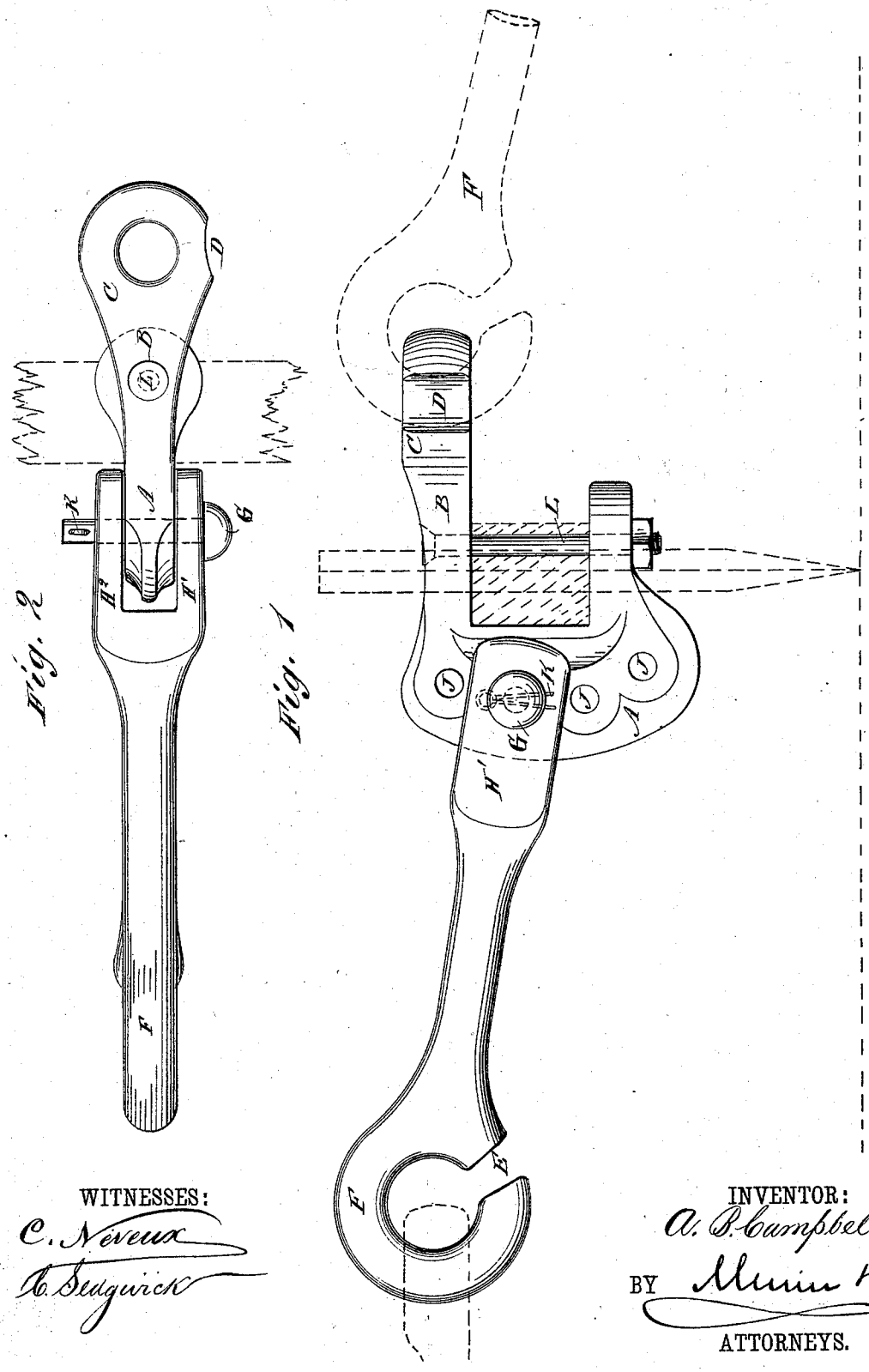
A. B. CAMPBELL.
Harrow-Coupling.

No. 222,864. Patented Dec. 23, 1879.



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ALEXANDER B. CAMPBELL, OF ALBION, WISCONSIN.

IMPROVEMENT IN HARROW-COUPLINGS.

Specification forming part of Letters Patent No. **222,864**, dated December 23, 1879; application filed October 9, 1879.

To all whom it may concern:

Be it known that I, ALEXANDER BURDICK CAMPBELL, of Albion, in the county of Dane and State of Wisconsin, have invented a new and Improved Harrow-Coupling, of which the following is a specification.

The object of my invention is to provide a new and improved harrow-coupling, which shall form a flexible connection between the several harrow-bars, and which shall be simple in construction and convenient and effective in use.

The invention consists in a harrow-coupling formed of a clevis attached to a harrow-bar, the upper shank of which clevis is lengthened and terminates in an eye, into which a bar-hook attached to the forward part of the clevis of the following harrow-bar passes.

In the accompanying drawings, Figure 1 is a side view of the improved harrow-coupling. Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts.

A represents a clevis, the upper shank, B, of which is lengthened and terminates in an eye, C, having a slight recess or notch, D, on one side, the thickness of the eye at this notch being equal to the width of the opening E in the bar-hook F, pivoted to the clevis A by means of the pin G, which passes through the two jaws H' and H^2 of the hook F and through one of the apertures J J. A spring-pin, K, keeps the pin G in place, and prevents it from falling out.

The harrow-bar is placed into the recess formed by the two shanks and the front part of the clevis, and is secured by a screw-bolt, L, which passes through both shanks of the clevis and through the harrow-bar, as shown, or, if the latter is narrow, passes along the rear side of the same.

One of the improved couplings is attached to each end of each harrow-bar in the manner described above.

A certain number of harrow-bars, according to the condition of the land or the size of the harrow required, are united in the following manner: The bar-hook F is separated from the clevis, is held at an angle of ninety degrees (in the horizontal plane) to the upper shank, B, the narrow part of the eye C at D is passed through the opening E into the loop of the hook F, which is brought into a position parallel to B, and is then pivoted to the clevis on the following harrow-bar. In this way any number of bars can be conveniently and rapidly connected, and any defective bar can be easily removed.

If a tooth of one bar has been caught by some obstruction, the rear bars are rolled up, the obstruction easily removed, and the trouble and danger of raising a heavy harrow are avoided. Two harrows formed of these couplings and a number of harrow-bars can be attached to one draft-bar.

The harrow can be conveniently rolled up with all the teeth projecting toward the inside for storage. The harrow can be drawn from either side. The hooks cannot pass out of the eye C, for they can only be inserted or removed when in the position described, and they cannot assume this position as long as several harrow-bars are connected.

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

As an improved article of manufacture, a harrow-coupling made as herein shown and described, consisting of a clevis, A′, adapted to receive the harrow-beam, and having its shank B provided with an eye, C, to which a bar-hook, F, may be pivoted, all as set forth.

ALEXANDER BURDICK CAMPBELL.

Witnesses:
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