E. WIARD.

Plows.

No. 144,584. Patented Nov. 11, 1873.

Fig. 1

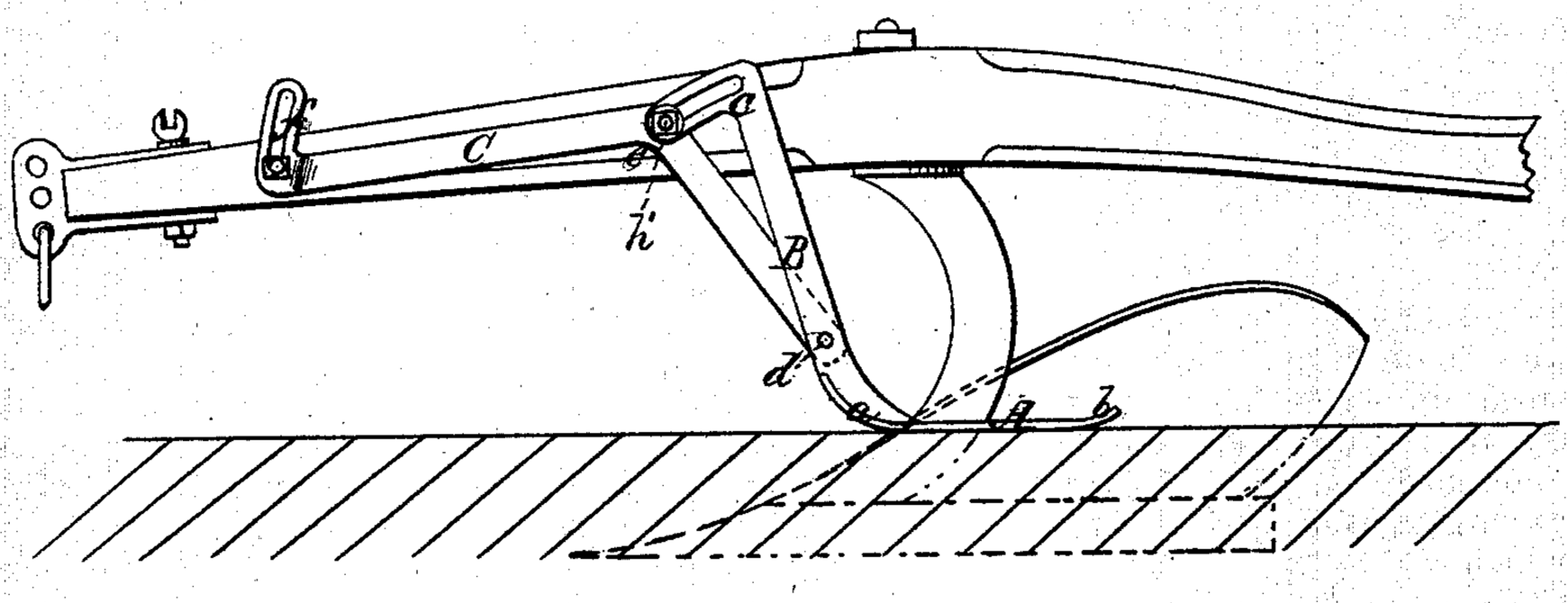


