

J. CASE.

Tooth-Fastenings for Horse-Rakes.

No. 146,571.

Patented Jan. 20, 1874.

FIG. 1.

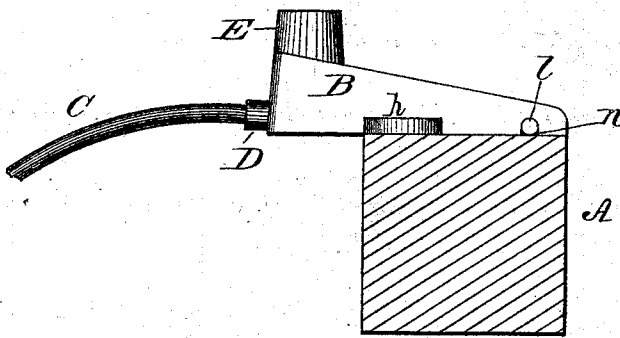


FIG. 2.

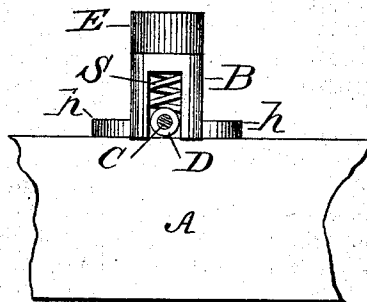
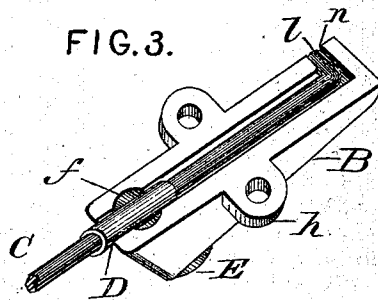


FIG. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JARVIS CASE, OF SPRINGFIELD, OHIO.

IMPROVEMENT IN TOOTH-FASTENINGS FOR HORSE-RAKES.

Specification forming part of Letters Patent No. **146,571**, dated January 20, 1874; application filed December 3, 1873.

To all whom it may concern:

Be it known that I, JARVIS CASE, of Springfield, in the county of Clarke and State of Ohio, have invented certain Improvements in Hay-Rakes, of which the following is a specification:

My invention relates to horse hay-rakes; and it consists of an improved mode of connecting the teeth of the rake and their springs to the axle or frame, as hereinafter more fully described.

Figure 1 is a side elevation, Fig. 2 a rear elevation, and Fig. 3 a perspective view, of the parts detached and inverted.

In the drawings, A represents the axle or bar, to which the curved metallic teeth C are attached, these latter being made, as usual, of spring-wire or small steel rods. I then provide a metal clip, B, of the form shown, it being provided with flanges *h*, by which it is secured to the axle or bar A by means of screws or bolts. This clip B I make of cast-iron, and in its under side form a longitudinal groove, of sufficient size to inclose the end of the tooth C, as shown in Fig. 3, this groove terminating at one side in a notch, *n*, to receive and hold the bent end *l* of the tooth C, as shown in Figs. 1 and 3, so that when the tooth is inserted therein and the clip screwed fast to the axle or bar A the tooth will be held securely in place.

As shown in Fig. 1, the clip is made much higher at its rear end than at its front, and the longitudinal groove is made correspondingly deeper as it approaches the rear end, so as to afford room for the tooth to play freely up and down therein. At the rear end of the

clip I form a circular chamber or recess, *f*, (see Fig. 3,) in which I place a spiral spring, S, as shown in Fig. 2, so that it will bear upon the tooth C, thus holding it down, but permitting it to rise when passing over obstructions.

In order to afford room for the spring without making the clip B too high, I propose to form it with a projection, E, into which the hole or recess *f* may extend, thus affording room for a longer spring.

The clip B can be cast complete, ready for use, thus affording a very cheap and simple, yet efficient, means of attaching the teeth.

In order to prevent the teeth from breaking at the point where the force is applied to hold them down, I secure upon them a short tube or sleeve, D, as shown, it also affording a bearing for the spring.

Having thus described my invention, what I claim is—

1. The clip B, constructed, as shown, with a slot to receive the rake-tooth, a notch, *n*, to receive the end of the tooth, and a cavity to receive and retain the spring S in position above the tooth, as set forth.

2. In combination with a spring, S, and a slotted clip, B, or its equivalent, a rake-tooth, C, provided with a sleeve or tube, D, by which it is strengthened and protected from wear.

3. The combination of the clip B, tooth C, and spring S, all constructed and arranged to operate substantially as described.

JARVIS CASE.

Witnesses:

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