

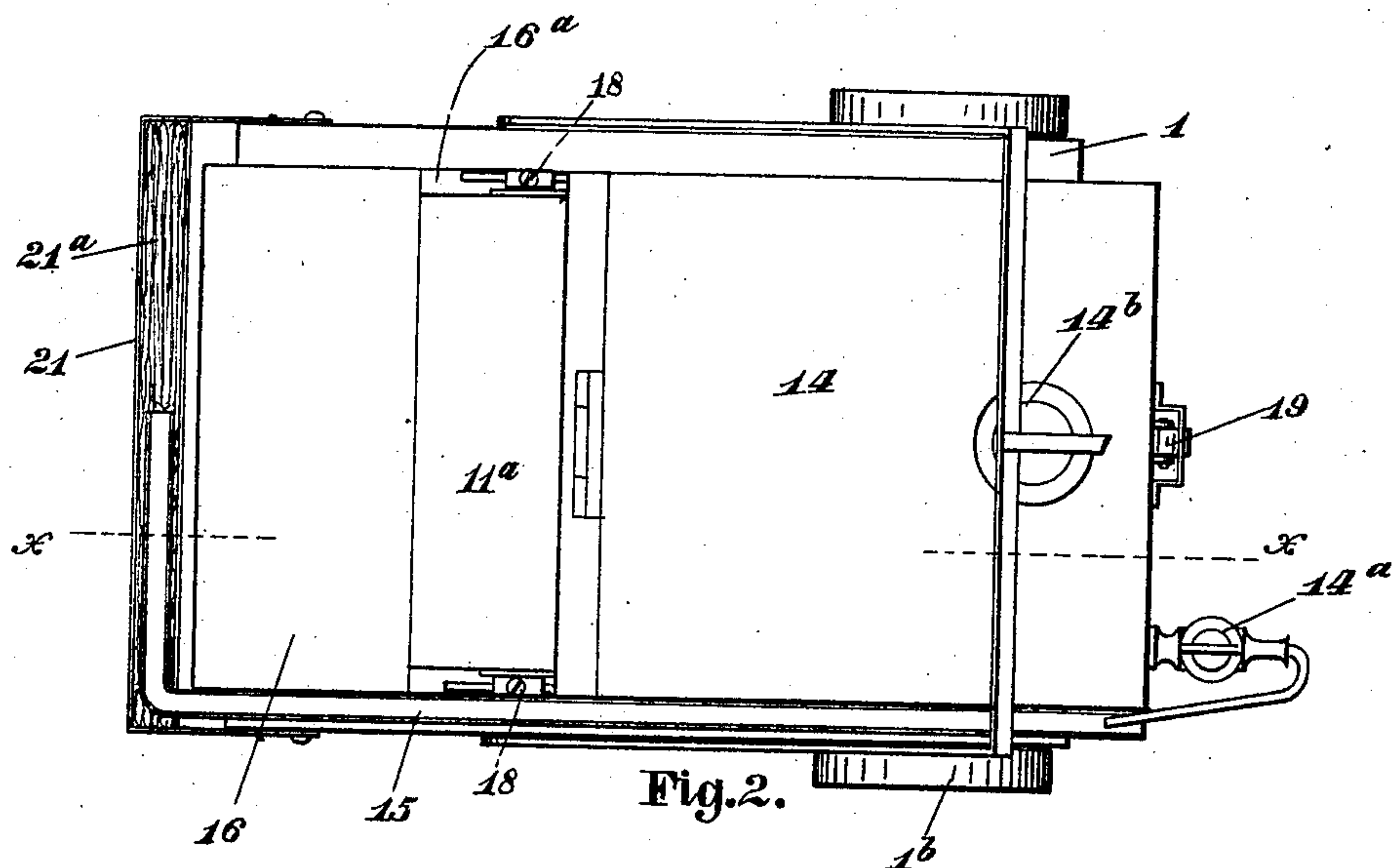
