

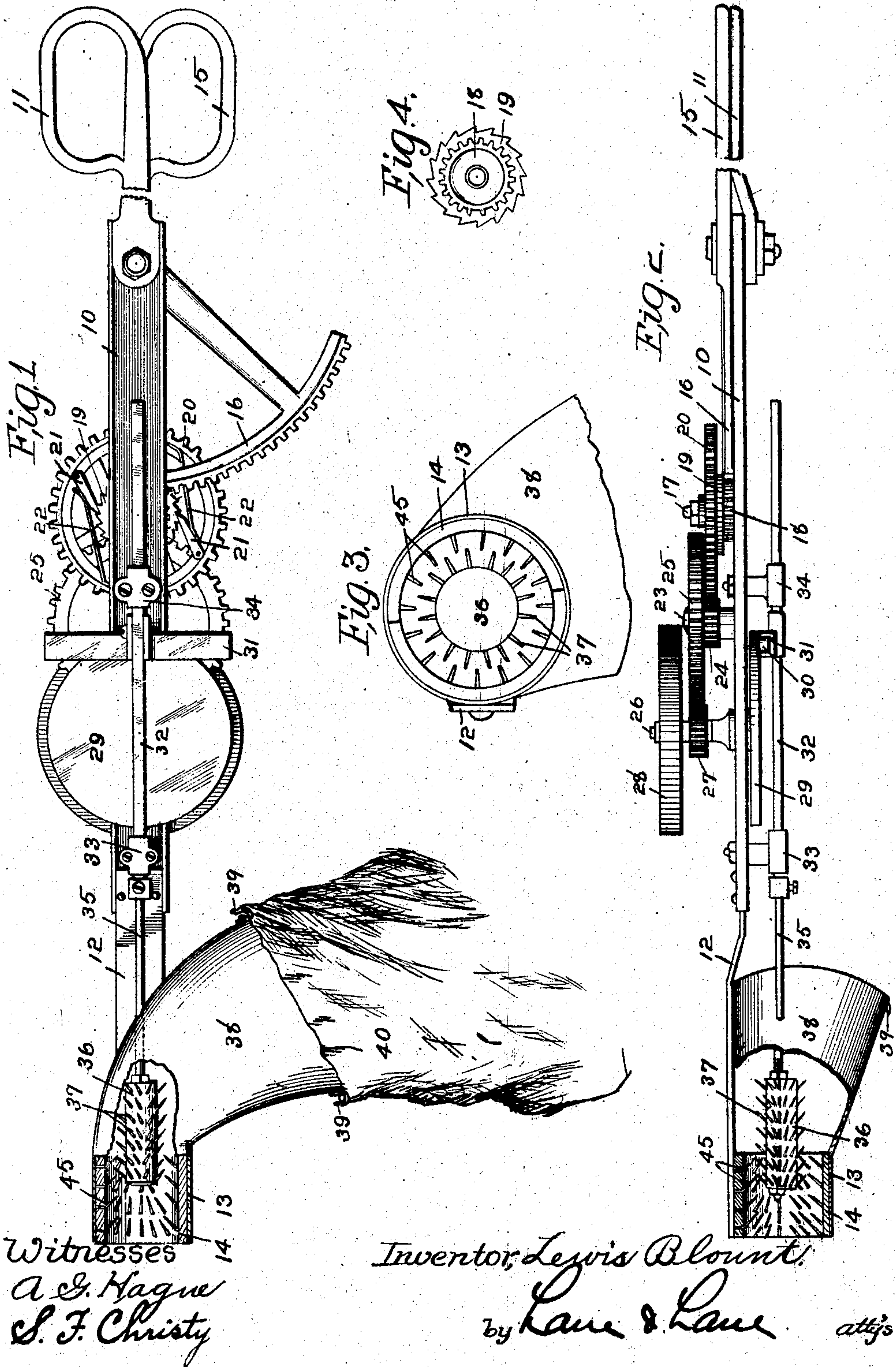
No. 815,676.

PATENTED MAR. 20, 1906.

L. BLOUNT.  
COTTON PICKER.

APPLICATION FILED AUG. 14, 1905.

