April 22, 1924. 1,491,416

H. M. PLAISTED

ROTARY PIVOTED HAMMER

Filed March 15, 1923

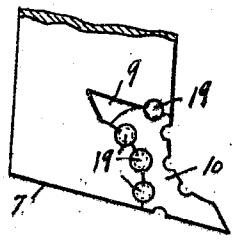


Fig. 3.

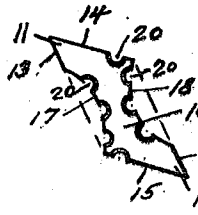


Fig. 4.

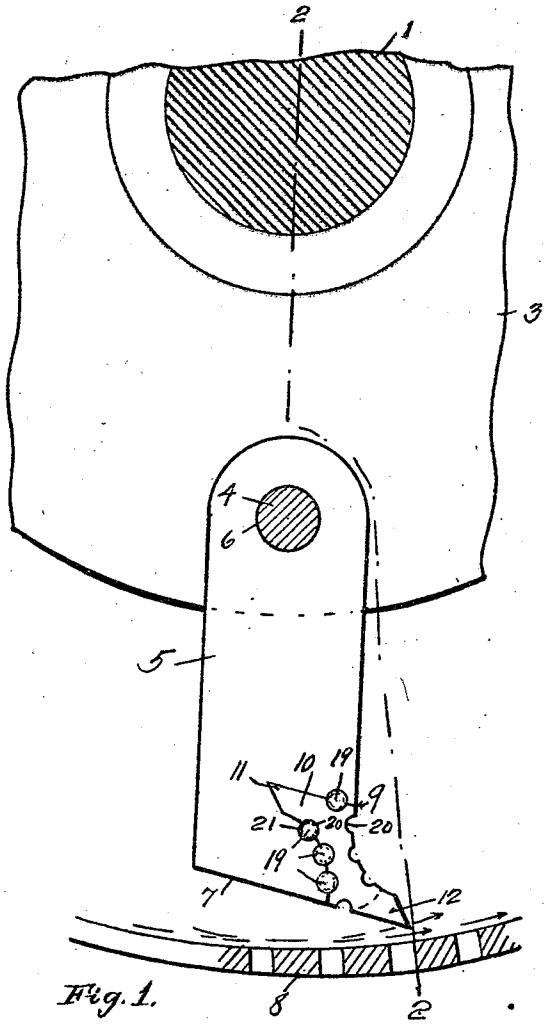


Fig. 1.

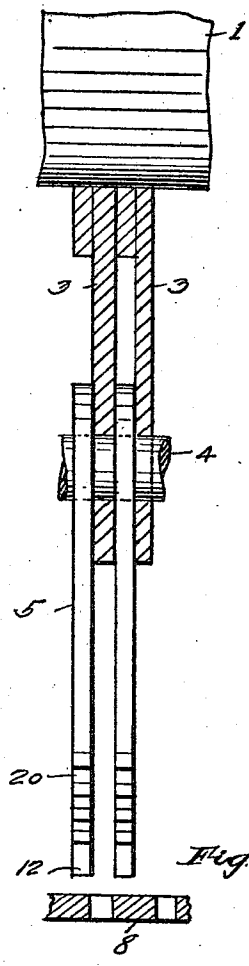


Fig. 2.

Inventor

Harold M. Plaisted.

Patented Apr. 22, 1924. 1,491,416

UNITED STATES PATENT OFFICE.

HAROLD M. PLAISTED, OF ST. LOUIS, MISSOURI, ASSIGNOR TO WILLIAMS PATENT CRUSHER & PULVERIZER COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

ROTARY PIVOTED HAMMER.

Application filed March 15, 1923. Serial No. 625,308.

To all whom it may concern:

Be it known that I, HAROLD M. PLAISTED, a citizen of the United States, residing at St. Louis, Missouri, have invented certain new and useful Improvements in Rotary Pivoted Hammers, of which the following is a specification.

This invention relates to certain new and useful improvements in rotary pivoted hammers, the peculiarities of which will be hereinafter fully described and claimed.

