A. BRIGDEN.

SPRING TOOTH CULTIVATOR.

APPLICATION FILED MAR. 25, 1911.

995,318.

Patented June 13, 1911.

Fig. 1.

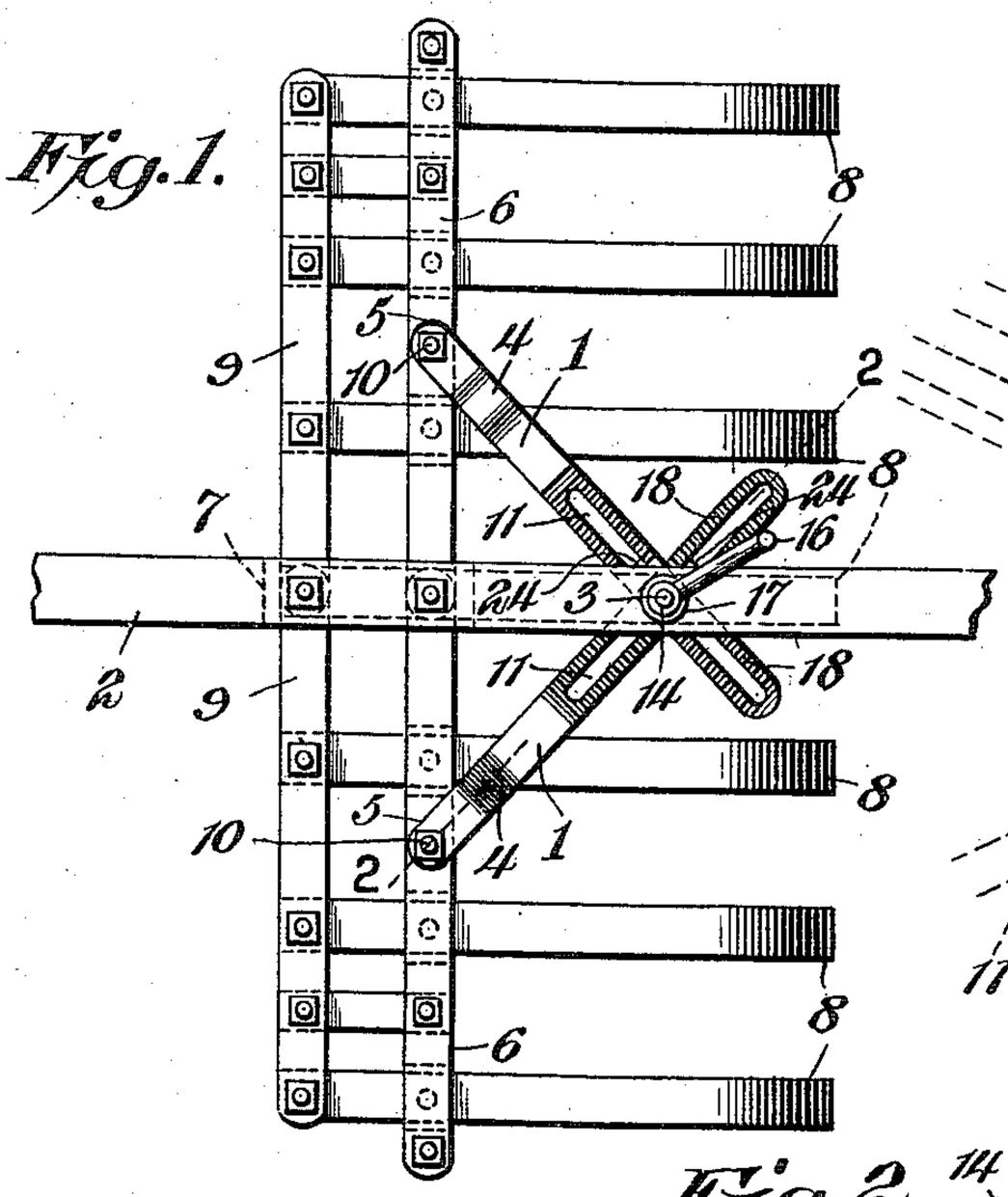

Fig. 3.

