

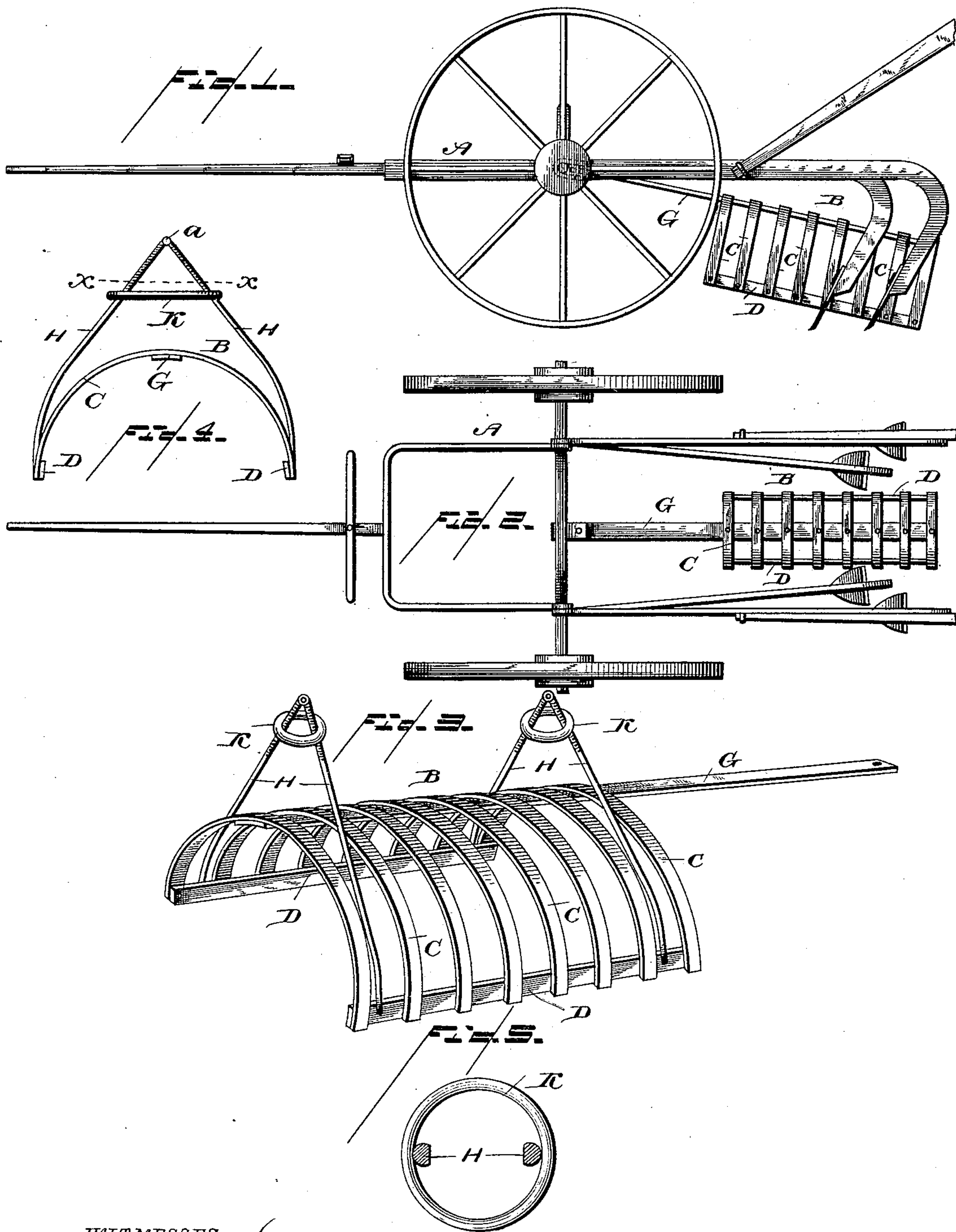
(No Model.)

H. HOWE.

FENDER.

No. 377,074.

Patented Jan. 31, 1888.



WITNESSES

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FENDER.

SPECIFICATION forming part of Letters Patent No. 377,074, dated January 31, 1888.

Application filed October 25, 1887. Serial No. 253,335. (No model.)

To all whom it may concern:

Be it known that I, HENRY HOWE, a citizen of the United States, residing at Moss Springs, in the county of Davis and State of Kansas, have invented certain new and useful Improvements in Corn-Fenders; and I do 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.

This invention relates to cultivator attachments; and it consists in the novel construction of a plant shield or protector, as hereinafter specified and claimed.

The nature of the invention will be fully understood from the following description and claims when taken in connection with the annexed drawings, in which—

Figure 1 is a side view of a cultivator showing my improved shield in position. Fig. 2 is a plan view of the same. Fig. 3 is a perspective view of the shield showing my improvements for adjusting the same. Fig. 4 is an end view of the same. Fig. 5 is a detail sectional view taken on the line *x x* of Fig. 4.

Referring to the said drawings by letter, A represents a cultivator, to the axle of which my protector is attached by a wrist or swivel joint secured to a bent rod extending from the straight ends of the axle, so as to allow the necessary vertical play or movement for said protector.

B represents my protector, which is constructed of a series of curved yielding slats, (marked C,) the ends of which are respectively attached to shoes or bars D, as shown in Figs. 1, 2, and 3.

G indicates a draw-bar connected with the slats of the protector as represented, and is furthermore provided with a wrist-swivel or other suitable means of connection with the axle. In case this draw-bar be made of yielding timber or spring metal the attachment may be made by means of a bolt or pin passed through an aperture in its front end and into the axle of the sulky.

H represents rigid rods, preferably of iron or other metal, united by a hinge, *a*, at their upper ends and provided with screw-threads, for the purpose of adjustment, as hereinafter described. The lower ends of these hinged rods are attached, respectively, to the shoes of the protector. I usually provide two sets of

these hinged rods for a protector and arrange them near the ends thereof, as shown in Fig. 3; but I may dispense with one set and arrange a single set at or near the middle portion of said protector.

K represents a ring which is passed over the united hinged ends of the rods H, and is adapted to engage the screw-threads thereon. This ring is preferably made of metal, and provided with threads on its inner side, but a knife or angular edge will usually be found to operate satisfactorily. A ring of rubber will also serve in many cases to suit the purpose required.

In operation my protector is moved longitudinally along and over the rows of standing plants—such as corn, beans and the like—and the ribs thereof serve to prevent the earth and stones and clods turned up by the cultivator-shovels from falling upon the plants.

It is obvious that with the growth of the plants the ribs should be correspondingly moved upward and adjusted. This is accomplished by turning the rings K on the threads of the hinged rods, which brings the shoes and yielding ribs more nearly together and increases the altitude of the protector.

It will also be observed that in case it be desirable to lessen the altitude of the protector the rings may be turned in the opposite direction.

Having described this invention, what I claim is—

1. A plant-protector for cultivators consisting of a draw-bar, bowed yielding ribs secured thereto about midway of their length, a shoe secured to each end of the said ribs, and hinged arms also secured to the shoes and adapted to regulate the bulge or bow of the ribs, substantially as specified.

2. The combination, with the bowed ribs having the draw-bar secured to them, of the hinged arms threaded and the ring engaging the threads of the arms, whereby the bulge or bow of the ribs may be regulated, substantially as specified.

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

HENRY HOWE.

Witnesses:

JOSIAH MORGAN,
JOSEPH JOHNSON.