

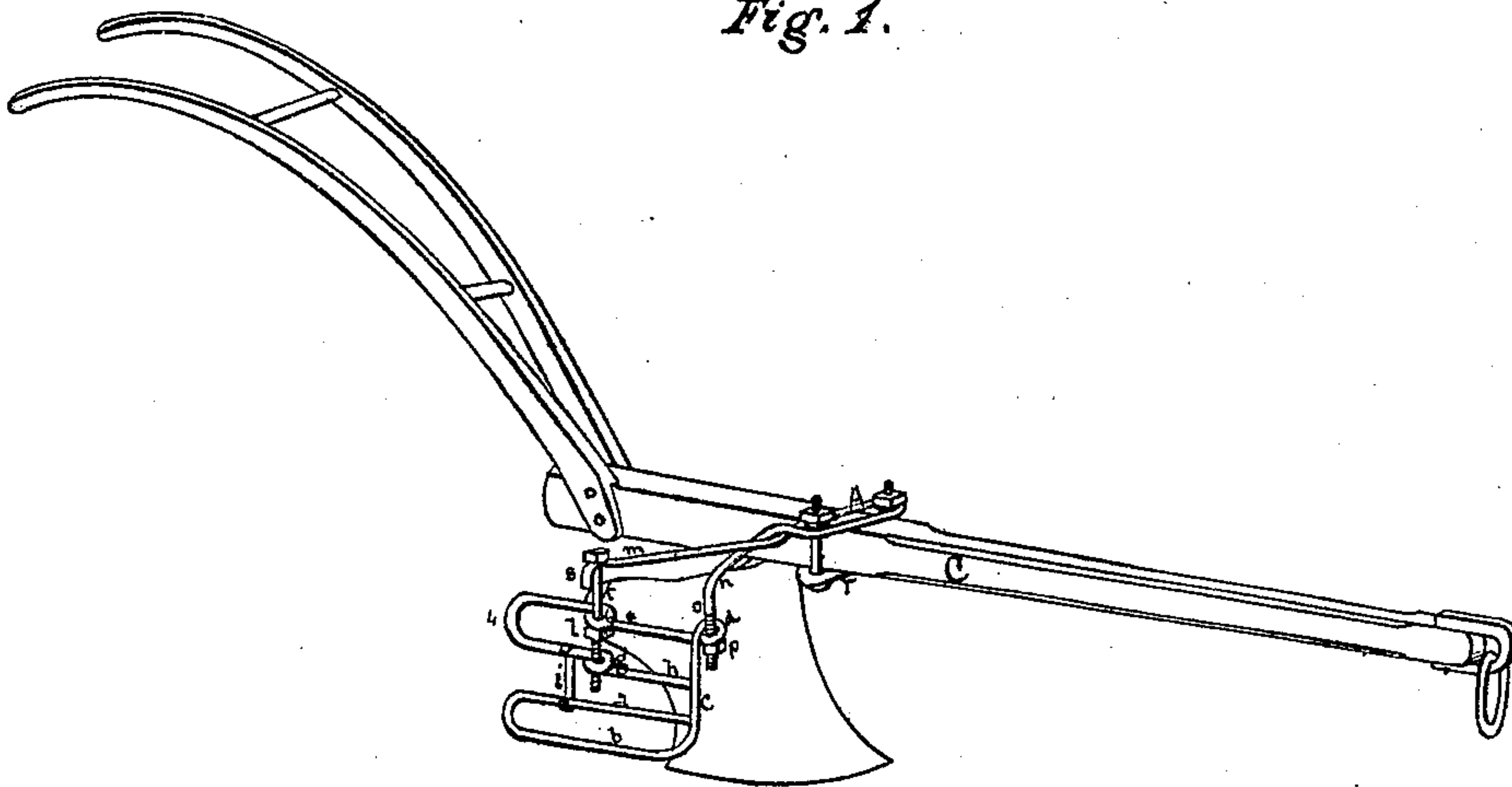
*Heath & Knickerbocker,*

