3 Sheets—Sheet 1.

A. O. STIVESON.

Farm-Harrow.

No. 226,563. Patented April 13, 1880.

Fig. 1.

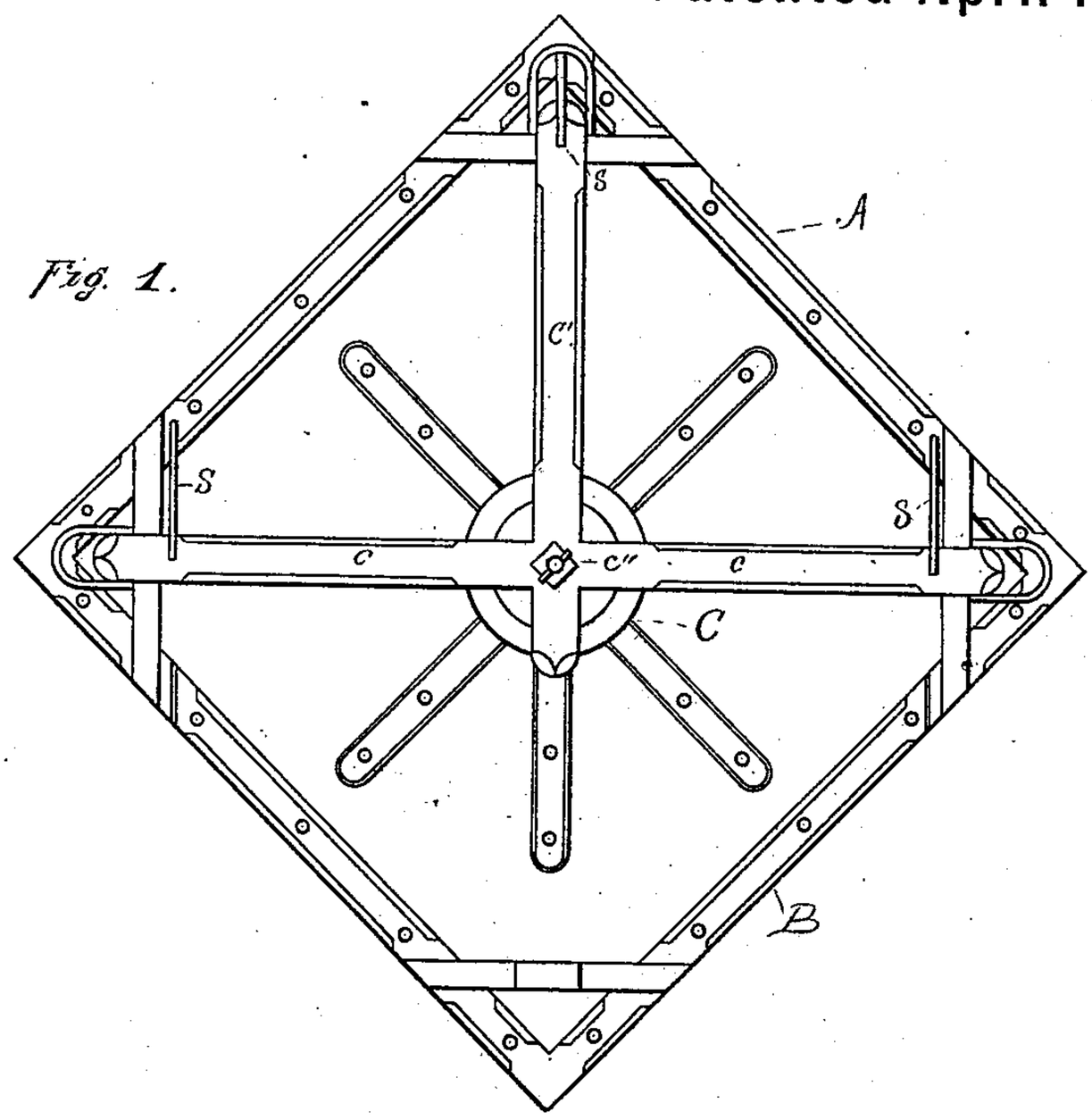
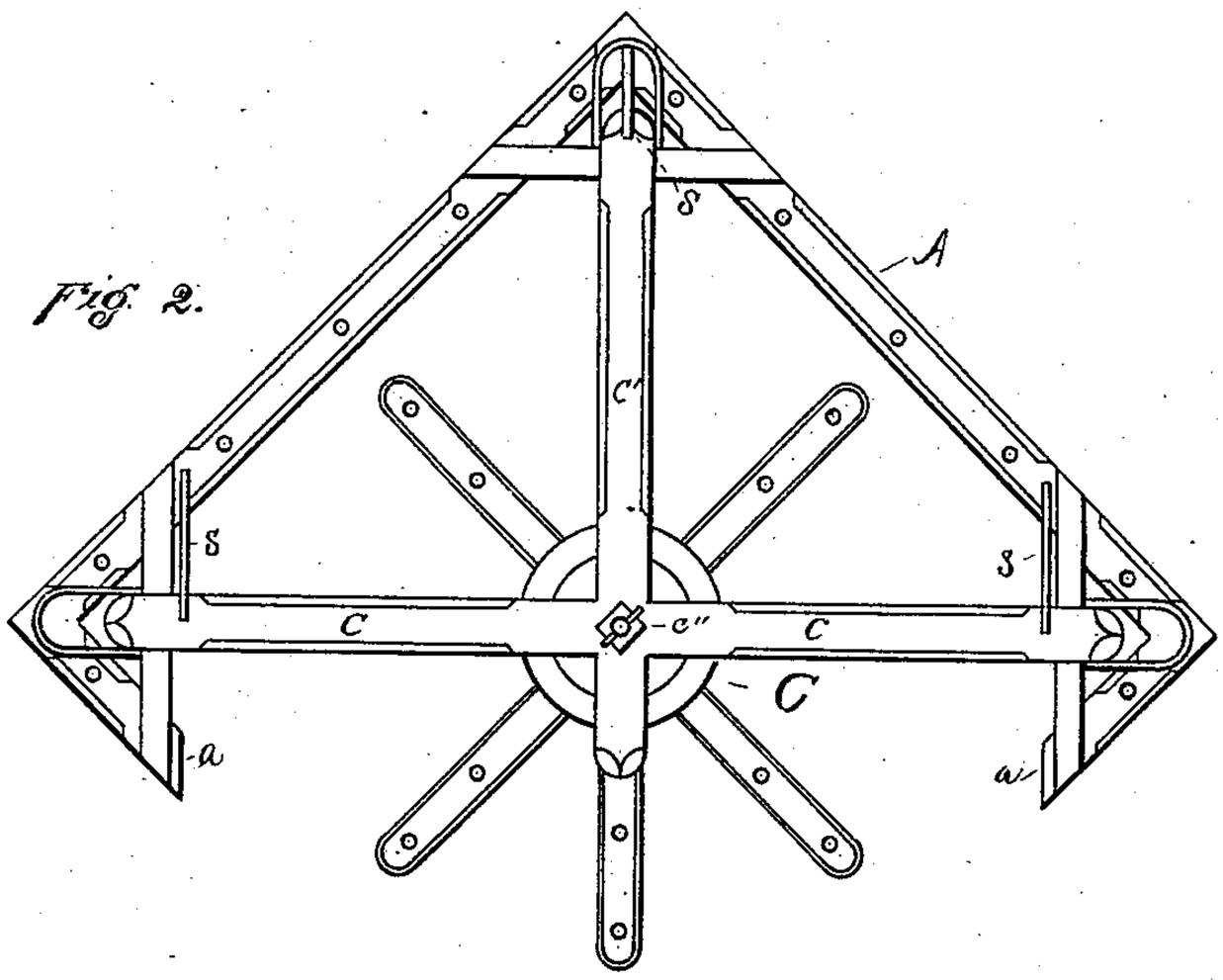


