

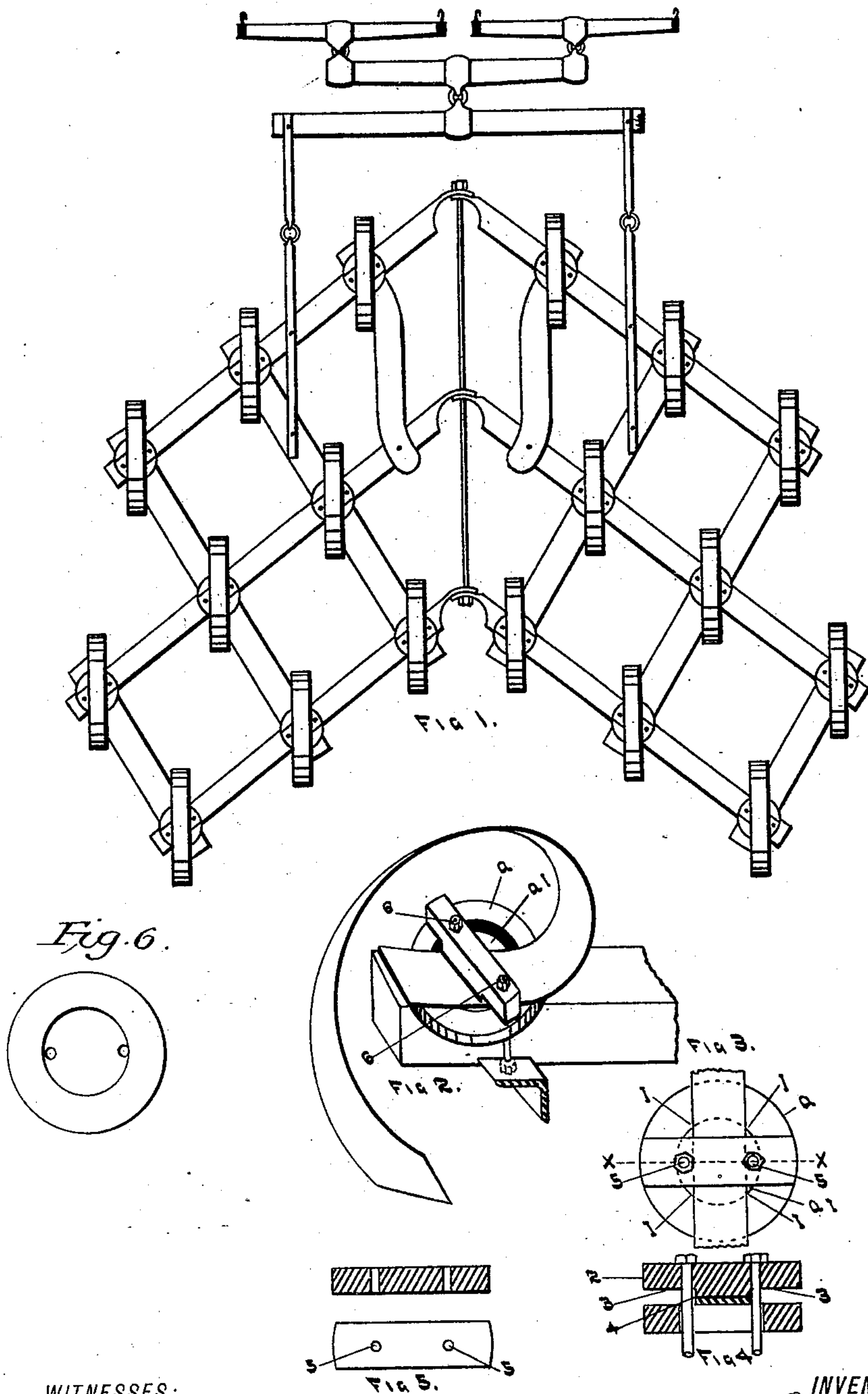
(No Model.)

DE WANE B. SMITH.

HARROW TOOTH SEAT.

No. 360,975.

Patented Apr. 12, 1887.



