

(No Model.)

E. A. OVENSHERE.
CULTIVATOR TOOTH.

No. 541,177.

Patented June 18, 1895.

Fig. 2.

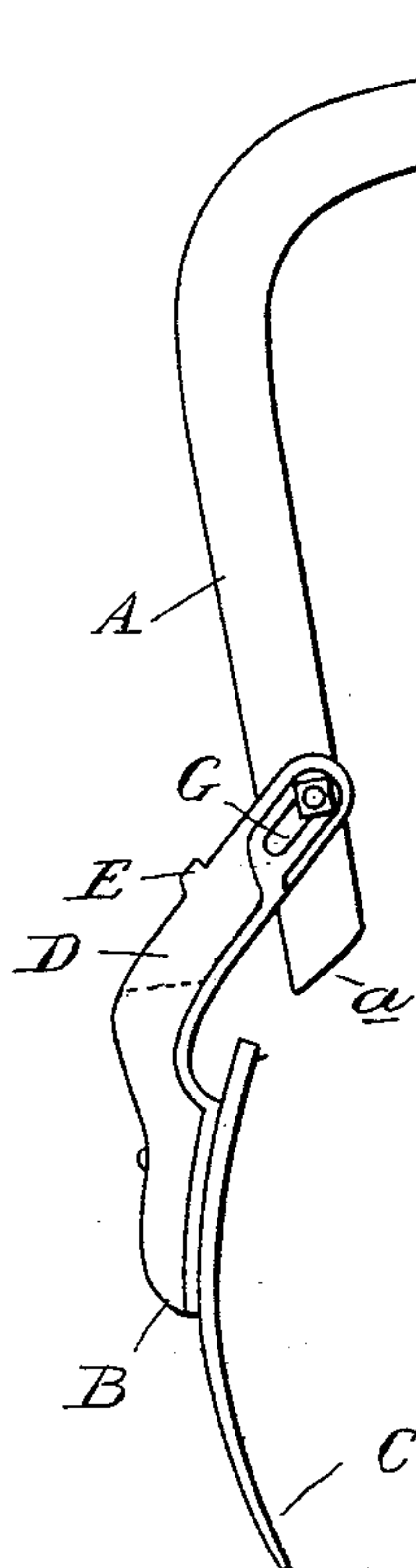


Fig. 1.

