No. 816,638. PATENTED APR. 3, 1906.

F. M. BRADLEY.

COTTON BLOCKER.

APPLICATION FILED AUG. 12, 1905.

2 SHEETS—SHEET 1.

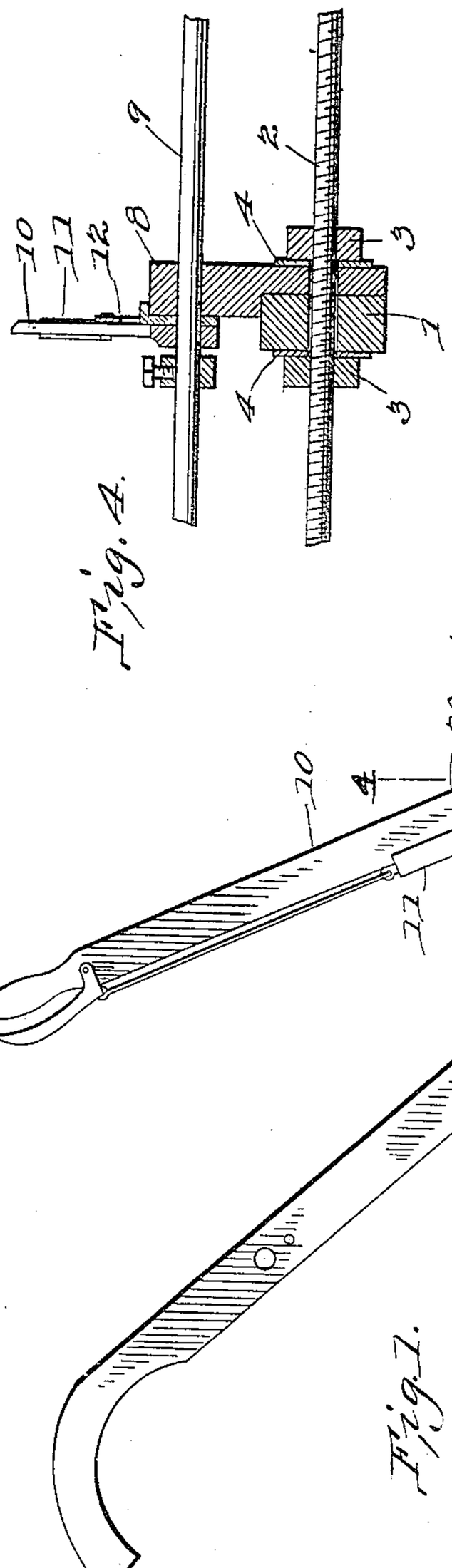

Fig. 4.

Fig. 1.

Witnesses

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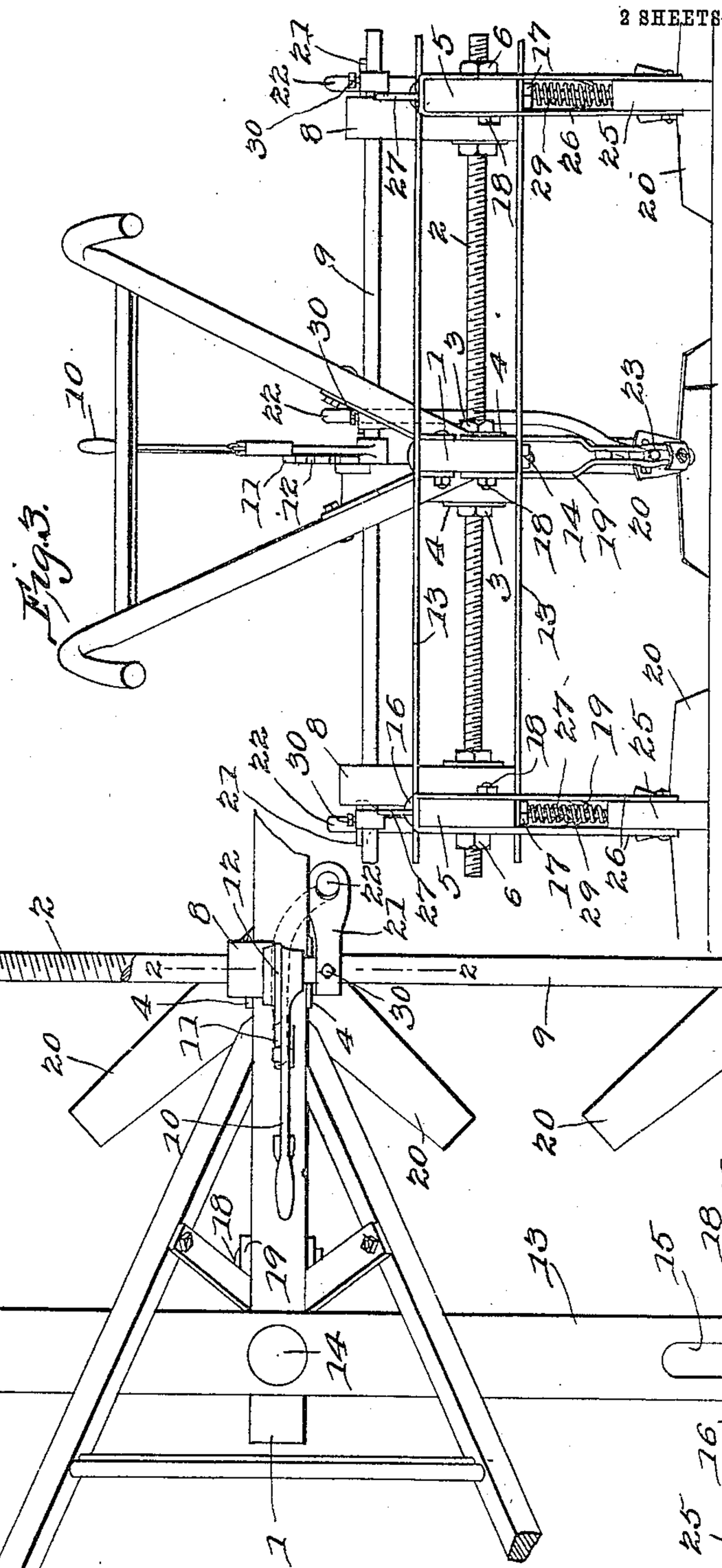

