

(No Model.)

B. F. RIX.

HARROW.

No. 267,719.

Patented Nov. 21, 1882.

Fig. 1

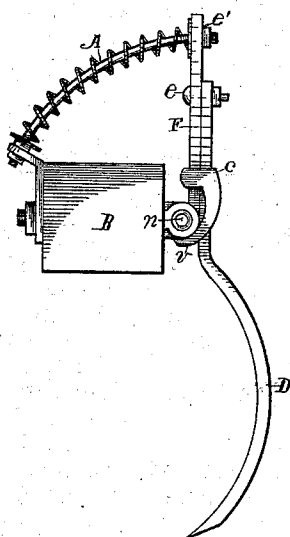
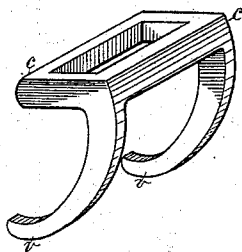


Fig. 2



Attest.
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UNITED STATES PATENT OFFICE.

BENJAMIN F. RIX, OF KALAMAZOO, MICHIGAN.

HARROW.

SPECIFICATION forming part of Letters Patent No. 267,719, dated November 21, 1882.

Application filed December 5, 1881. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. RIX, a citizen of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have invented a new and useful Harrow, of which the following is a specification.

My invention relates to harrow-teeth, consisting of a hinged support and a tooth adjustably connected therewith.

It has for its object the construction of an improved detachable clip in combination with the hinged support and tooth, substantially as hereinafter explained.

In the drawings, forming a part of this specification, Figure 1 is an edge view of the hinged support and tooth connected with the harrow-beam; Fig. 2, a perspective view of the clip, and Fig. 3, an edge view of the tooth-support.

F is the tooth-support, having eye *h*, in which the hinging-bolt *n* is located in hinging said support to beam B. The upper end of this support F is provided with a hole at *e'*, in which the end of the spring-bearing bolt A is located, as in my former patent, bearing date August 30, 1881, the upper end of the support in this case taking the place of the upper end of the tooth in said former device. The tooth D is formed with a straight upper portion adapted

to be connected with support F by means of bolt *e*, located in holes through the support and tooth, and also by means of a clip, *c*, encircling said parts, which hold the tooth in a true vertical position in relation to the support F. This clip *c* consists of a loop provided with curved extensions *v*, which catch under the eye *h* of the hinged support F. By this means the clip or loop *c* is prevented from working upward, and can be readily detached.

In lieu of the means shown for preventing said clip from working upward on the tooth body and support, other means may be employed, if desired, substantially effecting the result set forth.

Having thus described my invention, what I claim as new is—

The combination, with the tooth-support and tooth, of a clip consisting of the loop which surrounds the support and tooth, provided with the curved extensions catching under the hinging-eye of said support, all substantially as described.

BENJAMIN F. RIX.

Witnesses:

THERON Y. SEBRING,
PEYTON RANNEY.