2 SHEETS—SHEET 1.



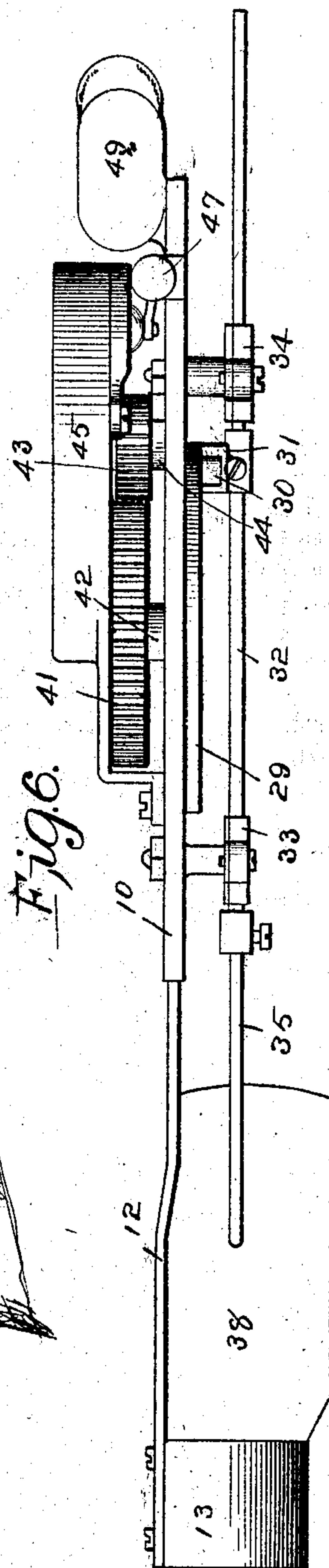
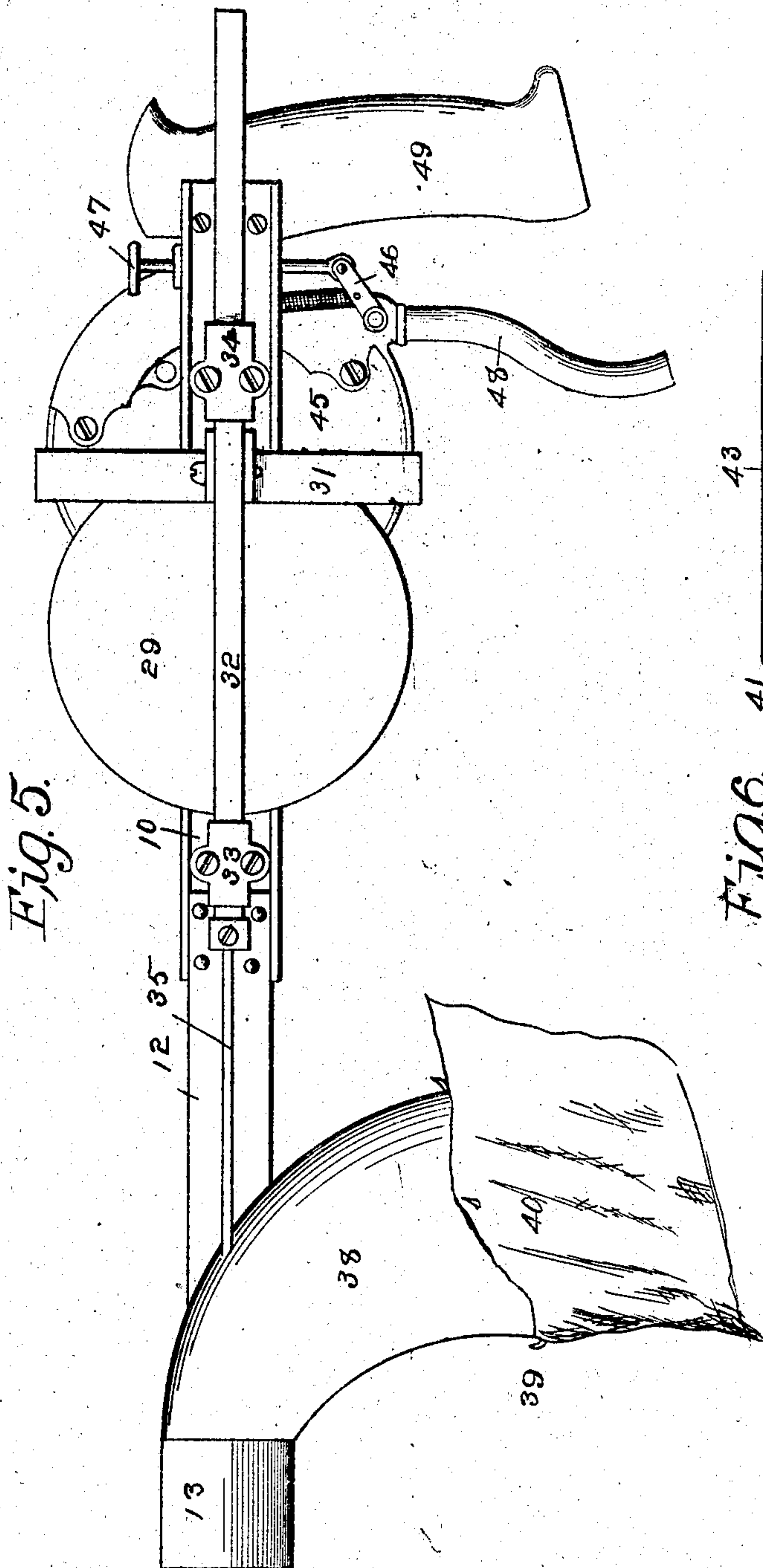
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2 SHEETS—SHEET 2.



