(No Model.) 3 Sheets—Sheet 1

E. CASSANOVA.

BRUSHING OR COMBING MACHINE.

No. 604,725. Patented May 31, 1898.

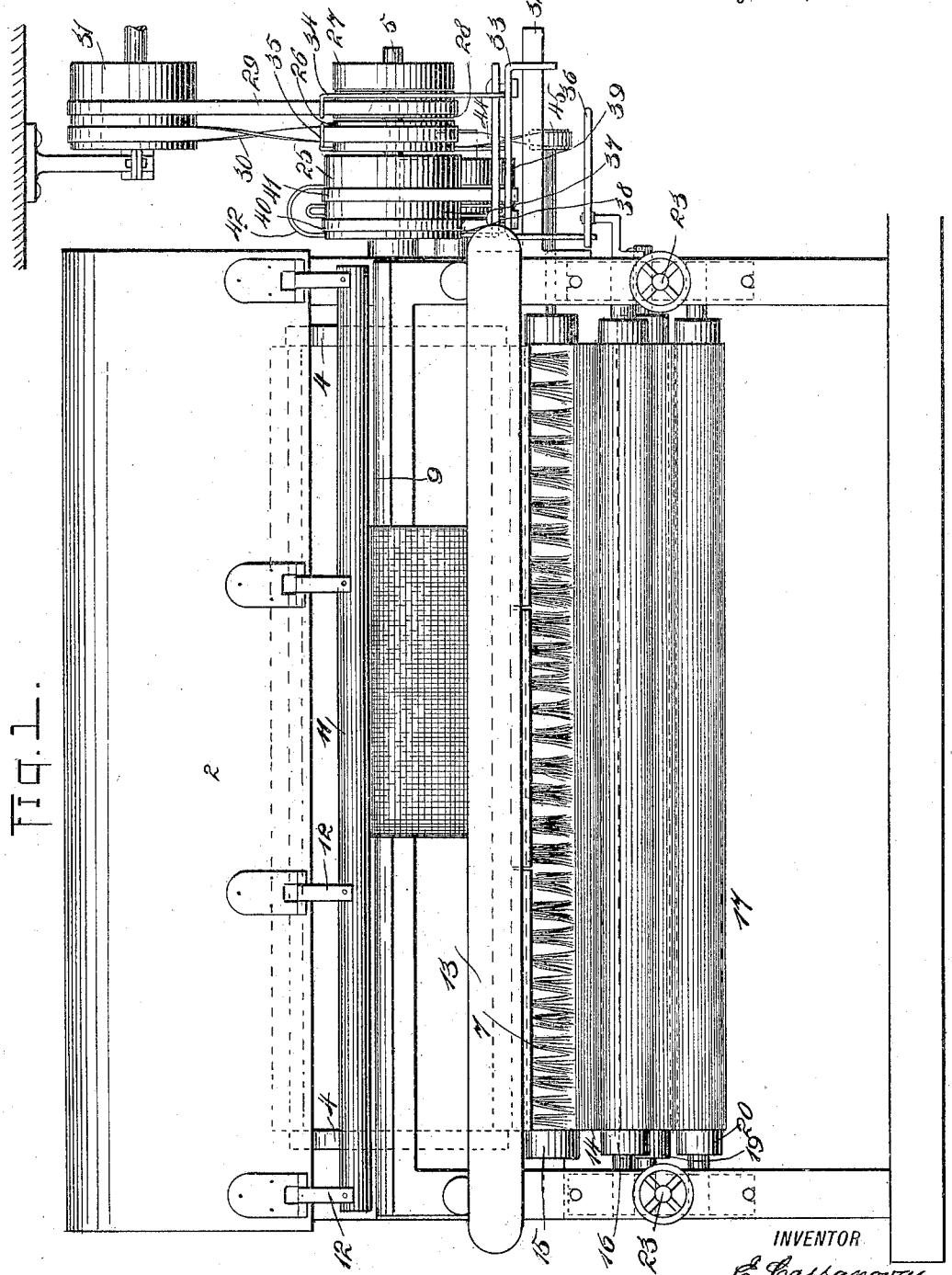


Fig. 1.

