(No Model.)

E. CHILDREN.

CULTIVATOR SHOVEL.

No. 271,791. Patented Feb. 6, 1883.

Fig. 1.

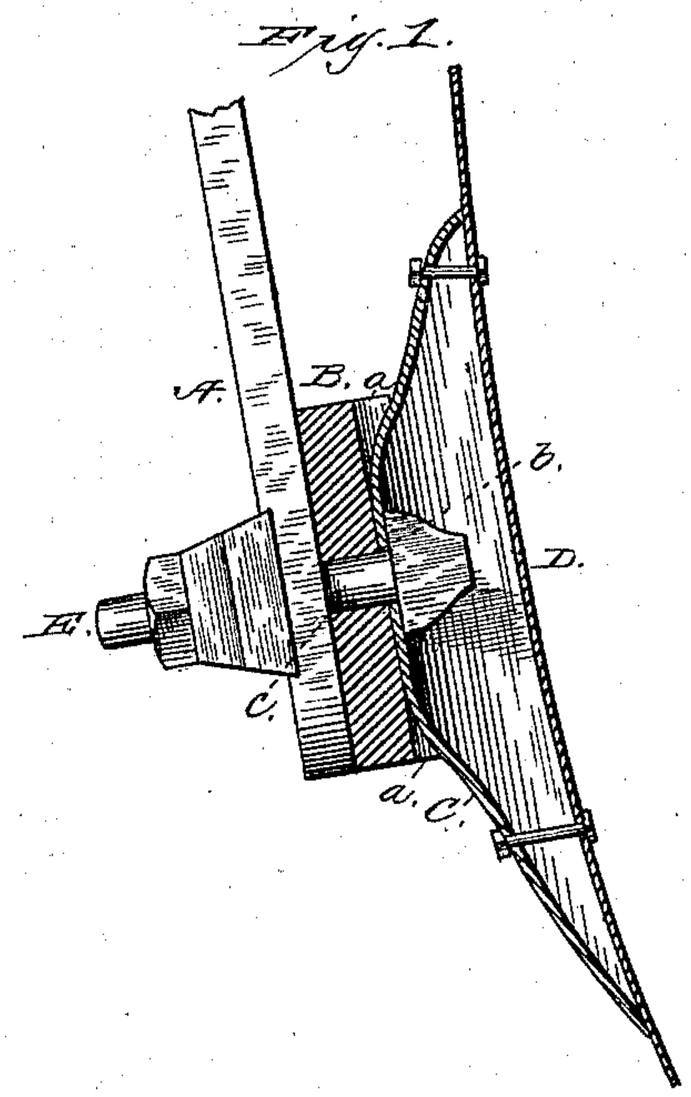


Fig. 2.

