

S. K. DENNIS.
CULTIVATOR TOOTH.
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1,041,975.

Patented Oct. 22, 1912.

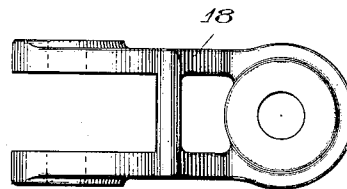
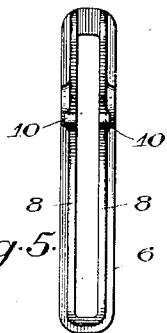
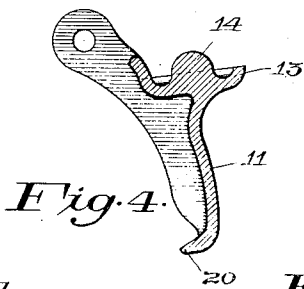
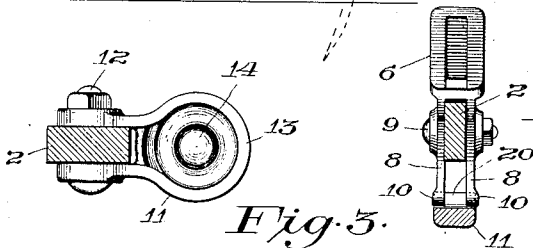
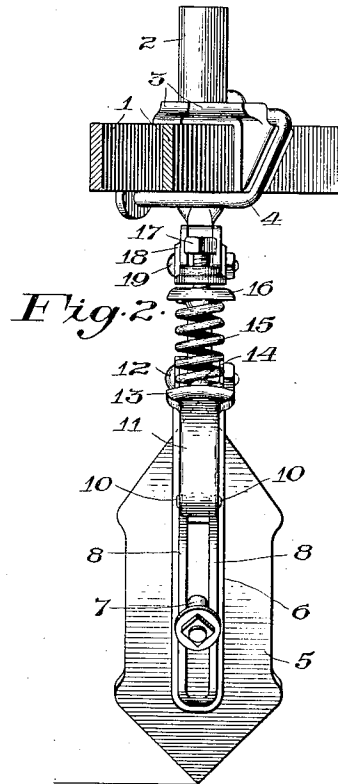
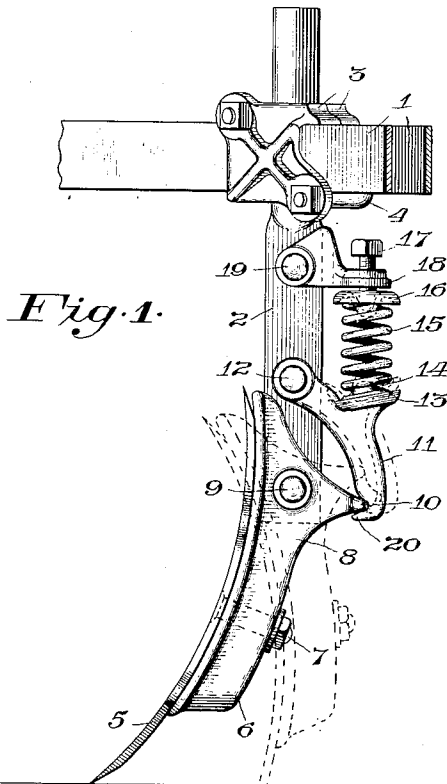


Fig. 7.

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UNITED STATES PATENT OFFICE.

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CULTIVATOR-TOOTH.

1,041,975.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SAMUEL K. DENNIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Cultivator-Teeth, of which the following is a specification.

My invention relates to cultivators, and in particular to the manner of mounting the cultivating blades upon the tooth shanks whereby the blades may yield rearward upon engaging with an unyielding obstacle; the object of my invention being to provide a construction having few parts, having the blade controlling mechanism so arranged as to be shielded from accidental contact with stones or other substances within the path of the blades, strong and durable, and efficient in operation. These objects are attained by means of the mechanism illustrated by the accompanying drawings, in which—

Figure 1 represents a side elevation of a cultivator beam and tooth having my invention embodied in the construction thereof; Fig. 2 is a rear elevation of Fig. 1; Fig. 3 is a top plan view of a swinging catch and pressure lever and a cross section of the tooth shank forming part of the blade controlling mechanism; Fig. 4 is a vertical half section of Fig. 3 removed from the tooth shank; Fig. 5 is a rear plan view of a blade supporting member; Fig. 6 is an end elevation of Fig. 5, showing the manner of connecting it with the tooth shank; and Fig. 7 is a top plan view on an enlarged scale of a bracket member forming part of the blade controlling mechanism.

