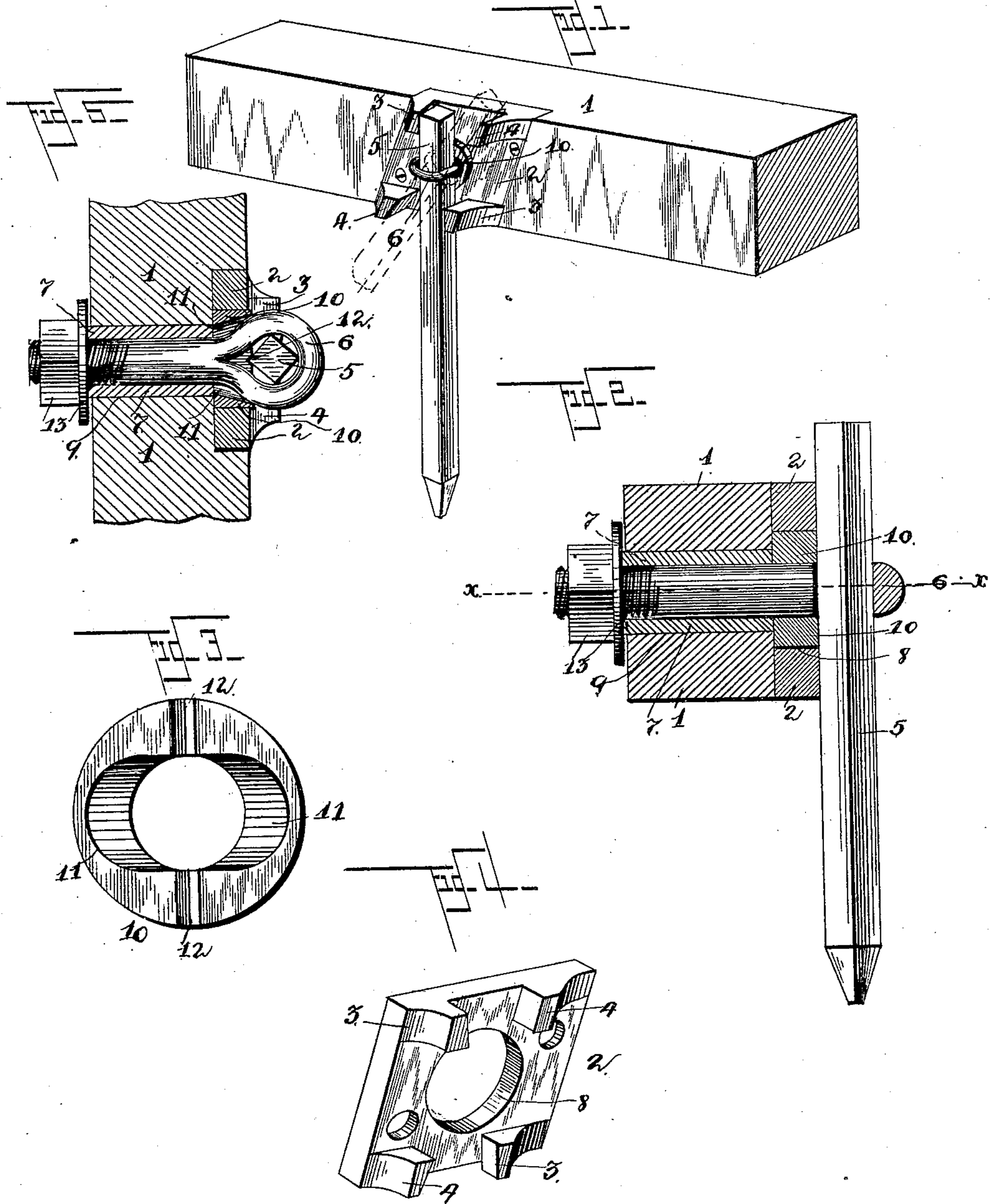


(No Model.)