Witnesses  
A. S. Hague  
S. F. Christy.

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# UNITED STATES PATENT OFFICE.

LEWIS BLOUNT, OF ATHENS, GEORGIA, ASSIGNOR OF ONE-THIRD TO CHARLES BRUCE YOUNG AND ONE-THIRD TO LEWIS BLOUNT, JR., OF AUGUSTA, GEORGIA.

## COTTON-PICKER.

No. 815,676.

Specification of Letters Patent.

Patented March 20, 1906.

Application filed August 14, 1905. Serial No. 274,080.

*To all whom it may concern:*

Be it known that I, LEWIS BLOUNT, a citizen of the United States, residing at Athens, in the county of Clarke and State of Georgia, have invented a certain new and useful Cotton-Picker, of which the following is a specification.

The objects of my invention are to provide a cotton-picker of simple, durable, and inexpensive construction which is designed to be operated either by hand or by power imparted to it from a motor and which is so arranged and constructed as to draw the cotton from the boll through a cylinder and force it into a tube, from which it is delivered into a bag or other receptacle connected with the tube.

A further object is to provide a cotton-picker which is adapted for continuous operation whether manipulated by hand or driven with a motor—that is, it is so arranged that the piston can be continuously operated either through the handles or by the motor, so that there will be no interruption in the process of removing the cotton from the bolls, and thus enable the operator to rapidly pick the cotton.

My invention consists in certain details in the construction, arrangement, and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the complete device with portions of it broken away and drawn in section to show detail features of it. Fig. 2 is a plan view of the device with a portion of it broken away to show in detail the cylinder and piston-head. Fig. 3 is an end view of the cylinder and piston, showing the way in which the teeth in said cylinder and piston are arranged. Fig. 4 is a detail view of the ratchet and cog connected with it, through which the operative parts of the device are driven from the handles. Fig. 5 is a side elevation of the modified form of the device adapted for use in connection with a motor, and Fig. 6 is a plan view of the modified form of the device.

Referring to the accompanying drawings, I have used the reference-numeral 10 to indicate the frame to which the operative parts of the device are secured. Forming one end

of this frame is a handle 11. At the other end of the frame 10 is a cylinder-support 12, having the cylinder 13 secured to its outer end. In this cylinder I have provided a series of teeth 14, which extend in rows inwardly from the interior surface of the cylinder 13 and toward the frame 10 at an angle of approximately forty-five degrees. However, these teeth may be set in any desirable angle for accomplishing the desired result, and they may be set any desirable distance apart and in such rows as is most desirable.

Pivotally secured to the frame 10 and adjacent to the handle 11 is a handle 15, to which is secured the rack-sector 16, as shown clearly in Fig. 1 of the drawings. The handle 15 is capable of movement toward and away from the handle 11 for oscillating the rack 16, for purposes hereinafter made clear. Extending outwardly from the frame 10 and on the same side of it as the rack-sector 16, is an axle or bolt 17.

