

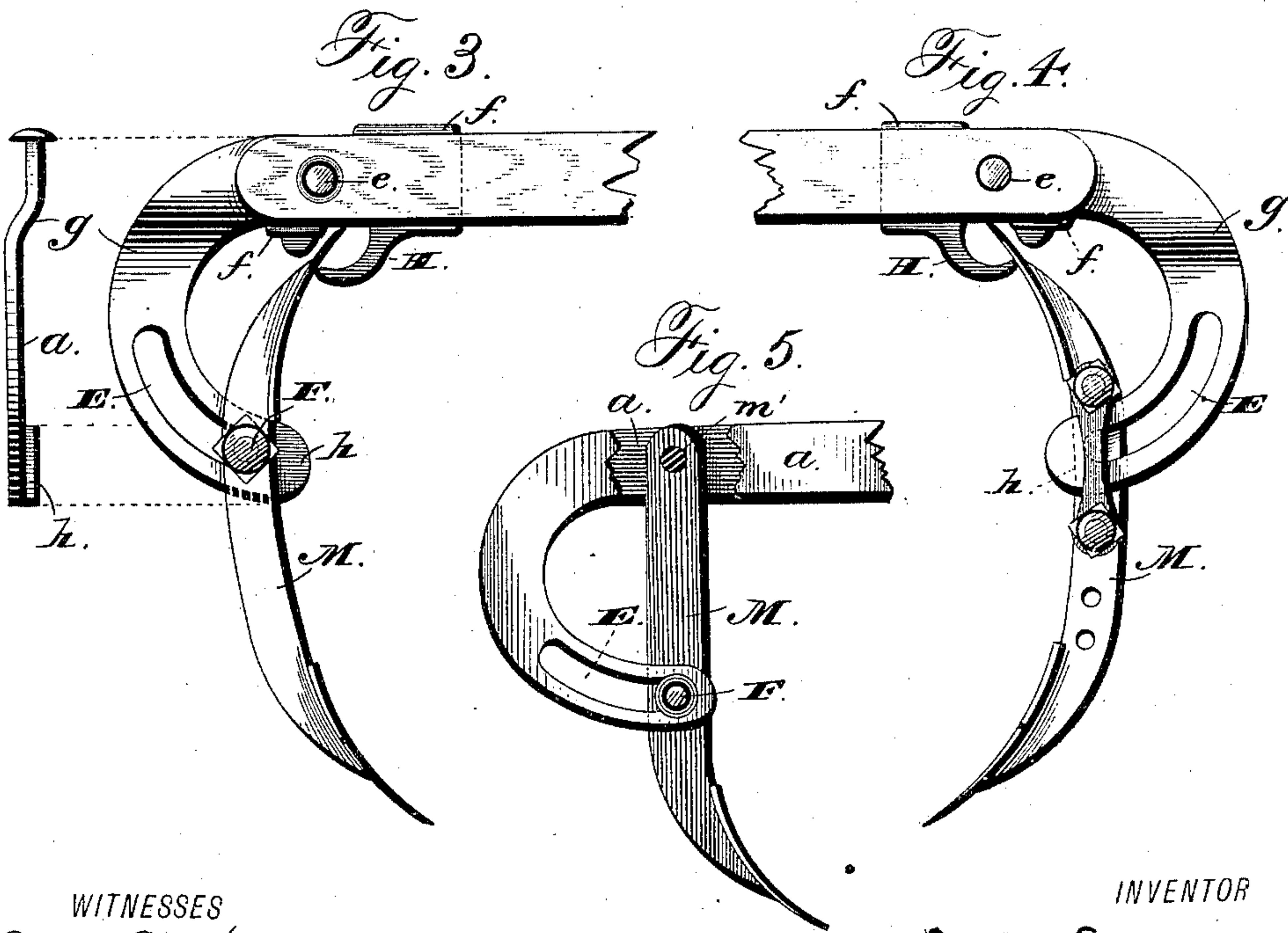
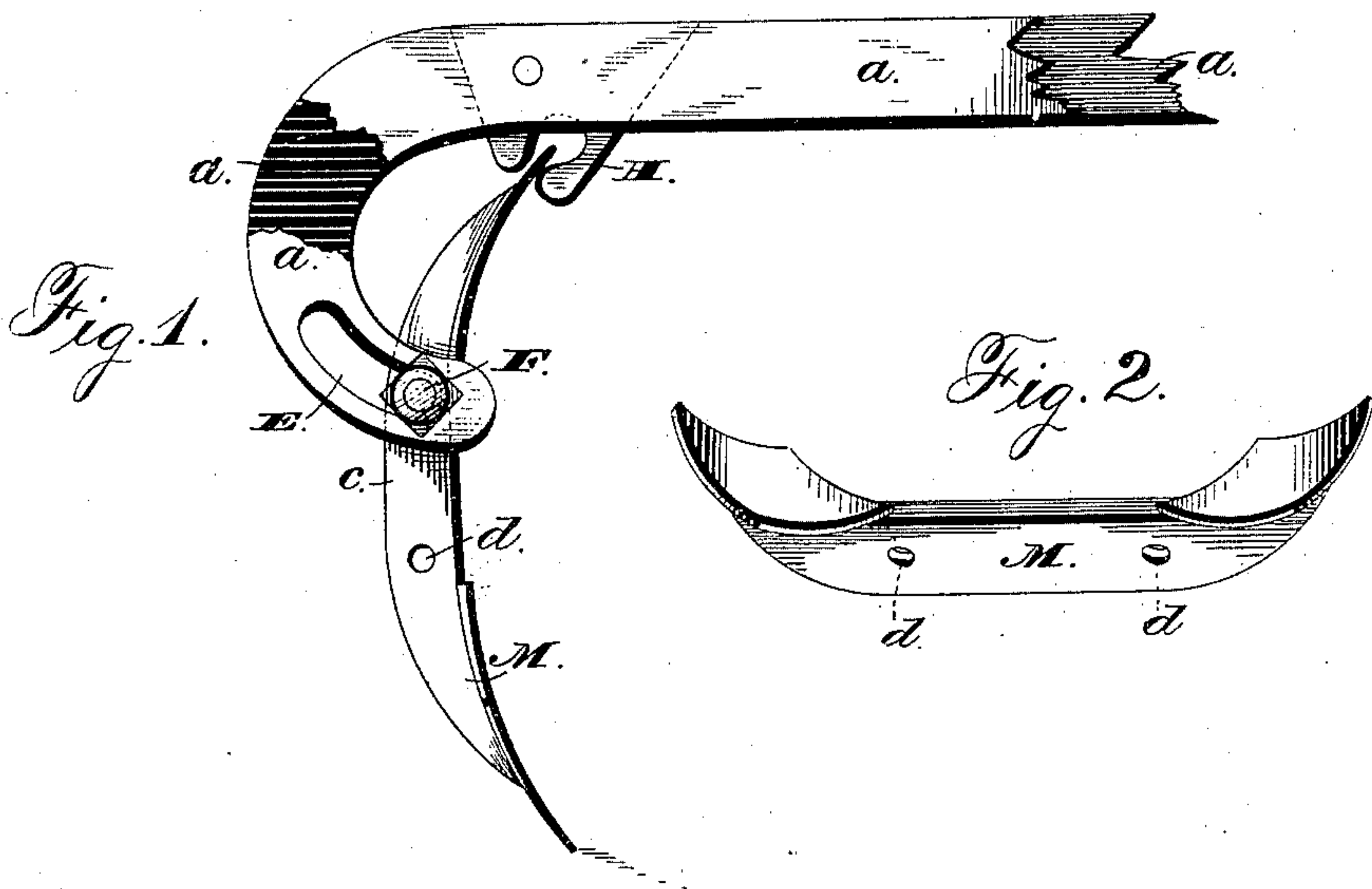
(No Model.)

