

No. 876,344.

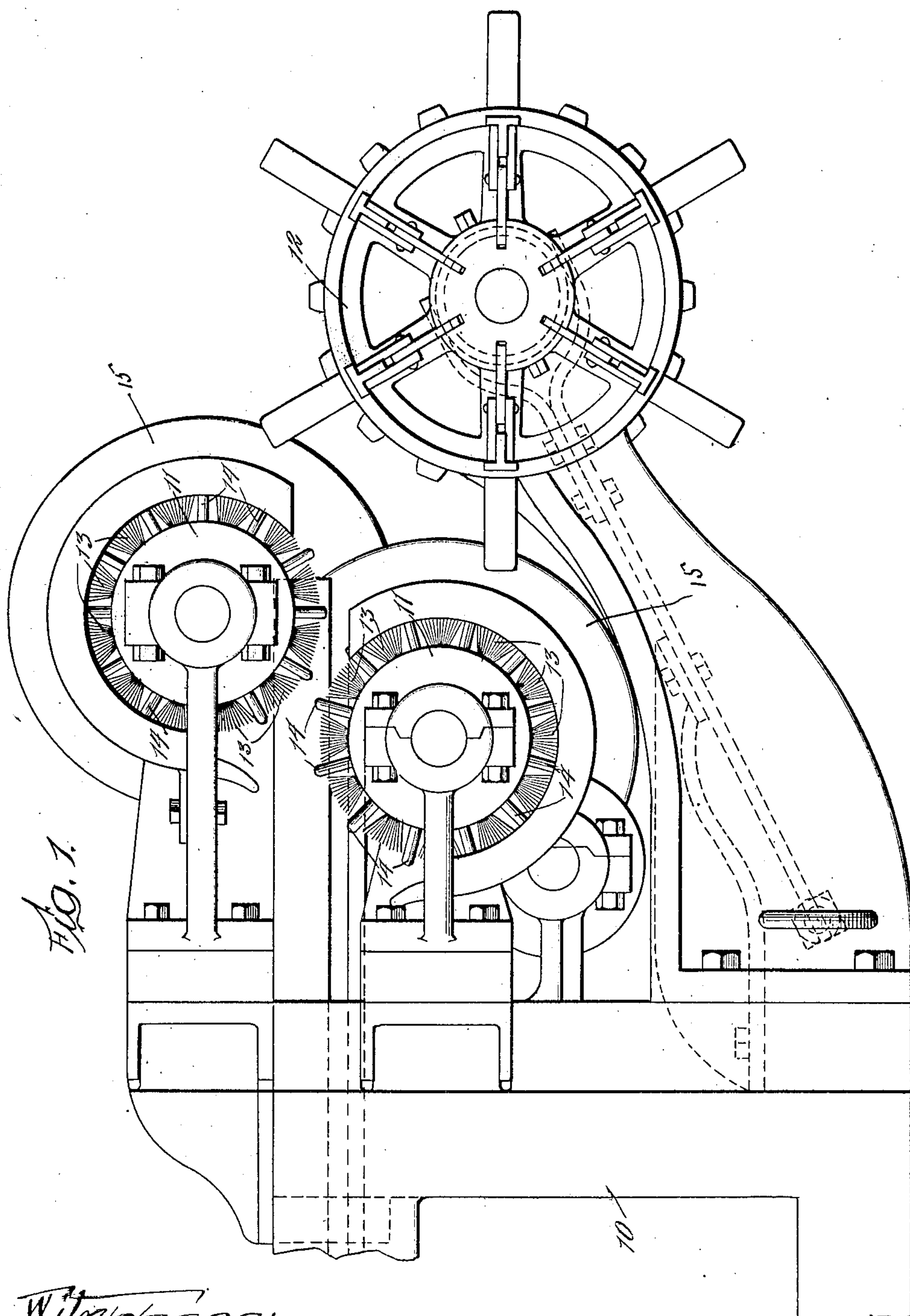
PATENTED JAN. 14, 1908.

F. GLAS.

MACHINE FOR CLEANING INTESTINES.

APPLICATION FILED APR. 22, 1907.

3 SHEETS—SHEET 1.



Witnesses:
Minnie L. Hunter
S. J. Tomarusk.

Inventor:
Frank Glas
by Bond Adams Richard Jackson
Attys

No. 876,344.

PATENTED JAN. 14, 1908.

F. GLAS.

MACHINE FOR CLEANING INTESTINES.