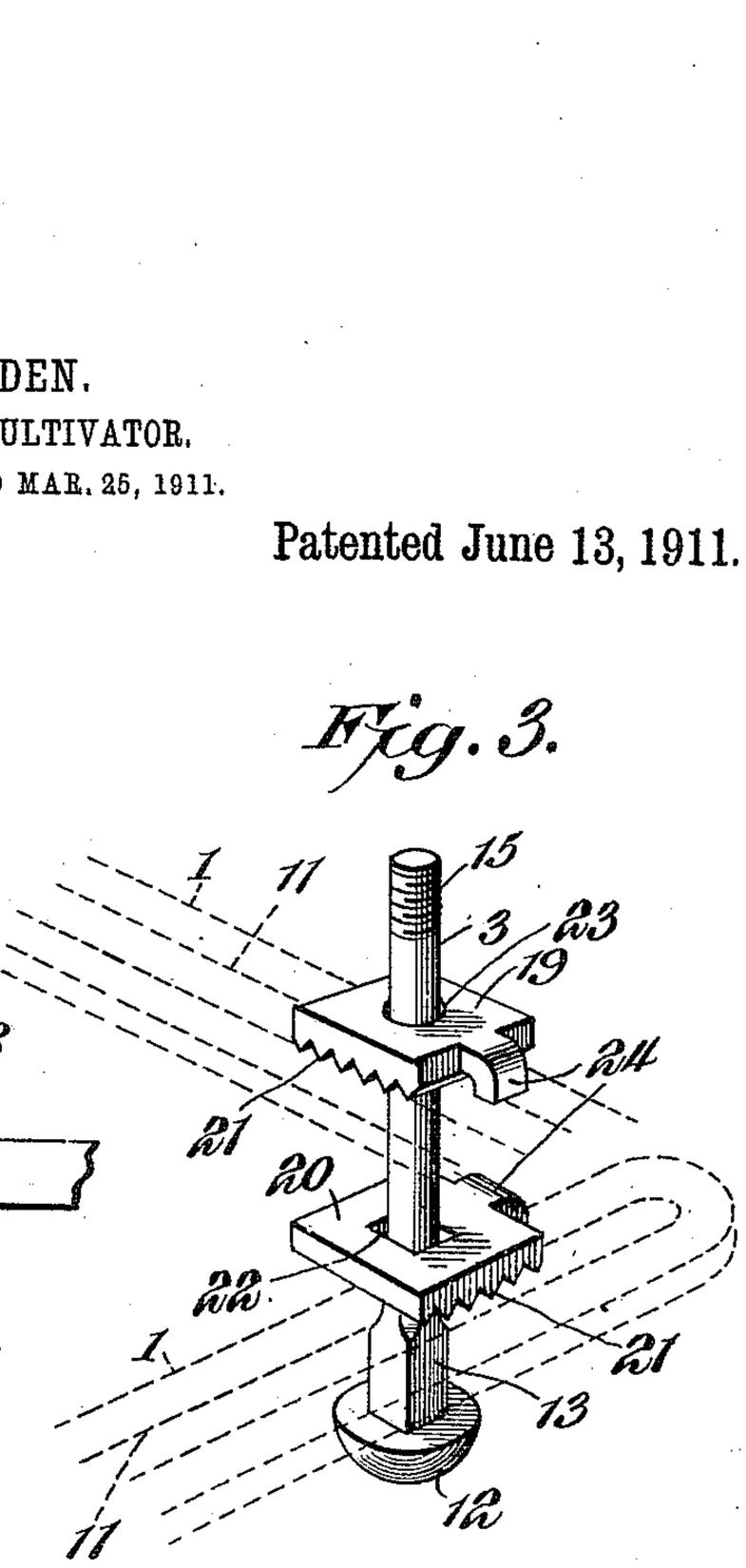

Fig. 2.