Fig. 2

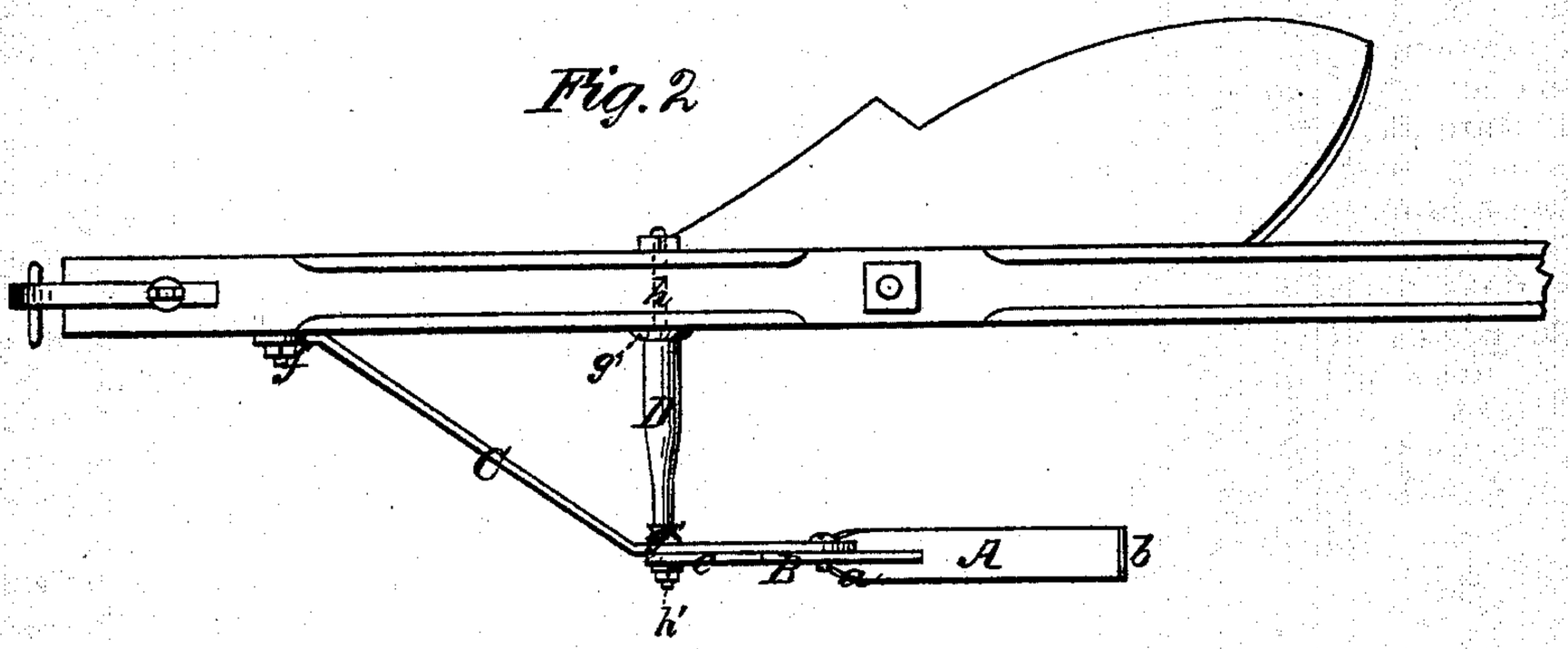
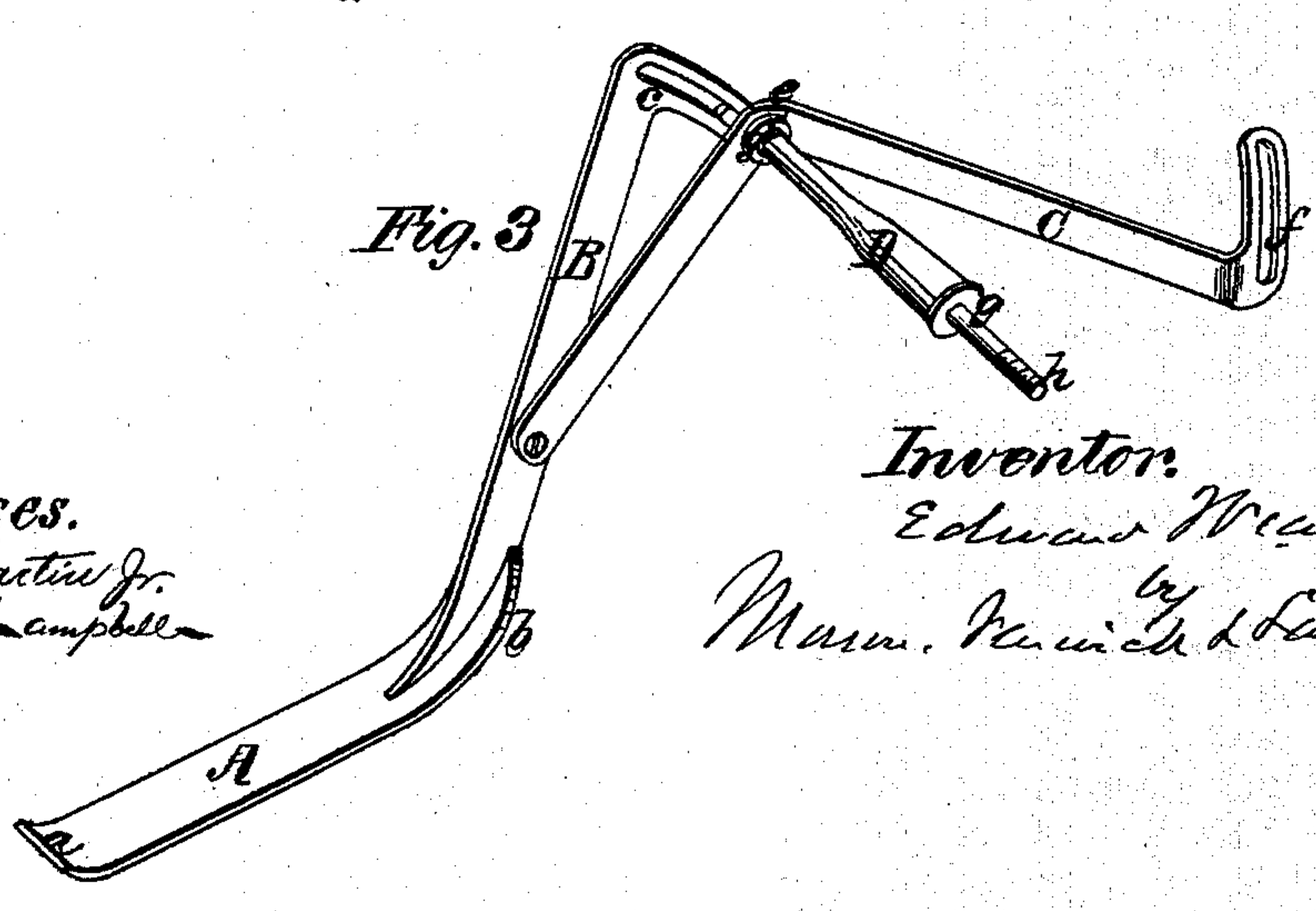