*God Tender.*

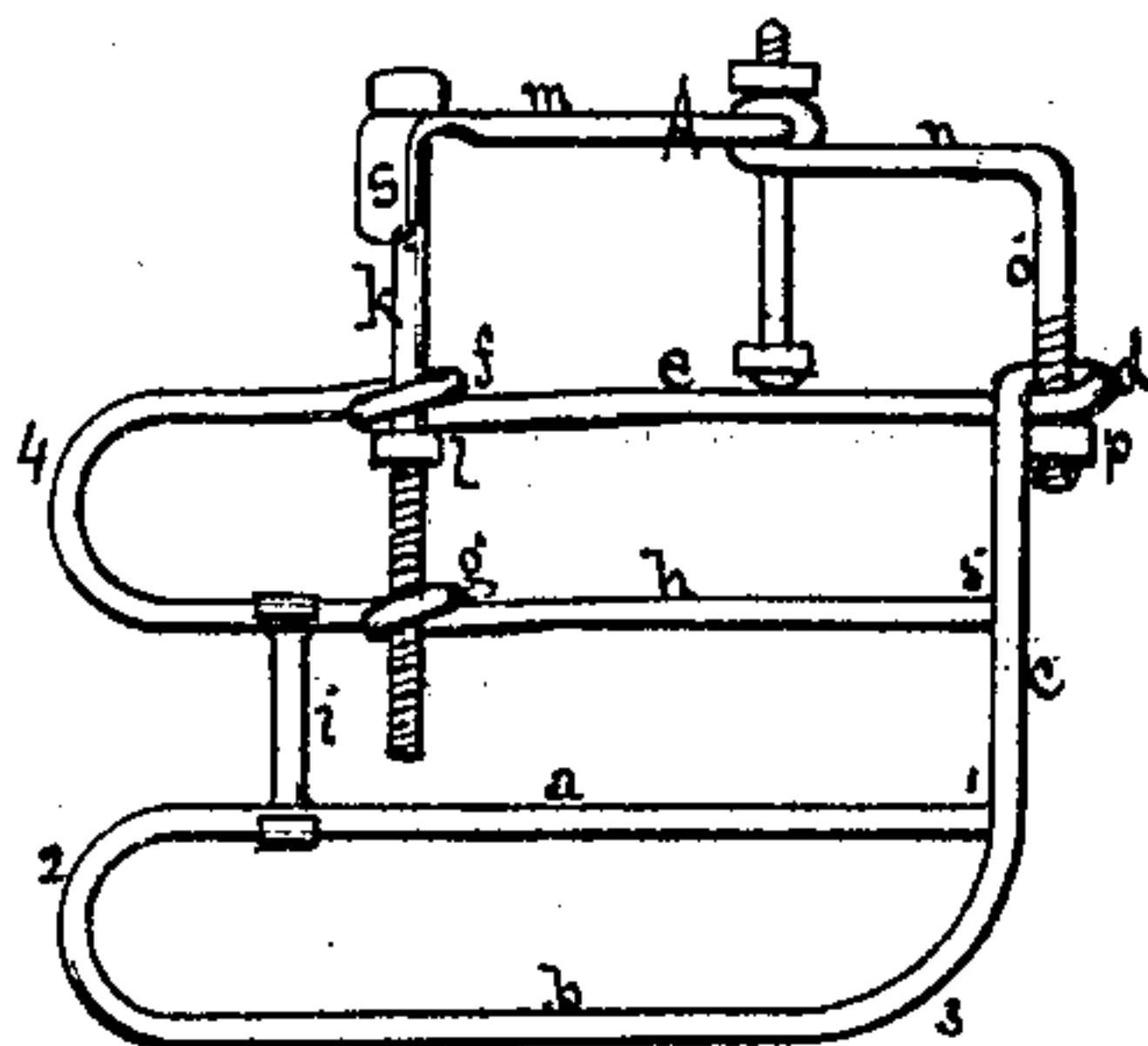
No. 98041.