Fig. 3.

Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

FELIX M. BRADLEY, OF BLACKSHER, ALABAMA.

COTTON-BLOCKER.

No. 816,638. Specification of Letters Patent. Patented April 3, 1906.

Application filed August 12, 1905. Serial No. 273,943.

To all whom it may concern:

Be it known that I, FELIX M. BRADLEY, a citizen of the United States, residing at Blacksher, in the county of Baldwin and State of Alabama, have invented a new and useful Cotton-Blocker, of which the following is a specification.

This invention relates to that class of devices which are known as "cotton-blockers" and which are used for thinning or blocking the young plants growing from seeds that have been drilled into the ground for the purpose of leaving stands at suitable distances apart.

The objects of the invention are to simplify and improve the construction and operation of this class of devices, to provide improved adjusting means whereby stands of various sizes may be left to grow, and to present a machine of the class described which shall be simple, durable, and inexpensive.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations, and modifications within the scope of the invention may be made when desired.

In said drawings, Figure 1 is a side elevation of an implement constructed in accordance with the principles of the invention. Fig. 2 is a top plan view of a portion of the device. Fig. 3 is a rear elevation. Fig. 4 is a sectional detail view taken on the plane indicated by the line 4 4 in Fig. 1.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

The improved device includes a beam 1 of suitable dimensions, through which extends transversely a rod 2, which is screw-threaded throughout its entire length, said rod being secured with relation to the beam by means of nuts 3 3, bearing against washer-plates 4 4, which are secured upon the sides of the beam for the purpose of reinforcing the latter. Upon the ends of the rod 2 are mounted a pair of blocks 5 5, which are secured adjustably by means of nuts 6 6, bearing against the sides of said blocks, which are also reinforced by washer-plates 7. The blocks 5 support boxes 8, affording bearings for a rock-shaft 9, carrying a hand-lever 10, equipped with a stop member 11, adapted to engage a rack-segment 12, whereby the rock-shaft may be secured at various adjustments.

Upon the upper and lower sides of the beam 1 near the rear end of the latter are supported a pair of transverse bars or straps 13, which are securely connected with the beam by means of a vertically-disposed bolt 14. The straps 13 are provided near their ends with slots 15, and the rear ends of the blocks 5, which extend between said straps, are connected adjustably with the latter by means of bolts 16, extending through the slots 15 and through the blocks. The bolts 16 are of considerable length, so that they will extend downwardly quite a distance beneath the lower strap 13, as will be clearly seen in Figs. 1 and 3 of the drawings, said bolts having nuts 17, which are tightened against the under sides of the lower straps 13, thus connecting the parts securely together.

The beam 1 and the blocks 5 5 are provided with suitably-disposed transverse apertures for the passage of bolts 18, upon which the bifurcated standards 19 are pivotally mounted. The standards 19 carry the chopping-blades 20 or earth-engaging blades of any suitable description, said blades being of any desired size, shape, and character, according to the work that is to be performed. The rock-shaft 9 is provided with cranks 21, with which are adjustably connected the upper ends of suitably curved or twisted connecting-bars 22, the lower ends of which are pivotally connected, as at 23, with the respective standards, which by manipulating the rock-shaft may be raised or lowered and secured at various adjustments.