Fig. 2.



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3 Sheets—Sheet 2.

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Fig. 3.

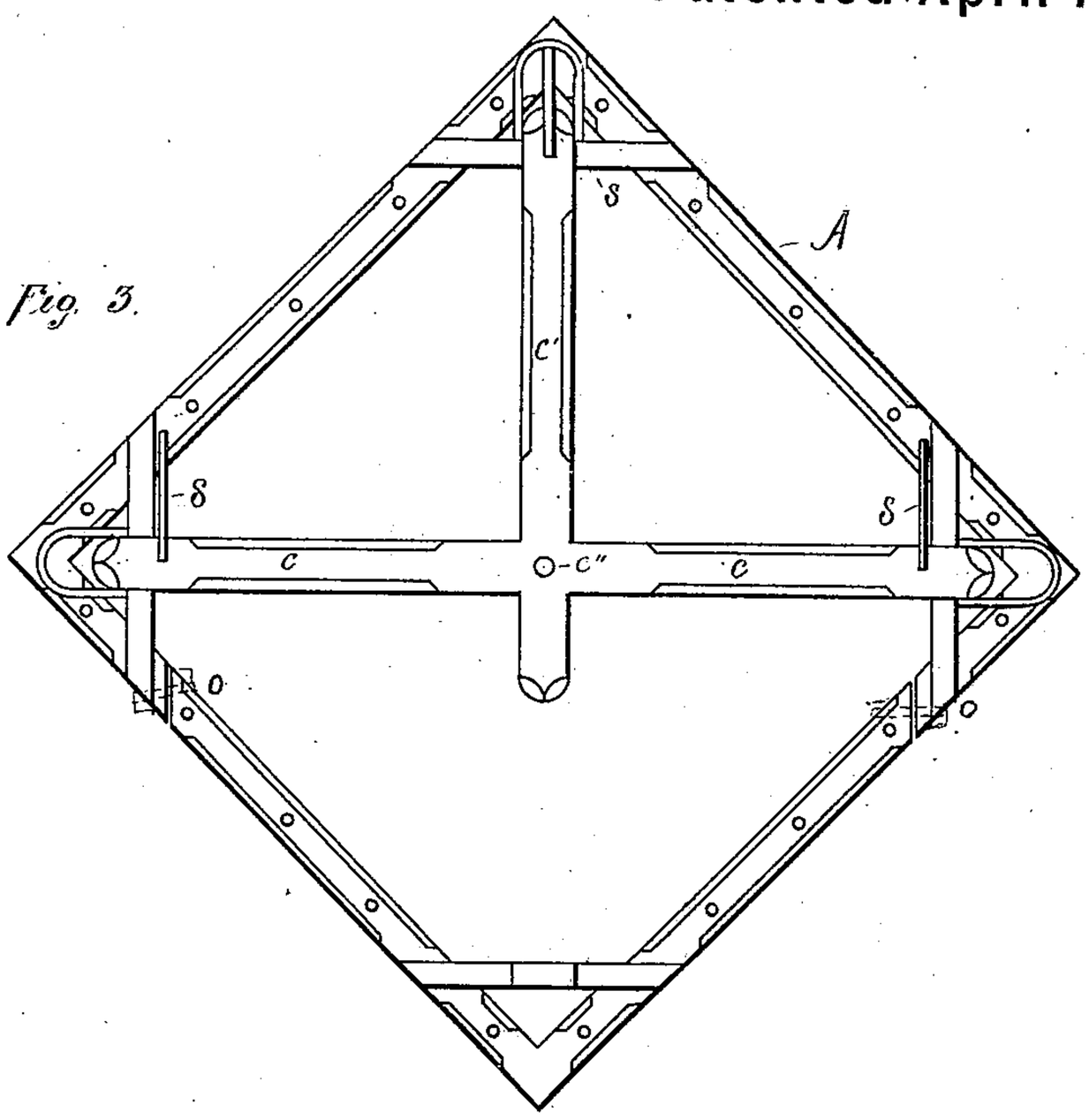
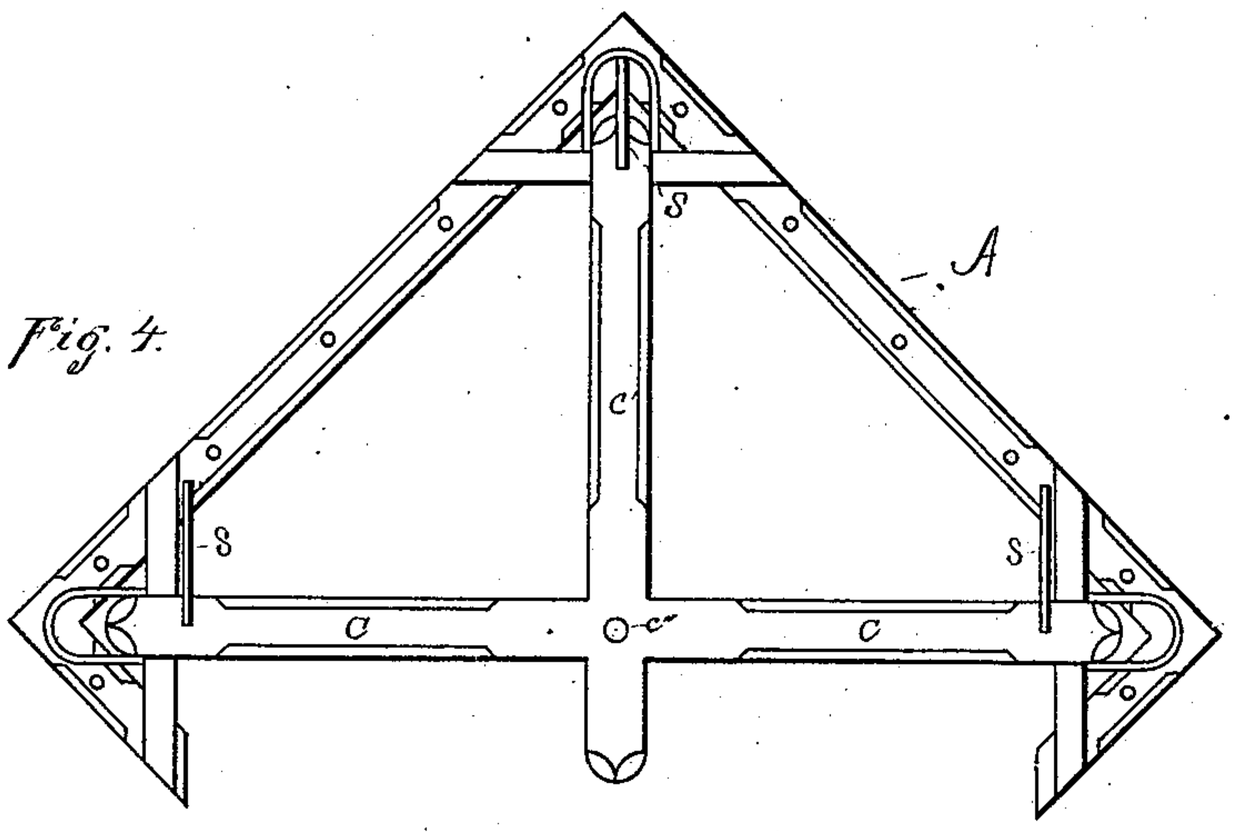