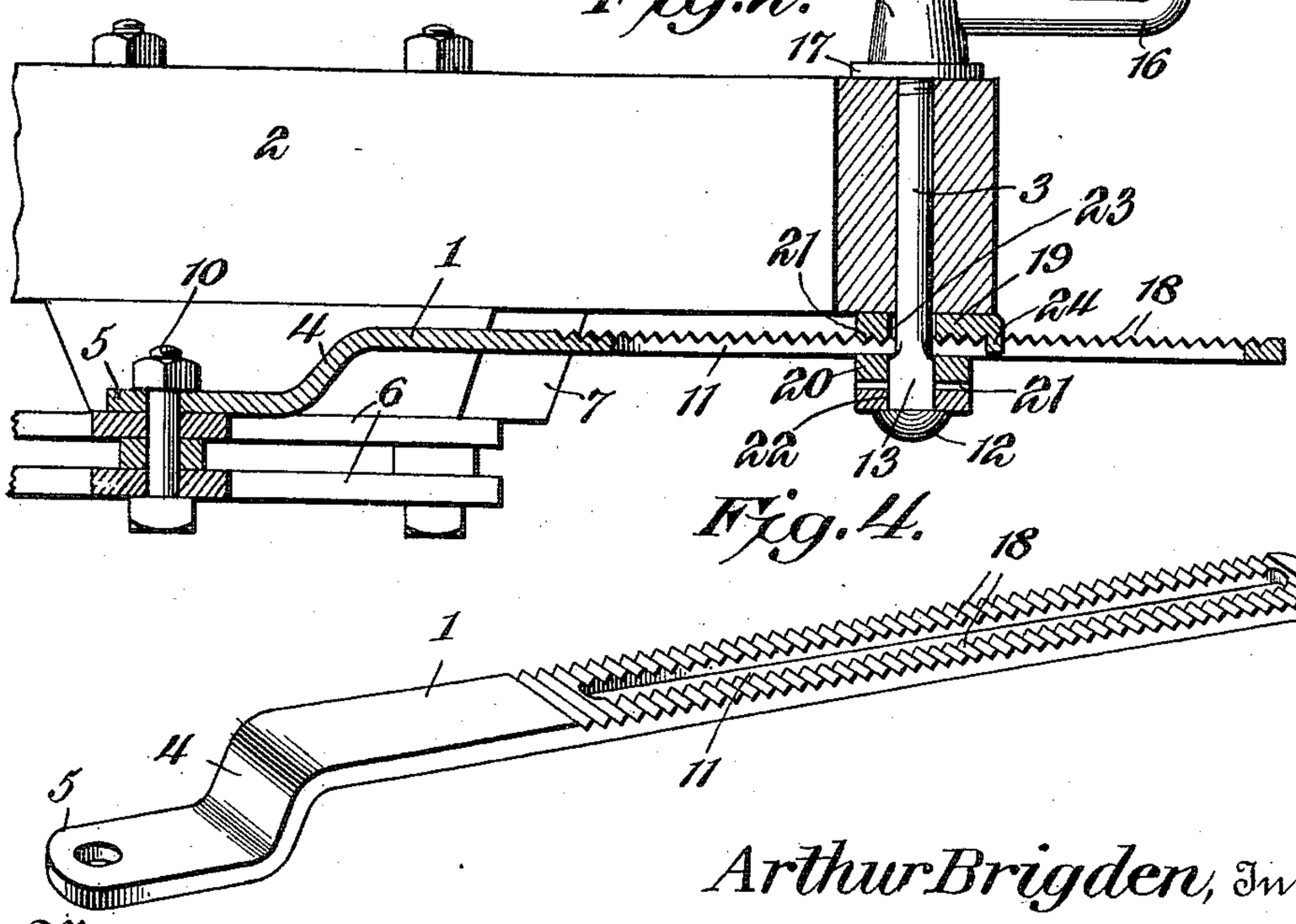

Fig. 4.

Witnesses

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ARTHUR BRIGDEN, OF ALBERTVILLE, ALABAMA.

SPRING-TOOTH CULTIVATOR.

995,318. Specification of Letters Patent. Patented June 13, 1911.

Application filed March 25, 1911. Serial No. 616,818.

To all whom it may concern:

Be it known that I, ARTHUR BRIGDEN, a citizen of the United States, residing at Albertville, in the county of Marshall and State of Alabama, have invented a new and useful Spring-Tooth Cultivator, of which the following is a specification.

The invention relates to improvements in spring tooth cultivators.

The object of the present invention is to improve the construction of spring tooth cultivators, more especially the means for securing the teeth in their adjustment, and to provide a simple, inexpensive and efficient device, designed to be connected with the pivoted tooth carrying bars and with the beam of the cultivator, and adapted to permit the tooth carrying bars to be adjusted backwardly and forwardly on their pivots to arrange the spring teeth at opposite sides of the cultivator beam in the desired positions, and capable of rigidly securing the teeth in their adjustment.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a plan view of a portion of a spring tooth cultivator, provided with an adjusting device, constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view on the line 2—2 of Fig. 1. Fig. 3 is a detail perspective view of the bolt and the clamping plate, the crossed links being shown in dotted lines. Fig. 4 is a detail perspective view of one of the links.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

In the accompanying drawing in which is illustrated the preferred embodiment of the invention, 1—1′ designate a pair of angularly disposed adjusting links, having their rear portions crossed beneath the beam 2 of the cultivator, and adjustably secured to the same by means of a vertical bolt 3. The adjusting links are bent downwardly at 4, adjacent to their front ends 5 to arrange the latter on the upper faces of the rear tooth carrying bars 6, which are spaced from the lower face of the beam 2 by a block 7. The spring teeth 8 of the cultivator are supported by front tooth carrying bars 9 and the rear tooth carrying bars 6, extending from opposite sides of the beam and pivotally connected with the same.

