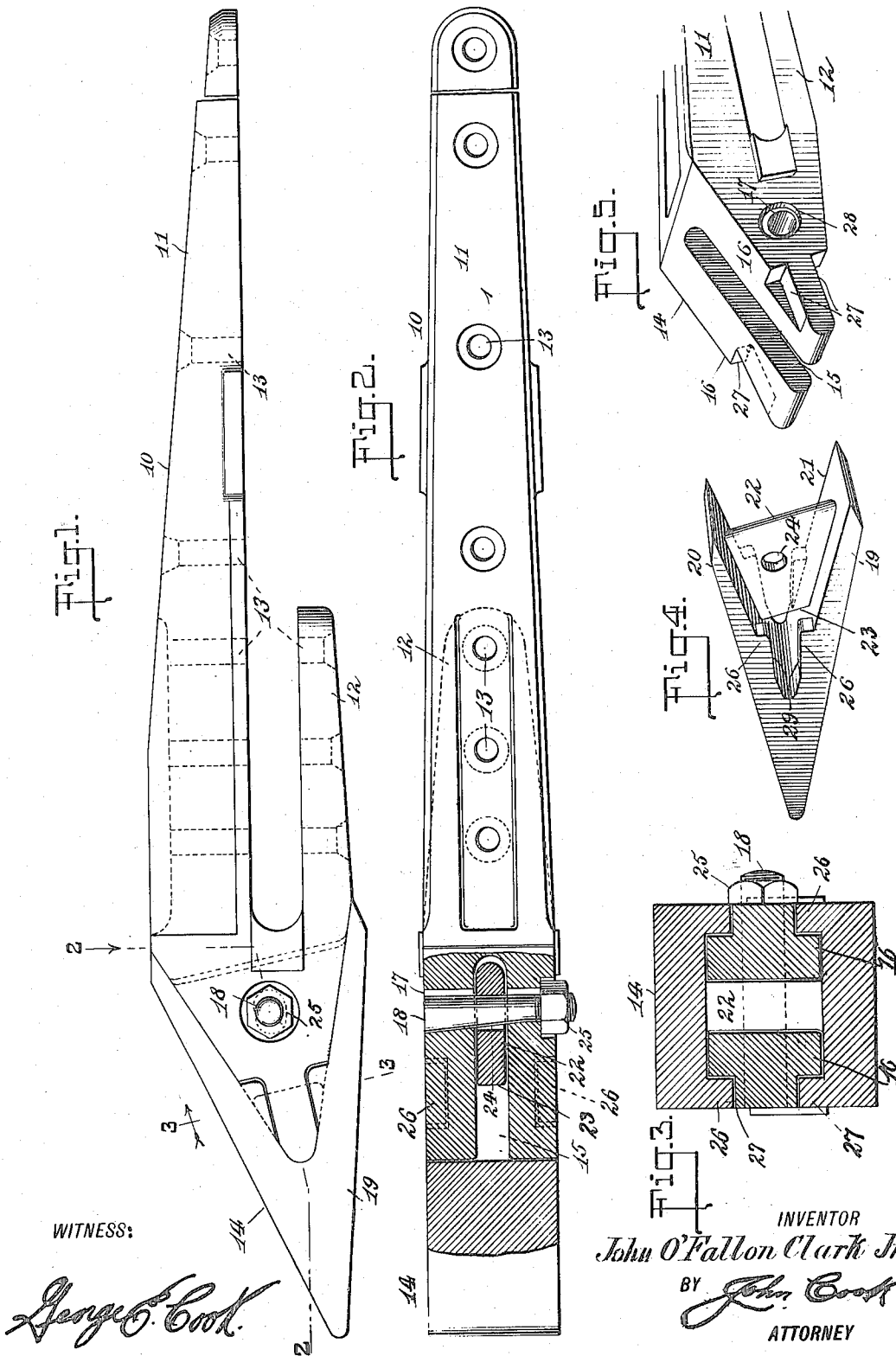


J. O'F. CLARK, JR.
DIPPER TOOTH.
APPLICATION FILED APR. 19, 1915.

1,202,806.

Patented Oct. 31, 1916.



WITNESS:

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UNITED STATES PATENT OFFICE.

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DIPPER-TOOTH.

1,202,806.

Specification of Letters Patent.

Patented Oct. 31, 1916.

Application filed April 19, 1915. Serial No. 22,242.

To all whom it may concern:

Be it known that I, JOHN O'FALLON CLARK, JR., a citizen of the United States, and a resident of St. Louis, in the State of Missouri, have made and invented certain new and useful Improvements in Dipper-Teeth, of which the following is a specification.

This invention relates to dipper teeth, and has for its object to provide a tooth including a base and a detachable point, which latter is so designed and constructed as to prevent the bifurcated nose of the base from becoming spread or pried open.