APPLICATION FILED APR. 22, 1907.

3 SHEETS—SHEET 2.

Fig. 2.

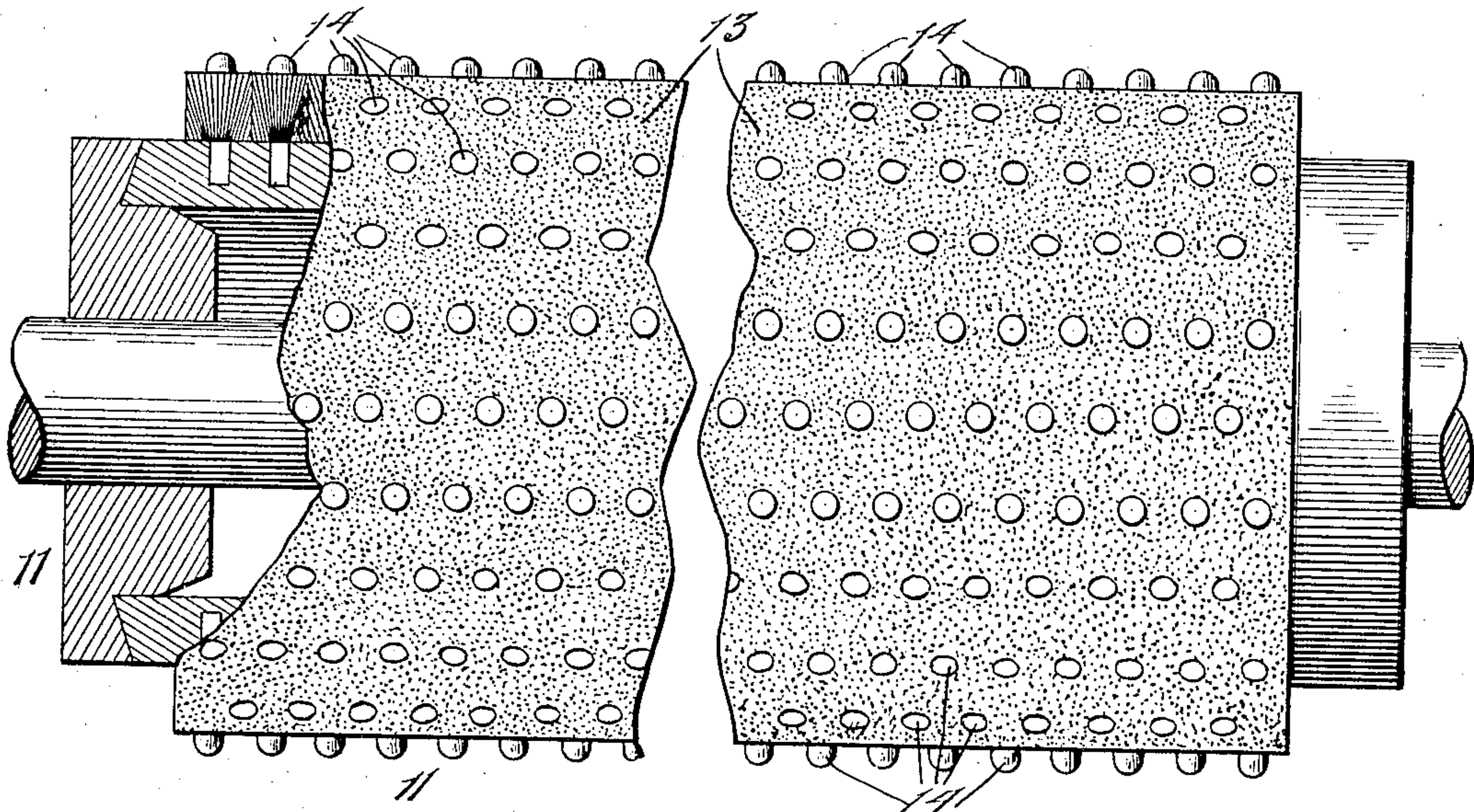
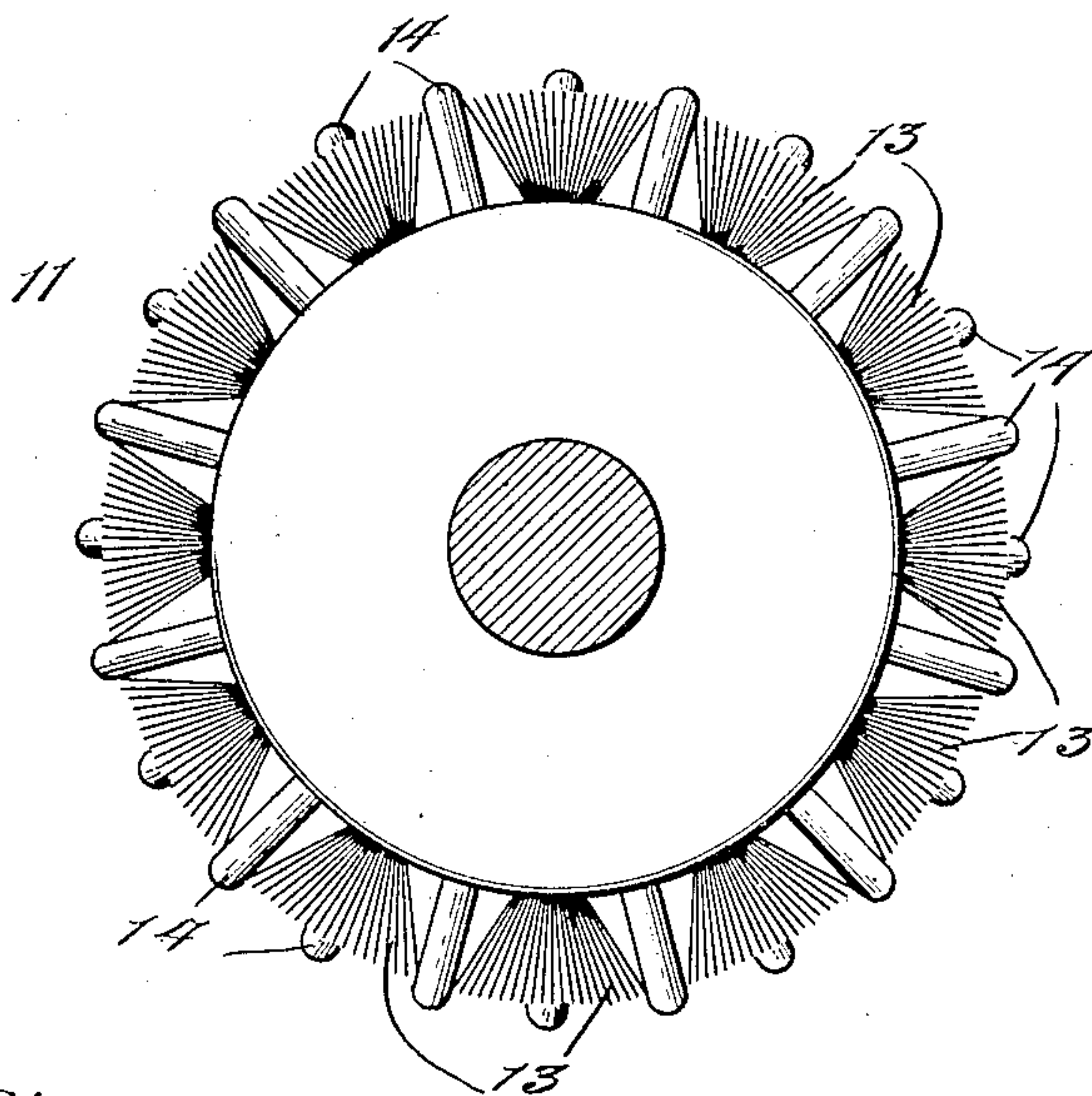


