooved to engage the edges of the flat bars forming the beam, as shown in Fig. 2. This plate might be dispensed with by using a large washer on each bolt or the plate might be made of different form.

The mode of using my improved clamp will be obvious from the foregoing description and the drawings forming a part of this application. The parts are put in position, as shown in Figs. 2 and 3, and the nuts turned tightly up against the securing-plate.

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

1. As a securing device for the teeth of cultivators, the clamp or casting having a portion provided with a vertical slot to receive a tooth, a spacing portion having horizontal faces adapted to lie between parallel bars, said

clamp being provided on each side with a seat for a securing-bolt, intermediate the front and rear faces of the clamp, and the securing-bolts, substantially as described.

2. As a securing device for the teeth of cultivators the clamp or casting having at top and bottom the strengthening-flanges, a web on each side connecting said flanges, recessed to receive the body of a securing-bolt, and the securing-bolts, substantially as described.

3. As a securing device for the teeth of cultivators, consisting of the clamp or casting having at top and bottom the strengthening-flanges, a web on each side connecting said flanges, said webs being each recessed to receive the body of a securing-bolt, the said flanges being but little farther separated than the width of the bolt-head whereby the bolts are held from turning, the securing-bolts and the bolt-plate, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

EUGENE C. LESTER.

Witnesses:

EDWIN G. PECK,

ISAAC N. MILLER.