July 4, 1933. L. G. GADD 1,916,833

EARTH WORKING IMPLEMENT

Filed June 13, 1932

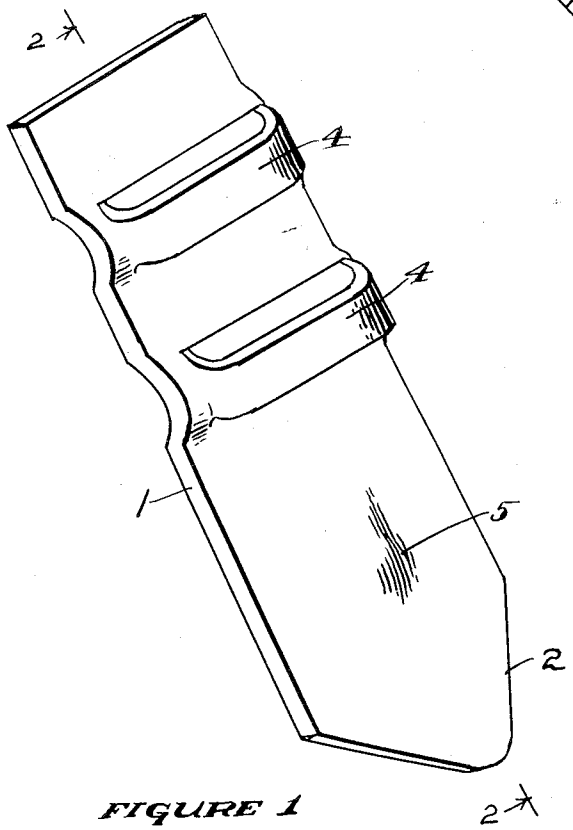


FIGURE 1

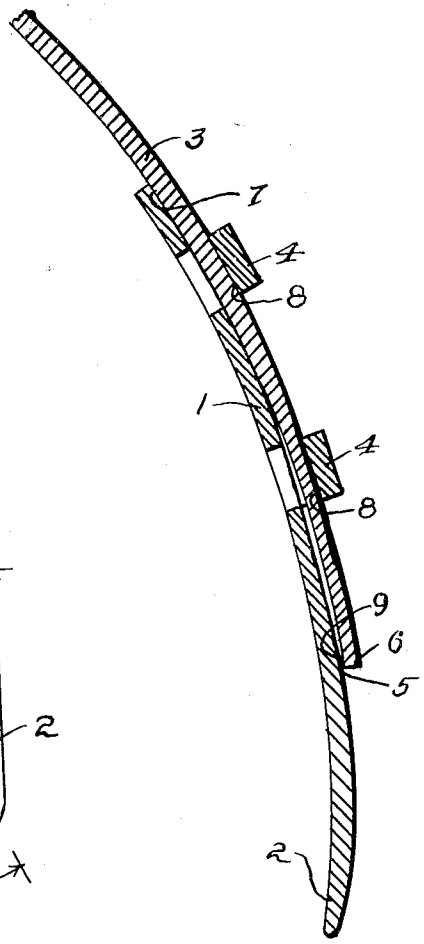


FIGURE 2

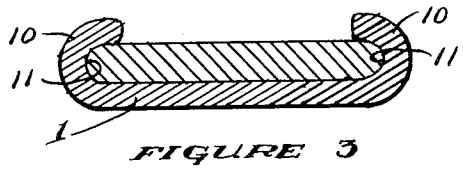


FIGURE 3

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EARTH WORKING IMPLEMENT

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The present invention relates particularly to harrow and cultivator teeth and the like.

It is common practice to form teeth of the character indicated of single bars of metal, one end of the bar being mounted upon the carrying frame and the other end being shaped and formed to enter the soil. It is obvious that when the teeth are worn down in service they must be discarded and new teeth provided, and must be sharpened from time to time during this wearing down process. The removal of a whole tooth for sharpening is a time consuming operation, and the replacement of a worn tooth with a whole new one is a wasteful operation.

It is, therefore, the object of the present invention to provide a tooth point that may be quickly and easily placed upon or removed from the shank of the tooth, and securely held in position, when mounted thereon, without the use of bolts, nuts, wedges, or other separate fastening devices, and consequently one that may be kept sharp at little cost of time or labor and economically replaced when worn down too much for further use.

It is also an object of the invention to provide a device of the character indicated that will be economical to manufacture, simple in form and construction, strong, durable, and highly efficient in its practical application.

In the drawing:

Figure 1 is a perspective illustration of one form of tooth point embodying my invention.

Figure 2 is a section on line 2—2 of Figure 1, with the point in position on a portion of a tooth shank.

Figure 3 is a transverse cross-section of another form of the point in position on a tooth.

In the first embodiment of the invention as herein disclosed, I show at 1 a short metal bar having a pointed end 2 adapted to enter the ground to stir the soil. Since the body of the tooth 3 is curved lengthwise this point 1 is also curved lengthwise to lie snugly against the inner surface of the body 3, as clearly shown in Figure 2.

Struck outwardly, that is beyond the convex side of the part 1, are spaced parallel collars 4—4. The part 1 is wider than the body of the tooth 3 upon which it is to be placed, and the collars 4—4 are just wide enough to permit the tooth body 3 to pass therethrough as shown in Figure 2. While it is desirable that the body part 1 fit quite snugly in collars 4—4, yet it should be a loose enough fit to permit of their engagement by manual force only.

A slight tapered raise as 5 is formed on the center or convex side of the part 1 between the point 2 and the adjacent part 4. The result of this construction is that the body portion 3 of the tooth may be readily passed through the collars 4—4, but when the end of the portion 3, as 6, engages the raised surface 5 and is forced up the same a distance, frictional contact between the two parts is secured at points 7, 8—8, and 9. Part 1 may be placed in position by hand, and its practical use in the soil will tend to force it more securely into position, but no matter how tightly it may be forced into position it may be readily removed by a blow with a hammer or other tool.

In the embodiment shown in Figure 3 the part 1 has its side edges rolled as at 10—10 to form two channels as 11—11 adapted to slidably engage the end of part 3. In this embodiment the binding together of the two parts is accomplished in the same manner as described in connection with the first embodiment since the rolled edges 10—10 perform the same function as collars 4—4.

In either embodiment the part 1 may be quickly and easily removed for the purpose of sharpening, and may be discarded when worn down without material loss. It is also obvious that the part 1 may be pointed on both ends so that when one end is worn down the part may be reversed and the other end put into service until it, too, is worn down, thereby doubling the effective life of the part.

It is to be understood, of course, that while I have herein shown and described but two specific embodiments of the invention, changes in form, construction, and method of

assembly and operation may be made within the scope of the appended claims.

I claim:

1. A device of the character described comprising, a tooth point for harrows and the like having parts formed integrally therewith and on one side thereof to overlie and frictionally engage the body of the tooth at spaced points, and means formed integrally therewith and on the same side of the point to urge the parts into said frictional engagement when the point is forcibly mounted upon the body.

2. A tooth point for harrows and the like comprising, a metal bar having a pointed end and formed to seat against the front surface of the tooth, said bar having spaced collars formed thereon to encompass the said tooth, the said bar also having a boss formed thereon and on the same side as said collars but disposed between the pointed end and said collars whereby to engage the tooth and force the several parts into frictional engagement when the point is forcibly mounted upon the tooth.

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