D. C. TROXEL.
REVERSIBLE HARROW TOOTH HOLDER.

No. 428,185.

~~Patented~~ May 20, 1890.



Witnesses

Horace G. Sitz

Inventor

Daniel C. Troxel,

By his Attorneys,

By his
J. G. Riley

Chas. Snow Geo.

UNITED STATES PATENT OFFICE.

DANIEL C. TROXEL, OF NANKIN, OHIO.

REVERSIBLE HARROW-TOOTH HOLDER.

SPECIFICATION forming part of Letters Patent No. 428,185, dated May 20, 1890.

Application filed February 28, 1890. Serial No. 342,181. (No model.)

To all whom it may concern:

Be it known that I, DANIEL C. TROXEL, a citizen of the United States, residing at Nankin, in the county of Ashland and State of Ohio, have invented a new and useful Reversible Harrow-Tooth Holder, of which the following is a specification.

The invention relates to improvements in reversible harrows.

The object of the present invention is to simplify and improve the construction by which the harrow-teeth of reversible harrows are pivoted to the frame and enable the ordinary construction of harrow-teeth to be readily employed.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a portion of a frame provided with a harrow-tooth pivoted in accordance with this invention. Fig. 2 is a vertical sectional view. Fig. 3 is a detail view of the collar. Fig. 4 is a detail view of the plate. Fig. 5 is a horizontal sectional view.

Referring to the accompanying drawings, 1 designates a bar of a harrow-frame which has one of its faces recessed and provided with a plate 2, set in the recess and constructed of metal, and provided with lugs 3 and 4, that are arranged to be engaged by a pivoted harrow-tooth 5, to hold the same in a vertical or inclined position and render the harrow-tooth self-adjusting, as will be readily understood. The harrow-tooth 5 is pivoted by means of a screw-eye 6, and the lugs 3 are arranged closer to the harrow-tooth than the lugs 4 and hold the tooth in a vertical position while the harrow is being drawn in one direction, and when the harrow is reversed the tooth is engaged by the lugs 4 and held at an inclination. The bar 1 is provided with a transverse opening 9, in which is arranged a bushing 7, and the plate 2 is provided with a central opening 8, that is concentric with the transverse opening 9 when the plate 2 is in the recess, and has arranged within it a collar 10. The collar 10 is provided with elongated opening 11 to receive the eye of the screw, and has in its outer face oppositely-disposed recesses 12, that are designed to receive the edge of the harrow-tooth to prevent the tooth turning in the eye of the screw. The screw 6 is retained in a transverse opening of the bar 1 by a nut and washer 13, and the bushing projects beyond the side of the bar and prevents the washer rubbing against and wearing the bar when the harrow-tooth is turning on its pivot. The plate 2 is provided with perforations, through which pass screws that secure the plate in its recess or seat.

It will readily be seen that the means for securing the harrow-tooth is simple and inexpensive in construction, and is capable of permitting the tooth to be turned on its pivot without wearing the harrow-frame and of preventing the tooth turning within the eye.

What I claim is—

1. The combination, with the bar provided with the recess and the transverse opening 9, of the plate arranged in the recess and provided with lugs 3 and 4, and having a central opening 8, the bushing located in the transverse opening, the collar arranged in the central opening of the plate and provided with an elongated opening 11, and having oppositely-disposed recesses 12, the screw-eye, and the harrow-tooth arranged in the eye of the screw and engaging the oppositely-disposed recesses 12, substantially as and for the purpose described.

2. The combination, with the plate provided with lugs 3 and 4 and having a central opening 8, of the collar arranged in the central opening of the plate and provided with an elongated opening 11, and having oppositely-disposed recesses 12, the screw-eye and the harrow-tooth arranged in the eye of the screw and engaging the oppositely-disposed recesses 12, substantially as and for the purpose described.

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

DANIEL C. TROXEL.

Witnesses:

ALPHEUS HAMMOND,
WILBERT SHAWICK.