Fig. 4.



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3 Sheets—Sheet 3.

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Fig. 5.

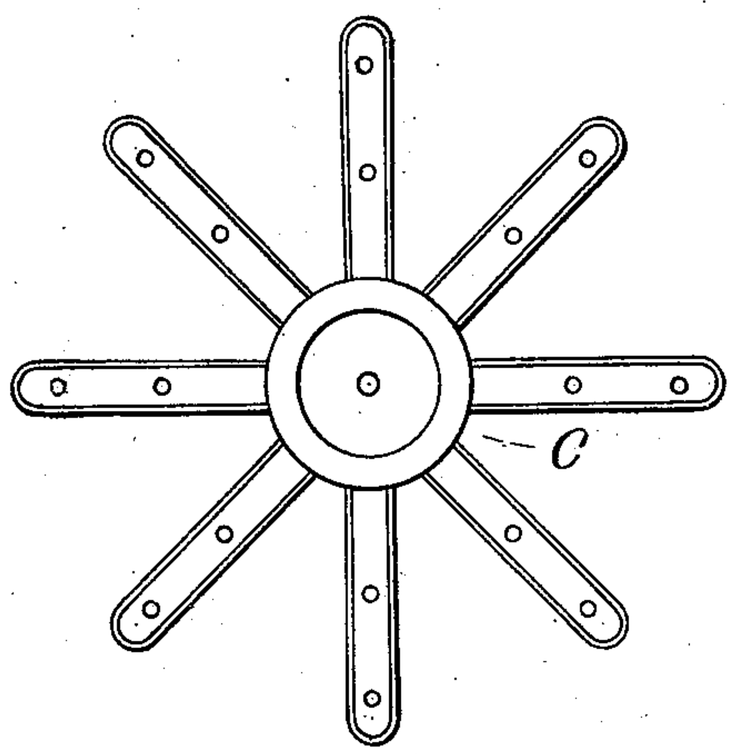


Fig. 6.

