C. KIMPLEN.

Plow-Beams.

No. 158,642 Patented Jan. 12, 1875.

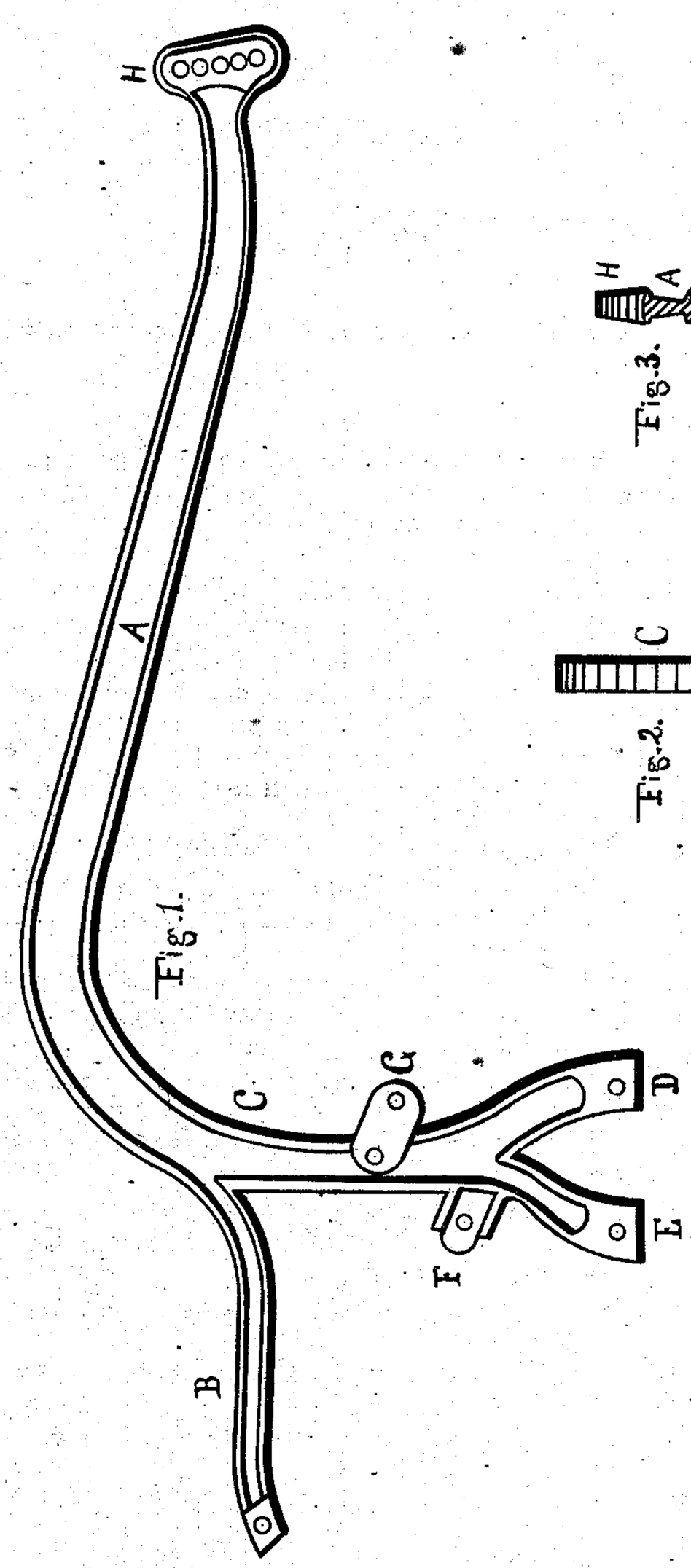

Fig. 1.

Fig. 3.

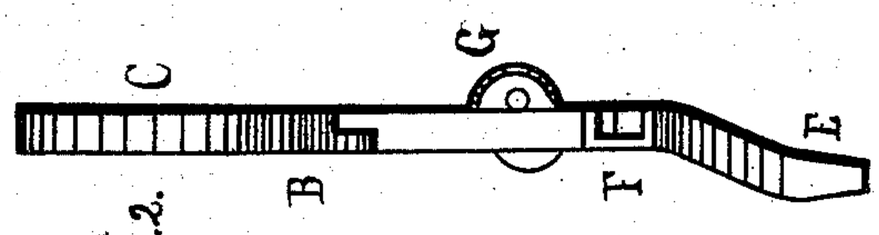

Fig. 2.

Witnesses:
E. A. West.
O. W. Bond.

Cornelius Kimplen
Inventor.

UNITED STATES PATENT OFFICE.

CORNELIUS KIMPLEN, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN PLOW-BEAMS.

Specification forming part of Letters Patent No. **158,642**, dated January 12, 1875; application filed April 14, 1874.

To all whom it may concern:

Be it known that I, CORNELIUS KIMPLEN, of Chicago, Illinois, have invented certain new and useful Improvements in Plow-Beams, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a side view; Fig. 2, a rear view, and Fig. 3 a cross-section.

Plow-beams have been heretofore made of iron; but when made of wrought-iron or steel it has been difficult and expensive to draw them into proper shape, so as to give them the required strength at the right places without getting an unnecessary weight, besides the difficulties of giving suitable and uniform shape, and in casting them great weight has been required in order to give the necessary strength.

My improvements overcome these difficulties; and their nature consists in making the beam of cast metal, by preference malleable cast-iron; in providing such beam with branches for connecting and bracing the several parts needed to complete the plow.

In the drawings, A represents the beam proper; C, the downward extension, forked into two branches, D and E; B, a rearward extension for attaching the land-side plow-handle, the lower end of the handle resting in the bracket or projection F, to which it is bolted or screwed. G is an angular bracket or projection cast with the extension C, for connecting the upper and front edge of the mold-board; and H, a clevis-head, cast so as to form one piece with the beam.

The beam and its extensions are cast in suitable form, being made the heaviest at the main curve, but is made as light, or nearly as light, as a wrought-iron beam, and is then converted into malleable iron by the usual process.

The spread or arms D E are curved outward, as shown at Fig. 2, so that the beam will stand a little in from the land-side, which is to be connected to them to give the plow-beam the proper direction, and to keep the part C free from weeds.

All of the parts shown are cast in one piece with the beam.

To complete a plow, the mold-board with its handle and the land-side and point are made of steel or other material, in any of the usual or well-known modes.

By making the beam of malleable cast-iron I am able to combine all of the advantages of wrought and cast iron beams in my beam, as I secure a proper distribution of the metal and obtain a light, strong beam, cheaply made, and to which the parts necessary to complete a plow are easily attached.

What I claim as new is as follows:

1. The combinations of the beam A and extensions B and C with the bracket G, all cast in one piece, substantially as and for the purposes specified.

2. The combination of the beam A, extensions B and C, brackets F and G, and clevis H, substantially as and for the purposes specified.

CORNELIUS KIMPLEN.

Witnesses:

E. A. WEST,
O. W. BOND.