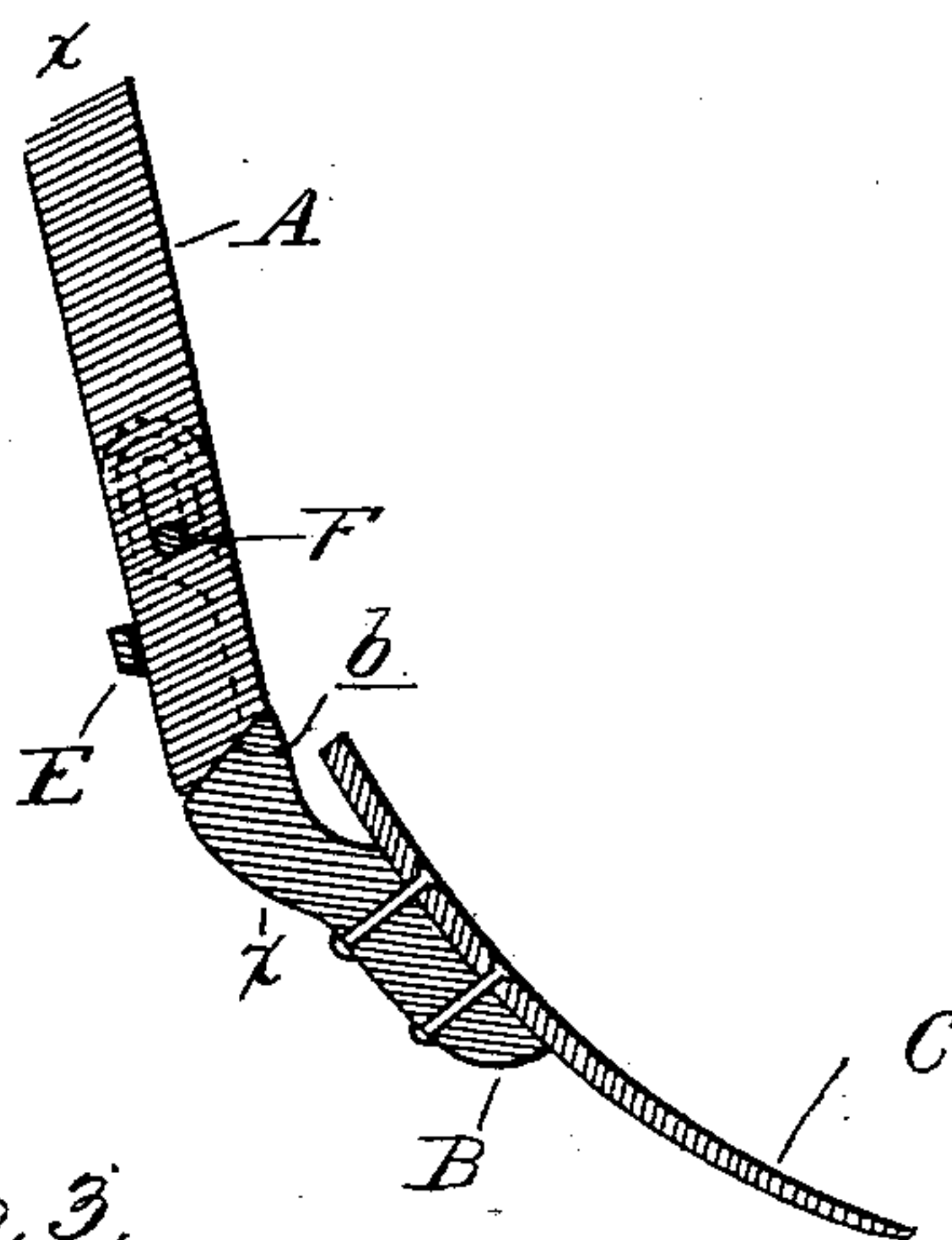
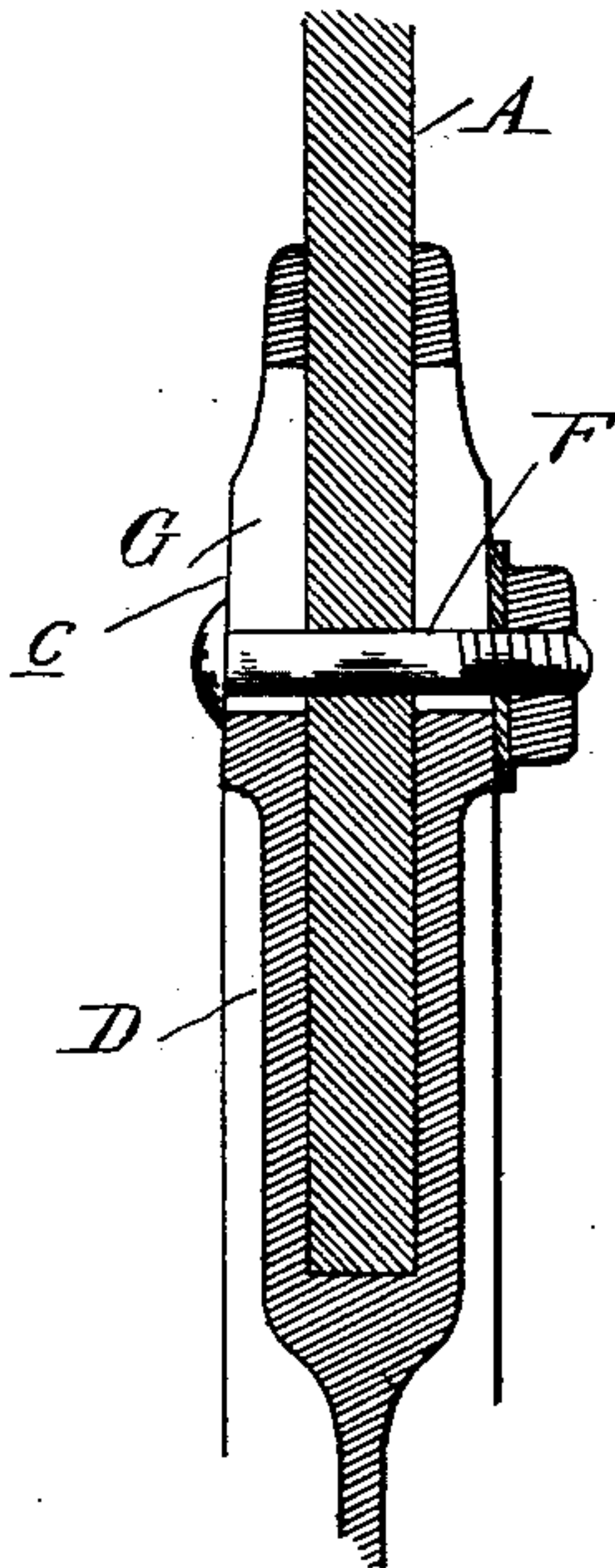


Fig. 3.