The same reference characters designate like parts throughout the several views.

1 represents a cultivator beam, preferably made of two bars, spaced apart and receiving between them vertically arranged tooth shanks 2, that are secured in position by means of clamping blocks 3 and U-bolts 4.

5 represents a tooth blade having a common form and secured to a supporting member 6 by means of a bolt 7, the blade being reversible on the support in a common way. The blade support comprises rearwardly extending rib members 8, spaced apart in a manner to receive the securing bolt 7 and the lower end of the tooth shank 2, the support being pivotally connected with the shank by means of a bolt 9. The rib mem-

bers 8 are extended rearward from the axis of the support and provided with bearing portions 10 that engage with the lower end of a swinging pressure regulating member 11, having the upper end thereof pivotally connected with the body of the shank 2 by means of a transverse bolt 12, and 13 represents a rearwardly extending ear member having a centrally arranged pintle 14 integral with the ear and adapted to receive the lower end of a compression spring 15.

16 represents a washer interposed between the upper end of the spring and the lower end of a regulating screw 17 that is received by a bracket member 18 secured to the upper part of the body portion of the tooth shank by means of a bolt 19.

The pressure regulating member 11 is provided with a forwardly projecting lip member 20 that engages with the bearing portions 10 of the blade supporting member 6 in a manner to limit a forward movement of the lower end of the support.

In operation the blade is normally held in the position shown by full lines in Fig. 1, having the upper edge of the support 6 resting against the front edge of the tooth shank 2. When the operative end thereof meets with an unyielding obstacle, the tooth support 6 will swing rearward about the axis thereof against the force of the pressure regulating mechanism and permit the blade to ride over the obstruction within the path thereof.

What I claim as being my invention, and desire to secure by Letters Patent, is:

1. A cultivator tooth including, in combination, a tooth shank, a blade, a blade support, said blade support being pivotally connected with the lower end of said shank in a manner permitting the lower end thereof to swing in a fore and aft direction relative to the line of draft of the machine and provided with bearing portions extending rearward from the axis thereof, and a spring-pressed pressure regulating member having one end pivotally connected with the body portion of said tooth shank and the opposite end thereof engaging with the bearing portions of said blade support.

2. A cultivator tooth including, in combination, a tooth shank, a blade, a blade support, said blade support being pivotally connected with the lower end of said shank in a manner permitting the lower end there-

of to swing in a fore and aft direction relative to the line of draft of the machine and provided with bearing portions extending rearward from the axis thereof, a pressure
5 regulating member having one end pivotally connected with the body portion of said tooth shank and the opposite end thereof engaging with the bearing portions of said blade support, a bracket member secured to
10 said tooth shank, and a compression spring operative between said bracket and said pressure regulating member in a manner to yieldingly resist a rearward swinging movement of the lower end of said blade support.
15 3. A cultivator tooth including, in combination, a tooth shank, a blade, a blade support, said blade support being pivotally connected with the lower end of said tooth shank in a manner permitting the lower end
20 thereof to swing in a fore and aft direction relative to the line of draft of the machine and provided with bearing portions

extending in rear of the pivotal axis thereof, a pressure regulating member having one end pivotally connected with said tooth
25 shank and the opposite end thereof engaging with the bearing portions of said blade support and provided with a lip portion operative to limit a forward swinging movement of the lower end of said blade support,
30 a bracket member secured to said tooth shank, a compression spring operative between said bracket member and said pressure regulating member in a manner to yieldingly resist a swinging movement of
35 the lower end of said blade support, and a pressure adjusting screw carried by said bracket member and engaging with said compression spring.

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Witnesses:

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