Suitably connected with the under side of the front part of the beam is a runner 24, preferably made of strap-iron and which serves to support said beam at a suitable distance above the ground. Supporting-runners, as 25, are also provided for the rear part of the machine, said runners being supported pivotally by means of yokes 26, having perforated engaging pins 27, that extend upwardly from the blocks 5 near the rear ends of the latter. The upwardly-extended front ends of the runners 25 are provided with sockets 28 for the reception of the lower ends of the

bolts 16, springs 29 being interposed between the upper sides of the runners and the nuts 17, which are tightened upon the bolts against the under sides of the straps 13. By this construction the runners are yieldably and resiliently supported and are free to move up and down, thus enabling them to clear possible obstructions. It will be observed that the runner 24 is disposed in front of the middle chopping-blade, the runners 25 following in the track of the two outer chopping-blades.

It will be understood that within the scope of the present invention additional or auxiliary chopping-blades may be employed, they being supported in the same manner as the outer chopping-blades illustrated in the accompanying drawings. It will also be understood that by employing earth-engaging blades of a different character the implement may be employed for various purposes, such as for cultivating or for opening furrows.

It will be observed that the blocks 5 5, which may be described as constituting the side members of the frame of the machine, are adjustable laterally by properly adjusting the clamping-nuts 6, whereby they are secured upon the screw-threaded rod 2. When the blocks or side members are thus adjusted, the nuts 17 upon the bolts 16 are obviously loosened temporarily in order that the rear ends of the blocks or side members may be slid or moved to the desired position between the straps 13. While this adjustment is effected, the securing means of the outer cranks 21, which have been shown as consisting of set-screws 30, are also temporarily loosened in order that said cranks may be moved upon the rock-shaft simultaneously with the adjustment of the side members 5 and related parts. After the desired adjustment has been effected the securing means are tightened, and the machine will then be in condition for operation.

Having thus described the invention, what is claimed is—

1. A beam, a threaded rod extending therethrough, blocks or side members upon said threaded rod, nuts for securing the beam, the rod and the side members adjustably together, a pair of spaced straps upon the rear end of the beam, and means for securing the side members adjustably between said straps.

2. A beam, a threaded rod extending therethrough and connected therewith, side members fitted adjustably upon said rod, a pair of slotted straps secured upon the upper and lower edges of the beam near the rear end of the latter, bolts extending through said slots and through apertures in the side members, and tightening-nuts upon said bolts.

3. A beam, a threaded rod extending therethrough and connected therewith, side members fitted adjustably upon said rod and having upwardly-extending boxes, a rock-shaft journaled in said boxes, means for manipulating said rock-shaft and for securing it at various adjustments, cranks secured adjustably upon the rock-shaft, standards connected pivotally with the beam and with the side members, earth-engaging blades upon said standards, and arms connected pivotally with the standards and adjustably with the cranks upon the rock-shaft.

4. In a device of the class described, a beam, side members spaced from and connected adjustably with the beam, standards having connected with the beam and also with the side members and having earth-engaging blades, a runner connected with the beam in front of the standard supported by said beam, and runners flexibly connected with the side members in rear of the standards supported thereby.

5. In a device of the class described, a standard-carrying member, a bolt extending through and downwardly therefrom, a yoke straddling the standard-supporting member and having an aperture guided upon a pin extending upwardly from said member, and a runner pivotally connected with said yoke and having a socket receiving the lower end of the bolt.

6. In a device of the class described, a standard-carrying member, a bolt extending through and downwardly therefrom, a yoke straddling the standard-supporting member and having an aperture, a pin extending upwardly from the standard-supporting member through the aperture of the yoke, a runner connected pivotally with the yoke and having a bolt-receiving socket, and a spring mounted upon the bolt above the runner and exercising downward pressure upon the latter.

7. In a device of the class described, a beam, a threaded rod extending transversely therethrough, parallel spaced slotted straps connected with the rear end of the beam, standard-carrying side members connected adjustably with the threaded rod, bolts extending through the slotted straps and through the side members, tightening-nuts upon said bolts, yokes straddling the side members and connected movably therewith, runners connected pivotally with said yokes and having bolt-receiving sockets, and springs mounted upon the bolts and exercising downward pressure upon the runners.

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

FELIX M. BRADLEY.

Witnesses:
J. T. BRADLEY,
GEORGE MACK.