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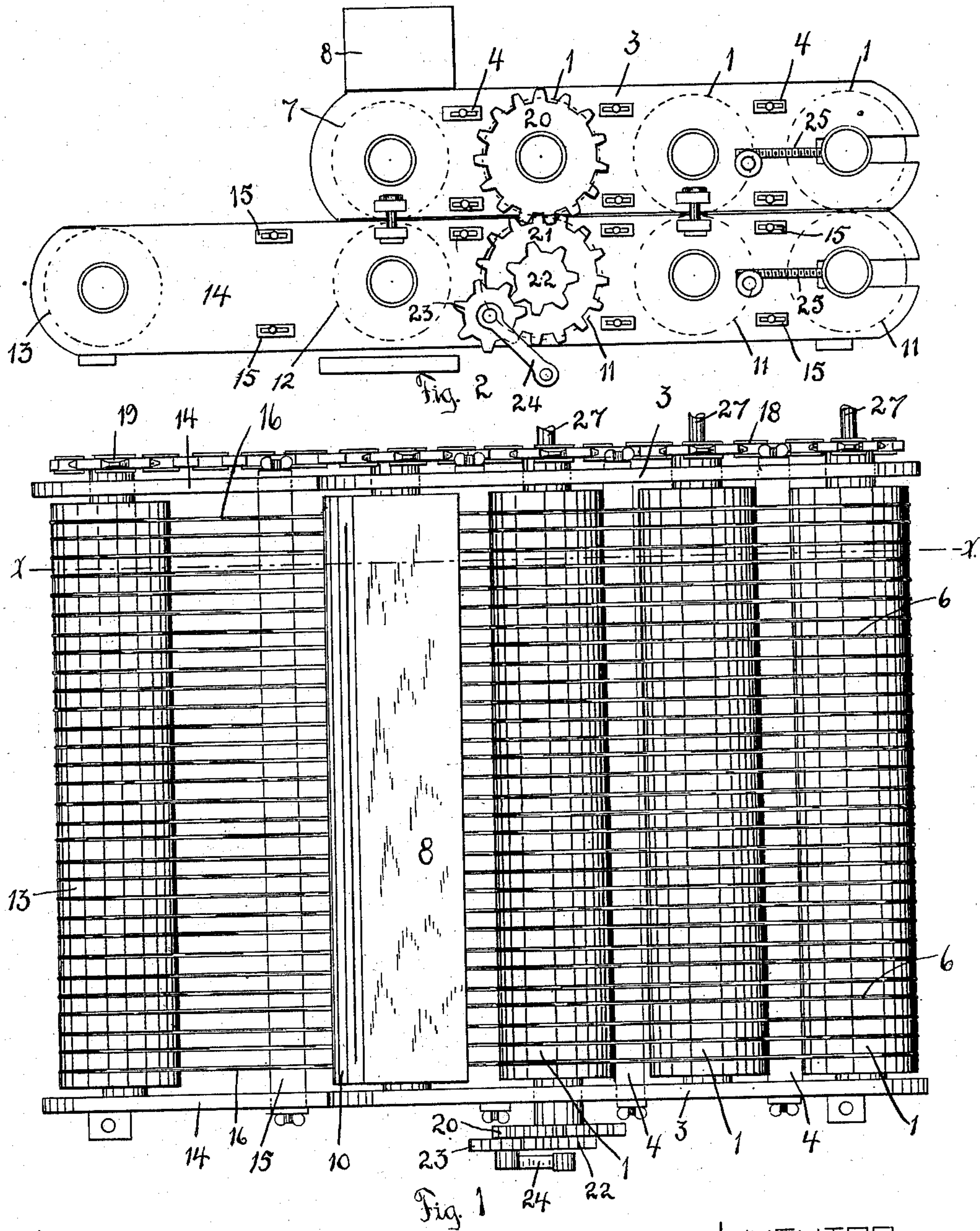
C. B. CLARK.

APPARATUS FOR DISINFECTING PAPER MONEY.