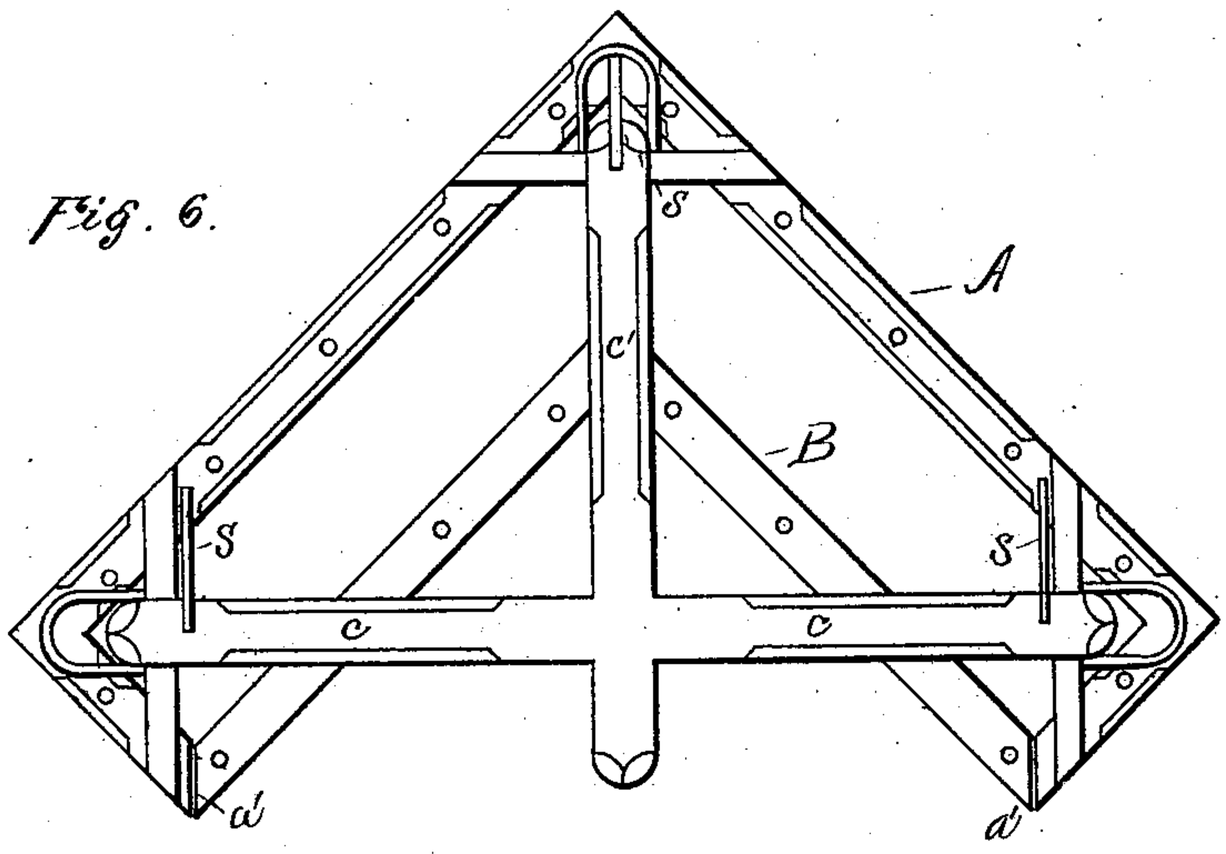
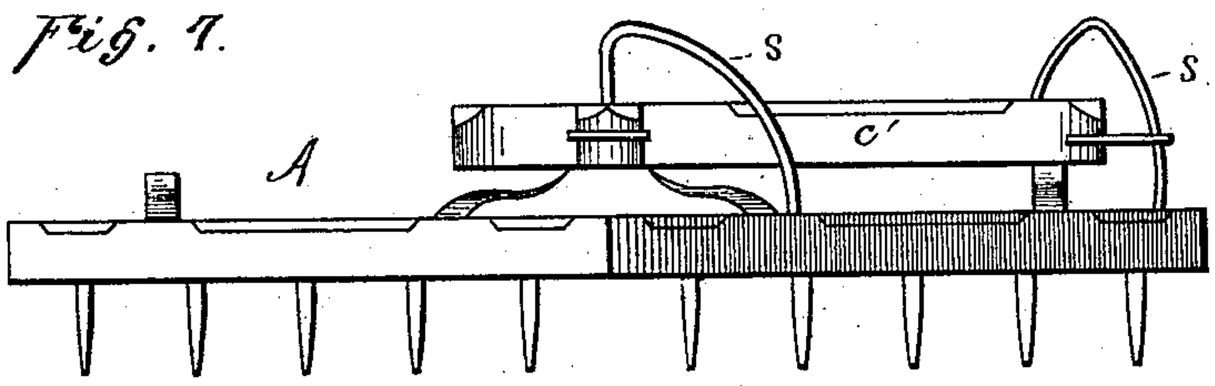


Fig. 7.



