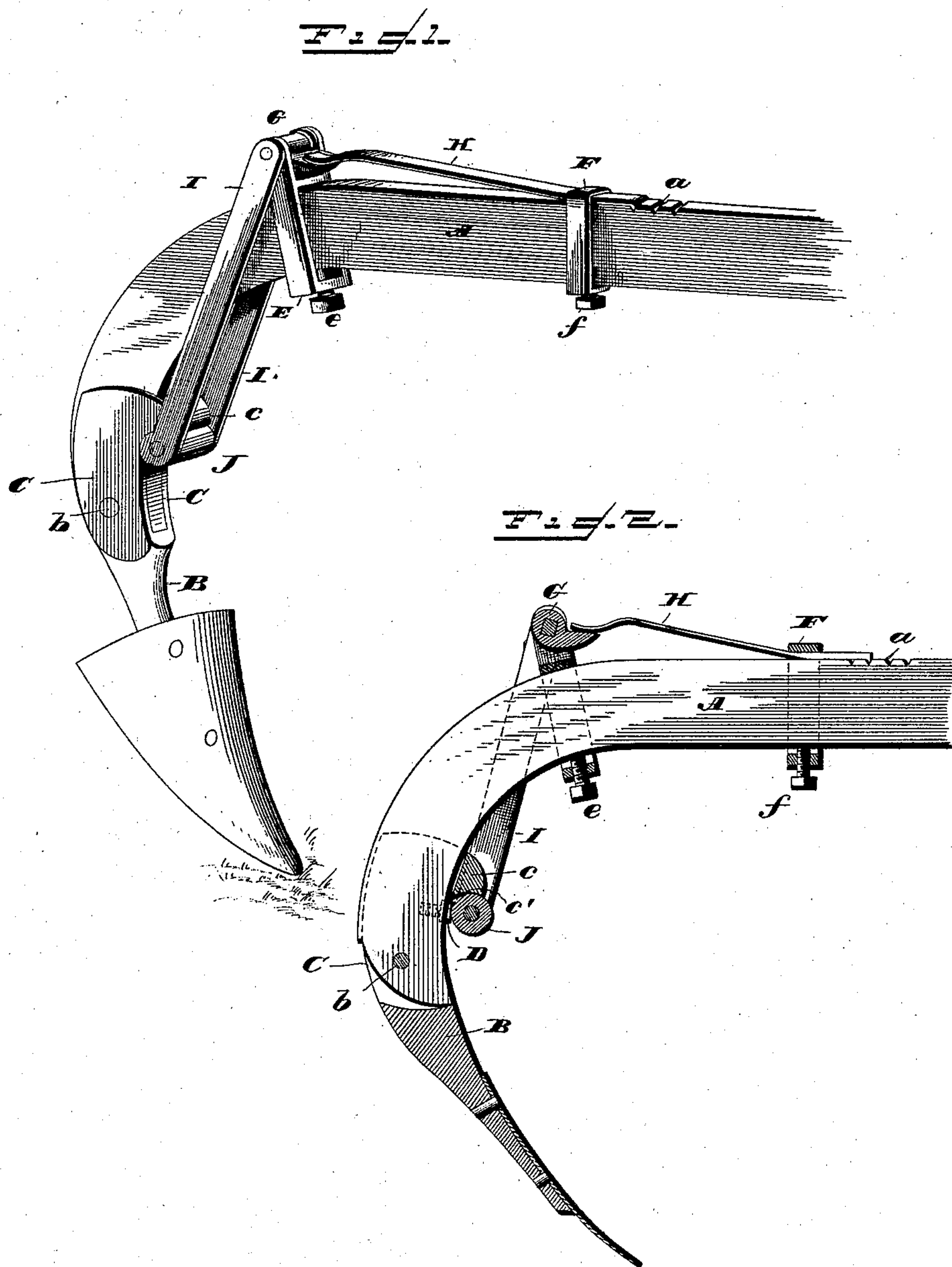


(No Model.)

M. H. DAMERELL.
CULTIVATOR.

No. 372,206.

Patented Oct. 25, 1887.



Mark Henry Damerell.

WITNESSES

G. S. Elliott.
Lawson

INVENTOR

[Signature]
Attorney

UNITED STATES PATENT OFFICE.

MARK HENRY DAMERELL, OF LUDLOW, MISSOURI.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 372,206, dated October 25, 1887.

Application filed August 20, 1887. Serial No. 247,489. (No model.)

To all whom it may concern:

Be it known that I, MARK HENRY DAMERELL, a citizen of the United States of America, residing at Ludlow, in the county of Livingston and State of Missouri, have invented certain new and useful Improvements in Cultivators; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in cultivators, the object of the same being to provide a means whereby when the cultivator shovel meets an obstruction it will be allowed to swing upon its pivot, so as to ride over the obstruction, thereby obviating the breaking of the parts or undue strain or shocks upon the frame.

