

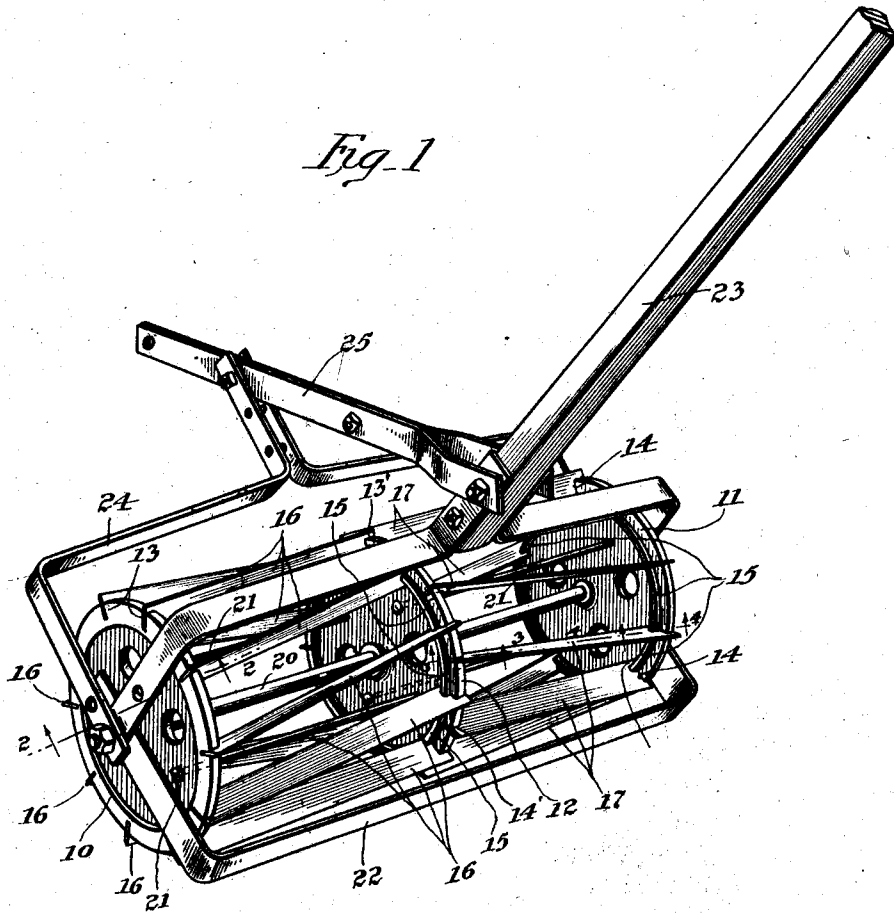
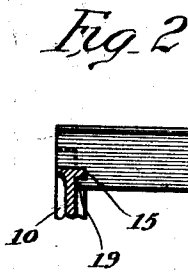
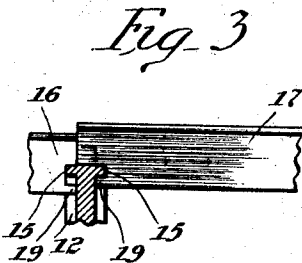
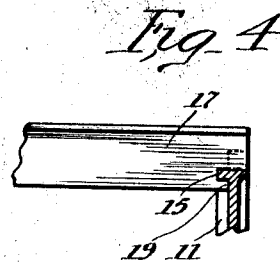
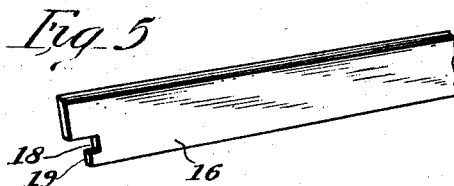
Nov. 25, 1930.

J. F. ZEILINGER

1,782,593

CULTIVATOR

Filed March 20, 1929



INVENTOR.

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UNITED STATES PATENT OFFICE

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CULTIVATOR

Application filed March 20, 1929. Serial No. 348,377.

The invention relates to improvements in cultivators especially adapted for use in cultivating gardens, fields and the like, the primary object of the invention being to provide an improved implement of this character which is of simple construction and highly efficient in use.

Another object of the invention is the provision of an improved construction of this character which is capable of ready extension in size.