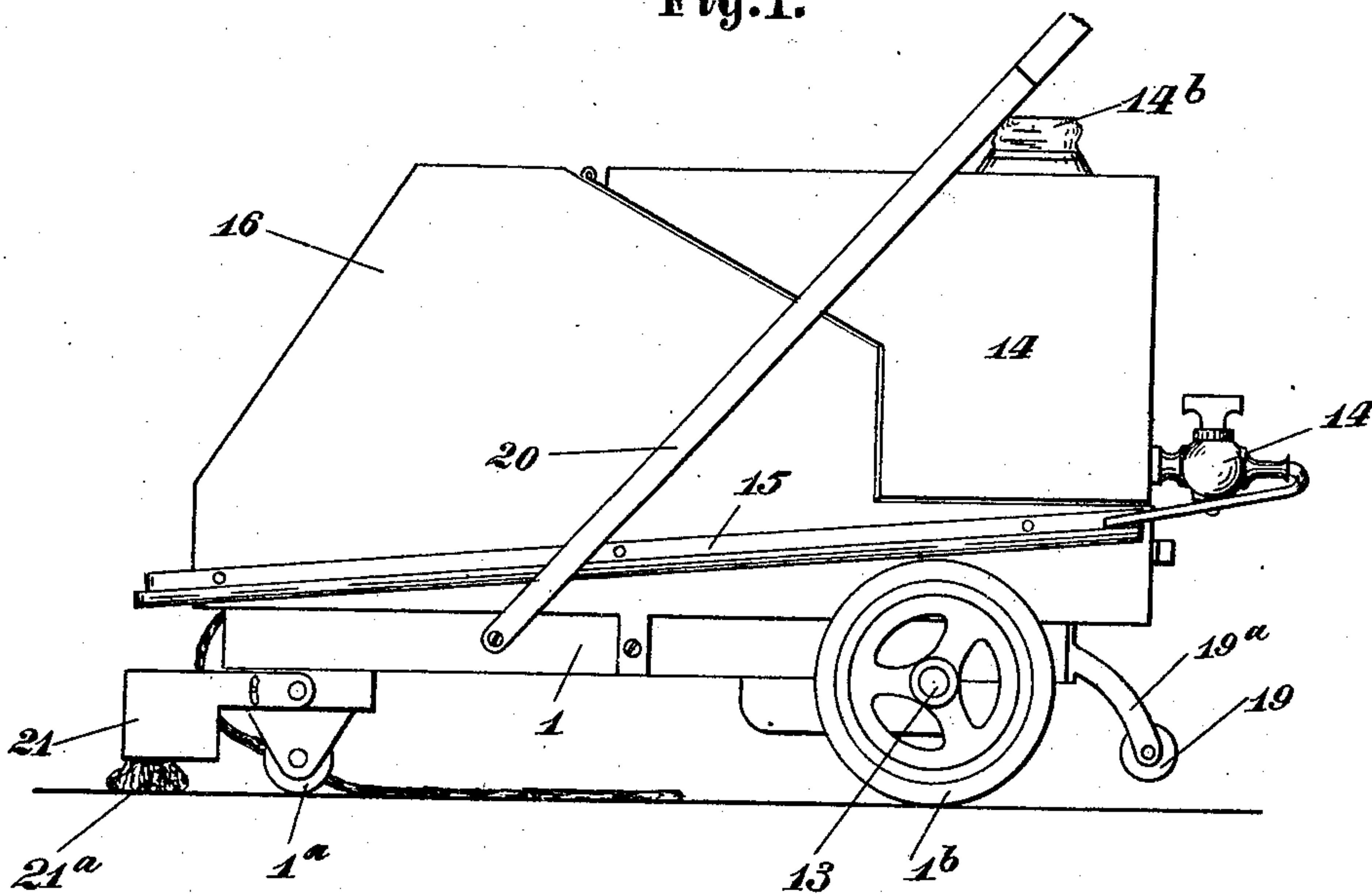
No. 862,411.