Fig. 3.



Witnesses:
Minnie C. Hunter
G. V. Tommarus Jr.

Inventor:
Frank Glas
by Bond, Adams, Rickard & Jackson
Attys

No. 876,344.

PATENTED JAN. 14, 1908.

F. GLAS.

MACHINE FOR CLEANING INTESTINES.

APPLICATION FILED APR. 22, 1907.

3 SHEETS—SHEET 3.

Fig. 4.

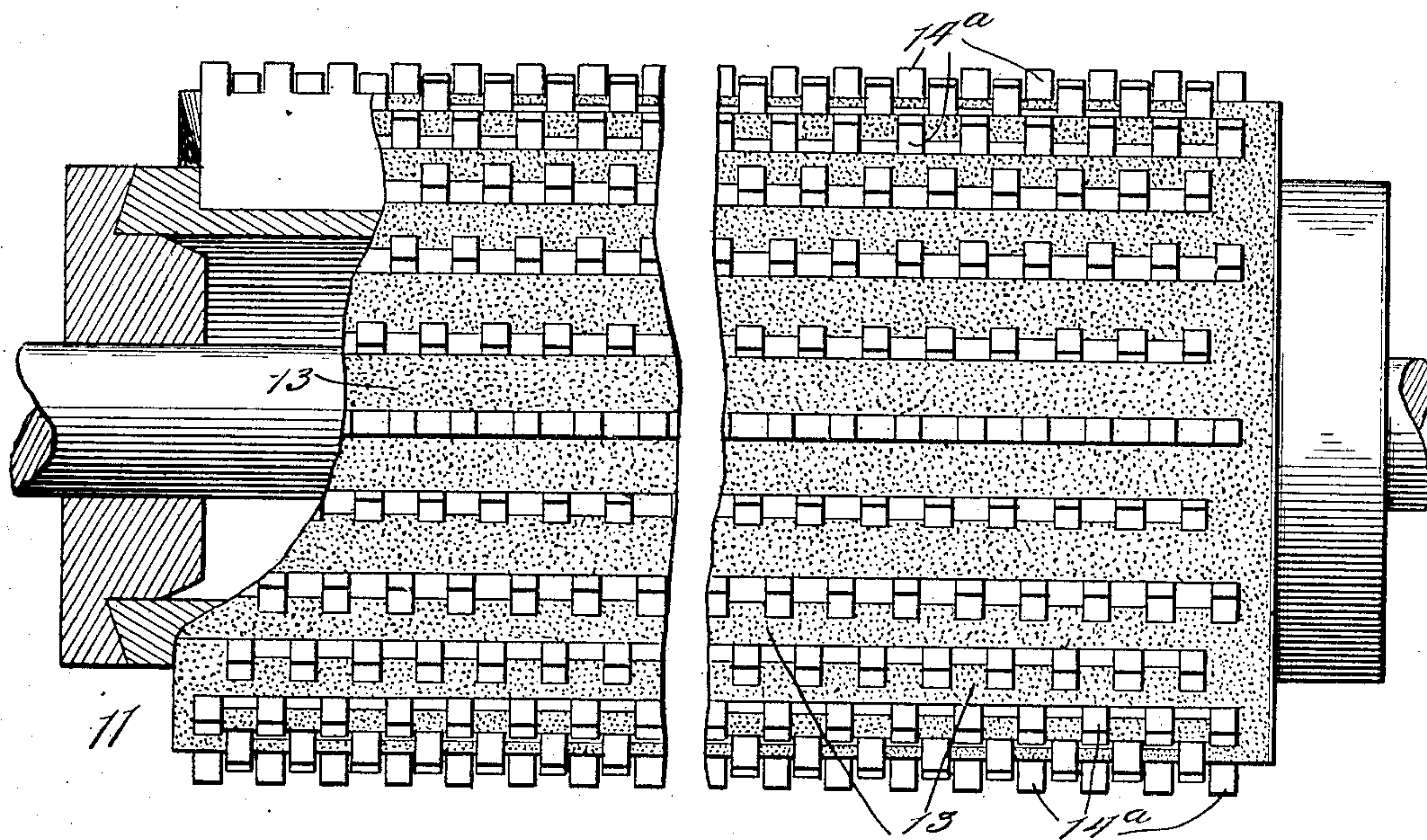
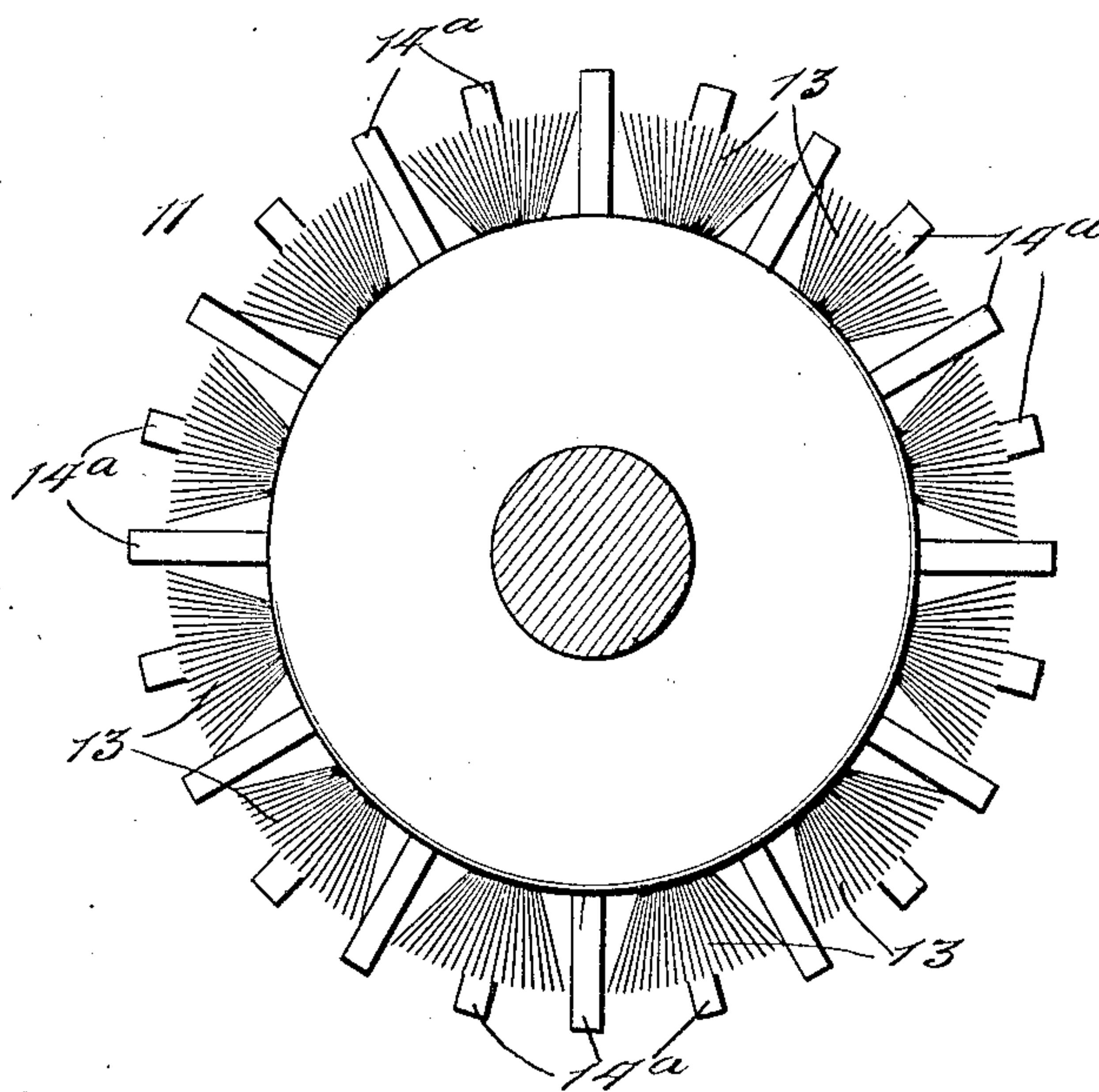


