(No Model.)

W. TOTTY & J. E. CHOFFIN.

COTTON SPACER.

No. 462,747. Patented Nov. 10, 1891.

Fig. 1.

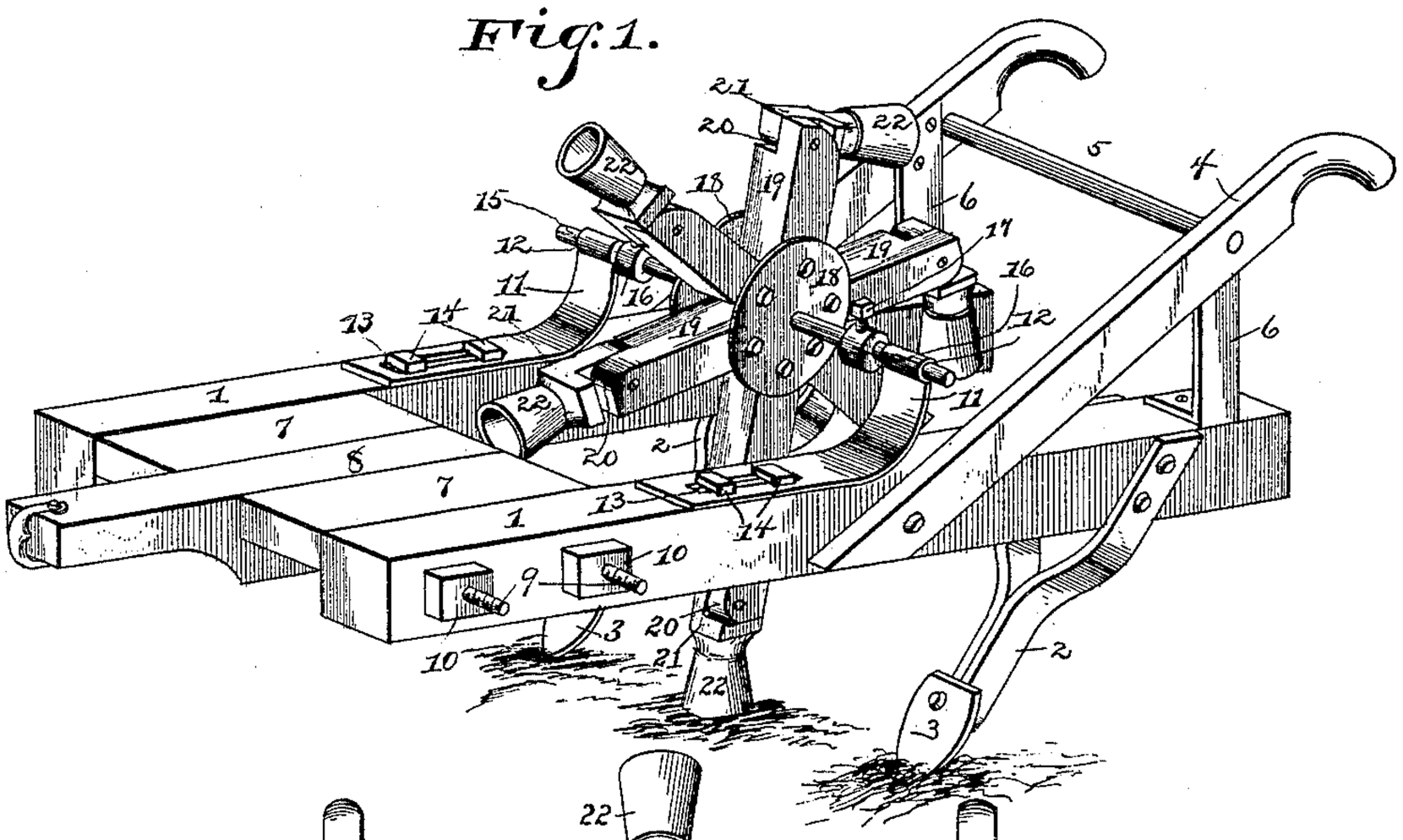
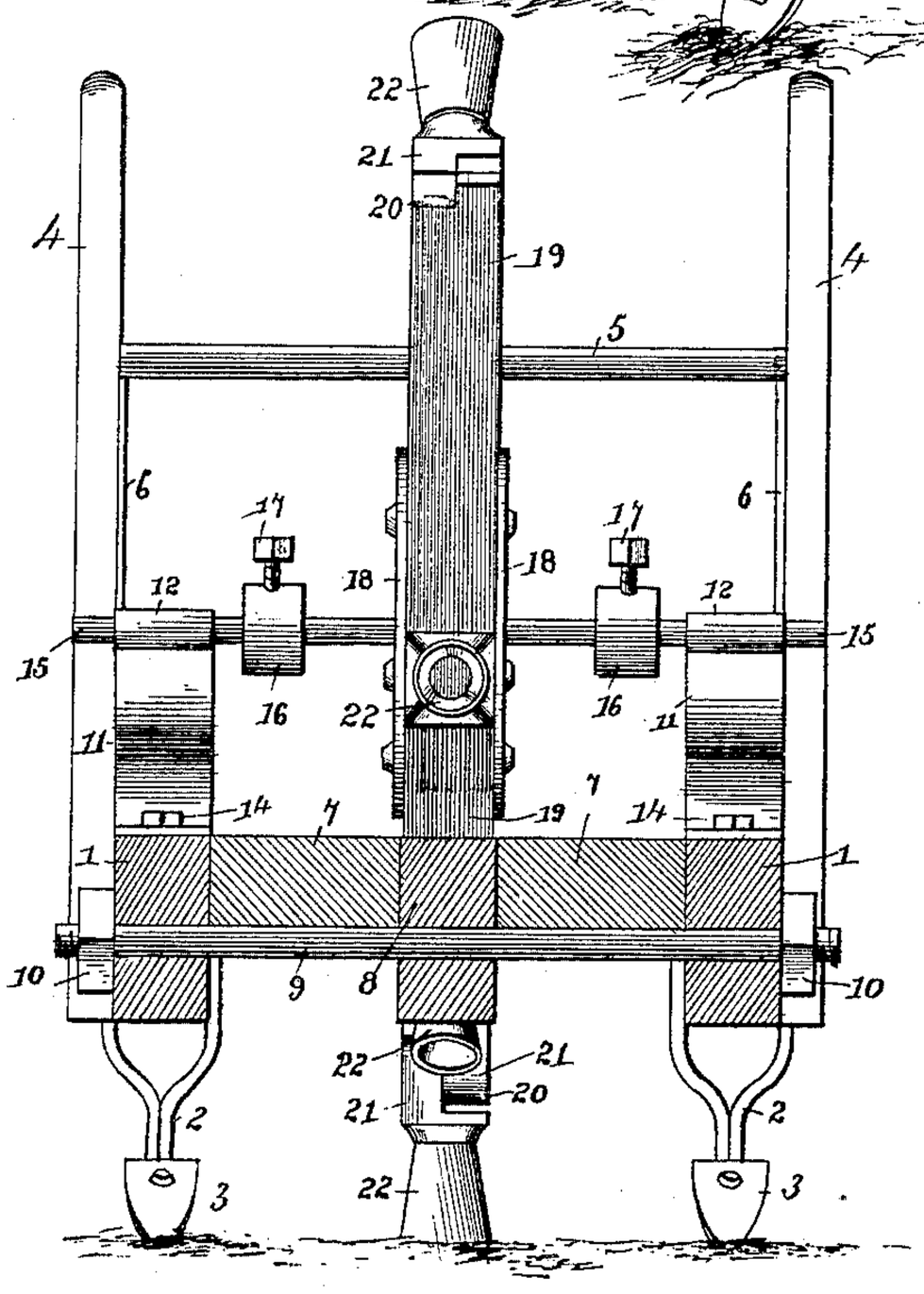


