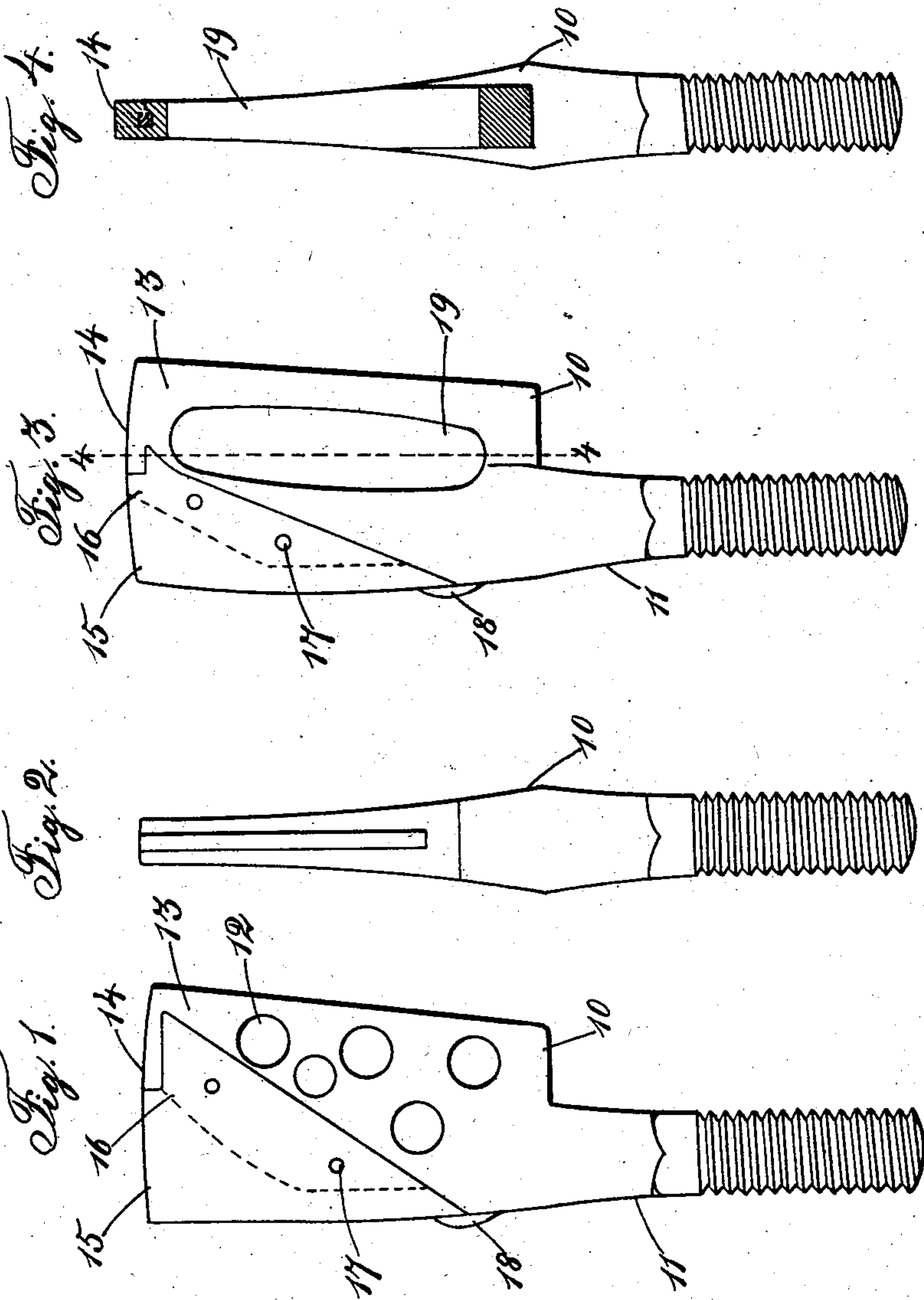


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R. L. NELLIS.  
THRESHING MACHINE TOOTH.  
APPLICATION FILED MAY 5, 1902.

NO MODEL.



Witnesses:  
Henry Manger.  
J. R. Lowry.

Inventor: Robert L. Nellis.  
by Curig & Lane Attys.

# UNITED STATES PATENT OFFICE.

ROBERT L. NELLIS, OF EARLHAM, IOWA.

## THRESHING-MACHINE TOOTH.

SPECIFICATION forming part of Letters Patent No. 721,220, dated February 24, 1903.

Application filed May 5, 1902. Serial No. 105,904. (No model.)