APPLICATION FILED MAY 26, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES

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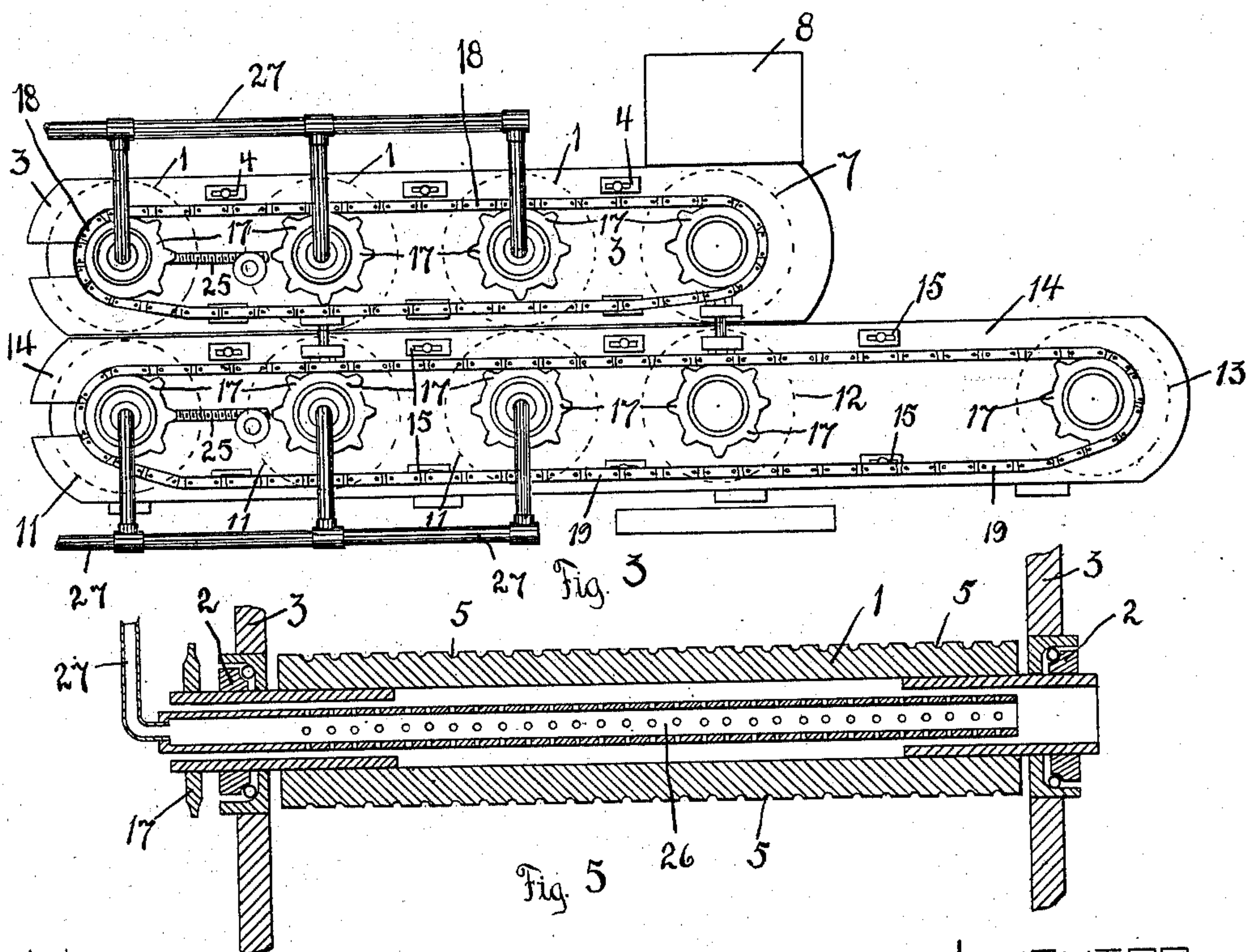
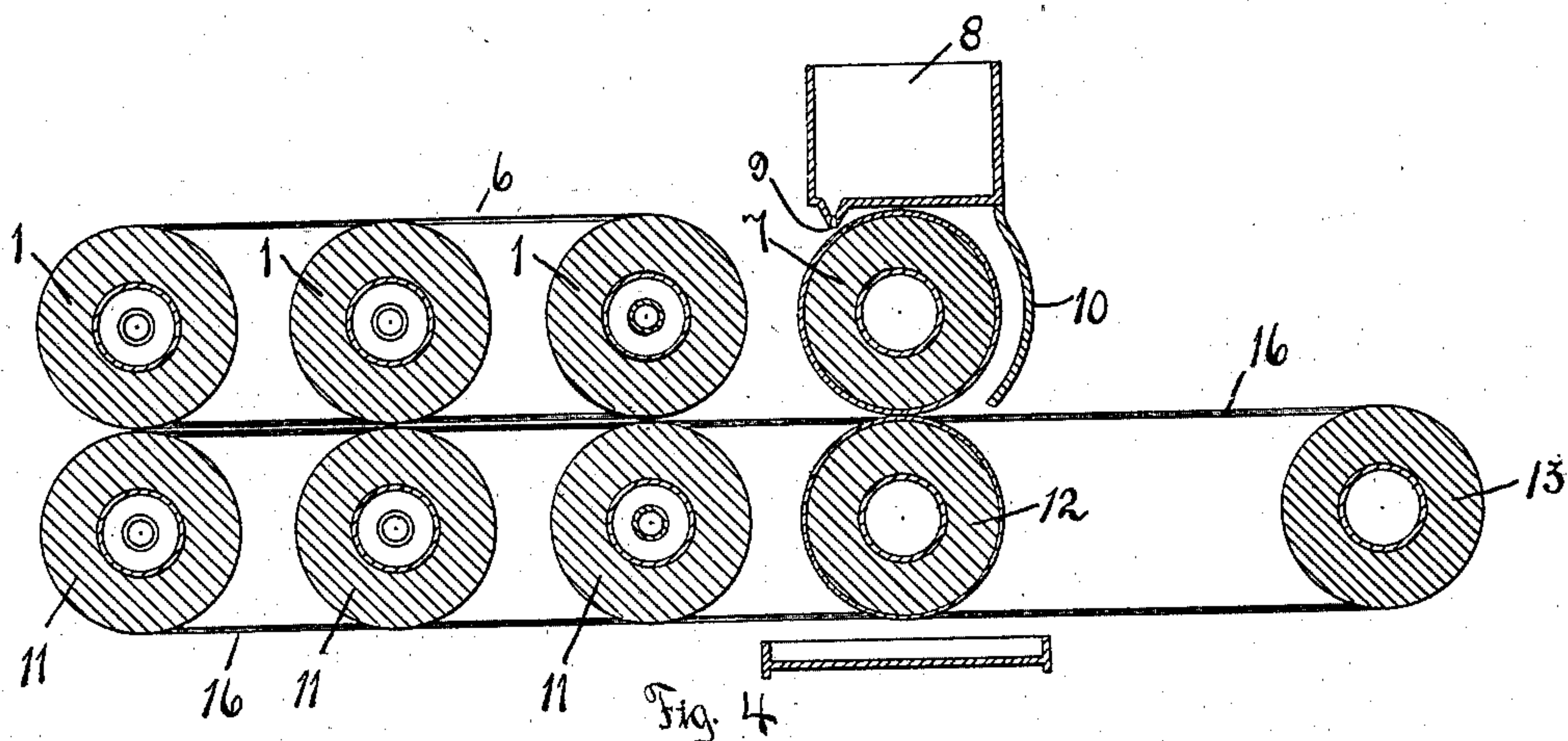
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# UNITED STATES PATENT OFFICE.