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UNITED STATES PATENT OFFICE.

ANTHONY O. STIVESON, OF APOLLO, PENNSYLVANIA.

FARM-HARROW.

SPECIFICATION forming part of Letters Patent No. 226,563, dated April 13, 1880.

Application filed January 24, 1880.

To all whom it may concern:

Be it known that I, ANTHONY O. STIVESON, of Apollo, Pennsylvania, have invented a new and useful Farm-Harrow, of which the following is a specification.

My invention relates to farm-harrows in which the parts are capable of adjustment so as to form harrows of several different shapes, and it carries in its center revolving arms, in which are placed teeth which perform the operation of harrowing or pulverizing the ground, while at the same time they level the surface of the soil over which the harrow is dragged.

The outer rim of the square is jointed in such a manner as that the parts may be turned and form what is known as the "double-A" harrow. By removing these several detachable parts and reversing the harrow a good corn-marker is made by means of the guards or staples, one each on three several corners.

In the accompanying drawings, Figure 1 is a top view of the harrow with all the parts complete; Fig. 2, the same view with the detachable portion of the outer frame removed; Fig. 3, the same view with the outer frame complete, but having the revolving center removed; Fig. 4, the same with both the detachable portion of the frame and the revolving center taken away. Fig. 5 is the revolving center. Fig. 6 shows the square frame placed in the form of a double-A harrow. Fig. 7 is a side elevation, showing the guards or staples used as corn-markers.

Similar letters refer to the same parts in all the views.

A indicates the permanent portions of the square frame, which form two whole sides and parts of the two other sides, which short parts have one-half of the beveled joint *a* upon them.

B is the detachable portion, bearing corresponding beveled joints *a'*, and fits into the frame A, whether the harrow is in shape square or a double A. These bevel-joints are preferably of metal, and have holes *o* through both the permanent and detachable portions of the frame, through which pins are run to bind the parts together.

When the frame is thrown together to make the double-A harrow the detachable portion is hooked or otherwise fastened to the permanent portion at the front of the harrow. A cross-tree, *c c'*, is placed on top of the harrow and fastened to the three corners of the permanent portion of the frame. To each end of this is attached a clip, to which the power is fastened. Rising over each of the corners, also, is the inclined guard or staple S, which serve to draw the furrows when the implement is used as a corn-marker.

Three furrows will be drawn equidistant by the three guards when the harrow is inverted.

C is the revolving cutter, which has as many arms as may be desired, and is attached, by means of a pivot or axis, to the cross-tree at the juncture *c''*.

To do thorough harrowing I use the whole implement, the pulverizing of the earth being done by the frame and revolving center jointly, while the revolving center at the same time levels the surface.

The harrow may be made a double A by removing the revolving center and reversing the detachable portion of the frame and turning it into the permanent portion, as shown in Fig. 6.

A very light harrow may be secured by removing both the revolving center and detachable portion of the frame and using only the permanent portion of the frame.

The harrow may again be lightened, and still be used to level the surface of the ground, by removing only the detachable portion of the frame and using the permanent portion with the revolving center.

When it is desired to use it as a corn-marker the detachable portion of the frame and the revolving center are removed and the harrow is inverted.

The several clips are used in order that the power may be attached at any other point when one should break.

What I claim is—

1. The herein-described convertible harrow, consisting of the permanent frame A, of triangular form, in combination with the removable frame B, held to the permanent frame by means of pins and holes, as described, and

the revolving center, all arranged as described, and for the purposes set forth.

2. The herein-described convertible harrow and marker, consisting of the permanent triangular frame A, provided on every corner with the staples S, the removable frame B, held to the permanent frame by means of holes and pins, as described, and the removable revolving center C, whereby a square, triangular, or double-A harrow, or a square or triangular harrow with a revolving center, or a corn-marker, may be formed, substantially as set forth.

A. O. STIVESON.

Witnesses:
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O. D. LEVIS.