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J. H. SMITH ET AL.
DETACHABLE CULTIVATOR POINT.
FILED JULY 12, 1921.

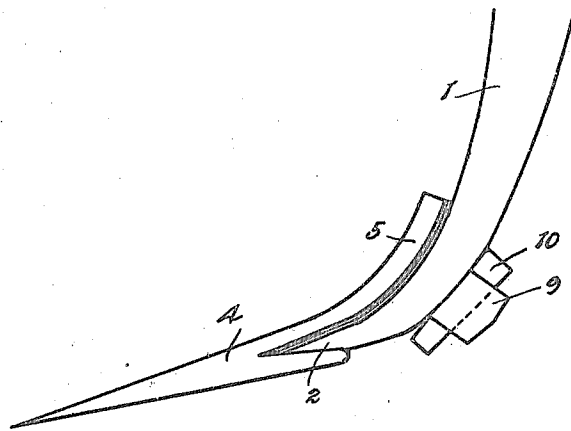


Fig 1

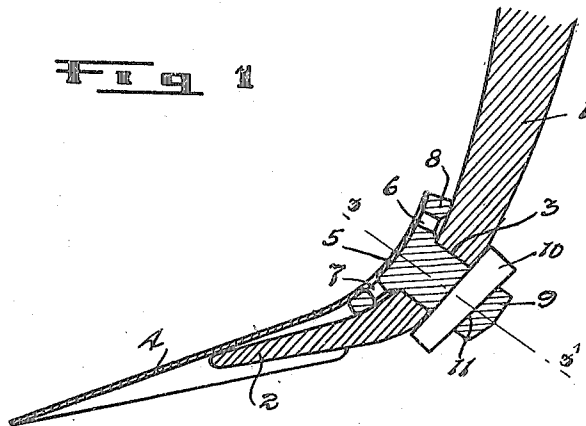


Fig 2

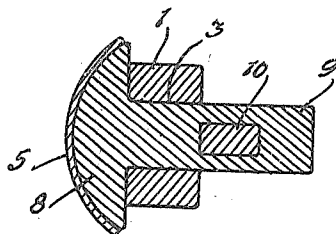


Fig 3

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UNITED STATES PATENT OFFICE.

JOHN HENRY SMITH AND WILLIAM JAMES WADDELL, OF SPERLING, MANITOBA,
CANADA.

DETACHABLE CULTIVATOR POINT.

Application filed July 12, 1921. Serial No. 484,163.

To all whom it may concern:

Be it known that we, JOHN HENRY SMITH and WILLIAM JAMES WADDELL, both of the town of Sperling, in the Province of Manitoba, Canada, have invented certain new and useful Improvements in Detachable Cultivator Points, of which the following is the specification.

The invention relates to improvements in detachable cultivator points and the object of the invention is to provide a cultivator point which can be quickly attached and removed from the cultivator shank, thereby facilitating the work of the farmer when for any reason he has to remove the cultivator point, such as for sharpening or when breakage occurs.

With the above more important object in view the invention consists essentially in a cultivator shank having an opening therein, a cultivator point provided with an extending stud or arm adapted to enter the shank opening and a taper key passing through the stud, the parts being arranged and constructed as hereinafter more particularly described and later pointed out in the appended claims, reference being had to the accompanying drawing in which:—

Fig. 1 is a side view of the complete invention.

Fig. 2 is a vertical sectional view centrally through the shank and cutter point.

Fig. 3 is a sectional view at 3—3' Fig. 2.

In the drawing like characters of reference indicate corresponding parts in the several figures.

The cultivator shank 1 has the lower end terminating in a forwardly curving toe 2 and it is provided somewhat up from the lower end with an opening 3 other than circular, the present opening being substantially rectangular. The cutter point 4 is of the usual type and in this connection we may mention that for different work different kinds of points are used by farmers and whilst a crowfoot style of point is shown we wish it to be understood that the invention could be applied on any of the points used. It will be observed that the cutter point has an upwardly extending and curving tongue 5 which is positioned directly in advance of the shank and that the toe of the shank extends under and

engages with the central part of the cutter point, reinforcing it.

To the rear side of the cutter point tongue we secure permanently, as by riveting at 6 and 7, the enlarged base piece 8 of a stud or arm 9 which extends rearwardly from the tongue and has a cross section complementary to the opening 3 into and through which the stud passes. The forward face of the base 8 is rounded to fit the curved tongue and the back face is flat to engage snugly with the adjacent front face of the shank. A taper key 10 is provided to lock the stud or arm to the shank, the key passing through an opening 11 provided in the stud. The arrangement of the opening and key is such that when the key is driven in it tightly jams and holds the cutter point in working position on the shank.

We may here explain that usually cutter points are bolted directly to the shank and very often due to rust and such like considerable trouble is experienced in undoing the nuts of the bolts prior to removing the points.

According to our invention it is a very simple matter to remove a point as one has only to strike the lower end of the key upwardly as with a hammer or sledge to release the key and allow the stud to be pulled out, and the cutter point removed.

What we claim as our invention is:—

1. A cultivator point provided with a shank engaging tongue, a plate fixed to the rear side of said tongue and a stud integral with said plate.

2. The combination with a cultivator shank having a square opening therein, of a cultivator point having a shank engaging tongue, a plate rigidly fixed to the rear side of said tongue, a stud integral with said plate having a shape complementary to that of the opening in said shank and adapted to extend through the said opening and means securing the stud against withdrawal from the openings.

Signed at Carman, this 16 day of April, 1921.

JOHN HENRY SMITH.

WILLIAM JAMES WADDELL.

In the presence of—

JESSIE AGNES FIELD,

H. E. ROBINSON.