CHARLES B. CLARK, OF BUFFALO, NEW YORK.

## APPARATUS FOR DISINFECTING PAPER MONEY.

SPECIFICATION forming part of Letters Patent No. 750,347, dated January 26, 1904.

Application filed May 26, 1903. Serial No. 158,881. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES B. CLARK, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in an Apparatus for Disinfecting Paper Money; 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, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in an apparatus for disinfecting paper money, and more particularly to a novel construction specially designed for purifying paper money which has become impregnated with disease germs, &c.

The object of my invention is to provide an apparatus through which unclean and infected paper currency may be passed for purification without the slightest danger of mutilation, and which during such passage may be subjected to the purifying action of the liquid disinfectant, which first moistens the bills and then, in the form of a vapor of high temperature, attacks and destroys any disease germs which may be present, the bills before leaving the apparatus being thoroughly dried and ready for instant use.

To that end my invention consists of two endless aprons traveling in holding contact with each other, the contacting portions moving in the same direction a series of moistening feed and heating rollers around which the endless aprons travel, and means for applying the liquid disinfectant to the bills as they are fed between the moving endless aprons to be subjected to the action of the vaporized disinfectants.

My invention further consists of certain details of construction, all of which will be fully hereinafter described and claimed.

In the drawings, Figure 1 is a top plan view of my improved apparatus. Fig. 2 is a right-hand side elevation of Fig. 1. Fig. 3 is a left-hand side elevation of Fig. 1. Fig. 4 is a transverse section of the rollers, taken in the

line X X of Fig. 1, giving a diagrammatic view of the rollers; and Fig. 5 is a central longitudinal section of one of the heating-rollers.