WITNESSES:

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

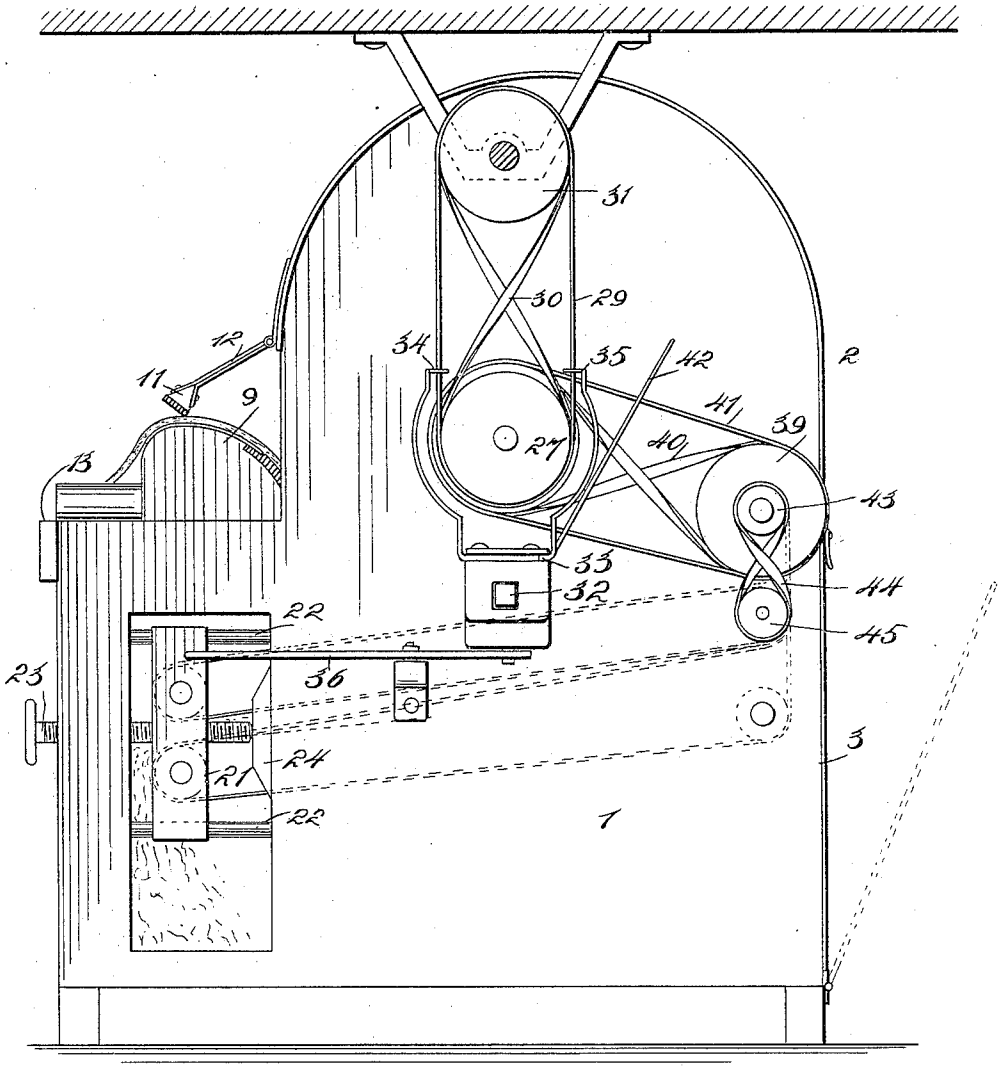
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Fig. 2.



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(No Model.)

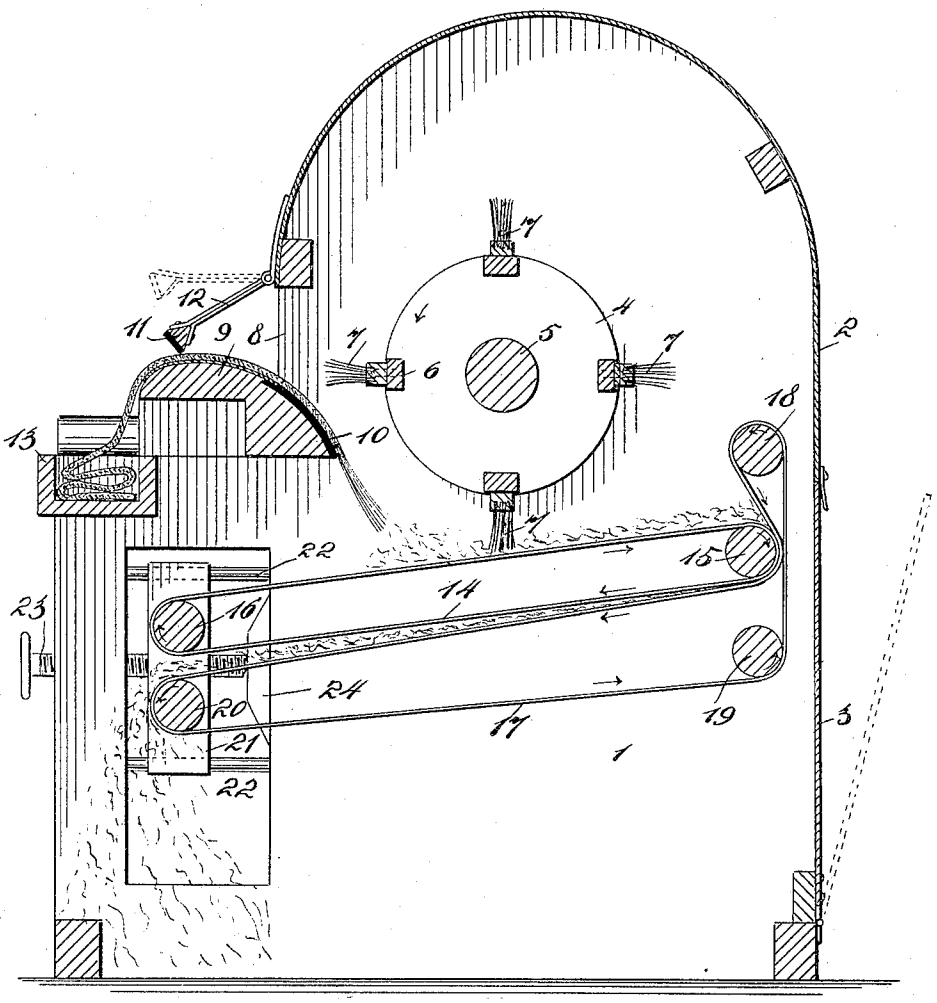
3 Sheets—Sheet 3.