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UNITED STATES PATENT OFFICE.

ELIJAH A. OVENSHERE, OF DETROIT, MICHIGAN, ASSIGNOR TO THE AMERICAN HARROW COMPANY, OF SAME PLACE.

CULTIVATOR-TOOTH.

SPECIFICATION forming part of Letters Patent No. 541,177, dated June 18, 1895.

Application filed May 28, 1894. Renewed April 22, 1895. Serial No. 546,777. (No model.)

To all whom it may concern:

Be it known that I, ELIJAH A. OVENSHERE, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Cultivator-Teeth, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The invention consists in the construction of the standard and the shovel or plow support, whereby a joint is provided which will hold the shovel firmly in the ground in all ordinary work, but will break back when an obstacle is encountered; further in the construction of such a joint without the use of wooden pins, springs, &c., as heretofore used.

15 In the drawings, Figure 1 is a vertical central longitudinal section through the lower end of a standard and plow-support embodying my invention, showing the plow as in use. Fig. 2 is a side elevation thereof, showing the joint broken back. Fig. 3 is a vertical section on line *x x*, Fig. 1.

25 At the present time the plow support or bracket forming the foot of the standard is usually pivoted to the lower end of the standard, and is held from turning on its pivot by a wooden stop pin, which is intended to break 30 when any unusual obstacle is struck by the plow. This requires that the operator shall stop and fit in a new pin. Others use springs, which will yield under such undue pressure but the springs give constant vibration to the 35 tooth which is undesirable.

My invention is intended to overcome the objections to these constructions, and to simplify and cheapen the construction.

A is the standard.

40 B is the plow supporting bracket or foot of the standard, and C is the shovel thereon. The upper end of this foot is formed with the bifurcations D, or is socketed to fit upon the lower end of the standard, or the lower end 45 of the standard may be socketed or bifurcated and the foot fit therein.

E is a stop or cross bar on the bracket against which the rear face of the standard bears.

50 F is a securing bolt passing through the

standard near the lower end, and engaging vertical slots G in the top of the bifurcations of the bracket.

The lower end of the standard is formed with the inclined bearing *a*, and the top of 55 the bracket between the bifurcations D is formed with a complementary bearing *b* on which the bearing *a* is supported or rests when the parts are assembled for use as shown in Fig. 1, the clamping bolt being at the lower 60 end of the slots G, in this position. Now if the shovel strikes a root, large stone or other obstacle, the force of the draft will cause the inclined face or cam *b* to press against the face *a*, which will overcome the clamping 65 effect of the bolt, and draw down the bracket as it rocks rearward, the length of the slot G, so that the bracket will clear the standard and may turn to pass over the obstacle, as shown in Fig. 2. Then all the operator needs 70 to do to again put it into operation is to rock the foot forward and tighten the bolt. I preferably form the faces *c* on the socket beside the seat G and on which the head of the bolt and the nut or washer bear, slightly tapering 75 or inclining toward the end of the bracket, so that after sufficient strain has been brought on the bracket to overcome the clamping effect of the bolt it will move more easily and quickly, and prevent breakage of the parts. 80 This is however, not necessary, simply preferable. Instead of making this joint between the standard and foot the standard may be made in two parts with such a joint.

What I claim as my invention is—

85 1. The combination with the standard having an inclined abutment at its lower end, of a foot slidably secured on the standard and having an oppositely inclined abutment on its upper end engaging the abutment on the 90 standard, and means for normally holding the abutments in contact, substantially as described.

2. The combination of the standard and its foot, overlapping cam bearings at their meeting ends, a clamping bolt forming the pivot 95 pin passing through both standard and foot, one member having slots to permit a limited sliding movement upon the pin, substantially as described. 100

3. The combination of the standard, a bracket or foot having a bifurcated top in which the lower end of the standard engages, complementary inclined bearings at the lower
5 end of the standard and the top of the bracket between the bifurcations and a single clamping bolt passing through the standard and the bifurcations of the bracket, one of the members having slots through which the bolt
10 passes, substantially as described.

4. The combination of the standard, the bifurcated plow-carrying foot or bracket in which the standard engages, overlapping cam

shaped bearings at the meeting point of the standard and bracket, slots in the bifurca- 15 tions, a clamping bolt passing through the standard and through the slots in the bracket, and the inclined bearings *c* beside the slots, substantially as and for the purpose described.

In testimony whereof I affix my signature 20 in presence of two witnesses.

ELIJAH A. OVENSHERE.

Witnesses:

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R. H. LOGAN.