

E. E. THOMAS.
COTTON CHOPPER.
APPLICATION FILED DEC. 21, 1909.

954,149.

Patented Apr. 5, 1910.

Fig. 1

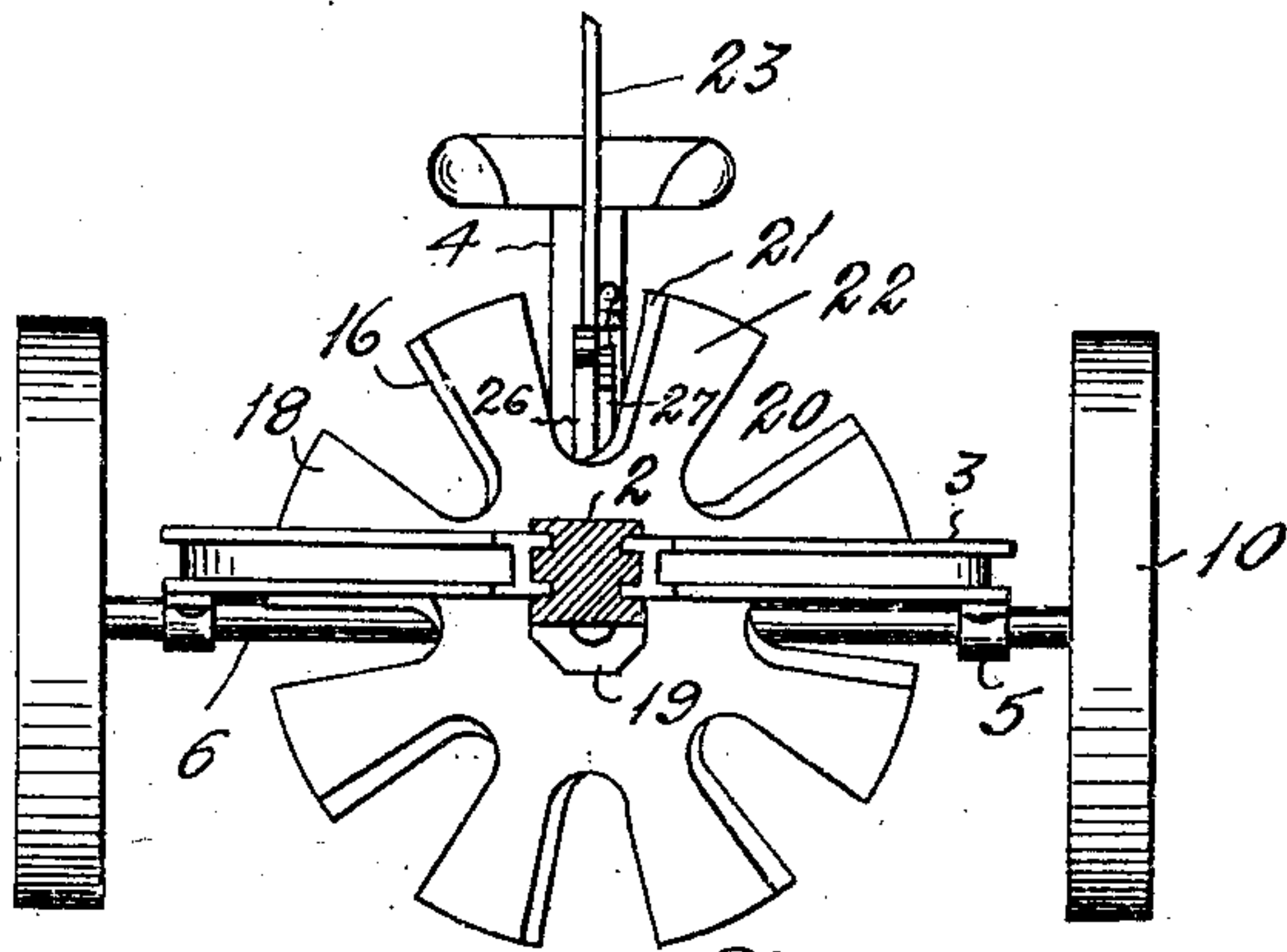


Fig. 2

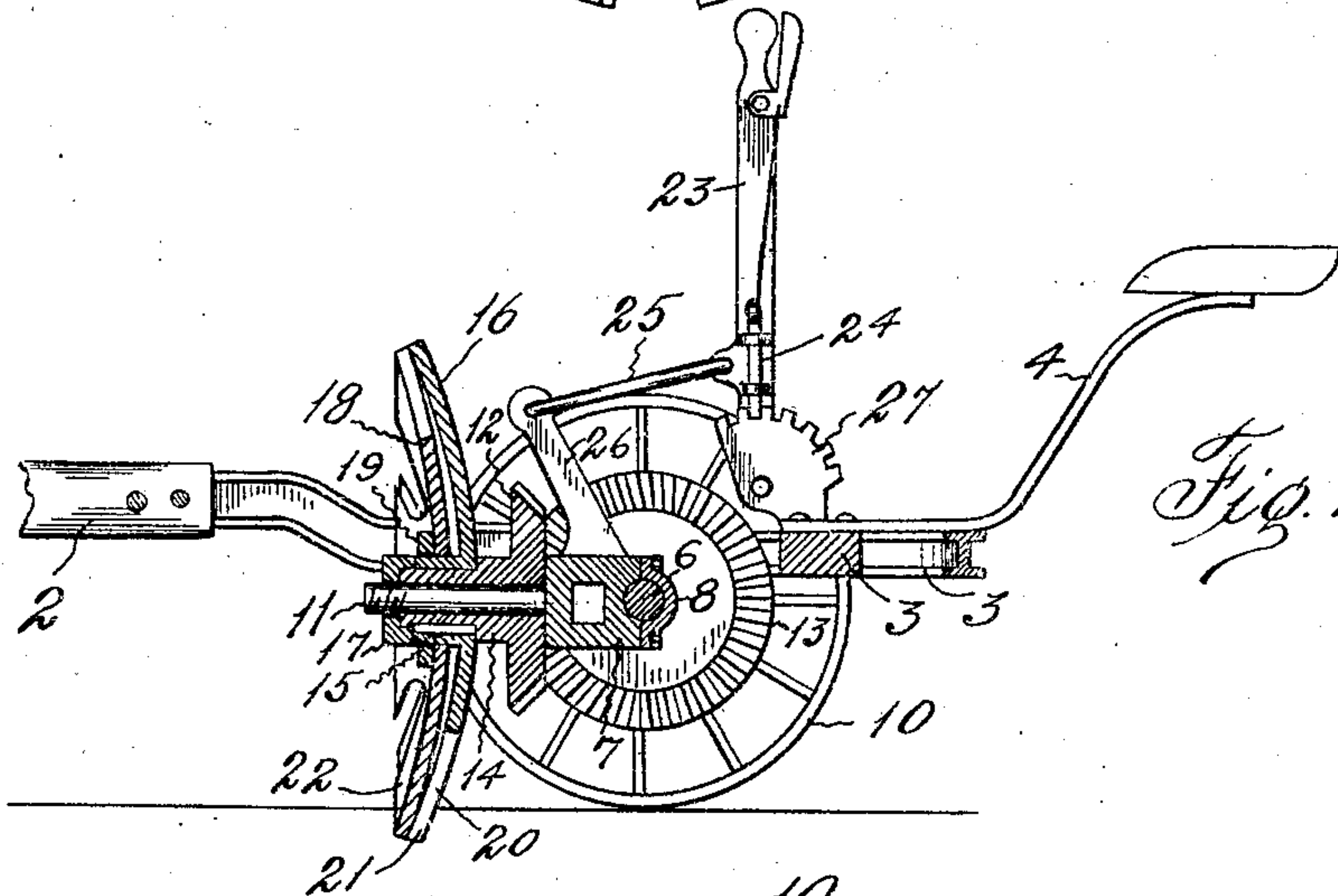
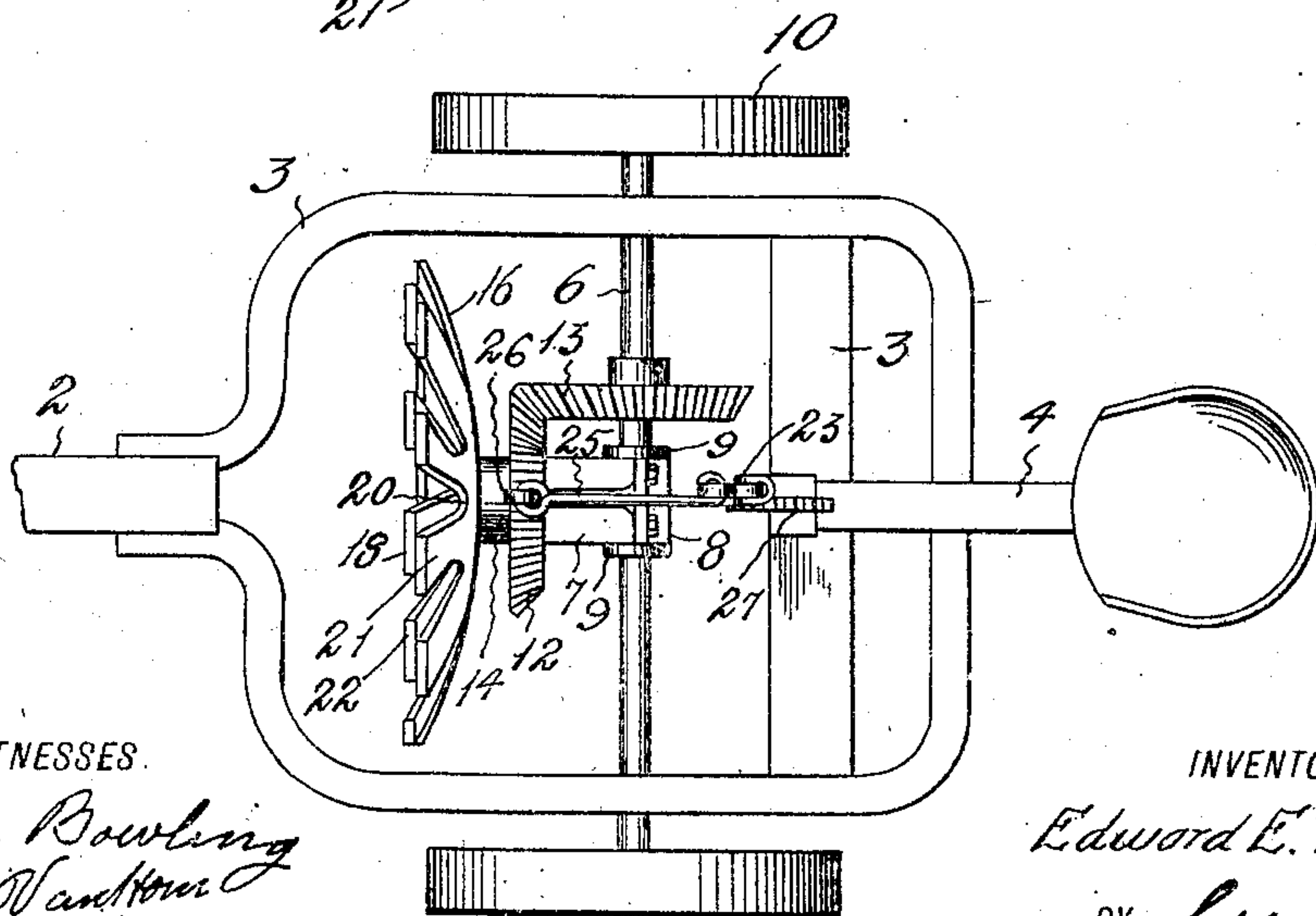