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BRUSHING OR COMBING MACHINE.

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Fig. 3.



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UNITED STATES PATENT OFFICE.

EDGAR CASSANOVA, OF NEW ORLEANS, LOUISIANA.

BRUSHING OR COMBING MACHINE.

SPECIFICATION forming part of Letters Patent No. 604,725, dated May 31, 1898.

Application filed April 20, 1897. Renewed April 5, 1898. Serial No. 676,591. (No model.)

To all whom it may concern:

Be it known that I, EDGAR CASSANOVA, of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and Improved Brushing or Combing Machine, of which the following is a full, clear, and exact description.

This invention relates particularly to machines for combing the fringe of towels and similar articles and for brushing or combing blankets or the like; and the object is to provide a machine by means of which this work may be rapidly done and with a much better finish than the same can be done by hand.

I will describe a machine embodying my invention, and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of a machine embodying my invention. Fig. 2 is an end elevation, and Fig. 3 is a transverse vertical section.

The machine comprises a casing 1, having a dome-shaped top 2 and a swinging door 3 at its rear side. Mounted to rotate in the dome-shaped portion 2 of the casing is a brush-carrier consisting of disks 4, mounted on a main shaft 5 and connected by bars 6, to which the brushes 7 are attached. I have here shown four brushes connected to the carrier; but it is obvious that a greater or less number may be employed without departing from the spirit of my invention.

The front of the dome-shaped portion 2 has an opening 8, and extended along this opening is a bed-plate 9, which is here shown as curved transversely on its upper side, and preferably at its inner portion it will be provided with a yielding bed 10—such, for instance, as rubber. Mounted to swing relatively to the bed-plate 9 is a holder-bar 11, provided with rubber or similar flexible material on its lower side. As here shown, this holder-bar is attached to arms 12, which have pivotal connection with the front of the dome-shaped portion of the casing. Outside the bed-plate 9 is a trough 13, in which the outer portions of the towels may be placed when the brushes are operating on the fringe of the inner end.

An endless belt 14 is mounted on rollers 15 and 16, having bearings in the casing, and another endless belt 17 is arranged beneath the endless belt 14. This endless belt 17 extends around rollers 18, 19, and 20 and also engages against the belt 14 at its portion around the roller 15. The rollers 16 and 20 have their journal-bearings in blocks 21, movable on guide-rods 22, supported in the side walls of the casing, and screws 23 have screw-thread engagement with tapped holes through the blocks 21 and impinge at their inner ends against blocks 24, secured to the casing. By means of these screws the blocks 21 may be moved more or less inward or outward to regulate the tension of the endless belts.

On the outer end of the shaft 5 is a pulley 25, from which power is imparted to move the endless belts 14 and 17, and also mounted on this shaft 5 are two loose pulleys 26 and 27 and a fast pulley 28. Bands 29 and 30 extend from a power-pulley 31 and are adapted for engagement with these pulleys 26, 27, and 28. As here shown, the band 30 is crossed and is in engagement with the loose pulley 26, and the band 29 is in engagement with the fast pulley 28. This, of course, will rotate the shaft 5 in one direction. Should it be, however, desired to rotate the shaft in the other direction, the band 30 will be moved onto the fast pulley 28 and the band 29 shifted onto the loose pulley 27.