Mounted on the inner portion of the bolt 17 is a pinion 18, which is in mesh with the rack-sector 16 and to which is rigidly secured the ratchet 19. Mounted on the bolt 17 and outside of the ratchet 19 is a gear 20, which has a series of pawls 21 on its inner portion, that are normally in engagement with the teeth of the ratchet 19 and are held normally in engagement with said ratchet by springs 22. The ratchet 19 and the pawls are thus arranged so that as the rack-sector 16 is moved in one direction the gear 20 will be driven by the pawls 21 and the ratchet 19 through the gear 18, and as the rack-sector 16 is moved in the opposite direction these pawls will slide over the teeth of the ratchet 19, and thus prevent a reversal of the rotation of the gear 20 and permit said gear to operate without interruption in a continuous rotary movement.

Extending outwardly from the frame 10 and adjacent to the bolt 17 is an axle or bolt 23, on which is mounted the pinion 24, and the gear 25, which is rigidly secured to it. The pinion 24 is in mesh with the pinion 20, so that as the gear 20 is driven the pinion 24 and the gear 25 will be rotated.

Rotatably mounted in the frame 10 and adjacent to the axle or bolt 23 is a shaft 26, which has mounted on it the pinion 27, in mesh with the pinion 24. This shaft 26 has



mounted on its outer end the fly-wheel 28 and on its inner end the crank-wheel 29, which crank-wheel 29 is on the opposite side of the frame 10 from the gears, pinions, and fly-wheel above mentioned.

It will be seen that as the gears 20 and 25 are rotated the shaft 26 and the parts connected with it will be rotated through the gear 27. Rotatably mounted on the surface of the crank-wheel 29, which is away from the frame 10 and near the periphery of said crank-wheel, I have provided a roller 30, which roller is capable of longitudinal movement in a cross-head 31, which is secured to a reciprocating bar 32, which parts are so arranged that as the crank-wheel 29 is rotated and at the same time the roller 30 is moved longitudinally of the cross-head 31 the reciprocating bar will be driven longitudinally at the side of the frame. This reciprocating bar is slidingly mounted relative to the frame 10 by means of the bearings 33 and 34, which are secured to said frame.

Detachably connected with the end of the reciprocating bar which is nearest the cylinder 13 I have provided a piston-rod 35, which has secured to its free end a piston-head 36. This piston-head is substantially circular in cross-section and has extending outwardly from it a series of teeth 37, which teeth extend toward the piston-rod 35 at an angle of about forty-five degrees from the circular piston-head 36. These teeth are arranged in rows, so that they will operate freely between the rows of teeth on the interior of the cylinder 13, and their arrangement and construction is determined by the arrangement and construction of the teeth in the cylinder. For the sake of convenience I have termed the piston-rod 35 and the piston-head 36 and the reciprocating bar 32 the "piston" of the device.

Secured to the cylinder 13 and extending to one side of the cylinder-support 12 is a tube 38, through which the cotton passes as it is drawn through the cylinder 13 by the toothed piston-head 36. At the outer end of the tube 38 I have provided a series of hooks 39, by which a bag or other receptacle 40 is secured to the tube 38, into which the cotton which has been picked by my mechanism is deposited.

In the operation of the device the operator grasps the handles 11 and 15 and operates through them the piston on one stroke of the rack-sector, and the operation of the piston is continued by the fly-wheel 28 as the rack-sector is made to take its return stroke through the manipulation of the handle 15. The next stroke of the rack-sector through the manipulation of the handle 15 continues the operation of the piston and the fly-wheel keeps the piston reciprocating between the two driving strokes of the rack-sector 16. As the piston is reciprocated the piston-head

36 extends outside of the cylinder 13 and the teeth 37 catch the cotton to be picked and draw it from the boll on the return stroke of the piston into the cylinder where the teeth 14 retain it against outward movement as the piston-head again moves outwardly. As the piston is reciprocated the cotton is drawn into the cylinder-head and there temporarily retained until it is forced into the tube 38 and allowed to drop into the bag 40 or some other receptacle provided for the purpose. It will be seen that the piston-head can be easily removed, so as to repair it, if any of the teeth become bent or twisted in operation by detaching the piston-rod 35 from the reciprocating bar 32.

In the modified form of the device the piston, the crank-wheel, the cylinder, and cylinder-support are constructed in the same way as in the preferable form. The frame is also constructed in the same way, except that the handle 11 is omitted. In place of the gears 20, 25, and 26, the pinions 18, 24, and 27, and the ratchet and pawl I have provided a gear 41, which is mounted on the shaft 42, which is arranged in the frame in substantially the same plane as the shaft 26. This gear 41 is in mesh with a gear 43, which is mounted on the shaft 44. This shaft 44 is driven from a motor 45, which is controlled by a spring-maintained lever 46, operated by a finger-rod 47. This motor 45 is driven by air or other power fed to it through the hose 48. A handle 49 is provided by which the operator supports the mechanism.