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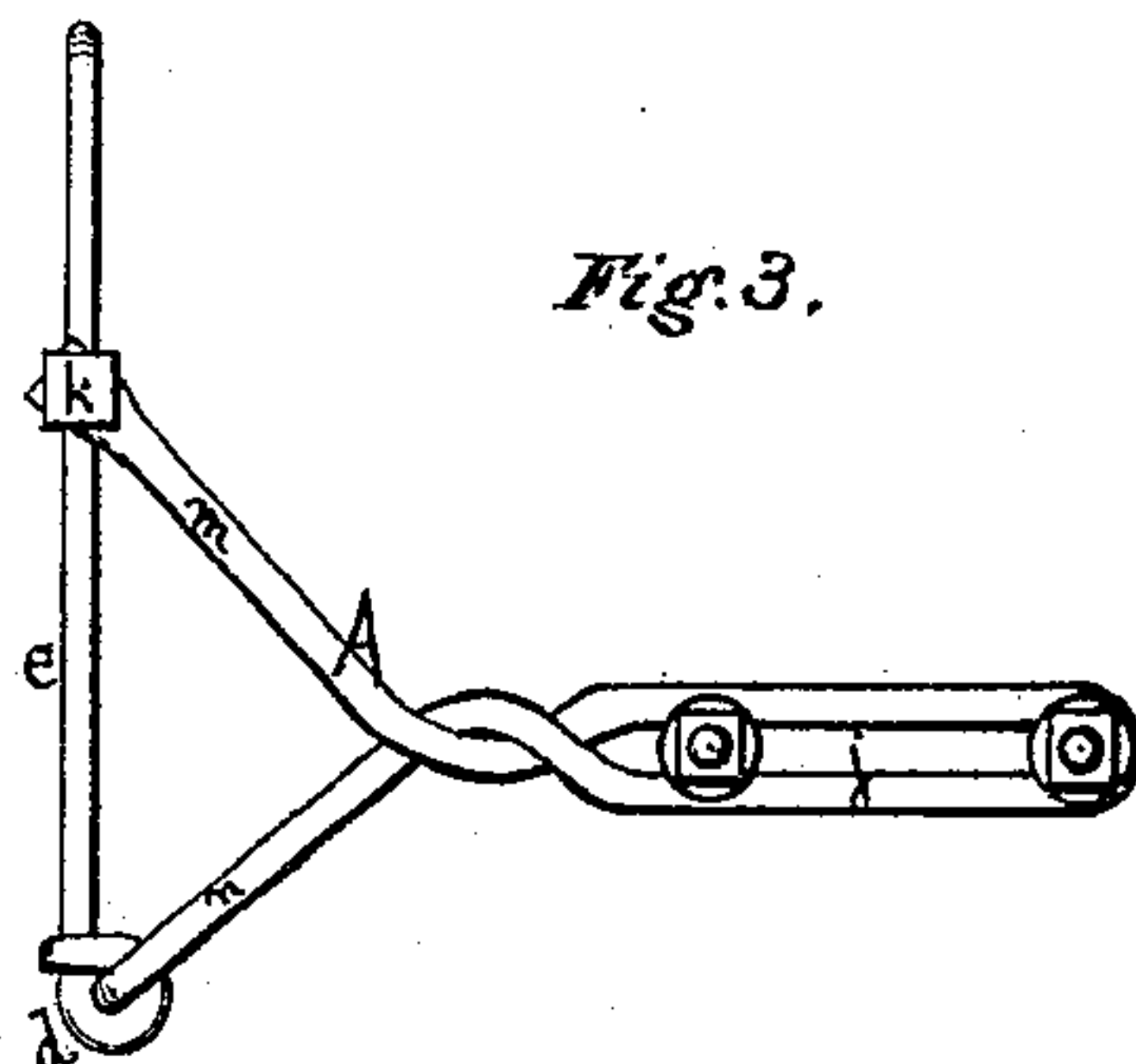
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN CLOD-FENDERS.

Specification forming part of Letters Patent No. 98,011, dated December 21, 1869.

*To all whom it may concern:*

Be it known that we, WILLIAM L. DEARTH and G. P. RONDEBUSH, of Jefferson, in the county of Clinton and State of Indiana, have invented a new and Improved Clod-Fender; and we do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a view in perspective of a cultivator-plow having our improved fender attached thereto; Fig. 2, an elevation of the fender attached to its supporting device; Fig. 3, a top view or plan of the supporting device.

The nature of our invention consists in an improved, simple, inexpensive construction of a clod-fender and its supporting device each out of a single iron rod, and in a novel adjustment of the same, whereby a free vertical movement of the fender is permitted when in use, allowing it to accommodate itself to inequalities of the ground in passing over it.

The fender is constructed of a single bar of rod-iron, as illustrated in Fig. 2 of the drawings. Beginning at the point or end 1 of the rod (see Fig. 2) the rod is extended a length equal to that desired in the fender, and is then bent back upon itself at 2 and made to extend parallel with the first length, *a*, so as to form the bottom bar, *b*, of the fender. It is then bent or turned up at 3 to intersect the end 1, (to which it is subsequently welded,) and extended in the same plane, forming the front bar, *c*, of the frame, so far as may be required in the height, or, rather, width thereof. It is then again bent, so as to form an eye or loop, *d*, at right angles to the plane of the fender, and then continued back in a line, *e*, parallel to the bottom bars, *a b*, a distance equal to their length, being twisted, however, into a second loop or eye, *f*, similar to *d*, at a point about two-thirds of its length. It is then bent downward or inward at 4, and doubled back and extended parallel to the top and first bars, *e* and *a*, between the two, until it strikes the front bar, *c*, of the frame at 5, to which it is securely welded. In extending this last bar *h* it is also twisted into a loop, *g*, at a point immediately below the loop *f* of the upper bar, *e*, as shown in the drawings. Thus with a single unbroken bar a fender is rapidly constructed, having four parallel longitudinal bars, *e*, *h*, *a*, and *b*, and provided with three loops or eyes, one, *d*, at