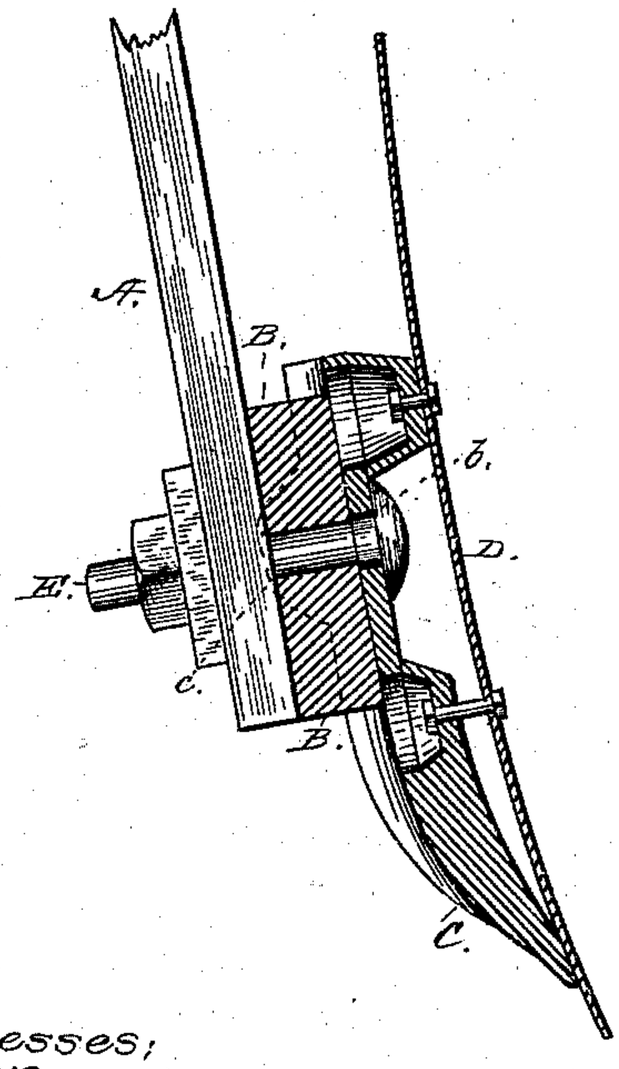
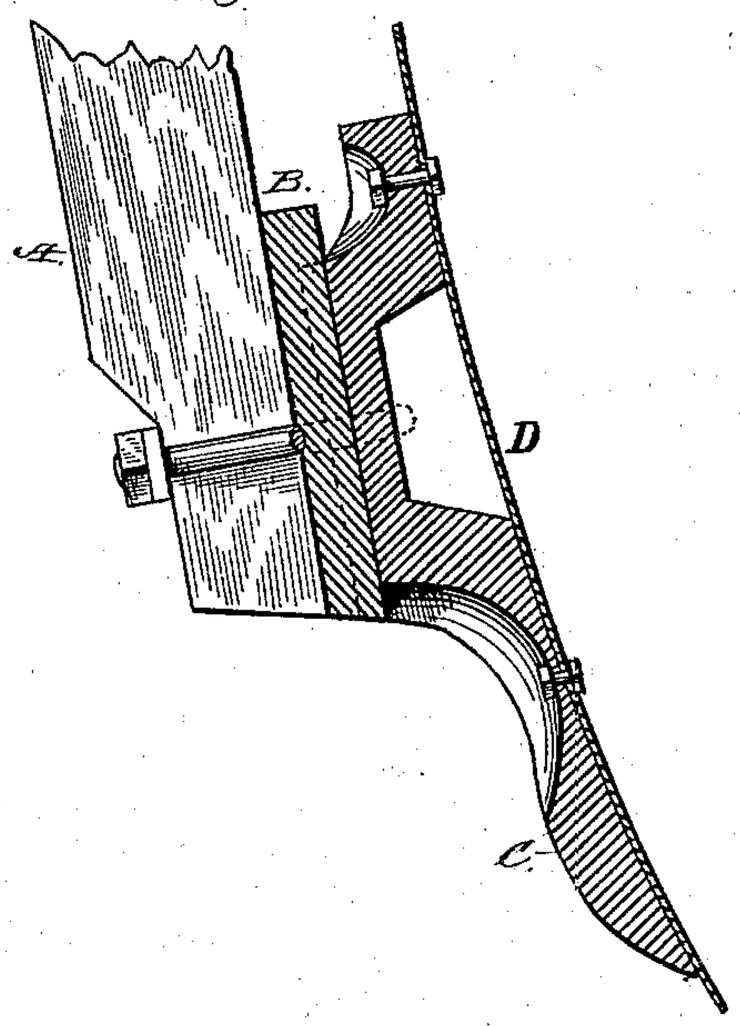


Fig. 3.



Witnesses;
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John C. Schroeder

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UNITED STATES PATENT OFFICE.

EDWIN CHILDREN, OF EAST DUBUQUE, ILLINOIS.

CULTIVATOR-SHOVEL.

SPECIFICATION forming part of Letters Patent No. 271,791, dated February 6, 1883.

