T. K. BARLEY.

METAL RAKE TOOTH TIP.

APPLICATION FILED MAY 12, 1917.

1,251,622.

Patented Jan. 1, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

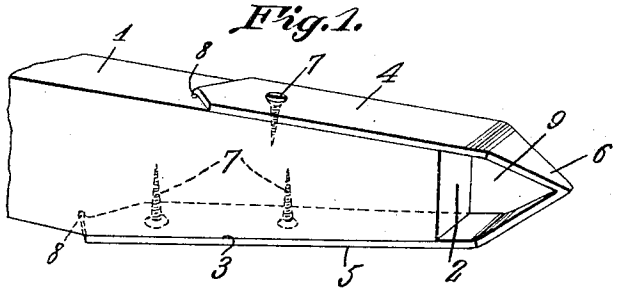


Fig. 2.

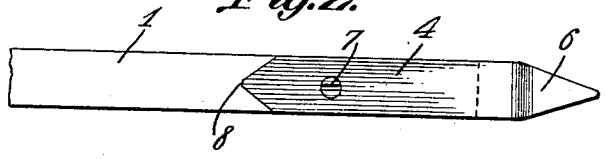


Fig. 3.

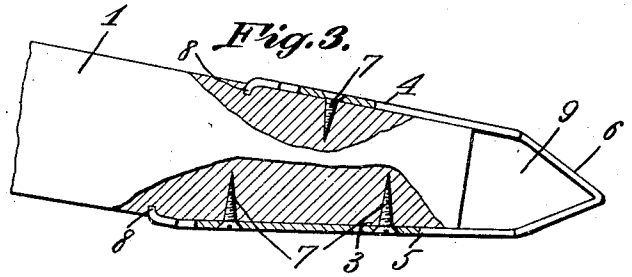
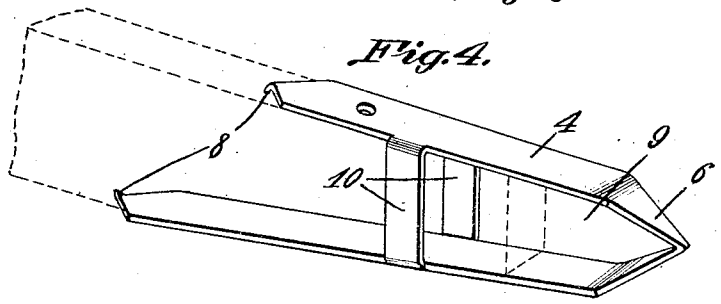


Fig. 4.



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2 SHEETS—SHEET 2.

Fig. 5.

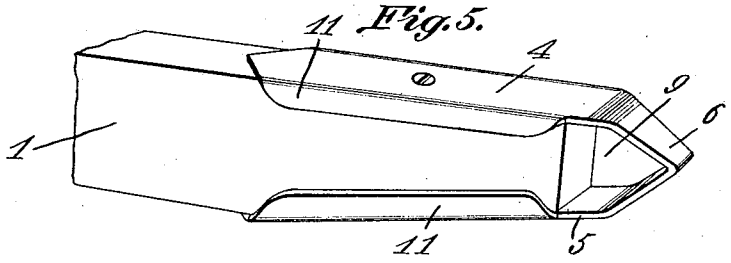


Fig. 6.

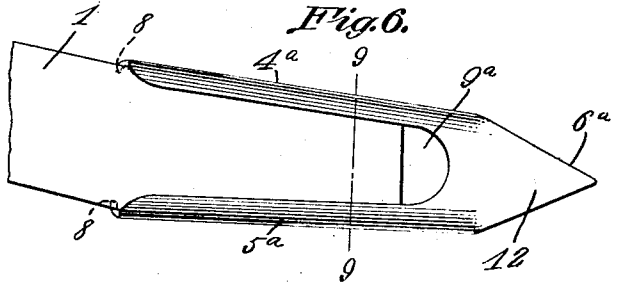


Fig. 7.



Fig. 10.

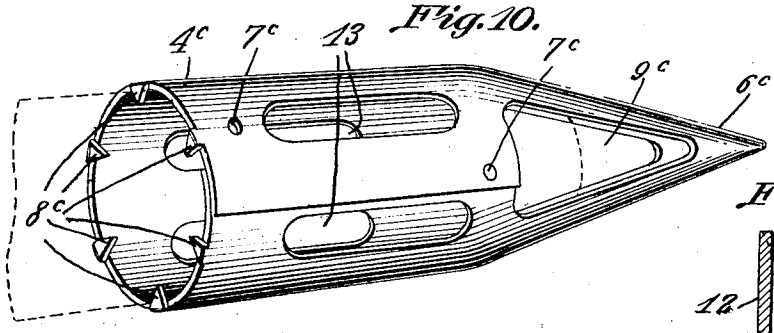


Fig. 8.

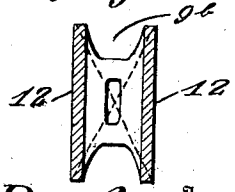
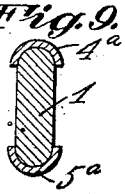


Fig. 9.



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UNITED STATES PATENT OFFICE.

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METAL RAKE-TOOTH TIP.

1,251,622. Specification of Letters Patent. Patented Jan. 1, 1918.

Application filed May 12, 1917. Serial No. 168,248.

To all whom it may concern:

Be it known that I, THOMAS K. BARLEY, a citizen of the United States, residing at Sedalia, in the county of Pettis and State of Missouri, have invented a new and useful Metal Rake-Tooth Tip, of which the following is a specification.

The present invention relates to metallic tips or points for the wooden teeth or tines of sweep or buck rakes.