Another object of the invention is the provision of an improved construction of this character provided with improved means for securing the parts in place.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing forming a part of the specification and in which

Fig. 1 is a perspective view of a cultivator embodying the invention,

Fig. 2 an enlarged detailed sectional view taken substantially on line 2—2 of Fig. 1,

Fig. 3 a similar view taken substantially on line 3—3 of Fig. 1,

Fig. 4 a similar view taken substantially on line 4—4 of Fig. 1, and

Fig. 5 a perspective view of one end of a plurality of cultivator blades employed in the construction.

The preferred form of construction, as illustrated in the drawing, comprises two end discs 10 and 11 and an intermediate disc 12, adaptably arranged, as indicated, to constitute the main supporting framework of a rotary cultivating implement, as shown. The end discs 10 and 11 are provided respectively with peripheral notches 13 and 14 oppositely inclined with reference to each other, and the central intermediate disc 12 is provided with corresponding, alternately arranged, oppositely inclined slots 13' and 14', the slots 13' being arranged in the same planes as the slots 13 and the slots 14' being arranged in the same planes as the slots 14.

Annular securing ribs 15 are arranged, as

shown, on the inner faces of the end discs 10 and 11 and on the opposite faces of the intermediate disc 12. The slots are thus arranged in the same planes so as to accommodate and receive the ends of cultivator blades 16 and 17, which will thus be arranged in radially disposed, oppositely inclined relationship with each other, as shown. Each of the cultivator blades 16—17 is provided in each end with a notch 18 and a co-operating securing tongue 19, the notch 18 being adapted and arranged to fit over the corresponding securing rib 15 and the tongue 19 being adapted and arranged to engage under said rib, as indicated, thereby securing and locking each of said blades in place.

By this arrangement, when the ends of the blades 16 and 17 are thus placed in the slots 13, 13', 14, 14' and the tongue 19 engaged under the corresponding securing rib 15 a rigid connection is effected which serves to mount the blades 16 and 17 in oppositely inclined relationship to each other and also rigidly secures the discs 10, 11 and 12 in place.

The discs 10, 11 and 12 are all mounted on a central longitudinally extending bolt 20 of a length long enough to extend through all of the assembled discs and protrude at the ends sufficiently to constitute trunnions on which the cultivator arrangement rotates. The discs are secured to each other by means of separate individual bolts 21, said bolts 21 securing each disc to its adjacent disc only. By this arrangement a simple and effective means for assembling and securing the cultivator arrangement upon the central trunnion bolt 20 is provided.

In the form of construction illustrated in the drawing a weeder bar 22 is also mounted on the trunnion bolt 20 as is a handle bar 23. A supporting bail 24 is also mounted on the trunnion bolt 20 and arranged as shown to support a draft bar 25.

Obviously, by this arrangement, a simple and effective rotary cultivator arrangement is provided which may be readily extended in length as desired by simply furnishing additional intermediate discs 12 and corresponding sets of cultivator blades. By oppositely

inclining the adjacent sets of cultivator blades 16 and 17 any lateral reaction resulting from their use will be counteracted and the central intermediate disc 12 will be rigidly and firmly locked and held in place.

The specific form and arrangement of parts is a simple and effective one for the purpose.

While I have illustrated and described the preferred form of construction for carrying the invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I therefore do not wish to be limited to the precise details disclosed, but would desire to avail myself of the various variations and modifications as fall within the scope of the appended claims.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A rotary member for cultivators comprising end discs and an intermediate disc, said end discs being provided with oppositely inclined slots in their peripheries and said intermediate disc with alternating oppositely inclined co-operating slots in its periphery; and cultivator blades positioned in said slots.

2. A rotary member for cultivators comprising end discs and an intermediate disc, said end discs being provided with oppositely inclined slots in their peripheries and said intermediate disc with alternating oppositely inclined co-operating slots in its periphery; securing ribs on the inner face of said end discs and on both faces of said intermediate disc; and cultivator blades positioned in said slots, each blade being provided at each end with a notch and locking tongue to fit over and engage the corresponding locking rib.

3. A rotary member for cultivators comprising end discs and an intermediate disc, said end discs being provided with oppositely inclined slots in their peripheries and said intermediate disc with alternating oppositely inclined co-operating slots in its periphery; securing ribs on the inner face of said end discs and on both faces of said intermediate disc; and cultivator blades positioned in said slots, each blade being provided at each end with a notch and locking tongue to fit over and engage the corresponding locking rib; a central trunnion bolt member extending centrally through all the said discs; and separate securing bolts attaching each disc with its adjacent disc.

In witness whereof, I have hereunto set my hand this 14 day of March, 1929.

JOHN F. ZEILINGER.