Application filed September 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWIN CHILDREN, of East Dubuque, in the county of Jo Daviess and State of Illinois, have invented a new and useful Improvement in Attaching Cultivator-Shovels; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of the invention involved in the subject-matter of this specification is to produce a more perfect adjustment of the cultivator-shovel upon its standard. One of the great difficulties in the way of the successful operation of cultivators is to make the shovels scour under all circumstances. The couplings in common use provide means for turning the shovel in the seat in which it rests, and when turned to either side the friction is largely thrown to the side to which it is turned, and the shovel is thus placed in an unfavorable position to scour. By means of my improvement, hereinafter described, I am enabled to turn the shovel on the standard, and also at the same time to place its point in a position so as to distribute the pressure more evenly over the whole surface of the shovel, thereby causing it to scour more perfectly, and to handle more soil and with less liability to injure the roots of the corn.

To the accomplishment of the above results the invention consists principally in interposing a block or washer between the standard and the shoe or casting to which the shovel is secured, the same to be of the shape and size to conform with and accommodate the various models of such shoes or castings, all as more fully hereinafter described, and pointed out in the claim.

For the better understanding of my invention, and to enable those skilled in its relative art to know how to construct and make use of the same, I will proceed to describe it with reference to the accompanying drawings, which illustrate the device as adapted for the accommodation of several different forms of the shoe or casting to which the shovel is secured.

Figure 1 is a side view of a standard and longitudinal section of its attachments, including my invention; and Figs. 2 and 3 similar views of a modification of the same.

Like letters of reference indicate corresponding parts in all the figures.

In the drawings, A denotes the standard of any suitable construction; B, a block or washer; C, the shoe or casting to which the shovel is secured; and D the shovel, secured thereto by any suitable means.

In all instances of usage the block or washer B, which may be constructed of any desirable and suitable material, rests flush upon the front of the standard A. As shown in Fig. 1, it is provided on its upper surface with a longitudinal concave cavity, *a*, for the reception of the convex portion of the shoe or casting C, which fits and rests therein.

In the convex portion of the shoe or casting C is a rectangular opening or slot, *b*, through which and an orifice, *c*, made in the block or washer B and the standard A, on a line vertical with said rectangular opening, passes a bolt, E. This bolt has a flanged or enlarged upper end, and is screw-threaded at its lower end to receive a washer and nut whereby the several parts are drawn together to their desired position and firmly clamped to the standard. By means of the rectangular opening or slot *b* and this bolt E the shoe or casting C, with its shovel, can readily be laterally adjusted and secured at any angle, for the purpose of turning the soil toward or from the corn, as may be desired.

In the modification shown in Fig. 2 the construction of the block or washer B is the reverse to that shown in the preceding figure—that is, instead of it being hollowed out or made concave on its upper surface, it is made semi-cylindrical or convex in order to adapt itself to the chambered-out or concave portion of the shoe or casting C, in which it nicely fits. This shoe or casting has also the rectangular opening or slot *b*, and the block or washer and standard have likewise the orifice *c* for the insertion of the bolt E, by means of which and its washer and nut the shoe and its shovel can be adjusted and secured, as before described. In the form of the shoe or casting shown in Fig. 3 there is but a slight variance from the construction in that of Fig. 2, and therefore requires but little or no change in the construction of the block or washer. In consequence of the absence of a rectangular opening or slot in this form of shoe, and owing to the employ-

ment of the stirrup or U-shaped bolt, no orifice is required to be made through the block or washer and the standard, but the former is pivotally secured to the latter, and by the stirrup or U-shaped bolt with its washer and nuts the shoe or casting, with its shovel, can be adjusted as readily to be effective as by the forms shown in the preceding figures.

It will be seen that this device is very simple in its construction, costs but little to manufacture, and can be readily modeled to accommodate and fit the various forms of the shoes or castings commonly used in attaching the shovels to the standards of cultivators; and, further, if such standards should be of an uncommon construction, it is evident that the under surface of the device could readily be made to conform therewith and prove efficient in all usage.

Having thus described my invention, what I claim is—

In the coupling-joint described, block or washer B, provided with the longitudinal concave cavity *a*, and pivotally interposed between the standard A and the shoe or casting C, substantially as described, shown, and for the purpose set forth.

This specification signed and witnessed this 19th day of August, 1882.

EDWIN CHILDREN.

Witnesses:
MONROE M. CADY,
HERBERT JONES.