The cast iron and metal tips or points now used are open to a number of objections, the cast iron ones breaking easily and being heavy, while both of them provide receptacles for water and moisture, causing the rotting and decay of the ends of the wooden teeth, which if it occurs, results in the tips dropping off and may require the replacement of the teeth.

It is the object of the invention to provide a metal rake tooth tip for the forward end of a wooden tooth or tine which is of extremely simple and inexpensive construction, which can be readily manufactured and applied, which is light in weight and not apt to break, and which is of such construction as to avoid the decay of the wooden tooth to which the tip is applied.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, can be made within the scope of what is claimed, without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a perspective view of one form of tip constructed in accordance with the present invention.

Fig. 2 is a plan view thereof.

Fig. 3 is a side elevation, partly in section.

Fig. 4 is a perspective view of another form of tip.

Fig. 5 is a perspective view of another modification.

Fig. 6 is a side elevation of a further variation.

Fig. 7 is a plan view of the tip shown in Fig. 6.

Fig. 8 is a section on the line 8—8 of Fig. 7.

Fig. 9 is a cross section on the line 9—9 of Fig. 6.

Fig. 10 is a perspective view of still another form of the device.

In the drawings, there is illustrated the ordinary wooden tooth 1 of a sweep or buck rake, having the square or blunt forward end 2, and the lower beveled surface 3 at its forward end to ride over the ground as usual.

The tip, as illustrated in Figs. 1, 2 and 3, embodies rearwardly diverging metallic straps 4 and 5 having their forward ends connected by a V-shaped forwardly projecting yoke 6 forming the tip proper, and having its arms arranged at a greater angle relatively to one another than the straps 4 and 5, as clearly seen in Fig. 3. The upper strap 4 overlaps the upper edge of the tooth 1, while the lower strap 5 overlaps the beveled surface 3, and said straps are secured to the tooth by means of screws 7 or other securing elements. The rear ends of the straps 4 and 5 are pointed to provide spurs 8 which are bent inwardly to bite into the tooth, as seen in Fig. 3, whereby the hay or other material will not catch between the tip and tooth either when loading or unloading.

The sides of the tip are open, thereby exposing the end of the tooth, whereby the moisture will not collect within the tip, and there is a transverse opening 9 through the tip in front of the tooth 1 for the circulation of air, whereby should the tooth become wet, it can readily dry out. The straps 4 and 5 provide protection for the forward end of the tooth, and provide wear pieces. The yoke or crotch portion 6 of the tip tapers in plan as well as in side elevation, as seen in Figs. 2 and 3, so as to deflect the hay or other material encountered by the tip or point.

The structure shown in Fig. 4 resembles that above described, with the addition of vertical webs 10 connecting the edges of the straps 4 and 5 to be disposed at the opposite sides of the tooth and providing a portion surrounding and embracing the tooth to assist in holding the tip firmly in place.

The modification depicted in Fig. 5 is also similar to the structure shown in Fig. 1, with the addition of flanges or lips 11 extending toward one another from the edges of the straps 4 and 5, to overlap the sides of the tooth.

The variation shown in Figs. 6, 7, 8 and 9 embodies the diverging straps 4^a and 5^a and V-shaped yoke 6^a resembling the straps 4 and 5 and yoke 6 above described. The straps 4^a and 5^a are of arcuate section, as seen in Fig. 9, whereby to fit the upper and lower rounded edges of the tooth, when the tooth is of elliptical cross section or has its edges rounded. In this form, the tip has side webs 12 united with the side edges or flange of the yoke 6^a and forward ends of the side edges or flanges of the straps 4^a and 5^a. The webs 12 terminate short of the end of the tooth 1, however, to provide a transverse opening 9^a through the tip in front of the tooth. The upper and lower portions of the yoke 6^a have openings 9^b for the circulation of air and discharge of water.

The device as illustrated in Fig. 10 embodies a sleeve or ferrule 4^c slit longitudinally and adapted to embrace a tooth of elliptical or circular cross section, the forward end of the sleeve 4^c having a conical tip or yoke portion 6^c provided with the opposite openings 9^c for the circulation of air in front of the tooth. The sleeve 4^c is secured to the tooth by suitable securing elements 7^c and the rear end of the sleeve 4^c has inturned spurs 8^c to bite into the tooth and similar to the spurs 8 above described. The sleeve 4^c is also provided with longitudinal slots or openings 13 exposing the tooth to avoid the collection of moisture between the sleeve and tooth.

Each form of the invention embodies a portion to fit upon the end of a wooden tooth and to be secured to opposite surfaces thereof and being open to expose the tooth, in connection with a tip or yoke portion extending forwardly from the aforesaid portion and having an opening or openings extending transversely therethrough for exposing the end of the tooth or providing a passage or opening across said end. With this arrangement, moisture will not be retained by the tip, and the tooth can readily dry out should it become wet, thus avoiding the decay of the tooth. The device is also light in construction, being readily formed from sheet metal, and is thoroughly substantial and efficient.

Having thus described the invention, what is claimed as new is:—

1. A rake tooth having a blunt end, and a tip having rearwardly extending straps secured to the top and bottom of said tooth and connected by a V-shaped yoke spaced beyond the end of the tooth to provide a transverse opening from side to side between the tooth and yoke.

2. A rake tooth having a blunt end, and a tip having rearwardly extending straps secured to opposite portions of said tooth and connected by a V-shaped yoke spaced beyond the end of the tooth, said straps having flanges overlapping the tooth.

3. A rake tooth tip having rearwardly extending straps connected at their forward ends by a yoke, said yoke having side webs and an opening therebetween.

4. A rake tooth tip embodying rearwardly extending straps having side flanges, a yoke connecting the forward ends of said straps and having side webs united with said flanges.

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

THOMAS K. BARLEY.

Witnesses:
F. L. WILLIAMS,
R. F. HARRIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."