PATENTED AUG. 6, 1907.

J. W. O'CONNOR.
MOPPING MACHINE.
APPLICATION FILED MAR. 5, 1906.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses
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Alice B. Cook.

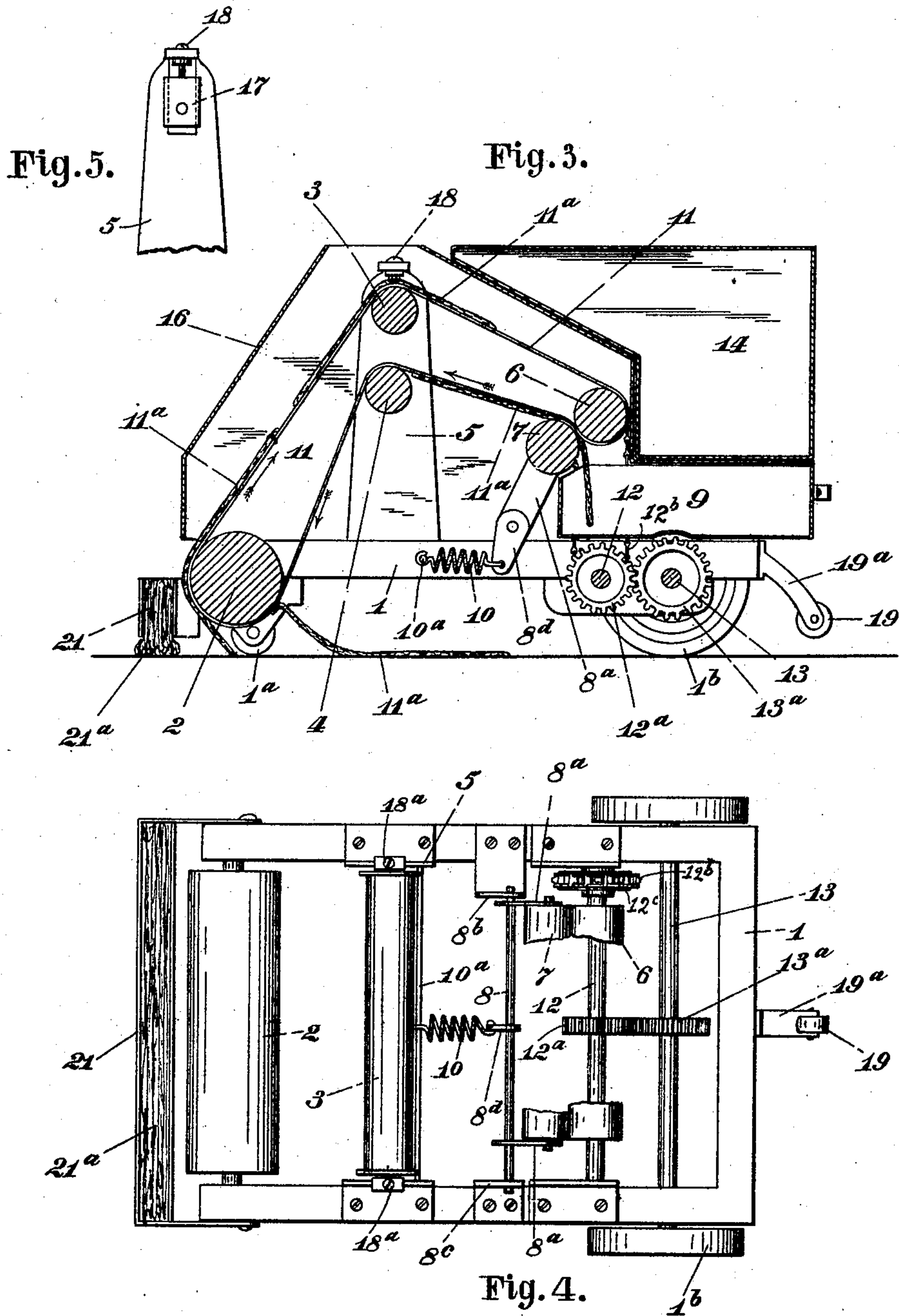
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UNITED STATES PATENT OFFICE.

JOHN W. O'CONNOR, OF COLUMBUS, OHIO.

MOPPING-MACHINE.

No. 862,411.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed March 5, 1906. Serial No. 304,171.

To all whom it may concern:

Be it known that I, JOHN W. O'CONNOR, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented
5 certain new and useful Improvements in Mopping-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

10 The object of this invention is to provide a mopping machine of improved construction that is adapted to be pushed across the floor after the manner of the well known carpet sweeper.

The invention consists in the improved construction
15 hereinafter described and claimed.

In the accompanying drawings illustrating one embodiment of the invention—Figure 1 is a view in side elevation; Fig. 2 is a top plan view; Fig. 3 is a vertical sectional view through the machine on the line $x-x$
20 Fig. 2; Fig. 4 is a plan view of the truck showing the mechanism thereon with the mop belt, the hood, the tank, and the waste water drawer removed, and the wringer rollers broken out; Fig. 5 is a detail of means for adjusting a roller over which the mop belt
25 runs for regulating the tautness of the belt.

In the views 1 designates the main or truck frame which is rectangular in form and is supported at its front end on wheels 1^a, and at its rear end on wheels 1^b, the latter preferably provided with rubber tires to
30 engender friction to drive the belt.

Between the sides of the frame 1, at its forward end, is journaled an idler roller 2, and in rear of this, and above the horizontal plane of the roller 2 are two other idler rollers 3 and 4, journaled one above the other
35 between standards 5 rising from the sides of the frame.

In the rear of the rollers 3 and 4 and below the horizontal plane of the lower one of them is the driven roller 6, said roller also conveniently constituting one member of a pair of wringer rollers. The other member 7 of the pair of wringer rollers is mounted between
40 arms 8^a secured to a shaft 8 that is rockingly supported in small brackets 8^b and 8^c rising from opposite sides of the frame 1. The two wringer rollers are so placed with respect to each other that their axes lie
45 in a plane at an incline of about forty-five degrees to the horizontal plane so that the water wrung from the mop cloths can discharge into the end of a waste water pan 9. This pan 9 is shown to be movable and adapted to be inserted under the opening between
50 the wringer rollers. The wringer roller 7 is held yieldingly toward the roller 6 by means of a coiled spring 10 attached at one end to a bar 10^a secured between the sides of the frame 1, and at its other end to an arm 8^d secured to the shaft 8.