Referring to the drawings, and particularly to Fig. 4, the upper heating-rollers are shown at 1 1 1 mounted in ball-bearings 2 2 (see Fig. 5) in the side frame-plates 3 3, held together by the rods 4. These rollers have the spaced circumferential grooves 5, in which are seated the spaced endless wires 6, which form the upper and shorter endless apron. 7 is the upper moistening and feed roller, just in front of the upper heating-rollers and in the same plane. This roller 7 is mounted in ball-bearings in the frame-plates 3 3.

8 is the tank holding the liquid disinfectant, and it is mounted over the upper moistening and feed roller 7. Across the rear end of the floor of this tank 8 is the perforated groove 9 (see Fig. 4) for feeding the liquid disinfectant onto the rollers 7. A curved fender or guard 10 depends from the tank 8 to prevent contact of the hands of the manipulator with the feed-rollers.

11 11 11 are the lower heating-rollers immediately under the heating-rollers 1 1 1. 12 is the lower moistening and feed roller immediately under the roller 7, and 13 is an extra end roller considerably in front of roller 12. These five rollers are all in the same place and are mounted in ball-bearings in the side frame-plates 14, held together by tie-rods 15. These rollers are all provided with spaced circumferential grooves, in which are seated the spaced endless wires 16, which form the lower and longer endless apron.

On one side the axles of all the rollers have the sprocket-wheels 17, around which are arranged the upper shorter sprocket-chain 18 and the lower longer sprocket-chain 19. These chains have operative contact with all of the sprocket-wheels, and thereby impart a rotary motion to all of the rollers in the upper and lower series, as clearly shown in Fig. 3. On the opposite side two adjacent upper and lower rollers are provided with the rigid intermeshing gear-wheels 20 and 21. The lower gear-wheel 21 has a smaller rigid gear-wheel 22, which intermeshes with the smaller gear-wheel 23, on the axle of which is the crank 24 for



imparting motion by hand to the rollers of the two series. The rear upper and lower heating-rollers 1 and 11 have attached thereto the chain-tightening devices 25.

5 On the hollow axle of the heating-rollers is held a perforated gas-pipe 26, (see Fig. 5,) each of which is connected by a system of piping 27 27 to a common source of supply.

Below the lower moistening and feed roller 10 12 is placed a drip-pan for catching the escaping liquid disinfectant.

In operation the bills to be treated are laid upon the front projecting end of the lower moving endless apron and are carried thereby 15 to and between the feed-rollers 7 and 12. The liquid disinfectant fed from the tank 8 to the feed-rollers thoroughly moistens the bills in their passage between the same, and in this saturated condition they pass on to and between the first pair of heating-rollers. At this 20 point the vaporizing of the liquid disinfectant upon the bills is effected by the heat of the rollers, and the vapor thus produced instantly attacks and destroys in a most effective manner any disease germs which may be present. 25 As the bills progress between the system of heating-rollers they are gradually dried and are ready for use as they pass out from between the two endless aprons. These endless 30 aprons being constructed of spaced wires, as shown, while forming a reliable feeding medium are of a sufficient open nature to permit of the free and thorough contact of the disinfecting-vapor with every portion of the 35 infected bills, thereby insuring the effectual and complete destruction of the germs present in the bills.

The wires forming the endless aprons resting, as they do, in the circumferential grooves 40 in the rollers permit these rollers to revolve in close proximity to each other, thereby giving sufficient friction contact between the endless aprons for effective service without any danger of possible mutilation of the bills under treatment. 45

I claim—

1. An apparatus for disinfecting paper money, consisting of two endless aprons traveling in holding contact with each other, the 50 contacting portions moving in the same direction, a series of moistening, feed, and heating rollers, around which the endless aprons travel, and means for applying the liquid disinfectant to the bills, as they are fed between the moving 55 endless aprons, to be subjected to the action of the vaporized disinfectants.

2. An apparatus for disinfecting paper money, consisting of two endless aprons of unequal length, traveling in holding contact 60 with each other, the contacting portions moving in the same direction, a series of moistening, feed, and heating rollers, around which the endless aprons travel, and means for applying the liquid disinfectant to the bills, as 65 they are fed between the endless aprons, to

be subjected to the action of the vaporized disinfectants.

3. An apparatus for disinfecting paper money, consisting of two endless aprons traveling in holding contact with each other, the 70 contacting portions moving in the same direction, moistening and feed rollers, a series of heating-rollers around which the endless aprons travel, and a tank for the liquid disinfectant, adjacent to the moistening-rollers 75 for feeding the liquid to the bills, as they are fed between the moving aprons, to be subjected to the action of the vaporized disinfectants.