its upper forward corner, and the other two, *f* and *g*, in a line above each other in its two upper bars, *e* and *h*. The fender is completed by coupling the two central bars, *h a*, together at or near the rear end thereof, by means of a simple clamp, *i*.

The device A, Fig. 3, by which the fender is supported and connected to the plow, is constructed, likewise, of a single rod, bent so as to form, by one twist, an extended loop, *j*, to receive the ends of bolts on either side of the plow-beam, and from which the two twisted ends diverge, forming arms *m n*, to support the fender at different points. One of these arms, *m*, of the device A is perforated at its end to receive a long bolt, *k*, which, resting therein, shall drop down through the two loops *f g* and be loosely secured by a nut, *l*, screwing thereon between the two loops *f g* of the bars *e h*, as illustrated in Figs. 1 and 2. The other arm, *n*, of the supporting device A extends out to the length of the arm *m*, and is then bent down at right angles, and the bent end *o* is made in length equal to the extreme distance to which it may be desired to allow the fender to drop below the level of the plow-beam. It is threaded to receive a nut, *p*, which is screwed thereon after the end has been passed through the front loop, *d*, of the frame.

In using the fender, the nut *l* on the loose bolt *k* is screwed up until the distance from this nut to the head of the bolt shall correspond with the distance between the bend in the arm *n* of the supporting device and the nut *p* thereon, so that the fender, resting upon and suspended by the nuts *l p* on the bolt and the end *o* of the arm *n*, will hang with its bars *e h a b* parallel to the line of the plow-beam B.

The attachment of the supporting device A to the plow-beam B is obtained by means of a separate loop, *r*, Fig. 1, to be placed under the same, and bolts passing on either side of the beam B from the ends of said loop *r* through the loop formed in the supporting device A, the bolts being firmly secured by nuts, as illustrated in Fig. 1 of the drawings.

In operation, the fender, hanging from and supported by the device A, secured to the plow-beam B, as just described, is left free to adjust itself to the inequalities of the ground over which it may be drawn, as it is free to rise and fall or slide vertically on the bolt *k* and bent arm *o* from its supporting-nuts *l p* to the hori-



zontal arms *m n* of the supporting device *A*. The extension of the bolt *k* through the eye *g* of the second bar, *h*, prevents any swinging of the fender, and keeps it in a vertical plane, this end being, furthermore, secured by a short bend, *s*, Fig. 2, on the end of the bolt-arm *m*, which forms a shoulder affording support to the bolt.

The advantages which we claim for our fender are:

First. Its simplicity and economy of construction, it being made out of a single bar of rod-iron and properly supplied with eyes or loops with but two welds, (at 1 and 5,) while its supporting or coupling device is also made of a single bar of rod-iron, with a twist to form its sustaining-loop, and without any weld. In consequence of its simplicity and the absence of welded joints, it is made with far more ease and rapidity, and is much stronger than other fenders of equal size and weight.

Secondly. Instead of being attached rigidly to its supporting device at each end, it is left free to play up and down in passing over obstructions and irregularities in the ground. All other fenders are more or less rigid.

Having thus fully described our invention,

we claim therein as new and desire to secure by Letters Patent—

1. A fender or plant-shield constructed, substantially as herein described, of a single bar of rod-iron bent to form an outer frame carrying two interior longitudinal bars, and provided with suitable loops formed by twists in the bar to receive supporting and adjusting rods or bolts, as herein set forth.

2. The supporting device *A*, in combination with a fender, constructed as above described, when said device is formed of a single rod twisted, substantially as herein described.

3. The combination of the fender with its supporting device by means of the arm *o* and loose bolt *k*, playing in eyes or loops *d f g* in the fender-bars, whereby the fender is made self-adjusting, substantially as herein set forth.

The foregoing specification of our improved clod-fender signed by us this 29th day of June, A. D. 1869.

WILLIAM L. DEARTH.  
G. P. RONDEBUSH.

In presence of—

WILLIAM A. WATTS,  
JOSEPH C. SUIT.