D. C. VAN BRUNT.

CULTIVATOR BEAM

No. 284,093.

Patented Aug. 28, 1883.



WITNESSES

Jas. E. Hutchinson
S. G. Nottingham

INVENTOR

D. C. Van Brunt.
By H. A. Symonds,
Attorney

UNITED STATES PATENT OFFICE.

DANIEL C. VAN BRUNT, OF HORICON, WISCONSIN.

CULTIVATOR-BEAM.

SPECIFICATION forming part of Letters Patent No. 284,093, dated August 28, 1883.

Application filed March 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, DANIEL C. VAN BRUNT, of Horicon, in the county of Dodge and State of Wisconsin, have invented certain new and useful Improvements in Cultivator-Beams; 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 invention relates to an improvement in cultivator-beams or drag-bars, the object of the same being to provide strong and durable means for detachably securing a tooth to a cultivator-beam to withstand a certain or predetermined amount of pressure, which if exceeded will cause the tooth to slip and allow it to ride over obstructions without damaging the parts; and with these ends in view my invention consists in certain details in construction and combinations of parts, as will be more fully explained, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of one form of improved drag-bar or beam, with a double-pointed tooth secured thereto. Fig. 2 is a perspective view of the double-pointed tooth. Figs. 3, 4, and 5 show modified forms of beams.