Fig. 3



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EDWARD E. THOMAS, OF FROSA, TEXAS.

COTTON-CHOPPER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWARD E. THOMAS, citizen of the United States, residing at Frosa, in the county of Limestone and State of Texas, have invented certain new and useful Improvements in Cotton-Choppers, of which the following is a specification.

This invention involves a cotton chopper and particularly one including a revolving member.

The object of the invention is to provide a revolving chopping member comprising a pair of mutilated disks driven from an axle and adjustably supported.

Another feature resides in the construction and arrangement of the disks whereby they may be adjusted to vary the size of the mutilations or openings in the disks and chop the cotton as desired.

Finally the object of the invention is to provide means of the character described that will be strong, durable, efficient, and easy of operation, simple and comparatively inexpensive to construct, and also in which the several parts will not be likely to get out of working order.

With the above and other objects in view, the invention has relation to certain novel features of construction and operation, an example of which is described in this specification and illustrated in the accompanying drawings, wherein:

Figure 1 is a front elevation, Fig. 2 is a longitudinal vertical sectional view, and Fig. 3 is a plan view.

In the drawings, the numeral 1, designates a rectangular open frame having connection at its forward end with a tongue 2, and provided a short distance from its rear end with a transverse bar 3 to which a seat support 4 is attached.

