

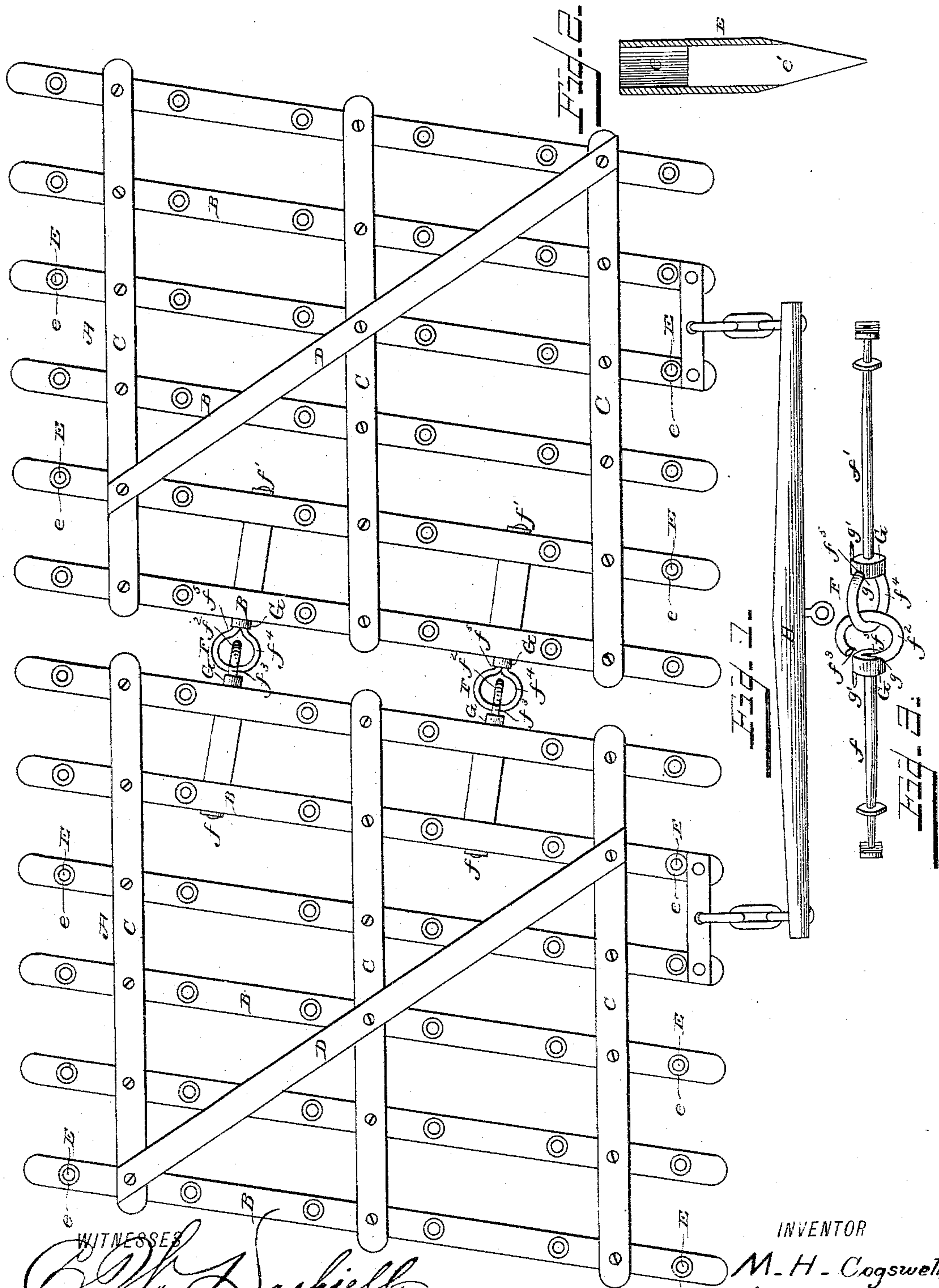
(No Model.)

M. H. COGSWELL.

HARROW.

No. 323,400.

Patented Aug. 4, 1885.



WITNESSES
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UNITED STATES PATENT OFFICE.

MERRITT H. COGSWELL, OF BLISSFIELD, MICHIGAN.

HARROW.

SPECIFICATION forming part of Letters Patent No. 323,400, dated August 4, 1885.

Application filed June 5, 1885. (No model.)

To all whom it may concern:

Be it known that I, MERRITT H. COGSWELL, a citizen of the United States, residing at Blissfield, in the county of Lenawee and State of Michigan, have invented a new and useful Improvement in Harrows, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to an improvement in harrows; and it consists in the peculiar construction and arrangement of devices that will be more fully set forth hereinafter, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a top plan view of a harrow embodying my invention. Fig. 2 is a detailed sectional view of one of the harrow-teeth. Fig. 3 is a detailed perspective view of one of the hinges.

My harrow is formed of two sections, A, each of which is composed of the toothed beams B and the cross or tie beams C, which are bolted to the beams B, arranged obliquely thereto and parallel to each other. Metallic braces D extend diagonally across the upper sides of the harrow-sections, and are bolted thereto by the same bolts that are employed in securing the beams together. These braces strengthen the harrow-sections and prevent them from rocking and working loose at the joints.

E represents the harrow-teeth, which are secured in the beams B, and are each composed of the hollow iron cylinder e and the sharpened steel point or plug e' , that is secured in the cylinder. This construction of the harrow-tooth possesses numerous advantages, making a very strong and light tooth, and enabling a great number of them to be used in a harrow without making it too heavy. These teeth are not likely to bend nor to break at the point, and are also self-sharpening.

The hinges F, which I employ to secure the sections of my harrow together, are each composed of the sections $f f'$, which are bent iron rods, having the loops at their meeting ends. The loop f^2 of the section f is open, as at f^3 , to admit the insertion of the loop f^4 of the section f' therein. The greatest strain upon these hinges, when the harrow is in operation, comes upon the bends f^5 thereof, where the loops are formed, and in order to strengthen the hinges at this point and to prevent the sections thereof from turning in the beams of the harrow-sections I provide collars G, which are slipped over the shanks of the hinge-sections, and are notched, as at g , to receive the bends of the hinge-sections and thereby protect them from strain, and are further provided with spurs or projections g' on their inner faces, which spurs enter recesses made in the beams of the harrow-sections and prevent the hinge-sections from turning.

A draft-beam, H, is attached to the harrow-sections in the usual manner.

Having thus described my invention, I claim—

The hinge formed of the sections $f f'$, having the loops f^2 and f^4 , and the bends f^5 , and the collars G, having the notches g to receive the bends f^5 , and the spurs or projections g' , for the purpose set forth, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

MERRITT H. COGSWELL.

Witnesses:

O. F. SHELDON,
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