Fig. 5.



Witnesses:
Minnie A. Hunter
L. V. Komarus Jr.

Inventor
Frank Glas
by Bowditch, Adams, Putnam & Jackson
Attys

UNITED STATES PATENT OFFICE.

FRANK GLAS, OF SOUTH OMAHA, NEBRASKA, ASSIGNOR OF ONE-HALF TO HIMSELF AND ONE-HALF TO ERWIN B. TOWL, OF SOUTH OMAHA, NEBRASKA.

MACHINE FOR CLEANING INTESTINES.

No. 876,344.

Specification of Letters Patent.

Patented Jan. 14, 1908.

Application filed April 22, 1907. Serial No. 369,656.

To all whom it may concern:

Be it known that I, FRANK GLAS, a citizen of the United States, residing at South Omaha, county of Douglas, State of Nebraska, have invented certain new and useful Improvements in Machines for Cleaning Intestines, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to improvements in machines for cleaning intestines.

The intestines that come from certain portions of beef animals have attached to them a fatty substance that contains hard
15 coarse strips which are very difficult to remove and it has been the usual practice with such class of intestines to remove such fatty substance by the use of knives. In the use of a knife to remove such fatty substance,
20 the knife is inserted between the intestine and the stringy strips in order to cut away such strips, and even with skilled labor, owing to the toughness of these strips and the difficulty of handling the intestines by
25 hand, many intestines are so damaged as to render them wholly or partially worthless. It has been common to employ machines for cleaning intestines in which oppositely-rotated cylindrical brushes were employed,
30 but such machines have not been successful in removing the fatty substance from intestines of the kind mentioned and it has therefore been necessary in such cases to employ hand labor, as stated.