Near its central portion the frame is supported by bearings 5 on a transverse axle 6 extending under the frame. A forwardly extending bearing block 7 is located at the central portion of the axle and held thereon by a cap 8. This bearing block is loose on the axle whereby the latter is free to revolve, but the block is confined against lateral displacement by collars 9 fixed on the axle. On the outer ends of the axle which project beyond the frame, ground wheels 10 are fastened, being of such diameter as to support the axle and frame the required distance above the ground.

The bearing block 7 is provided with a

stub shaft 11 on which a miter gear 12 is mounted to rotate. This gear bears against the block and meshes with a second miter gear 13 fixed on the axle 6 and revolving therewith. The miter gear 12 is provided with a forwardly extending shouldered sleeve portion 14 which receives the hub 15 of a disk 16. The said gear is confined on the shaft 11 by a cap nut 17 screw threaded on the forward end of the shaft and engaging over the end of the sleeve so as to abut the end of the hub 15. The hub 15 is suitably fastened on the sleeve so as to turn therewith.

By observing Fig. 2, it will be noted that a second disk 18 is fitted snugly on the hub 15 in front of the disk 16. The disk 18 is held in position by a nut 19 screw threaded on the hub 15. It is further to be noted that the disk 18 has less concavity than the disk 16 and while frictionally engaging with the latter at the outer edge portion does not contact therewith at the central portion thus permitting the two disks to be firmly engaged with each other by screwing the nut 19 inward. It is to be understood that the space between the disks as shown in the drawing is exaggerated and the separation or difference in concavity is only sufficient to produce the frictional engagement above described.

The disks are of such diameter as to extend a sufficient distance below the ground line of the wheels 10 when in an upright position. These disks are mutilated or provided with a plurality of radial openings 20 extending inward from their peripheries. The parts of the disks between the openings 20 form blades, those of the disk 16 being designated by the numeral 21 and those of the disk 18 by the numeral 22.

The bearing block 7 and the disks are held in position by means hereinafter described. It will be noted that as the machine is moved forward and the disks revolved, their openings 20 will pass over some of the plants or cotton stalks while the blades will chop out or cut the others. It is obvious that by loosening the nut 19 and turning the disk 18 on the disk 16 the size of the openings may be varied. After the disks are adjusted they may be fastened in position by tightening the nut 19. It is apparent that if the stalks are close together and are to be chopped out the disks are adjusted until the openings 20 are com-

paratively narrow; while on the other hand if the "stand" is thin the size of the openings is increased.

For supporting the chopping mechanism in position and also for varying the angle at which the disks or chopping member revolves and also for raising the chopping member out of operative position when it is desired to transport the machine from place to place, a lever mechanism is provided. This mechanism comprises a segment 27 mounted on the cross bar 3 and pivotally supporting the lower end of an upright lever 23 having a plunger 24 adapted to engage the segment and lock the lever in position. Just above the segment a link 25 is connected to the lever as shown in Fig. 2. At its forward end the link is connected to the upper end of a forwardly inclined arm 26 fixed on the block 7 and extending upward therefrom. It is obvious that by swinging the lever the block is swung on the axle 6. By this means the disks may be raised or lowered and a cutting depth thus varied.

What I claim is:

1. In a cotton chopper, a support, and two disks adapted to revolve and carried by the support, said disks having peripheral openings and one fitted in the other and adjustable one on the other whereby the openings are varied in size.

2. In a cotton chopper, a support, a disk having peripheral openings and carried by the support, a second disk frictionally en-

gaging in the first disk and having peripheral openings normally registering with the openings of the first disk, one of the disks being arranged to be adjusted on the other, and means for revolving the disk.

3. In a cotton chopper, the combination with a frame, of a disk having peripheral openings and cutting blades between the openings, the disk being supported from the frame and transversely thereof, a second disk fitting in the first disk and having peripheral openings with cutting blades therebetween, means for adjusting one disk on the other for varying the size of the openings between the blades thereof, and means for revolving the disks.

4. In a cotton chopper, a frame, an axle supporting the frame, ground wheels mounted on the axle, a bearing block loosely confined on the axle, a mutilated disk revolvably mounted on the block, means for transmitting motion from the axle to the disk, a second mutilated disk frictionally engaging in the first disk, means for fastening the disks in adjustable relation, and means for swinging the block to raise and lower the disks.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD E. THOMAS.

Witnesses:

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