55 11 designates a belt to which the mopping cloths 11^a, are attached each by stitching or other means

along one edge only so as to leave a free trailing portion. This belt 11 is stretched around the rollers 2, 3, 4 and 6 so that by the operation of the mechanism to be presently described the belt is driven in a direc- 60 tion to drag or trail the cloths on the floor with their attached edges forward and in a direction corresponding to the forward movement of the machine. The advantage of this operation is that the cloths are not liable to bunch up under the machine and are always 65 carried spread out over the floor thus doing their work more effectively.

12 designates a shaft bearing a pinion 12^a, said shaft being journaled between the sides of the frame 1 near the rear of the machine. The rear wheels 1^b are suit- 70 ably connected with an axle 13, on which is a gear wheel 13^a engaging and driving the pinion 12^b and shaft 12, and on the end of the shaft 12 is a sprocket from which passes a chain 12^b to a sprocket 12^c on the end of the roller 6. By pushing the machine in the 75 forward direction motion is imparted to the belt in the direction indicated by the arrows (Fig. 3) near the belt—that is, in the direction to trail or drag the mopping cloths on the floor from their line of attachment to the belt. The direction of motion of the cloths on 80 the floor is thus made to coincide with the forward motion of the machine.

Mounted at the forward end of the machine and in advance of the roller 2 is a frame 21 carrying a non-rotative scrubber or brush 21^a. The frame 21 is open 85 from its upper to its lower side, or so that water fed to the upper side of the scrubber will seep through and thoroughly soak the scrubber at its lower or scrubbing face. Water is supplied to the scrubber from a tank 14 conveniently mounted at the rear of the machine, 90 a trough 15 supplied by a regulatable discharge cock 14^a on the tank carrying the water to the scrubber. The trough 15 is conveniently secured along the side of the machine and has its forward end bent around the front of the machine so as to terminate over the 95 middle of the brush and thus secure a better distribution of the water in the latter.

The forward portion of the machine in which the mop belt operates can be guarded at its upper side by means of a hood 16 having an opening 16^a at its top 100 through which the belt can be examined and the tension thereof regulated. The tension device shown includes two blocks like that indicated at 17 containing the bearings for the roller 3 and sliding vertically in the upper ends of the standards 5, said blocks being 105 adjustable up or down by means of screws 18 entering the blocks and held from longitudinal movement, as indicated in Fig. 5.

In order that the belt may not be operated by the backward movement of the machine a simple and 110 cheap device for the purpose can be added between the rear carrying wheels 1^b and their axle, but a sim-

pler and cheaper device consists of a wheel 19 mounted in a bracket 19^a projecting backward and downward from the rear of the frame 1, said wheel being so located as not to touch the floor when the machine rests normally on the wheels 1^a and 1^b but so that by a slight tilting of the machine it can be made to rest solely upon said wheel 19.

20 designates the lower portion of a handle attached to the machine by which it can be pushed to do the work.

Water is supplied to the tank as needed through an opening at the top thereof which opening can be provided with a cap 14^b.

The waste water pan 9 is made removable (like a drawer) from the rear of the machine so that the soiled water can from time to time be removed.

What I claim and desire to secure by Letters Patent is:

1. In a mopping machine, the combination with a frame having the rear supporting wheels 1^b and axle therefor,

belt supporting rollers journaled in said frame, a belt carrying mop cloths running on said rollers each cloth attached at one edge only thereto, a wringing roll adapted to cooperate with one of said rollers and means for driving said belt to trail the mop cloths on the floor in a direction corresponding to the forward movement of the machine comprising the driven gear wheel 13^a on the axle of the rear supporting wheels, a pinion 12^a and shaft therefor, and a sprocket chain connecting said shaft and one of the belt supporting rollers.

2. In a mopping machine, the combination with a frame, belt supporting rollers journaled thereon, a belt on said rollers carrying mop cloths attached thereto at one edge only, means for driving said belt to trail the mop cloths on the floor in a direction corresponding to the forward motion of the machine, a non-rotative scrubber at the forward end of the machine, a water tank, and a duct for conveying water from said tank to said scrubber.

In testimony whereof I affix my signature, in presence of two witnesses.

JOHN W. O'CONNOR.

Witnesses:

OLIN J. ROSE,

BENJ. FINCKEL.