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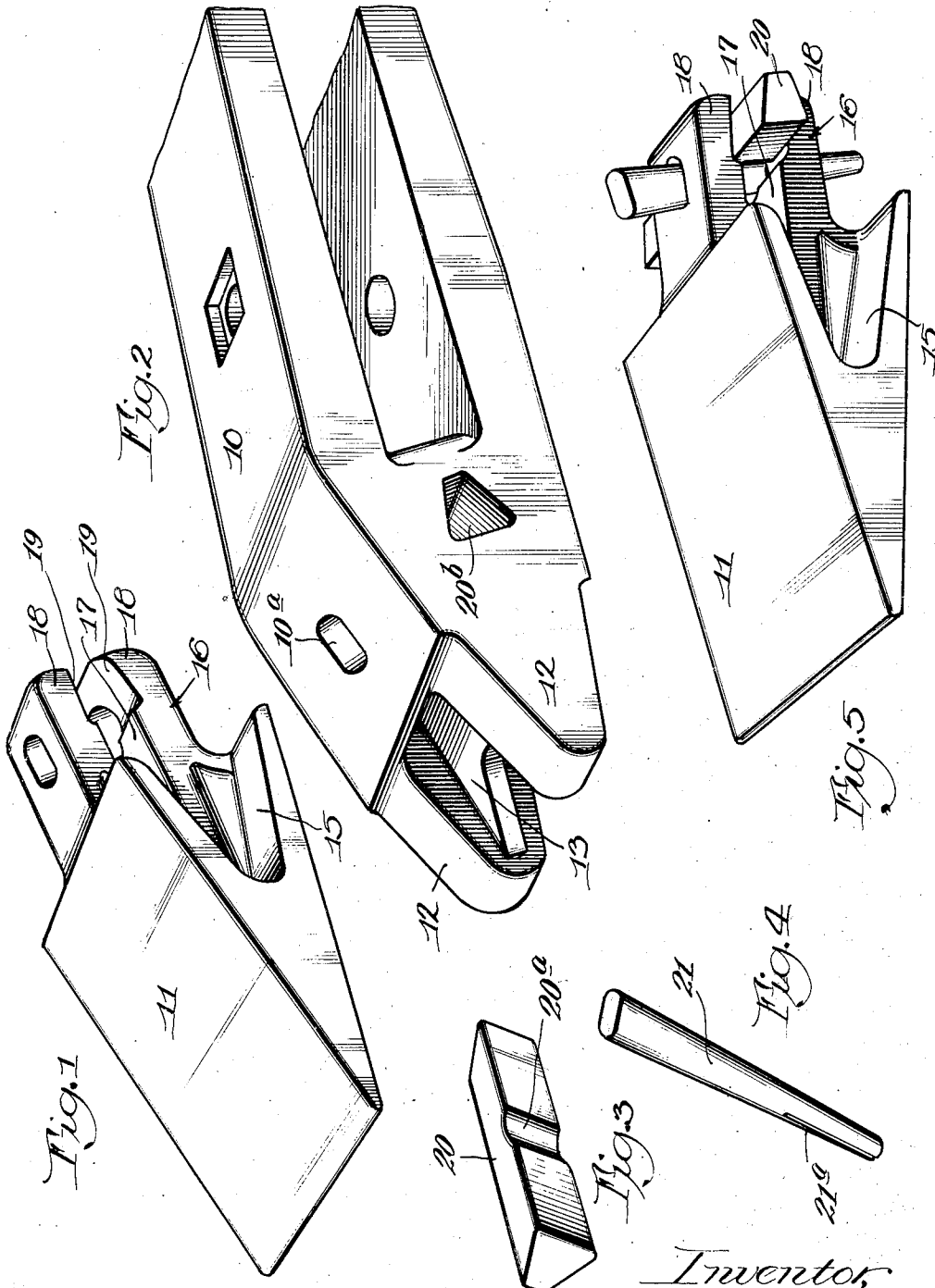
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DIGGER TOOTH

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DIGGER TOOTH

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This invention relates to improvements in a digger tooth and consists of the matters hereinafter described and more particularly pointed out in the appended claims.

The digger tooth, as shown here, is in the form of a dipper tooth and more particularly of a dipper tooth having a base and a reversible point. The objects and advantages of the invention will appear as I proceed with my specification.

In the drawings:—

Figure 1 is a perspective view of the point of a two-part reversible dipper tooth construction embodying the features of my invention.

Figure 2 is a perspective view of the base.

Figure 3 is a perspective view of a wedge used in locking the parts in assembled relation.

Figure 4 is a perspective view of a cotter pin which coacts with the wedge.

Figure 5 is a perspective view similar to Figure 1 with the wedge and cotter pin shown in assembled relation for purposes of illustration, but without the base to which they are to be connected when in such assembled relation.

Figure 6 is a view partly in side elevation and partly in longitudinal section in a median plane extending at right angles to the edge of the tooth.

Figure 7 is a view representing a transverse section through the tooth indicated by the line 7—7 of Figure 6.

Figure 8 is a top plan view of the assembly of base and tooth shown partially in section in a plane indicated by the line 8—8 of Figure 6.

Referring now to that embodiment of the invention illustrated in the drawings:—10 indicates the base and 11 the point of my improved digger tooth as embodied in a reversible dipper tooth. The nose of the base is bifurcated to provide spaced nibs 12, 12 which are connected together by an integral transverse web 13. Said web holds said nibs rigidly in spaced relation and prevents their spreading. Above and below and back of the web 13 the base is cored to provide a re-

cess 14 to receive the connecting member of the point now to be described.