Fig. 3



Witnesses.
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L. St. Campbell

Inventor.
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UNITED STATES PATENT OFFICE.

EDWARD WIARD, OF LOUISVILLE, KENTUCKY, ASSIGNOR TO BENJAMIN F. AVERY, OF SAME PLACE.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **144,584**, dated November 11, 1873; application filed September 24, 1873.

To all whom it may concern:

Be it known that I, EDWARD WIARD, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and useful Land-Side Supporting-Runner for a Plow; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a side view of a supporting-runner for a plow, showing it applied to the land side of a plow. Fig. 2 is a top view of the same, and Fig. 3 a perspective view of the implement detached.

The same letters of reference in the different figures indicate like parts.

My runner is designed as a substitute for the ordinary supporting land-side wheel of a plow, and it is found, in practice, to be free from objections urged against the use of the wheel; these objections being that the wheel sinks into holes and soft earth, and consequently causes the plow to be constantly changing its upright steady position, and, owing to this, the wheel and plow run heavy. Further, it is cumbersome, weighty, and difficult of management, and expensive.

The nature of my invention consists in a broad flat runner, turned up at both of its ends, and fastened, by its front end, to an inclined standard, and pivoted to an angular and oblique brace, which is attached, at its angle, to a lateral support on the land side of the beam, and forward of the standard of the same, and pivoted, by its front end, to the beam near the forward end thereof—the said standard and brace having slots at the points where they are connected to the beam and to the lateral support, whereby any desired set may be given to the runner, according to the depth it is desired to have the plow enter the ground.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A represents the runner, formed of a broad blade of steel, with its front and rear ends, *a* and *b*, turned up so as to run free of the ground, as shown. The front end is turned up to a greater extent than its rear end. B is an inclined standard, to which this runner is connected by its front end. This standard is formed of a flat thin bar, set with its face parallel to the side of the runner, as shown. The upper end of this standard is bent over and made to form a curved arm, *c*, and through this arm a curved slot concentric with the pivotal point *d* is cut. C is an angular brace, formed of a broad thin bar of iron or steel. Its front half is bent inward and obliquely from the angle *e*, so as to come flush with the land side of the beam, while its rear half is parallel with the side of the runner. This brace is connected to the standard by a pivot at the point *d*. It is perforated at its angle *e*, in line with the curved slot of the arm *c*, and it is bent upward at its front end, so as to form a curved arm, *f*, in which arm there is a curved slot, which is concentric with the hole at the angle *e*. D is a support for the brace and runner. It is formed at its inner end with a shoulder, *g*, and a screw-threaded stem, *h*, on which latter a nut and washer are applied; and at its outer end a smaller shoulder, *g'*, and shorter stem *h'* are formed, and on the same a nut and washer are applied. By means of the stem *h'* and nut and washer, the brace and standard are confined together at the angle *e*, and by means of the stem *h* the support is confined to the plow-beam.

To apply this runner to a plow, bore a hole horizontally through the beam a few inches in front of the plow-standard and near the upper surface of the beam, and pass the stem *h* through this hole, and fasten the same by means of the nut and washers. Next, fasten the forward end of the brace to the beam by means of a clamp-bolt passed through its slotted arm into the beam, and confine it by means of a nut and washer.

From the above description, it will be evident how the attachment is constructed and applied; and I will simply state that, as the runner presses upon a long and broad surface of ground, it will not be liable to sink down in the irregular and soft portions thereof, as is the case with the wheel.

Practical use and manufacture of this attachment and of the ordinary wheel attach-

ment have proved that it runs lighter, and yet steadier, than the wheel, and is of itself lighter in weight; that it costs only about half as much as the wheel and its connections; is easily managed, especially in turning a team at the end of the furrow; in a word, as far as it has been tried, it is preferred by the farmer greatly to the wheel.

What I claim as my invention, and desire to secure by Letters Patent, is—

The land-side runner composed of the broad plate A, inclined standard B, angular and oblique brace C, and support D, all pivoted together and adapted for attachment to the land side of the plow, and when attached is adjustable thereon by means of the slots in the arms of the standard B and brace C′, all substantially as set forth.

EDWARD WIARD.

Witnesses:
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