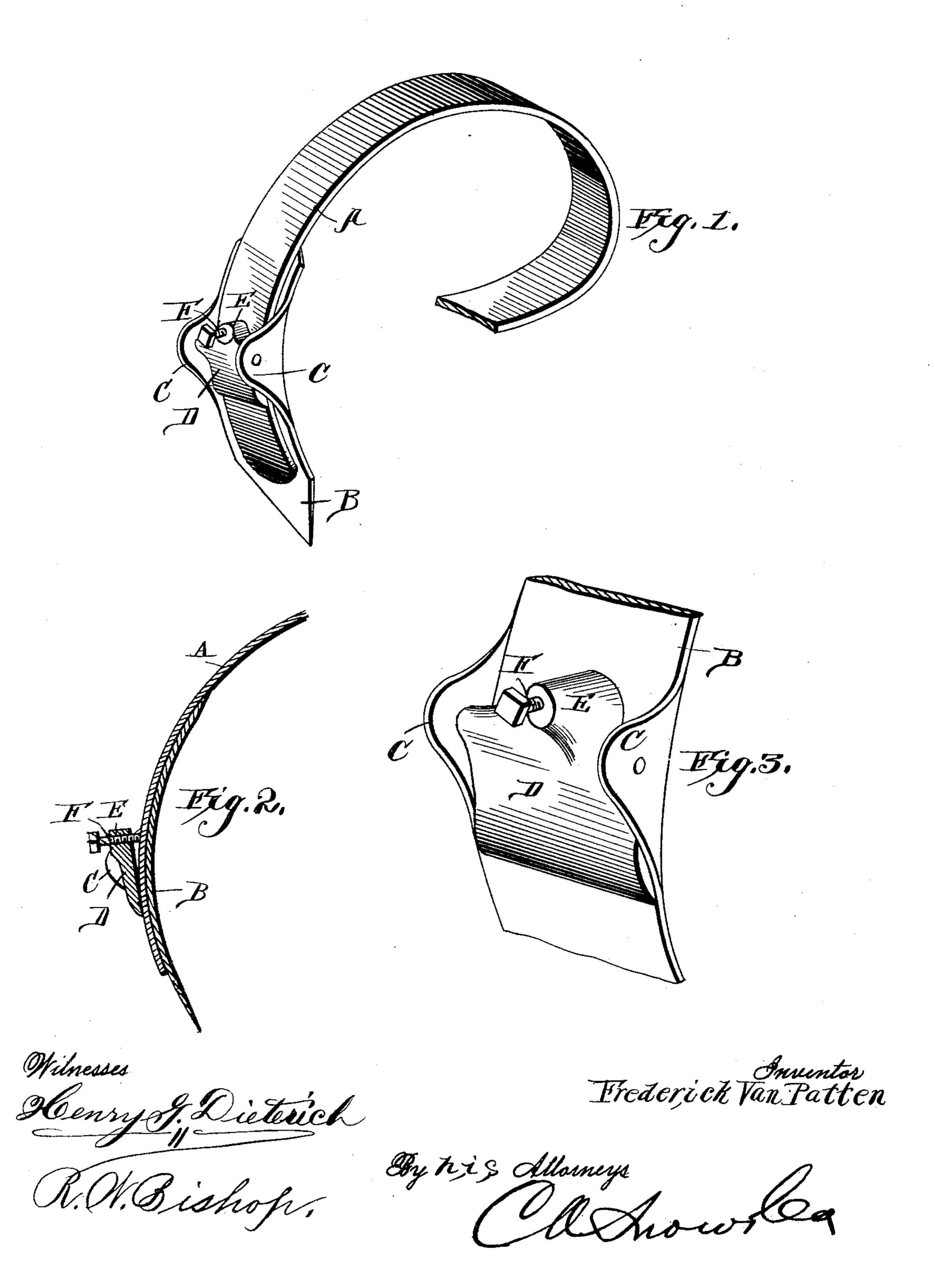
(No Model.)

F. VAN PATTEN. HARROW TOOTH.

No. 407,138.

Patented July 16, 1889.



United States Patent Office.

FREDERICK VAN PATTEN, OF AUBURN, NEW YORK.

HARROW-TOOTH.

SPECIFICATION forming part of Letters Patent No. 407,138, dated July 16, 1889.

Application filed April 19, 1889. Serial No. 307,775. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK VAN PATTEN, a citizen of the United States, residing at Auburn, in the county of Cayuga and State of New York, have invented a new and useful Harrow-Tooth, of which the following is a specification.

My invention relates to improvements in harrow-teeth; and it consists in certain novel 10 features, hereinafter described and claimed.

The particular object of my present invention is to provide a simple and efficient device by which a supplemental point or tooth can be applied to a tooth which has been worn out or broken, and which can be adjusted so as to enter the soil at any desired depth.

In the drawings, Figure 1 is a perspective view looking at the rear side of my improved device. Fig. 2 is a longitudinal section of the same. Fig. 3 is a detail perspective view of the clamp and a portion of the supplemental tooth.

In the drawings, A designates a portion of a spring-tooth, which may be secured to the 25 harrow-beam in any desired manner, and which has been worn away to such an extent as to be too short for practical use. This spring-tooth is provided with mysupplemental point or tooth B, and the said tooth B is provided at the center of its edges with the perforated lugs or ears C, in and between which the clamping-plate D is pivoted. This clamping-plate D corresponds in length with the width of the tooth, so that when pressed against 35 the same it will bind squarely and firmly against the entire tooth, so as to form a secure fastening. The clamping-plate is provided at one edge with a barrel or bearing E, in which the clamping-screw F is mounted, and 40 the inner end of said screw bears against the rear side of the tooth, as clearly shown.

From the foregoing description it will be seen that I have provided a very simple device by which a supplemental point or tooth can be quickly and firmly secured to a springtooth which has been broken or worn out and which can be easily adjusted, so that the tooth will cut into the ground to a greater or less

depth. When the clamping-screw is turned up against the rear side of the spring-tooth, 50 the clamping-plate will be thrown around on its pivot, so that its edge will be caused to bind against the spring-tooth, and thereby effect a very secure fastening. When it is desired to adjust the tooth, the clamping-screw 55 is loosened, the tooth then moved to the desired point, and the clamping-screw then tightened, as will be readily understood.

My improved device is composed of very few parts, and is consequently not liable to 60 get out of order, and can be manufactured and sold at a slight cost. In the drawings I have shown the supplemental tooth as being double or reversible; but this is not an essential feature of the invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with a spring-tooth, of a supplemental point or tooth having perfo-70 rated ears extending rearwardly from its side edges past the sides of the spring-tooth, a clamping-plate pivoted in and between said ears and adapted to bear against the spring-tooth, and a clamping-screw mounted in said 75 clamping-plate and adapted to bear against the spring-tooth, as set forth.

2. The combination, with the spring-tooth, of the supplemental tooth provided at its edges with ears passing beyond the edges of 80 the spring-tooth, and the clamping-plate pivoted in said ears and bearing against the spring-tooth, as set forth.

3. The supplemental point or tooth carrying as a fixed part thereof a pivoted clamping- 85 plate, as set forth.

4. The supplemental point or tooth carrying as a fixed part thereof a pivoted clamping-plate provided with a set-screw, as set forth.

In testimony that I claim the foregoing as 90 my own I have hereto affixed my signature in presence of two witnesses.

FREDERICK VAN PATTEN.

Witnesses:

R. J. Carson, B. M. Wilcox.