My invention also embodies means whereby the cultivator-blade can be adjusted so that it will not swing upon its pivot until a certain pressure has been exerted upon the cultivator point or shovel; and my invention consists in the construction and combination of the parts whereby the above ends are accomplished, as will be hereinafter fully set forth, and specifically pointed out in the claims.

In the accompanying drawings, which illustrate my invention, Figure 1 is a perspective view of my improvement. Fig. 2 is a sectional view.

A refers to one of the beams of a cultivator, the same being bent downwardly at its rear portion, the upper edge of the straight portion of the cultivator-beam being provided with a series of notches, *a*, while the lower portion is provided with a transverse perforation, through which passes the bolt or pivot-pin which connects the standard B to the beam, said standard being bifurcated or slotted at its upper portion, so as to provide side wings, C C, which embrace the sides of the lower end of the beam A. These side wings are connected to each other at their upper front portions by a transverse portion, *c*, which is curved, as shown at *c'*, on its under side. The standard is pivotally connected to the beam A by a pin or bolt,

b. At a point opposite the lower edge of the transverse portion *c* the beam A is provided with a set-screw, D, which can be adjusted in and out from the front edge of the beam A.

The straight portion of the beam A is provided with clamps E and F, which can be rigidly secured to the beam by set-screws *e* and *f*. The side pieces of the clamp E extend above the beam A, and between the same is mounted a cam, G, which has a forwardly-projecting portion, the upper edge of which is flat, so as to form a bearing for a flat spring, H, said spring being held in place by the clamp F, hereinbefore referred to, the object of providing these notches being to permit the clamp E to be moved upon the beam when desired.

The pivot-pin which passes through the cam G is square, and to this pivot pin, outside of the side pieces of the clamp E, are rigidly secured links I I, the lower ends of said links being connected to each other by a transverse pin, which carries between said arms an anti-friction roller, J, said anti-friction roller being adapted to contact with the curved portion *c'* of the transverse portion *c* of the standard.

The spring-pressure upon the cam and links I I is such as to have a tendency to throw said links and the anti-friction roller rearwardly, and said spring-pressure can be adjusted by moving the clamp F upon the beam A.

When the parts are attached to the beam A, as shown in Fig. 1 of the drawings, the anti-friction roller will bear upon the head of the screw D and the transverse portion *c*, which is attached to the upper portion of the standard. By engaging with the transverse portion of the standard the anti-friction roller will hold the standard securely in position, and when undue pressure comes upon the shovel or plow which is attached to the standard the curved portion will be forced over and out of engagement with the anti-friction roller, and the standard will turn upon its pivot, so as to slide over any obstructions which may have caused undue pressure upon the shovel or cultivator.

The pressure at which the standard will turn upon its pivot can be adjusted by moving the set-screw D.

I claim—

1. In combination with the beam A, provided with links I, which are pivotally at-

5 tached thereto, substantially as shown, said links carrying at their lower ends an anti-friction roller, a standard pivotally attached to the beam and provided at its front upper portion with a transverse connecting-piece, the lower edge of which is curved, so as to contact with the anti-friction roller carried by the links, substantially as shown, and for the purpose set forth.

10 2. In combination with the beam A, a bifurcated standard pivotally attached thereto and provided at its front upper portion with a transverse bar, *c*, the lower edge of the same being curved, a set-screw attached to the beam
15 A, links II, carrying at their lower ends a roller, the upper portions of said links being pivotally connected to the beam and provided with a cam, upon which a spring attached to the beam exerts a pressure, so as to throw said links
20 rearwardly, substantially as shown, and for the purpose set forth.

3. In combination with the beam A, a spring secured thereto, links I, pivotally secured to the beam and rigidly connected with a forwardly-projecting portion, upon which the
25 spring bears, said links being connected to

each other at their lower ends and adapted to engage with a projecting portion attached to the standard, or to release the same, substantially as and for the purpose set forth. 30

4. The beam A, provided with loops E and F, which are adjustably attached to said beam, a spring, H, links I I, pivotally secured at their upper ends to the loop E, a cam located between the side pieces of the loop E, said cam 35 being rigidly connected to the links, the lower portions of said links being provided with a roller, J, a standard, B, having a bifurcated upper portion, within which the lower end of the beam A lies, a pivot-pin, *b*, transverse 40 portion *c*, having the lower edge thereof curved, said portion connecting the side pieces of the standard, and an adjusting-screw, D, the parts being combined and organized substantially as shown, and for the purpose set 45 forth.

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

MARK HENRY DAMERELL.

Witnesses:

J. M. DAMERELL,
WILEY MILLER.