*To all whom it may concern.*

Be it known that I, ROBERT L. NELLIS, a citizen of the United States, residing at Earlham, in the county of Madison and State of Iowa, have invented certain new and useful Improvements in Threshing-Machine Teeth, of which the following is a specification.

The objects of my invention are to provide a threshing-machine tooth of durable and inexpensive construction in which a rough surface is provided on each side of the tooth, so that the grain which comes in contact with the tooth will be readily removed from the heads.

15 A further object is to provide a plate for the front portion of the tooth, which can be easily detached from the tooth when the front surface thereof has been worn away and which can be replaced by another plate of the same kind.

A further object is to provide a tooth which will be more durable than the ordinary tooth and much less expensive, owing to the detachable face-plate, which can be easily replaced.

25 A further object is to provide a threshing-machine tooth of such width from front to rear that an elongated opening may be formed in it and yet a tooth of great strength be provided.

30 A further object is to provide means for holding the detachable plate firmly in place on the tooth, so that it will be practically as firm as the ordinary thresher-tooth without the plate.

35 A further object is to provide a plate for a threshing-machine tooth which can be easily removed from the tooth without taking the tooth from the threshing-machine.

40 My invention consists in certain details in the construction, arrangement, and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

45 Figure 1 shows a side elevation of the complete tooth. Fig. 2 is an edge elevation of the same. Fig. 3 shows a modified form of the tooth in side elevation, and Fig. 4 is a cross-sectional view of the tooth cut through line 1 1 of Fig. 3.

Referring to the accompanying drawings, I have used the reference-numeral 10 to indicate the body portion of my tooth.

The reference-numeral 11 indicates the shank portion. 55

Extending through the body portion 10 of the tooth is a series of perforations 12, substantially circular in shape and of approximately the same size. The front edge of the tooth is deflected inwardly at its upper portion, and there is a slight depression on each side of the tooth near its front portion which forms the shoulders 13 on each side thereof and also forms the shoulders 14 at the top portion thereof and on each side of the tooth. 60

I have provided the metal plate 15, which is made of hardened steel, while the body portion of the tooth may be made of cast-iron, having a back portion and two parallel side portions 16 therein, said side portions being integral with the back portion and designed to fit over the depression at the front edge of the tooth and engage the shoulders 13 and 14. I have also provided rivets 17 for more securely holding the plate in position against the body portion of the tooth. This metal plate is so constructed that the front edge thereof is substantially parallel with the rear edge of the body portion of the tooth. At the lower front edge of the metal plate 15 I have provided the extension 18, formed integral with the front edge of the body portion of the tooth. This is so constructed that it can be easily bent outwardly and downwardly when the operator desires to remove the metal plate 15 from the body portion of the tooth. 65 70 75 80 85

In the modified form shown in Fig. 3 I have provided a longitudinal slot 19 in the body portion of the tooth. It is to be understood in this connection that either form of the tooth may be used, as the longitudinal slot is sometimes preferable to the perforations. These teeth may also be used with or without the metal plates being attached to them. However, when I do not use a metal plate at the front of my threshing-machine tooth I construct the tooth of substantially the same shape and size as when the plate is used, the only alteration being that I make my tooth entirely in one piece. 90 95 100

In practical use, and assuming that the face-



plate has been attached to the tooth and has been used for some time in a threshing-machine and the face-plate has become worn by use, the operator can easily remove the face-plate 15 from the body portion of the tooth without taking the tooth from the machine and can replace these metal plates by new ones of the original shape and size.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States therefor, is—

1. A threshing-machine tooth comprising in combination a shank, a flat body portion integral with the shank, having considerable width from front to rear, the rear portion of which is shaped to rest on the cylinder-bar on which the tooth is placed, said body portion having a slot therein, a metal plate detachably connected with the front of the body portion, shoulders on said body portion and at the end away from the shank to prevent outward movement of the plate relative to the body portion, an adjustable extension integral with the front edge of the body portion 25 of the tooth designed to overlap the end of

the metal plate nearest the shank, substantially as and for the purposes stated.

2. In a threshing-machine tooth, the combination of a shank, a body portion integral with the shank, having considerable width from front to rear, the rear portion of which is shaped to rest on the cylinder-bar in which the tooth is placed, said tooth having a depression near the outer, forward edge of each side of the tooth, shoulders formed by the depressions, a metal plate having a back and two side portions, said side portions being designed to rest in the depressions in said tooth, and rest against the shoulders therein, thus forming an entirely flat body portion to the tooth, an adjustable extension integral with the front edge of the body portion of the tooth designed to overlap the end of the metal plate nearest the shank, substantially as and for the purposes stated.

Des Moines, Iowa, March 28, 1902.

ROBERT L. NELLIS.

Witnesses:

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