The main object of my invention is to provide an improved reversible double pointed insert piece forming the operative point of a rotary pivoted hammer and detachably secured in either position in the head of the hammer; secondly, to improve the cutting action on the curved throat of the insert piece adjacent to the operative point.

In the accompanying drawing on which like reference numerals indicate corresponding parts, Fig. 1 represents a side view of a rotary pivoted hammer exemplifying my invention, with parts of a cage, hammer disc and shaft; Fig. 2, an edge view of said hammer, with other parts in section on the line 2—2 of Fig. 1; Fig. 3, a side view of a portion of said hammer with the insert piece reversed therein after one of the points has been worn down; and Fig. 4, a detail face view of the insert piece.

1 designates a shaft on which is mounted discs 3, perforated for hammer rods 4 on which are pivoted hammers of my construction. This type of hammer consists of a flat bar shank 5 having a hole 6 at one end for mounting on the rod 4, and having the outer end beveled off at 7 to give clearance for operation of the hammer in connection with a cage 8 adjacent thereto. In the front outer corner of the head of the hammer, is formed a recess 9 in which is detachably secured an insert piece 10 which is double pointed, so that the points in succession may be brought to operative position. The points are formed by plain sides in two pairs converging to an acute angle,—both sides in each pair being parallel to corresponding sides of the other pair forming the other point. Thus the points 11 and 12 Fig. 4, are formed by the plain sides 13 and 14 forming the point 11, and sides 15 and 16 forming the point 12; the side 13 is parallel to 16, and surface 14 is parallel to 15. The sides forming these points are connected by inwardly curved sides 17 and 18 forming a reduced body of the piece between the points 11 and 12. In order detachably to secure this piece in the recess 9, notches 20 are formed on the curved surfaces and on the end surfaces 14 and 15, which match with corresponding notches 21 on the edges of the recess 9 adjacent thereto, for the reception of fastening rivets 19, preferably slightly countersunk as shown in the drawing. The sides of the recess are made to conform to the curves and end surface of the insert piece, and when the notches of the recess match with the notches of the said piece, the openings thus formed are adapted to receive the fastening rivets; when the notches are exposed on the outer curved surface for the time being, these notches form serrations or cutting edges in the curved front throat of the insert piece adjacent to the operative point, for the reduction of material that is not reduced by the operative point. When this point is worn off as indicated by dotted line in Fig. 1, the rivets or other fastening means release the insert piece and allow it to be reversed and inserted in the recess with the new point outward in operative position as shown in Fig. 3. The outer surface 14 or 15 as the case may be, is alined with the end surface 7 of the head as shown in Figs. 1 and 3. The curved surfaces intermediate of the points, and the location of the points as shown in Fig. 4, projects forward beyond the front of the hammer shank the point that is for the time being in operative position, and causes it to penetrate readily the alfalfa or other herbage that is being reduced by this type of hammer, to which use the forwardly extending point is particularly adapted.

I claim:

1. A rotary pivoted hammer comprising a flat bar shank adapted for pivotal mounting at one end and with a head having a recess at its front corner, a reversible insert piece having double points formed by respectively parallel plain surfaces meeting in acute angles oppositely disposed and connected by inwardly curved sides,—one end surface and curved side matching corresponding edges of said recess,—and fastening means for said piece.

2. A rotary pivoted hammer comprising a flat bar shank adapted for pivotal mounting at one end and having a recess at the front

outer corner, a reversible insert piece having double points oppositely disposed and connected by inwardly curved sides having notches that respectively match notches in the corresponding side of the recess for reception of fastening rivets and form serrations on the exposed opposite front side of the insert piece that facilitate reduction of material, and fastening rivets detachably securing said insert piece in the recess.

3. In a rotary pivoted hammer, the herein described reversible insert piece adapted to form two operative points in succession, and consisting of a body having oppositely disposed points formed by two pairs of surfaces converging in acute angles,—each side in one pair being parallel to a corresponding side in the other pair,—and connected by inwardly curved sides having notches, substantially as and for the purpose described.

In testimony whereof I have affixed my signature.

HAROLD M. PLAISTED.