In reinforcing the jaws of the point of dipper teeth, it is customary, in some instances, to provide a web extending between the jaws of the point, which holds them against spreading. The nose of the base which is designed to support such points, is necessarily bifurcated, and is accordingly weakened, and to such extent that it often-times happens during service that the two sides of the nose of the base spread apart, even though transversely extending bolts or rivets be provided to prevent such action.

My invention comprehends an arrangement and design of removable point and base whereby the bifurcated nose of the base is securely braced in a lateral or transverse direction, thus preventing the spreading of the parts of the nose, and relieving a portion of the strain from, so as to assist, the transversely extending bolts of the nose of the base.

Other objects and advantages will hereinafter appear, it being understood that changes in the precise embodiment of the invention can be made within the scope of what is claimed, without departing from the spirit of the invention.

The preferred embodiment of the invention is disclosed in the accompanying drawings, wherein:—

Figure 1 is a view in side elevation of my improved dipper tooth; Fig. 2 is a top plan view thereof with the front portion thereof broken away, along the lines 2—2 of Fig. 1; Fig. 3 is a view in section taken on the line 3—3 of Fig. 1; Fig. 4 is a view in perspective of the removable point; and Fig. 5 is a fragmental view in perspective of the front portion of the tooth base.

Referring specifically to the several figures, the base 10 is formed with the spaced

upper and lower jaws 11, 12, which are provided with the usual openings 13, for the reception of securing rivets or bolts, whereby the base is secured to a dipper bucket, or analogous excavating apparatus. The front portion of the base is wedge-shaped, so as to define a nose 14 which is bifurcated by the longitudinally extending slot or opening 15, provided for the reception of the bracing web of the removable point, as will presently appear. The opening 15 in the nose divides the same into the spaced sides 16—16, through which extends the aperture 17. This aperture is, as clearly disclosed in Fig. 2, of tapering or conical outline, and adapted to receive the elliptical wedge bolt 18 therein.

In connection with the base, as thus constituted, is provided a removable, and in the present instance, reversible, point 19, which is wedge-shaped, and includes the rearwardly diverging upper and lower jaws 20—21, which are adapted to seat upon the upper and lower faces of the nose 14. The strengthening web 22 which extends between the upper and lower jaws of the point, does not extend the entire length of the jaws, but terminates short of the juncture therebetween, as at 23, which omission of the front portion of the web materially lightens the point without interfering with the requisite strength thereof. The web is provided with the transversely extending opening 24, through which the wedge bolt 18 extends, so that as the wedge bolt is tightened up by the nut 25, the point will be securely drawn into its seated position upon the nose of the base, and so held.

The slotting of the nose for the reception of the web of the point materially weakens the former with regard to transverse strains, and for this reason I provide the outer and confronting edges of the upper and lower jaws of the point with the inwardly extending triangular lugs 26, which are adapted to seat within the corresponding recesses 27 which are formed in the sides 16 of the nose.

One of the sides 16 of the bifurcated nose is provided with the recess 28, which forms a part of one end of the bolt opening 17, and is adapted to receive the securing nut 25 therein. As the securing nut 25 is tightened in place, the wedge bolt 18 is drawn longitudinally of the opening 17, and en-

gaging the rear portion of the web opening 24, forces the detachable and reversible point into its seated position and rigidly secures it to the nose of the base. The opening 17 in the nose and the corresponding opening 24 in the web are positioned upon the central axis of their respective parts, so that the said openings will remain in proper registration after the removable point has been reversed.

The sides 16 of the nose are held against spreading by the wedge bolt 18, which is materially assisted by the lugs 26, the latter being located upon the jaws of the point and adapted to seat within suitable recesses formed in the nose. The recesses 27 do not materially weaken the sides of the nose, nor do the lugs 26 which are adapted to seat therein materially increase the weight of the point, the said lugs and recesses are located symmetrically about the axes of the respective parts, upon which they occur, so that the point may be reversed and the sides of the nose will be braced against lateral spreading with the point located in either of its positions. The confronting edges 29 of the lugs are substantially parallel and are parallel to the central plane of the point, so that the point may be inserted upon, and removed

from the supporting nose, and at the same time, a secure holding action will be obtained between the sides of the bifurcated nose and the lugs 26.

What I claim is:—

1. A dipper tooth base with a wedged-shaped nose having a central longitudinal slot, said slot dividing the nose into spaced vertical walls, the remote outer sides of said vertical walls provided with upper and lower recesses, said recesses terminating short of the end of said nose.

2. A dipper tooth comprising a base with a wedged-shaped nose, said nose provided with a central longitudinal slot, a wedged-shaped tooth point with rearwardly diverging spaced upper and lower jaws, a central supporting web extending between said jaws and fitting within the slot of said nose, lugs formed integral with, and projecting from, the confronting outside edges of said jaws, the nose of said base provided at the outer sides thereof with upper and lower recesses, receiving said lugs therein.

Signed at Chicago, in the county of Cook and State of Illinois, this 8th day of April, A. D. 1915.

JOHN O'FALLON CLARK, Jr.