

No. 846,876.

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H. M. TOEPFER.
CULTIVATOR.

APPLICATION FILED SEPT. 7, 1906.

Fig. 1.

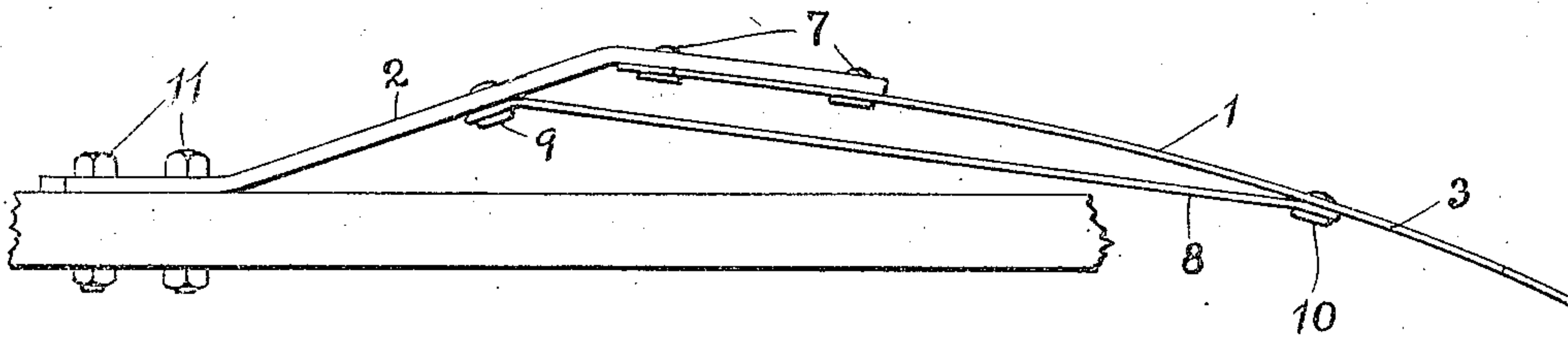
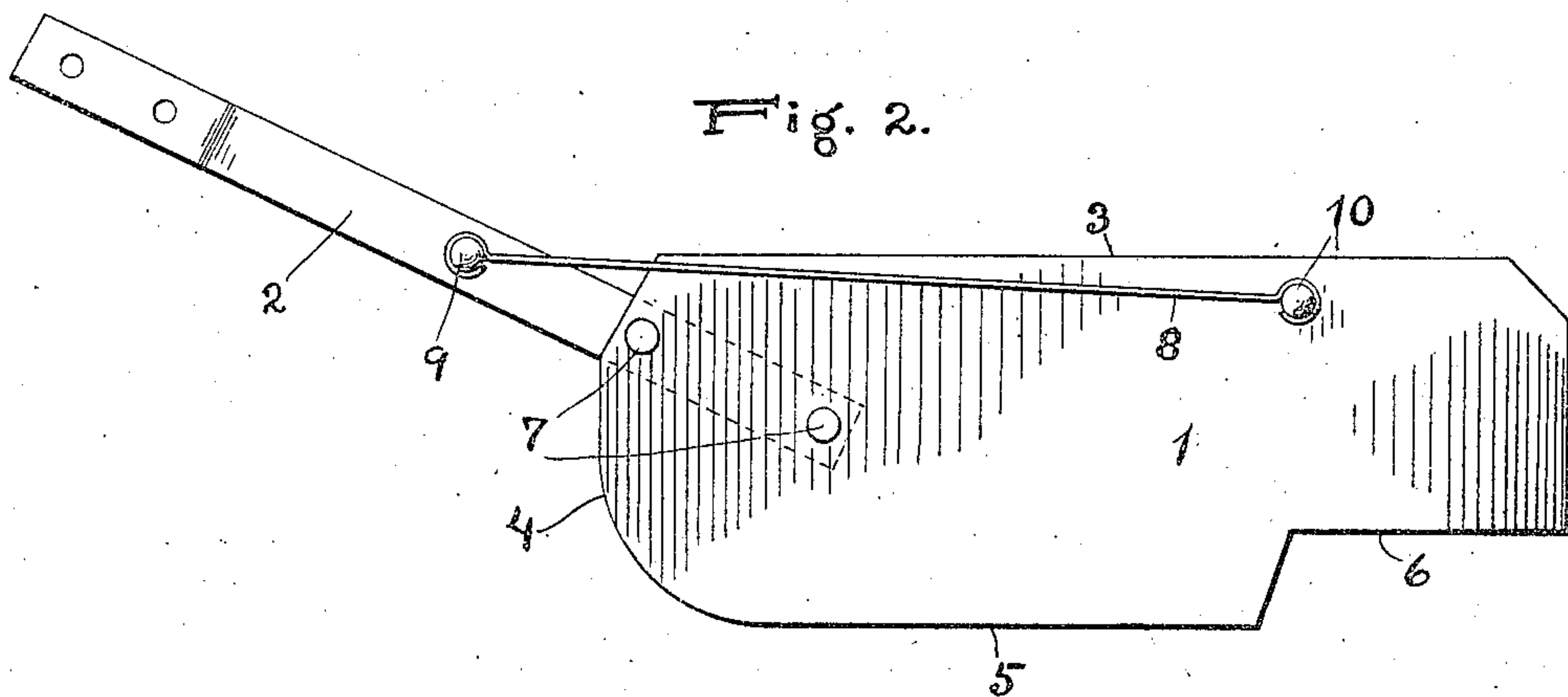