The point 11 is of the usual wedge shaped section and is provided with recesses 15 on its side faces to receive and to be closely engaged by the nibs 12 of the nose of the base 10. 16 indicates an interior gusset cut out at the center as indicated at 17 (Figure 1) to clear the transverse web 13 on the base when the two parts of the tooth are assembled. Said gusset has vertically spaced rear extensions or jaws 18, 18 which project beyond the base of the point and are adapted to be inserted into the recess 14 in the base, extending therein back of the web 13. The said extensions or jaws 18 when engaged in the recess 14 in the base, prevent distortion of the point in service and provide means to be expanded in the recess for locking the two parts of the point together.

The jaws 18, 18 are provided at their rear ends with converging faces 19, 19. 20 indicates an elongated wedge adapted to engage in the converging faces 19, 19 of the jaws 18 to expand said jaws in the recess, as shown in Figure 6. 21 indicates a cotter pin which is adapted to be driven into the space between the rear end of the web 13 and the forward face of the wedge 20, the proximate faces of said web 13 and wedge 20 being, respectively, provided with rounded notches 13a, 20a, to receive said pin. The pin 21 is also tapered so that when driven into the space between the rear edge of the web 13 and the front face of the wedge 20, it will force said wedge 20 to expand the jaws 18, 18.

The jaws 18, 18 are provided with aligned apertures, 18a, 18a for the insertion of the cotter pin 21 and the base 10 is provided with downwardly converging top and bottom apertures 10a, 10b with their axes in alignment to receive the cotter pin 21. The said apertures 10a and 10b in the base and the groove 13a on the rear edge of the web are made in alignment so that when the cotter pin 21 is driven through the apertures 18a, 18a in the jaws 18, the forward side of the cotter pin will engage the base at the top and bottom of the pin and also at the intermediate part of the pin by the web 13. Suit-

able laterally opening apertures 20b are formed in the side walls of the base for the insertion of the wedge 20 into the space between the jaws 18, 18 when assembling.

5 From examination of Figure 6, it will be observed that when the pin 21 is driven into the space between the web 13 and the wedge 20, it will be put into compression only and that there will be no shearing stress thereon. As
10 a result, a very efficient and sure construction for operating the wedge locking means and for retaining the wedge in expanding relation between the jaws is provided.

15 The pin 21 is split as indicated at 21a at its lower small end for convenience in expanding it in the bottom recess 10b in the base to lock it in position.

It is obvious that the improved construction of dipper tooth is readily and easily assembled. The two parts, point and base, are
20 first brought together to bring the jaws 18, 18 of the point into the recess 14 of the base. The wedge 20 is then inserted through one of the apertures 20b into the space between
25 the jaws 18. The pin 21 is then inserted through the upper aperture 10a in the base down into the space between the web 13 and the wedge 20 and then driven downwardly until the jaws 18 are forced rearwardly into the base recess 14, drawing the
30 faces of recess 15 in the point firmly against the faces of the bifurcated base nibs 12, and then suitably expanding the jaws 18 in the recess 14. When the point is to be reversed,
35 the pin 21 is easily driven out through the top aperture 10a, which relieves the pressure on the wedge. The tap of a hammer or other tool will dislodge the wedge 20, which may be driven out through one of the apertures 20b, whereupon the point may be removed from the base and reversed.

I claim as my invention:—

1. In a digger tooth, a base having spaced nibs, an integral transverse web connecting
45 said nibs and a recess extending back of said web, a point having side recesses to receive said nibs, a transverse space to receive said web, and spaced jaws which engage in said recess of the base back of said web, a wedge
50 extending transversely between said jaws, and a pin extending at right angles to the plane of said web and wedge and engaged solely between the two.

2. In a digger tooth, a base having spaced nibs, an integral transverse web connecting
55 said nibs and being provided with a recess extending back of said web, a point having recesses to receive said nibs, a transverse space to receive said web, and spaced jaws which engage in said recess back of said web, a
60 wedge extending transversely between said jaws and adapted to expand the same, a pin extending at right angles to the plane of said web and wedge and engaged solely between the two, and said base and jaws being pro-

vided with suitable apertures for insertion of said pin.

3. In a digger tooth, a base having spaced nibs, an integral transverse web connecting
70 said nibs and being provided with a recess extending back of said web, a point having recesses to receive said nibs, a transverse space to receive said web, and spaced jaws which engage in said recess back of said web, a wedge extending transversely between said
75 jaws and adapted to expand the same, a tapered pin extending at right angles to the plane of said web and wedge and engaged solely between the two, the proximate faces of said web and wedge being provided with grooves to seat said pin, and said base and jaws being provided with suitable apertures for insertion of said pin.

4. In a digger tooth, a base having spaced nibs, an integral transverse web connecting
80 said nibs and being provided with a recess extending back of said web, a point having recesses to receive said nibs, a transverse space to receive said web, and spaced jaws which engage in said recess back of said web, a
85 wedge extending transversely between said jaws and adapted to expand the same, a tapered pin extending at right angles to the plane of said web and wedge and engaged solely between the two, the proximate faces
90 of said web and wedge being provided with grooves to seat said pin, and said base and jaws being provided with suitable apertures for insertion of said pin and wedge.

In testimony that I claim the foregoing as my invention, I affix my signature this 16 day of December, A. D. 1931.

VAN CORTRIGHT MEKEEL.