The operation of the piston device is the same in the modified form as in the preferable form, inasmuch as the piston is driven continuously by the motor, the means of effecting the operation being the only difference between the modified and preferable form of the device.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States therefor, is—

1. In a cotton-picker, a toothed cylinder, a toothed piston for picking cotton and drawing it into the cylinder where the cotton is retained by the teeth in the cylinder against outward movement as the piston moves outwardly, means for supporting the cylinder and piston in operative relation to each other, and means for reciprocating the piston.

2. In a cotton-picker, a cylinder, a piston, a head on the piston, teeth on the piston-head, means for reciprocating the piston in such a way that the piston-head will be moved to a point outside of and drawn through the cylinder, and a tube connected with the cylinder.

3. In a cotton-picker, a cylinder, a piston, a head on the piston, teeth on the piston-head, means for reciprocating the piston in such a way that the piston-head will be moved to a point outside of and drawn



through the cylinder, a tube connected with the cylinder, and a bag detachably connected with the tube.

4. In a cotton-picker, a cylinder, teeth on the interior of the cylinder, a piston carrying a head, teeth on the piston-head designed to operate between the teeth of the cylinder and to extend outside of the cylinder as it is reciprocated, and means for reciprocating the piston.

5. In a cotton-picker, a cylinder, teeth on the interior of the cylinder, a piston carrying a head, teeth on the piston-head designed to operate between the teeth of the cylinder and to extend outside of the cylinder as it is reciprocated, means for reciprocating the piston, and a tube attached to and communicating with the cylinder.

6. In a cotton-picker, a cylinder, teeth on the interior of the cylinder, a piston carrying a head, teeth on the piston-head designed to operate between the teeth of the cylinder and to extend outside of the cylinder as it is reciprocated, means for reciprocating the piston, a tube attached to and communicating with the cylinder, and a bag secured to the free end of the tube.

7. In a cotton-picker, a cylinder, teeth on the interior of the cylinder, a piston carrying a head, teeth on the piston-head designed to operate between the teeth of the cylinder and to extend outside of the cylinder as it is reciprocated, and means for continuously reciprocating the piston.

8. In a cotton-picker, a frame, a cylinder-support secured to the frame, a cylinder secured to the cylinder-support, a series of teeth on the interior of the cylinder and extending inwardly and toward the frame, a piston having a toothed head, designed to operate through the cylinder and outside of the same, and means for operating the piston.

9. In a cotton-picker, a frame, a cylinder-support secured to the frame, a cylinder secured to the cylinder-support, a series of teeth on the interior of the cylinder and extending inwardly and toward the frame, a piston having a toothed head, designed to operate through the cylinder and outside of

the same, means for operating the piston, a tube secured to the cylinder, and a bag detachably connected therewith.

10. In a cotton-picker, a frame, a cylinder-support secured to the frame, a cylinder secured to the cylinder-support, a series of teeth on the interior of the cylinder and extending inwardly and toward the frame, a piston having a head at one end of it, teeth extending outwardly from the head and toward the rod of the piston, the teeth of the piston-head designed to operate between the teeth of the cylinder as the piston-head passes through the cylinder, and means for reciprocating the piston continuously, for the purposes stated.

11. In a cotton-picker, a frame, a cylinder-support secured to the frame, a cylinder secured to the cylinder-support, a series of teeth on the interior of the cylinder and extending inwardly and toward the frame, a piston having a head at one end of it, teeth extending outwardly from the head and toward the rod of the piston, the teeth of the piston-head designed to operate between the teeth of the cylinder as the piston-head passes through the cylinder, means for reciprocating the piston continuously, and a tube attached to and communicating with the cylinder.

12. In a cotton-picker, a frame, a cylinder-support secured to the frame, a cylinder secured to the cylinder-support, a series of teeth on the interior of the cylinder and extending inwardly and toward the frame, a piston having a head at one end of it, teeth extending outwardly from the head and toward the rod of the piston, the teeth of the piston-head designed to operate between the teeth of the cylinder as the piston-head passes through the cylinder, means for reciprocating the piston continuously, a tube attached to and communicating with the cylinder, and a bag or other receptacle detachably connected with the free end of the tube.

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Witnesses:

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