Fig. 2.



Witnesses

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HENRY M. TOEPFER, OF MOUNT CARROLL, ILLINOIS.

CULTIVATOR.

No. 846,876.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY M. TOEPFER, a citizen of the United States, residing at Mount Carroll, in the county of Carroll and State of Illinois, have invented certain new and useful Improvements in Cultivators, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to improvements in cultivators or plows, pertaining more particularly to the devices which are used as shields or guards in positions adjacent to the hoes or shares and serving to prevent clods, stones, and the like from falling upon plants during cultivation.

The objects aimed at and the means for attaining the desired results will be readily understood from the description below, taken in connection with the drawings.

Figure 1 is a plan view showing a guard or fender for a cultivator or plow embodying my improvements. Fig. 2 is a face view or elevation of the same.

In the drawings the fender-blade or guard is indicated as an entirety by 1, it being formed of sheet metal and preferably in substantially the form indicated. It has a top straight edge 3, a front curved or runner-shaped edge 4, and a straight bottom edge 5, extending part way back from the front end, and at 6 is cut away at the rear corner for a purpose to be explained.

The blade or body part of the fender is rigidly secured by rivets at 7 to the supporting-bar 2. The latter extends upward and forward and is adapted to be fastened either adjustably or in one fixed position by means of bolts at 11. The guard or fender-blade 1 is bent or curved around axial lines transverse to the longitudinal, the curvature being in horizontal planes when it is looked at from above. This gives it a concavo-convex conformation. This curvature insures that the clods, stones, and bodies other than the more finely-reduced soil shall be guided or thrown to positions away from the plants as the implement travels forward. At the same time it is desirable to have the

smaller particles of earth settle back somewhat toward the line of the plants.

By making the fender or blade of sheet metal it can be light and at the same time be rapidly and cheaply manufactured; but if made of thin light material, in order to secure the several advantages incident thereto, it requires supplemental means to insure that it shall maintain the conformation initially given to it. This is done by means of one or more brace rods or bars 8, which are so arranged as to prevent the metal from straightening out. It is attached to the curved blade at 10, and at 9 is preferably attached to the stiffer carrier-bar 2, though it will serve its purpose largely if this end 9 is secured to the forward part of the sheet metal. I so arrange the rod in respect to its vertical that it shall fulfil another function—that is to say, arrange it so that it will serve as a stop or upper guide for the clods and earth. It is near the top edge of the fender or guard 1, and the materials that tend to rise or be thrown upward because of the rapid forward motion of the implement impinge upon this bar, which acts as a stop and checks the material and turns it properly downward.

The passage-way at 6 on the rear bottom corner of the fender, formed, as above described, by cutting out part of the sheet metal, allows the finer earth to roll or settle back toward the plants and insures that they shall have sufficient soil for holding or supporting them, as well as nourishing them.

What I claim is—

1. A fender or guard for cultivator shovels or plows, consisting of the sheet-metal plate curved horizontally and having the brace-rod arranged substantially as set forth to retain the curvature of the fender-plate.

2. A fender or guard for cultivator shovels or plows formed of a concavo-convex sheet-metal plate curved horizontally and having at its upper edge and on the concave side thereof a device serving as a stop against the upward travel of earth, substantially as set forth.

3. A fender or guard for cultivator shovels or plows, having the curved sheet-metal plate 1 formed with a passage-way 6 at the

rear bottom corner thereof in combination with the rod 8 supported on the concave side of the guard and providing a rigid holder for the outer end of the curved plate, substantially as set forth.

5 4. A fender or guard for cultivator shovels or plows having the curved sheet-metal plate 1, the supporting-bar 2 and the brace-rod 8 rigidly connected to the outer part of the

curved plate and rigidly connected to the 10 supporting-bar, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY M. TOEPFER.

Witnesses:

C. H. POPE,
S. D. POOLE.