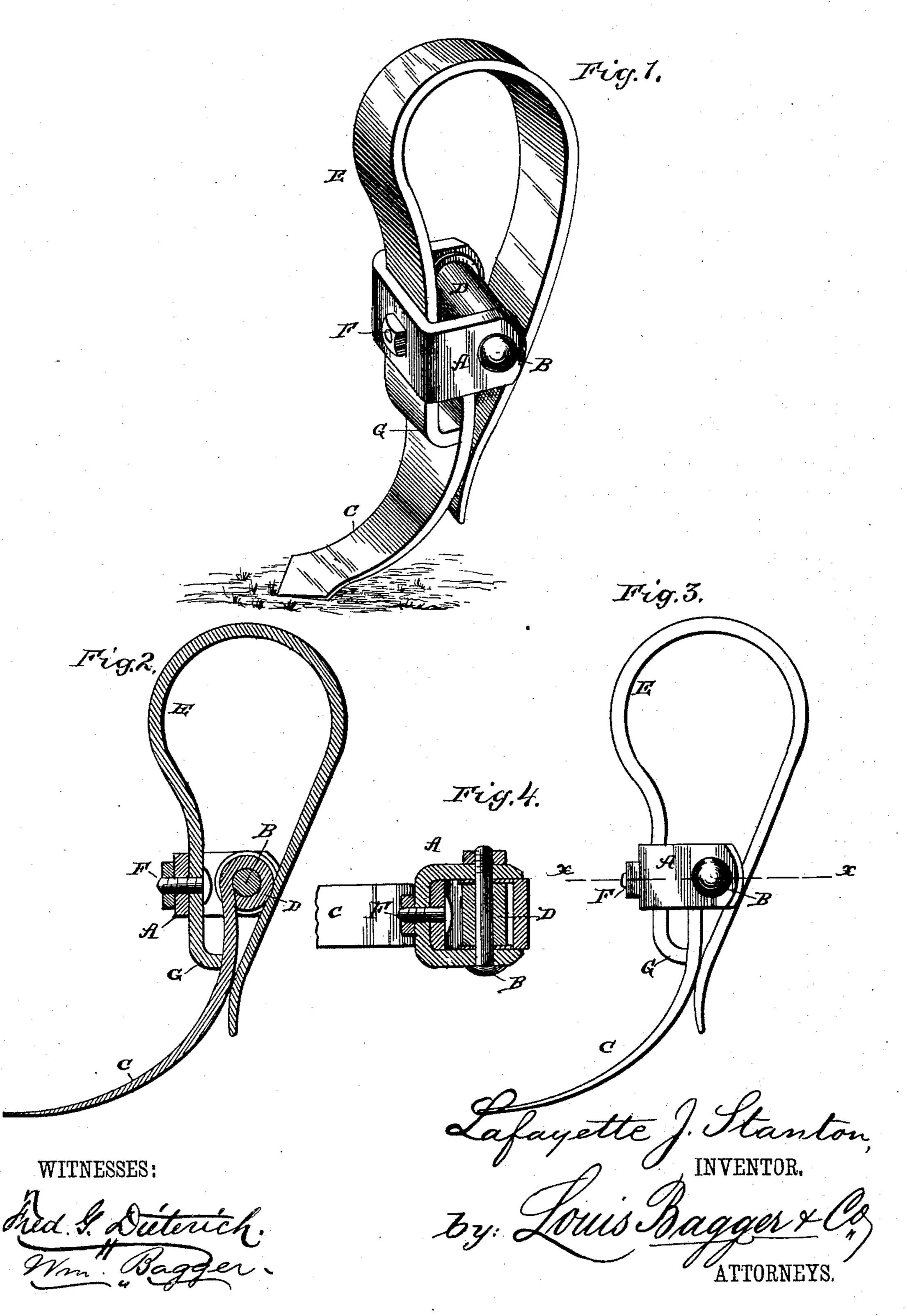
## L. J. STANTON.

## SPRING HARROW TOOTH.

No. 327,340.

Patented Sept. 29, 1885.



## United States Patent Office.

LAFAYETTE J. STANTON, OF SAND LAKE, ASSIGNOR TO NEHEMIAH CHASE, FREDERICK A. TAYLOR, FRANK J. HENRY, AND MARSHALL B. SHAW, OF KALAMAZOO, MICHIGAN.

## SPRING HARROW-TOOTH.

SPECIFICATION forming part of Letters Patent No. 327,340, dated September 29, 1885.

Application filed December 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, LAFAYETTE J. STANTON, a citizen of the United States, and a resident | of Sand Lake, in the county of Kent and 5 State of Michigan, have invented certain new and useful Improvements in Spring Harrow-Teeth; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in to the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my im-15 proved spring harrow-tooth. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a side view, and Fig. 4 is a horizontal sectional view taken on the line x x in

Fig. 3.

The same letters refer to the same parts in

all the figures.

This invention relates to that class of devices which are known as spring harrowteeth; and it has for its object to provide a 25 device of this class which shall possess superior advantages in point of simplicity, durability, and general efficiency.

With these ends in view the invention consists in the improved construction and ar-30 rangement of parts, which will be hereinafter fully described, and particularly pointed out

in the claim.

In the drawings hereto annexed, A designates the bail or staple which forms the holder 35 of my improved harrow-tooth, and which may be attached in any suitable manner to the harrow-beam. The said bail or staple is provided at or near its rear end with a transverse bolt, B, on which is secured the down-40 wardly and forwardly curved harrow-tooth C by a coil, D, embracing the said transverse | in presence of two witnesses. bolt B. This attachment of the tooth, it will be seen, is pivotal, and admits of a free swinging motion of the said tooth in a longi-45 tudinal direction.

E designates the spring, which is made separate from the tooth, and the front end of which is attached by means of a bolt, F, to the front of the bail or staple A, its lower end being provided with an inturned flange, G, 50 bearing against the front side of the harrowtooth. From its point of attachment the spring E is curved upwardly, rearwardly, and downwardly, its rear lower end being arranged to bear against the rear side of the 55 harrow-tooth, which is thereby forced in a forward direction, and in such a manner as to be enabled to swing freely upon its pivot within limits which are circumscribed by the action of the spring bearing, as described, 60 against its front and rear sides.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of my invention

will be readily understood.

The construction is simple and inexpensive, and the tooth, being entirely separate from the spring, is capable of far greater elasticity and freedom of motion than such teeth as are formed in a piece with the spring, and there- 70 fore solidly attached to the harrow-frame.

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

of the United States—

The combination, in a spring-tooth for har- 75 rows, of the holding-bail A, bolt B, tooth C, coiled around said bolt at its upper end, and spring E, attached to the front side of the bail by a bolt, F. and having its downwardly-projecting end bent to form the flange G below 80 the point of attachment of the spring, substantially as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature 85

LAFAYETTE J. STANTON.

Witnesses:

HATTIE A. BAKER, GUY B. BUCK.