WITNESSES:

W. A. Stone.

Edwin H. Peasey

INVENTOR

D. B. Smith

BY

Peasey & Co. & Co.

ATTORNEY

# UNITED STATES PATENT OFFICE.

DE WANE B. SMITH, OF UTICA, NEW YORK, ASSIGNOR TO J. M. CHILDS  
& CO., OF SAME PLACE.

## HARROW-TOOTH SEAT.

SPECIFICATION forming part of Letters Patent No. 360,975, dated April 12, 1887.

Application filed January 18, 1887. Serial No. 224,721. (No model.)

*To all whom it may concern:*

Be it known that I, DE WANE B. SMITH, of Utica, in the county of Oneida and State of New York, have invented certain new and useful  
5 Improvements in Seats for Curved-Spring-Tooth Harrows; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to  
10 make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to an improvement in  
15 circular seats on spring-tooth harrows and the clip for holding the tooth to the seat and harrow-frame; and it consists in the mechanism hereinafter described and claimed.

In the accompanying drawings, Figure 1  
20 represents a top view of a curved-spring-tooth harrow. Fig. 2 represents a section of the frame with my improved circular seat, curved spring-tooth, and clip attached thereto. Fig. 3 is a top view of my circular seat, the tooth,  
25 and the clip. Fig. 4 is a section on line *xx*, Fig. 3. Fig. 5 represents a top and a section view of a clip of a modified construction, and Fig. 6 is a top view of the tooth-seat with an-  
30 nular flange.

Heretofore spring-curved harrow-teeth have  
35 been attached to and longitudinally adjustable upon the harrow-frame by the use of curved seats and clips conforming, essentially, to the contour of the tooth where the same is mounted  
40 on the frame, and serrated or projecting surfaces have been provided on the surfaces of the seat and clip for more reliable means of holding the tooth between the seat and clip. In these con-  
45 structions the tooth is not laterally adjustable on its seat to produce a varying cut. By the use of my improved seat and clip the tooth is longitudinally adjustable on the seat for varying the depth of the cut of the tooth, and is also laterally adjustable for varying the cut.  
I attain the beneficial results by the use of the mechanism hereinafter pointed out and claimed.

In constructing and applying my invention

to curved-spring-tooth harrows, I provide seat *a*, with a central opening, circular in  
50 form, in the center of the seat, *a'* representing the circular opening. The circular opening in the seat should be of sufficient diameter to allow the tooth to sit thereon. It is quite obvious that instead of having a circular open-  
55 ing in the seat an annular projecting flange may be formed on the seat for receiving the tooth. By the foregoing construction the outer edges of the tooth at I I I I, Fig. 3, contact the seat when the clip and bolts are applied, 60  
as hereinafter set forth.

For holding the tooth to the seat, I preferably provide clip 2, Fig. 4, the outer edges having rabbeted or cut-away surfaces 3 3,  
65 leaving projection 4 between the rabbeted surfaces. By this construction the tooth is held on the seat under spring tension. The rabbeted ends of the clip allow the projection to pass below the level of the annular flange or opening. Other forms of clip, as shown in  
70 Fig. 5, may be used, which for many purposes will be found satisfactory. The clip is held to the tooth by bolts 6 6 passing through perforations 5 5 in the clip, with screw-threaded nut, whereby the clip, tooth, and seat are  
75 firmly clamped to the frame.

The tooth may be longitudinally adjusted and laterally adjusted on the seat by loosening the nuts on the bolts and moving the tooth into the desired position. When the bolts are  
80 tightened, the tooth is rigidly held to the seat in the position to which the same has been adjusted.

What I claim is—

The combination, with a harrow-frame and  
85 a spring-curved harrow-tooth seated thereon so as to be adjusted, of a seat having a circular opening or an annular flange formed substantially as described, and means for holding the tooth to the seat, substantially as set forth. 90

In witness whereof I have affixed my signature in presence of two witnesses.

DE WANE B. SMITH.

Witnesses:

EDWIN H. RISLEY,  
D. MCGUCKEN.