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM TOTTY AND JOHN E. CHOFFIN, OF GRAPELAND, TEXAS.

COTTON-SPACER.

SPECIFICATION forming part of Letters Patent No. 462,747, dated November 10, 1891.

Application filed July 8, 1891. Serial No. 398,807. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM TOTTY and JOHN E. CHOFFIN, citizens of the United States, residing at Grapeland, in the county of Houston and State of Texas, have invented a new and useful Cotton-Spacer, of which the following is a specification.

This invention relates to improvements in machines for spacing cotton-stands, the objects in view being to provide a cheap and simple machine adapted to efficiently and with dispatch travel over cotton-drills, spacing the stands uniformly apart and covering up intermediate portions of the drills and any grass or weeds around the stands.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a cotton-spacer constructed in accordance with our invention. Fig. 2 is a transverse sectional view, the same being taken in front of the wheel.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 designates a pair of plow beams or stocks, from which, near their rear ends, depend a pair of inclined plow-standards 2, terminating in shovels 3. Rising from and secured to the beams 1 is a pair of rearwardly-disposed handles 4, connected by the usual rung 5 and supported by vertical braces or standards 6, interposed between the handles and the beams 1. The beams 1 are provided at their front ends with inward projections or blocks 7, which latter embrace the opposite sides of a draft-tongue 8, through which latter and the beams passes a pair of adjusting tie-rods 9, the threaded ends of which extend beyond the opposite beams and have mounted thereon set-nuts 10. It will be obvious that by manipulating the nuts 10 the distance between the beams may be increased or diminished, and, furthermore, the employment of the blocks or extensions 7 obviates the necessity of employing any rear beam-connecting bars, in that the blocks or extensions are of considerable length, and hence brace the beams against any transverse displacement with relation to each other.

11 designates a pair of flat curved springs, which at their upper ends terminate in bearings 12 and near their lower ends are longitudinally slotted, as at 13, for the reception of a pair of bolts 14, which pass through the slots and into the beams 1, whereby said springs may be adjusted longitudinally upon the beams. In the bearings 12 there is mounted for rotation an axle 15, and upon the axle, at the inner side of each bearing, there is mounted the bearing-collar 16, the same being adjustable by means of set-screws 17, the inner ends of which bear upon the axle. At the center of the axle is mounted the spacing-wheel, and the same consists of a pair of opposite circular disks or plates 18, between which are bolted the inner ends of a series of radial arms or spokes 19 of any desired number. The outer ends of the arms or spokes have connected thereto by a knuckle-joint 20 tenoned fingers 21, upon the tenons of each of which is fitted a bell-shaped cup 22.

In operation the machine is drawn along the drill and the wheel revolves, each spoke being brought successively to the ground or to operative position. By reason of the knuckle-joint described it will be seen that the spoke and finger are rigid or in line with each other as they approach the ground and the tenons, with their bell-shaped cups, swing loosely to a vertical position as they leave the ground. It will be seen that when the cups are brought into contact with the ground they inclose a stand of cotton and cover the same until the plows have passed the stand thus formed, said plows serving to throw the dirt over the cotton in rear of the stand thus covered, so that said cotton, together with all weeds or grass adjacent thereto, is covered over with the dirt. By reason of the knuckle-joint a cup remains vertical while over the plant, while at the same time the arm to which the cup is attached will be moving to the rear of the cup and when it has reached a certain distance will lift the cup from the plant. By thus remaining vertical the stand is protected at all sides from the dirt thrown by the plows or shovels. By yieldingly mounting the spacing-wheel it will be seen that the same is maintained in yielding contact with the ground, and therefore conforms to all irregularities along the drill, and may also most readily ride over any stumps, stones, or other

obstacles lying in its path, and which would tend otherwise to injure or break the same. It will be seen that through the medium of the nuts 10 the distance between the plows or shovels may be increased or diminished with relation to each other and the spacing-wheel. Furthermore, that by manipulating the bolts 14 the spacing-wheel may be adjusted upon the beam with relation to the plows or shovels.

Having described our invention, what we claim is—

1. In a machine of the class described, the combination, with the frame-work, of the axle journaled therein, the central hub, the radial spokes or arms, and the series of fingers terminating at their outer ends in cups and connected by knuckle-joints to the ends of the arms, substantially as specified.

2. In a machine of the class described, the combination, with the frame-work, of a pair of opposite upwardly-curved flat springs, terminating at their upper ends in bearing-eyes and at their lower ends secured to the frame-work, an axle mounted in the bearing-eyes, and a spacing-wheel mounted on the axle, substantially as specified.

3. In a machine of the class described, the combination, with the opposite beams, of the upwardly-curved flat springs, terminating at their upper ends in bearing-eyes and at their lower ends provided with longitudinal slots, adjusting-bolts passed through the slots into the beams, an axle mounted in the bearing-eyes of the springs, adjustable collars having set-screws mounted upon the axle at the inner ends of the eyes, and the spacing-wheel mounted on the axle, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

WILLIAM TOTTY.
JOHN E. CHOFFIN.

Witnesses:
WILLIAM H. CAMPBELL,
N. H. SADLER.