E. D. & O. B. REYNOLDS.

HARROWS.

No. 182,736. Patented Sept. 26, 1876.

Fig. 1.

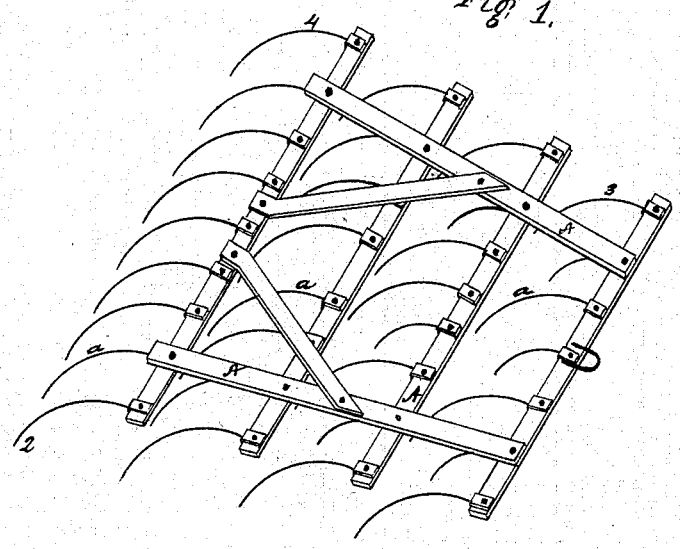
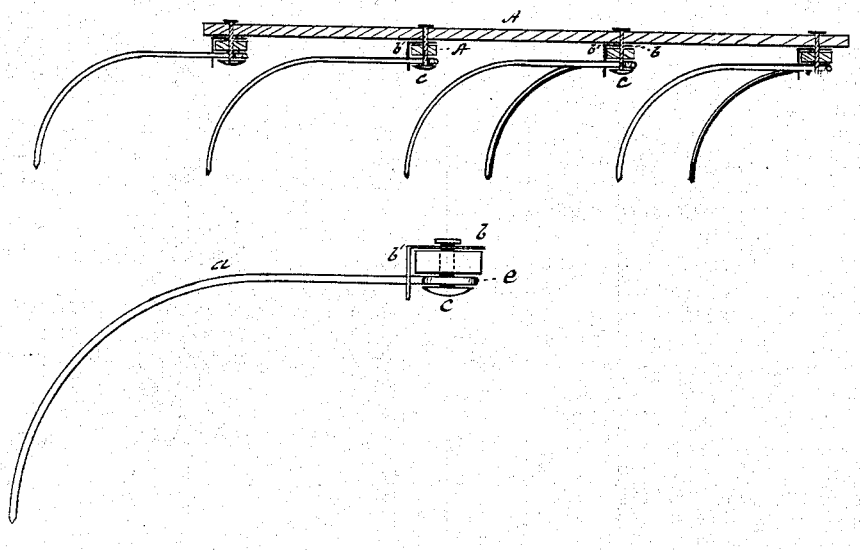


Fig. 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

EDMUND D. REYNOLDS AND OLIVER B. REYNOLDS, OF BROCKTON, MASS.

IMPROVEMENT IN HARROWS.

Specification forming part of Letters Patent No. **182,736**, dated September 26, 1876; application filed March 13, 1876.

To all whom it may concern:

Be it known that we, EDMUND D. REYNOLDS and OLIVER BRADFORD REYNOLDS, of Brockton, Massachusetts, have invented certain new and useful Improvements in Harrows, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view. Fig. 2 are details to be referred to.

Our invention relates to that class of harrows used for top-dressing; and it consists in the method of securing the teeth to the frame.

To enable others skilled in the art to make and use our invention, we will proceed to describe the exact manner in which we have carried it out.

In the drawings, A A represent the framework of our harrow, and *a a* the teeth.

It is well understood by those skilled in the practical use of the harrow that the first rows of teeth striking the rough ground are liable to clog much more so than the teeth which follow them. It therefore becomes important to place the points of the teeth of the front rows of a harrow as far apart as possible, and at the same time preserve the proper working character of the implement. To accomplish both these results in the best manner—that is, to give full distance between the teeth in the first two rows, and at the same time avoid dead space—we have made each alternate tooth shorter than the other, and bend it into an arc of a smaller circle, thus bringing their points in the same horizontal plane, while their zigzag position greatly increases the distance between them, while they remain in the same radial lines before mentioned.

The shoe *b* is fitted to the frame, with the portion *b'* pendent at right angles, and perforated to receive the tooth *a*, as shown in Fig. 3. The butt of the tooth *a* is constructed with an eye, *e*, through which passes the bolt *c*, securing both the tooth and the shoe to the frame A.

By this simple and ready means we secure the tooth to the frame, and at the same time form a brace or bearing to hold it steadily to its work.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The shoe *b*, provided with the perforated pendant *b'*, in combination with the frame A, tooth *a*, and bolt *c*, substantially as and for the purpose set forth.

EDMUND DUNBAR REYNOLDS.
OLIVER BRADFORD REYNOLDS.

Witnesses:
ISAAC E. SNELL,
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