As the particular construction of the spring teeth and the tooth carrying bars does not constitute a portion of the present invention, and as the adjustable device is applicable to various spring tooth cultivators having pivoted gangs of cultivator teeth, further description of the said bars and teeth is deemed unnecessary.

The front ends 5 of the adjusting links are provided with openings for the reception of bolts 10, or other suitable fastening devices for pivotally connecting them to the rear tooth carrying bars, and the crossed rear portions of the links 4 are provided with longitudinal slots 11, through which passes the vertical bolt 3, which pierces the beam 2. The slots extend longitudinally of the rear portions of the links and terminate short of the rear ends thereof, being closed at their front and rear ends, as shown. The bolt 3, which has a head 12 at its lower end, is provided adjacent to the same with a squared portion 13, which operates in the slot of the lower one of the adjusting links 1, whereby the bolt is held against rotary movement when its nut 14 is adjusted. The nut 14, which engages the upper threaded portion 15 of the vertical bolt 3, is equipped with a suitable handle 16 to enable it to be readily turned on a washer 17 and interposed between the nut and the beam 3.

The adjusting links are provided at their slotted portions with corrugations or teeth 18, located at the upper faces of the links and engaged by upper and lower locking or clamping plates 19 and 20. The clamping plates 19 and 20 are provided at their lower faces with corrugations or teeth 21 to engage with the corrugations or teeth of the links, whereby the adjusting links are securely held against longitudinal movement when the nut 14 is tightened. When the nut is loosened to release the links, the teeth at opposite sides of the beam may be adjusted backwardly and forwardly through the pivotal action of the tooth carrying bars. The lower clamping plate 20 is preferably provided with a squared bolt hole or opening

22 to permit the squared portion of the bolt to extend into it when the squared portion is of a length greater than the thickness of the bottom link. The bolt opening 23 of the upper clamping plate is round and receives the rounded portion of the bolt.

The lower clamping plate 20 is interposed between the links, and it has a smooth flat upper face to fit against the lower face of the upper link. The upper face of the upper clamping plate is also flat and smooth to fit against the lower face of the beam. Each of the clamping plates is provided with a lug 24, formed integral with the clamping plate and extending downwardly from the rear edge of the same and projecting into the slot of the link with which the clamping plate coöperates. The projecting lug 24 is of a width to fit in the slot 11, and it is adapted to engage the side walls thereof to prevent rotary movement of the clamping plate with respect to the link, whereby the teeth or corrugations of the clamping plates are maintained in proper position with relation to the teeth or corrugations of the link, so that the parts will properly interlock when the nut 14 is tightened.

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

1. In a cultivator, the combination with a beam, of pivoted tooth carrying bars extending from opposite sides of the beam, angularly disposed adjusting links pivotally connected at their front ends with the tooth carrying bars and having their rear portions crossed beneath the beam and provided with longitudinal slots, said links being also provided at opposite sides of the slots with teeth or corrugations, a vertical bolt operating in the slots of the links and piercing the beam, clamping plates arranged on the bolt and provided with teeth or corrugations interlocking with the teeth or corrugations of the links to prevent the latter from slipping, and means at the upper end of the bolt for tightening the same.

2. In a cultivator, the combination with a beam, of pivoted tooth carrying bars extending from opposite sides of the beam, angularly disposed adjusting links pivotally connected at their front ends with the tooth carrying bars and having their rear portions crossed beneath the beam and provided with longitudinal slots, said links being also provided at opposite sides of the slots with teeth or corrugations, a vertical bolt operating in the slots of the links and piercing the beam, clamping plates mounted on the bolt and provided with teeth or corrugations to interlock with the teeth or corrugations of the links and having projecting lugs engaging the slots of the links and maintaining the clamping plates in proper relation with their respective links, and means at the upper end of the bolt for tightening the same.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ARTHUR BRIGDEN.

Witnesses:

JOHN H. SIGGERS,

JAS. K. MCCATHRAN.