Mounted to slide on an arm 32, extended outward from the casing 1, is a shifter-carriage 33. This shifter-carriage has fingers 34 and 35, having loop portions at their upper ends engaging, respectively, with the bands 29 and 30. The shifter-carriage 33 has a pin or lug extended downward from it and engaged with a fulcrumed lifting-lever 36.

It is desired that the endless belts 14 and 17 shall travel in opposite directions and also that means be provided for changing the direction of movement. On the extended journal of the shaft 18 is a fast pulley 37 and two loose pulleys 38 and 39. Bands 40 and 41 extend from the pulley 25 on the shaft 5 and are engaged with the pulleys on the roller 18. The band 40 will be crossed, as plainly indi-

cated in Fig. 2, and shifting fingers 42 extend upward from the shifter-carriage 33 and engage the opposite edges of these bands 40 and 41. On the outer end of the journal of the roller 18 is a small pulley 43, from which a cross-belt 44 extends to a pulley 45 on the extended journal of the roller 15. It will be seen by this arrangement of belting that the endless belts 14 and 17 will be driven in opposite directions.

While combing the fringe of towels or the like, the brushes will be rotated in the direction indicated by the arrow on the disk 4, and the endless belts 14 and 17 will move in the directions indicated by the arrows. The towel will be held in place by the holder-bar 11, and the brushes 7 will move through the fringe of the towel, which hangs free over the bed-plate 9, and whatever lint may be brushed from the fringe will fall upon the upper stretch of the endless belt 14 and will be carried around and deposited upon the upper stretch of the endless belt 17, which will carry it along and discharge it at the front portion of the machine.

When it is desired to brush the nap of a blanket or similar article, the direction of rotation of the brushes will be reversed and the direction of movement of the endless belts 14 and 17 will also be reversed. Then a blanket fed through the front of the machine and between the lower stretch of the belt 14 and the upper stretch of the belt 17 will be carried forward around the roller 15 and along with the top stretch of the belt 14, and of course as it passes underneath the brushes the nap of the blanket will be brushed and raised.

The door in the back of the casing is provided so that access may be readily obtained to the rear portion of the machine for the purpose of repairing the endless belts, should occasion require, and also for oiling the bearings.

Obviously in a machine used solely for brushing the fringe of towels the lower endless belt 17 may be omitted, and, in fact, both belts may be omitted, although I prefer to use the upper one to carry away the lint.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A brushing and combing machine, comprising a casing, a rotary brush, means located at an opening in the casing for holding the goods to be brushed and carrying devices below the brush for receiving and carrying the material brushed from the goods, substantially as described.

2. A brushing or combing machine, comprising a casing, a rotary brush-carrier in said casing, a series of brushes on said carrier, a transversely-curved bed-plate located in an opening in the front of the casing, a holder-bar above the bed-plate, pivoted arms to which said holder-bar is attached, and endless belt movable below the brush-carrier, and means for imparting motion to the brush-carrier and to the endless belt, substantially as specified.

3. A brushing or combing machine, comprising a casing, a brush-carrier mounted to rotate therein, a series of brushes mounted on the carrier, two endless belts arranged below the brush-carrier, one of said belts being below the other, the lower belt being extended over one of the rollers of the upper belt, and means for imparting motion to the brush-carrier and to the endless belts, substantially as specified.

4. A brushing or combing machine, comprising a casing, a brush-carrier mounted to rotate therein, a series of brushes on said brush-carrier, a transversely-curved bed-plate extended along an opening in the front of the casing, a swinging holder-bar above said bed-plate, a tray forward of the bed-plate, endless belts movable in opposite directions below the brush-carrier, means for rotating the brush-carrier, and moving the endless belts, and means for changing the direction of movement of said parts, substantially as specified.

5. A brushing or combing machine, comprising a casing, a brush-carrier mounted to rotate therein, brushes on said carrier, fast and loose pulleys on the extended journal of the shaft of said carrier, a main driving-pulley, bands extended from the driving-pulley and adapted for connection with the fast and loose pulleys, another pulley on said extended journal, endless belts mounted on rollers having journal-bearings in the casing, fast and loose pulleys on an extended journal of one of said rollers, bands extended from the last-named pulley on the journal of the brush-carrier shaft and adapted for engagement with the fast and loose pulleys on the journal of the roller, a shifter-carriage movable on an arm extended outward from the casing, a fulcrumed lever for moving said carriage, and fingers extended from the carriage for engagement with the several bands, whereby they may be shifted to change the direction of rotation of the brush-carriage and endless belts, substantially as specified.

EDGAR CASSANOVA.

Witnesses:
S. G. LARASSIERE,
JOHN F. A. HEBEL.