35 It is the object of my invention to provide a machine having oppositely-rotated co-acting cleaning-elements provided with active parts that will satisfactorily remove such stringy fatty substance from intestines
40 of any character, and I accomplish this object in the novel manner shown in the drawings and hereinafter specifically described.

In the accompanying drawings:—Figure 1 is a side elevation of so much of an ordinary
45 intestine-cleaning machine as is necessary to illustrate the combination therein of cleaning-elements according to my invention. Fig. 2 is a detail, partly broken away and partly in section, showing in elevation
50 one of my cleaning elements. Fig. 3 is an end view of the cleaning element shown in Fig. 2; and Figs. 4 and 5 are views corresponding to Figs. 2 and 3 but showing a modification in the construction thereof.

55 Referring to the several figures of the

drawings, in which corresponding parts are indicated by like reference numerals, 10 indicates a portion of the frame-work of an intestine cleaning machine. In this frame is arranged a cleaning element 11 and an
60 element which supports the intestines while being subjected to the action of said cleaning element. This support may be of any suitable character. For example, in the particular machine selected to illustrate the
65 invention, said support for the intestines itself consists of a like cleaning element 11, one of said cleaning elements being placed above and slightly in advance of the other, as is usual in machines of this character. 70

12 indicates a reel on which the cleaned intestines are wound, said reel being rotatably supported in any suitable manner.

As my improvements relate more especially to the cleaning-elements employed, and
75 as the construction of the machine in other respects is to be any ordinary construction, I do not deem it necessary here to enter into any further detailed description of such machine. 80

Referring now particularly to the construction of the cleaning-element, as best illustrated in Figs. 2 and 3, 13 indicates stiff bunches of bristles secured in any approved manner in the cylindrical surface of the frame, said bristles, in the construction shown, being arranged in longitudinal rows. 14 indicates
85 breaking devices interspersed among the stiff bunches of bristles 13, which breaking devices, in the construction shown in Figs. 90 2 and 3, are formed of pins or pegs suitably inserted in the surface of the cylindrical frame of the element, and which, in the construction shown, extend in longitudinal rows. These pins or pegs, for the best results, are
95 rigid and may be made of either metal or wood.

The cleaning elements may be driven by any suitable means, for example, in the drawings are shown pulleys 15 for transmitting motion thereto, which pulleys may be driven
100 from any suitable source of power.

In the operation of the machine, the intestines covered with the stringy fatty substance before mentioned are fed between the co-acting elements, and as the latter are rotated the bristles and the breakers 14 act together to remove such fatty substance. In this operation, the breaking members 14 will break the tough stringy elements in the fatty substance, so that the stiff bristles will be
110

able to entirely loosen and sweep away such fatty substance,—and this without cutting or scoring the intestines so as to render them valueless, as was frequently done when this work was done by hand.

In Figs. 4 and 5, I have shown the bristles arranged as in Figs. 1, 2 and 3, and have indicated them by the same reference numeral. The breaking members in the modification shown in Figs. 4 and 5, instead of being in the form of pins or pegs, are in the form of rows of longitudinally-extending strips interspersed among the bristles and having their outer or acting edges notched so as to provide each one of the strips with a plurality of contact points. These notched strips I have indicated by 14^a.

In both forms of construction of the cleaning-element I have shown the breaking members projecting beyond the acting ends of the bunches of bristles, and, in treating some fat-covered intestines, having the breaking members so projecting is of decided advantage. In the treatment of some intestines, however, where the fatty substance thereon is of different character, it will be found that fully as effective work can be done by having such breaking members of less

height,—even of the same height, or slightly less, in fact, than the bunches of bristles. I therefore do not wish to be confined to a construction wherein these breaking devices project beyond the ends of the bristles.

What I claim as my invention and desire to secure by Letters Patent is—

1. An intestine cleaning machine comprising an intestine support, a cleaning element consisting of bristles and breaking members interspersed among said bristles, and means for supporting and operating said cleaning element.

2. An intestine cleaning machine comprising an intestine support, a cleaning element consisting of alternate rows of bristles and breaking members, and means for supporting and operating said cleaning element.

3. An intestine cleaning machine comprising opposed cleaning elements, each consisting of bristles and breaking members interspersed among said bristles, and means for supporting and operating said cleaning elements.

FRANK GLAS.

Witnesses:

H. CULVER,
E. W. KOLTERMAN.