4. An apparatus for disinfecting paper 80 money, consisting of two endless aprons of unequal length traveling in holding contact with each other, the contacting portions moving in the same direction, moistening and feed rollers, a series of heating-rollers around 85 which the endless aprons travel, and a tank for the liquid disinfectant adjacent to the moistening-rollers, for feeding the liquid to the bills, as they are fed between the moving 90 endless aprons to be subjected to the action of the vaporized disinfectants.

5. An apparatus for disinfecting paper money consisting of two endless aprons formed of spaced endless wires, traveling in holding 95 contact with each other, the contacting portions moving in the same direction, a series of grooved moistening, feed, and heating rollers, around and in the grooves of which the endless wires travel, and means for applying the 100 liquid disinfectant to the bills, as they are fed between the moving endless aprons, to be subjected to the actions of the vaporized disinfectants.

6. An apparatus for disinfecting paper money, consisting of two endless aprons of 105 unequal length formed of spaced endless wires traveling in holding contact with each other, the contacting portions moving in the same direction, a series of grooved moistening, feed, and heating rollers, around and in the grooves 110 of which, the endless wires travel, and means for applying the liquid disinfectant to the bills, as they are fed between the endless aprons, to be subjected to the action of the vaporized disinfectant. 115

7. An apparatus for disinfecting paper money, consisting of two endless aprons formed of spaced endless wires, traveling in holding contact with each other, the contact- 120 ing portions moving in the same direction, a series of grooved moistening feed and heating rollers, around and in the grooves of which the endless wires travel, and a tank for the liquid disinfectant adjacent to the moistening-rollers for feeding the liquid to the bills, as 125 they are fed between the moving endless aprons, to be subjected to the action of the heat and vaporized disinfectant.

8. An apparatus for disinfecting paper money, consisting of two endless aprons of 130



unequal length, formed of spaced endless wires, traveling in holding contact with each other, the contacting portions moving in the same direction, a series of grooved moistening, feed, and heating rollers, around and in the grooves of which, the endless wires travel, and a tank for the liquid disinfectant adjacent to the moistening-rolls, for feeding the liquid to the bills, as they are fed between the moving endless aprons, to be subjected to the action of the heat and vaporized disinfectant.

9. An apparatus for disinfecting paper money, consisting of two endless aprons traveling in holding contact with each other, the contacting portions moving in the same direction, moistening and feed rollers, a series of heating-rollers around which the endless aprons travel, and a tank for the liquid disinfectant, adjacent to the moistening-rollers, for feeding the liquid to the bills, as they are fed between the moving endless aprons, to be subjected to the action of the vaporized disinfectants, and a fender or guard in front of the upper feed-roller.

10. An apparatus for disinfecting paper money, consisting of two endless aprons of unequal length traveling in holding contact with each other, the contacting portions moving in the same direction, moistening and feed rollers, a series of moistening-rollers around which the endless aprons travel and a tank for the liquid disinfectant adjacent to the moistening-rollers, for feeding the liquid to the bills, as they are fed between the moving endless aprons, to be subjected to the action of the vaporizing disinfectants, and a fender or guard in front of the upper feed-rollers.

11. An apparatus for disinfecting paper money, consisting of two endless aprons formed of spaced endless wires, traveling in holding contact with each other, the contacting portions moving in the same direction, a series of grooved moistening, feed, and heating rollers, around and in the grooves of which the endless wires travel, and a tank, for the liquid disinfectant adjacent to the moistening-rollers for feeding the liquid to the bills, as they are fed between the moving endless aprons to be subjected to the action of the heat and vaporized disinfectants, and a fender or guard in front of the upper feed-roller.

12. An apparatus for disinfecting paper money, consisting of two endless aprons of unequal length, formed of spaced endless wires traveling in holding contact with each other, the contacting portions moving in the same direction, a series of grooved moistening, feed and heating rollers, around and in the grooves of which the endless wires travel, and a tank for the liquid disinfectants adjacent to the moistening-rolls, for feeding the liquid to the bills, as they are fed between the moving endless aprons, to be subjected to the action of the heat and vaporized disinfectant, and a fender or guard in front of the upper feed-roller.

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

CHARLES B. CLARK.

Witnesses:

W. T. MILLER,

EDWARD C. KOESTER.