The beam shown in Fig. 1 is composed of two parallel metallic bars, secured together in any desired manner, the rear ends of which are curved downwardly and forwardly nearly in the arc of a circle. The lower curved ends of the bars *a* are separated sufficiently for the introduction between them of the shank *c* of the tooth *M*. This tooth *M* can be either single or double pointed, the points being either rigidly or detachably secured to the shank, which latter is provided with suitable holes, *d*, for the passage of the bolt *F*. The bars *a* are each provided near their lower end with a slot, *E*, for the passage of the bolt *F*, and also for enabling the shank of the tooth to slide backward when the pressure against the lower point thereof is sufficient to cause the tooth to slip.

Between the two bars *a*, and nearly over the outer extremity thereof, is situated the depending-holder *H*, which latter is simply a projection adapted to come in front of the upper end of the shank or the upper tooth and form a bearing therefor, and consequently prevent the tooth from turning on the bolt. It is

also desirable to provide this holder with a similar projection adapted to come in the rear of the shank or upper point and prevent the tooth from turning on the bolt *F* when the machine is backed. The tooth *M*, in the present instance, is provided with double points, and is adapted to be reversed when desired. The shank thereof is provided with suitable holes, *d*, for the passage of the bolt *F*, and adapted to be firmly clamped between the rear curved ends of the bars.

In Fig. 3 I have shown a beam or drag-bar made of wood and iron, the front straight portion thereof being of wood and the rear curved end of iron. This rear metallic end is inserted in a slot or opening formed in the rear end of the wooden beam, and is secured thereto by one or more bolts, *e*, and can be provided with the laterally-projecting lips *f*, adapted to rest on the beam on both sides of the slot, for the purpose of preventing the iron portion thereof from turning when only one bolt *e* is employed for the purpose of securing it in position. The metallic end of this beam is curved a little to one side, as shown at *g*, for the purpose of enabling the tooth *M*, which is clamped to one side thereof, to rest under or just back of the vertical center of the wooden portion of the beam, and is then curved downward and forward, the same as the rear ends of the metallic bars *a*. This metallic portion of the drag-bar is also provided with the oblong slot *E*, and on its inner side, or the side against which the tooth rests, with the lug *h*, adapted to prevent the tooth from sliding off the bar when clamped to the latter, as shown in Fig. 4.

In Figs. 3 and 4 the metallic portion of the beam is provided with the depending holders *H*, formed integral therewith or separate therefrom, and adapted to operate substantially like that described in Fig. 1.

In Fig. 3 the tooth *M* is clamped to the rear end of the bar by a bolt, *F*, and can be adjusted to any desired angle.

The construction shown in Figs. 3 and 4 forms a stiffer beam, and is a more desirable means for forming the cultivator-beam where timber is plentiful; but for localities where timber is scarce the beam or bar can be wholly made of iron, as shown in Fig. 1.

The tooth *M* is clamped to the lower rear

end of the beam, as shown in the several figures, with the face of the upper or unused point of the tooth resting against the front projection of the holder H, formed on the beam, and the rear face against or in front of the rear projection of the said holder. This tooth can be moved forward or backward on the beam or bar, thus giving it the desired angles for various soils, and when meeting an obstruction—such as a rock or root—will slip back and ride over it, thereby preventing breakage.

In Fig. 5 I have shown a single-pointed tooth secured to the beam by the pivot-bolt *m'*, the shank of the tooth being secured to the rear end or ends of the bars in the usual manner.

It is evident that numerous changes in the construction and relative arrangement of the several parts might be resorted to without departing from the spirit of my invention, and hence I would have it understood that I do not confine myself to the exact construction shown, but consider myself at liberty to make such changes as fairly fall within the spirit and scope of my invention.

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

1. The combination, with a cultivator-beam

or drag-bar the rear end of which is curved, substantially as shown, and a depending holder secured to the said beam, of a tooth the shank of which is adjustably secured to the curved end of the beam, while the upper end or point thereof is held in position by the holder.

2. The combination, with a cultivator-beam the rear end of which is curved, substantially as shown, and a tooth adjustably secured to the said curved end, of a depending holder secured to the beam for the purpose of supporting the tooth when the machine is moved forwardly, and for preventing the tooth from turning when the machine is backed.

3. The combination, with a cultivator-beam the rear end of which is curved and slotted, as described, and the holder H, secured to the beam in front of the curved portion thereof, of the tooth M, secured to the beam, with its upper end resting in the holder, all of the above parts combined and adapted to operate substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

DANIEL C. VAN BRUNT.

Witnesses:

WM. R. ST. JOHN,
H. B. WILKINS.