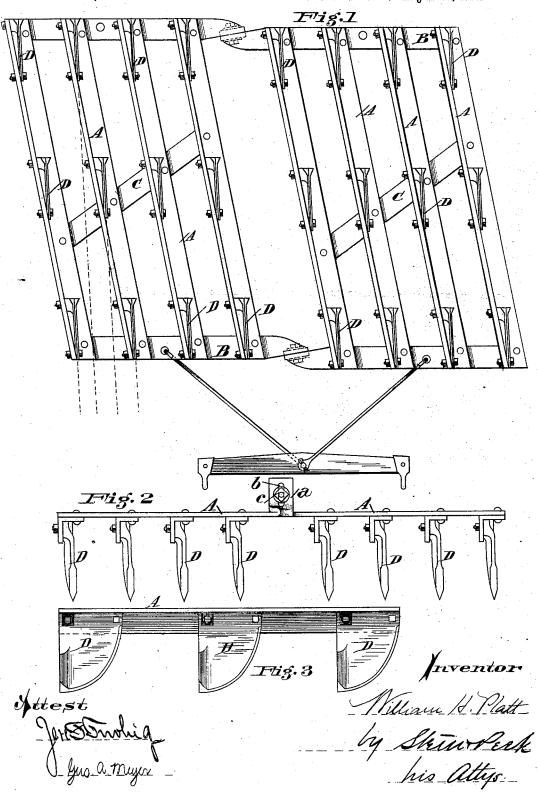
## W. H. PLATT. HARROW.

No. 261,564.

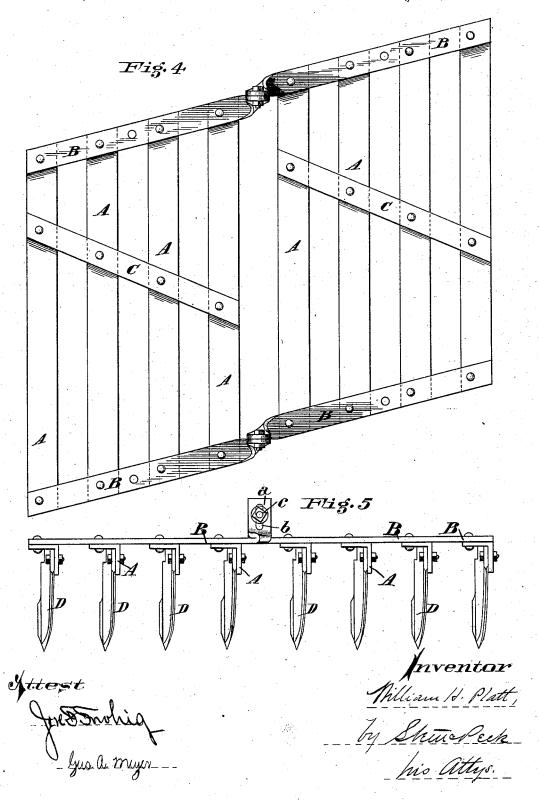
Patented July 25, 1882.



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## UNITED STATES PATENT OFFICE.

WILLIAM H. PLATT, OF DAYTON, OHIO.

## HARROW.

SPECIFICATION forming part of Letters Patent No. 261,564, dated July 25, 1882.

Application filed April 28, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. PLATT, a citizen of the United States, residing in Dayton, Montgomery county, Ohio, have invented 5 certain new and useful Improvements in Harrows, of which the following is a specification.

My invention relates to an improvement in harrows, and is especially adapted to that class of harrows known as "sectional" harrows, composed of sections hinged or pivoted together to enable the harrow to accommodate itself to inequalities in the surface of the ground.

The novelty of my invention consists in the construction and combinations of the parts, as will be herewith set forth and specifically claimed.

In the accompanying drawings, Figure 1, Sheet 1, is a bottom plan view of my improved harrow. Fig. 2, Sheet 1, is a rear elevation of 20 the same. Fig. 3, Sheet 1, is a side view, in elevation, of a section of one of the longitudinal beams with cutter-knives or teeth attached. Fig. 4, Sheet 2, is a top plan view of the harrow. Fig. 5, Sheet 2, is a front elevation of 25 the harrow.

The same reference-letters refer to like parts in all the figures.

Each section of my harrow is composed of four or more parallel beams of angle-iron, A, whose shape in cross-section is clearly shown in Fig. 2. These beams are connected at their ends by the transverse flat beams B, which are secured by bolts or rivets, and the frame thus formed is in shape a rhombus. To hold this frame perfectly rigid intermediate transverse diagonal brace-beams, C, are bolted to the beams A, as shown. The teeth or cutterknives D may be of the shape shown, or of any desirable construction, and are secured to the perpendicular sides of the beams A, as shown more particularly in Figs. 1 and 3.

I have made a separate application for the

form of the combined cutter-knives and teeth herein shown, and the only essential of the teeth in the present case is that they shall be so spaced or arranged upon the beams as that no two shall travel in the same cut or furrow and shall be capable of being bolted or fastened to the pendent or vertical sides of the angle-beams, as indicated by the dotted lines in 50 Fig. 1.

To connect the sections I make use of a novel hinge, constructed by bending up the contiguous ends of the braces B, as seen at a, Figs. 2, 4, and 5. These ends, when so bent, stand vertical, and rest one against the other, as illustrated. Vertical slots b are cut through both, and a bolt, c, passed through both at each end of the harrow unites the sections. By this simple arrangement, in addition to the pivotal 60 or hinge motion of the sections, either can move up or down in a horizontal plane to the extent of the length of the slots.

Instead of bending up the ends of the beams B in a twist, the vertical pieces a may be separate pieces, welded or otherwise secured to the beams B or to the harrow-frame.

Any suitable means may be employed for drawing the harrow.

Having thus fully described my invention, I 70 claim—

In a harrow-frame, in combination with the longitudinal beams composed of angle-iron two transverse beams, BC, bolted thereto and having their adjusting ends bent up, as shown, 75 so as to overlap or abut against each other, with pins or bolts passed through elongated slots in the said abutting ends, whereby hinges are formed which have vertical as well as pivotal play, substantially as specified.

W. H. PLATT.

Witnesses:

CHAS. F. DAVIS, JERE. F. TWOHIG.