(No Model.)

H. COBB.

HARROW.

No. 284,278. Patented Sept. 4, 1883.

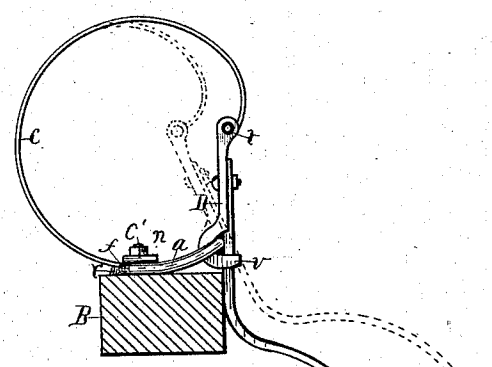


Fig. 1

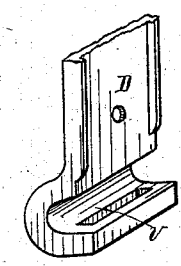


Fig. 2

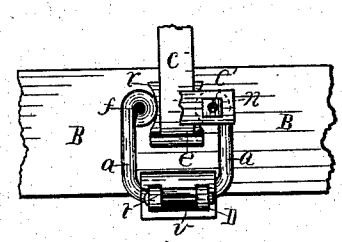


Fig. 3

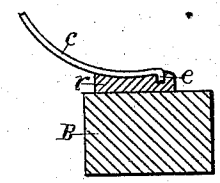


Fig. 4

Witnesses.
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UNITED STATES PATENT OFFICE.

HIRAM COBB, OF KALAMAZOO, MICHIGAN.

HARROW.

SPECIFICATION forming part of Letters Patent No. 284,278, dated September 4, 1883.

Application filed June 11, 1883. (No model.)

To all whom it may concern:

Be it known that I, HIRAM COBB, 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 consists in certain combinations of improved parts in that class of harrows which are provided with hinged spring-actuated shares.

In the drawings forming part of this specification, Figure 1 is a side elevation of a share and spring with the share-beam in cross-section; Fig. 2, a broken detached part in perspective; Fig. 3, a top view of Fig. 1 with the spring broken away, and Fig. 4 a cross-section on a line with the edge of the spring in Fig. 3.

The share or tooth P has an upper straight portion, as in former devices, connecting with a hinged tooth-support. The tooth-support D in the present device terminates at the lower end with an open hook or concave recess, *v*, the free end of which hook has an elongated opening or slot to receive the straight portion of the share. Such a tooth-support is more easily and cheaply made than former styles having hinging-eyes, which require a core in casting, and said support D can be readily connected and detached from the bail *a* by simply hooking and unhooking. The upper portion of the share, when coupled with the share-support D, as in Fig. 1, closes the open side of the hook or recess *v*, thus forming a hinging-eye for the hinging-bail *a*. The hinging-bail *a* has two eyes, through which the binding-bolts *n* are located. From these eyes the loop portion of the bail extends rearward and upward, thus bringing the hinge above the beams and freely allowing the hook *v* to be connected with said bail. Between said bail-eyes is located a seat, *r*, for spring *c*. It is concaved on top, and has a recess in the end to receive the hooked end *e* of the spring *c* to prevent the spring from slipping beneath the binding-plate *c'*. The sides of the seat *r* are concaved to fit around the eyes of the hinging-bail *a* to hold said seat in place. The spring *c* consists of a curved or bowed strip of spring metal. It is hinged to the share-support D at *t*. A more prompt and unvarying spring action is thus obtained, as a better purchase is exerted on the spring thus located and secured in position to be contracted. Such a construction and combination of simple parts greatly facilitates the construction and operation of this class of harrows.

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

1. The combination of a spring-actuated share with the hinging-bail and the share-support having the open slotted hook, said share and hook, when connected, forming a hinging-eye to said bail, substantially as set forth.

2. The combination of the share-support, the hinging-bail, the concaved seat having the end recess, the spring and binding-plate, the lower end of said spring provided with the hook and the upper end hinged to the tooth-support, all arranged substantially as described.

3. The share-support having the open hook, the share and the spring hinged to the upper end of said share-support and provided with the hook, in combination with the hinging-bail having the eyes and the upwardly-inclined loop, the concaved seat having the hook-recess, and the concave sides between the eyes of the hinging-bail and the binding-plate, substantially as specified and shown.

4. The combination of the hinged share-support having the open bail-hook, a connecting-share and hinging-bail, the concave spring-seat, and the spring having its lower end rigidly secured in said seat and its upper end hinged to said share or tooth-support, substantially as set forth.

In testimony of the foregoing I have hereunto subscribed my name in the presence of two witnesses.

HIRAM COBB.

Witnesses:

ROMINE H. BUCKHOUT,

OSCAR K. BUCKHOUT.