

(No Model.)

J. CUNNING.

MACHINE FOR CLEANING INTESTINES.

No. 354,047.

Patented Dec. 7, 1886.

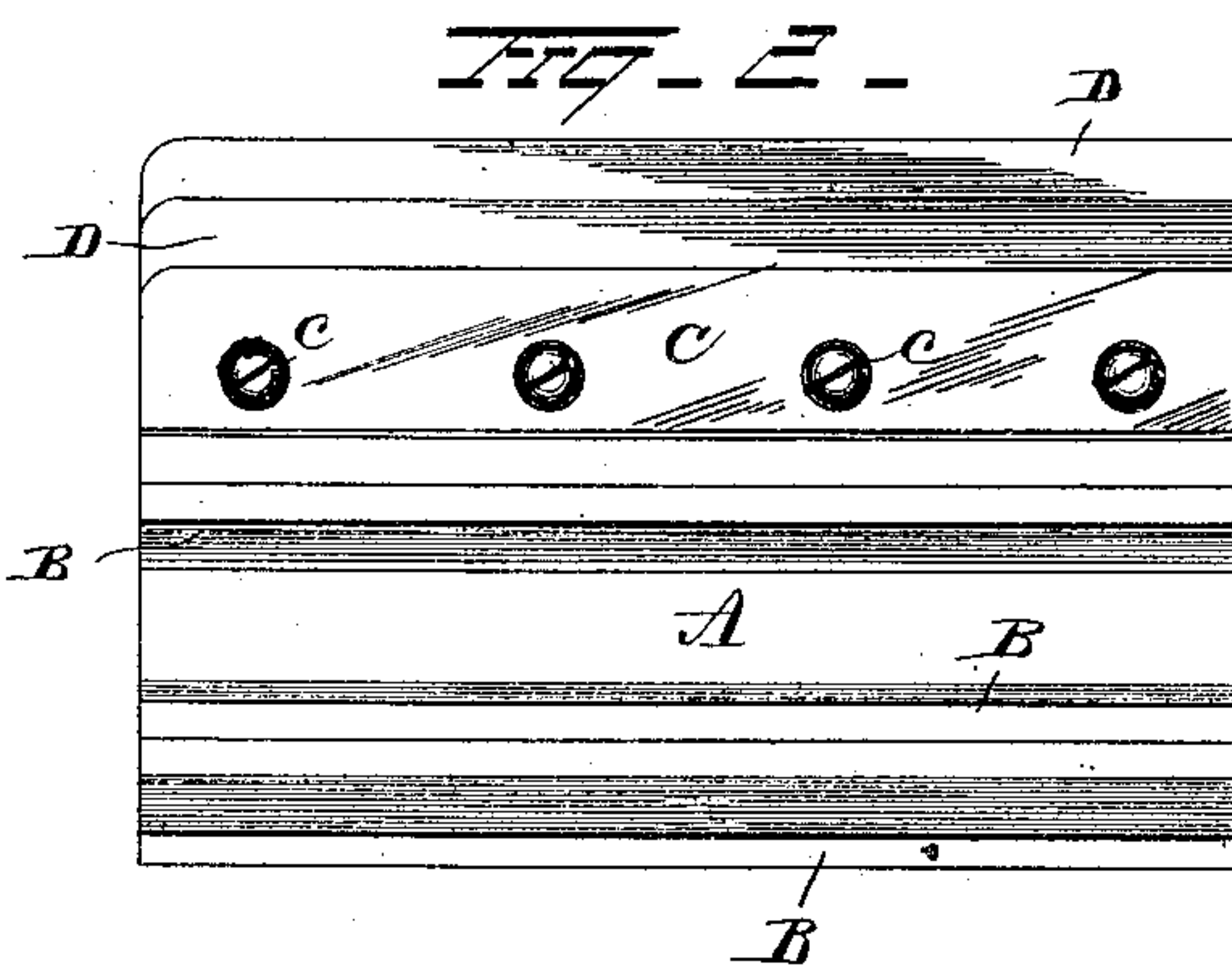
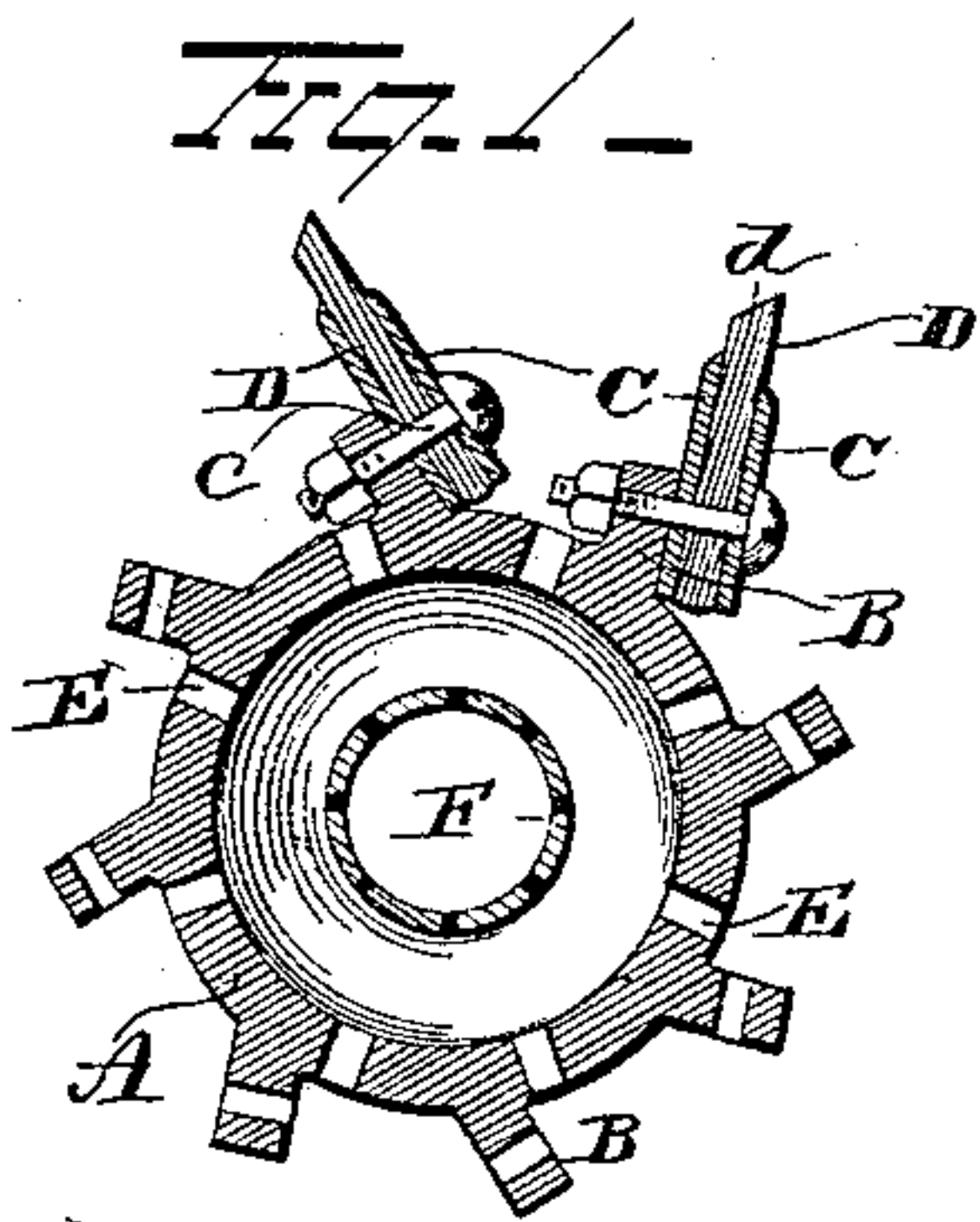
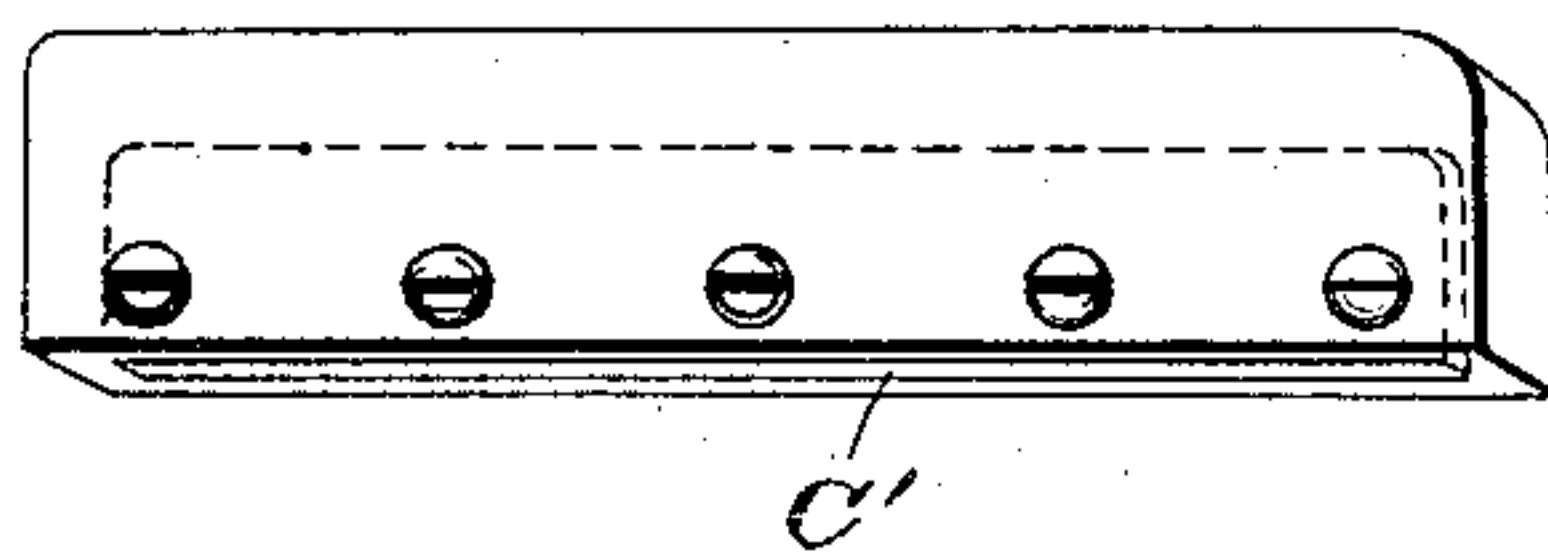


FIG. 3.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

JAMES CUNNING, OF INDIANAPOLIS, INDIANA.

## MACHINE FOR CLEANING INTESTINES.

SPECIFICATION forming part of Letters Patent No. 354,047, dated December 7, 1886.

Application filed May 19, 1886. Serial No. 202,662. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES CUNNING, of Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Machines for Cleaning Intestines; 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.

My invention relates to an improvement in machines for cleaning intestines.

In Letters Patent No. 337,928, granted to me on the 16th day of March, 1886, a machine was shown and described in which a set of scrapers secured to the periphery of a wheel were adapted to engage the intestines as they were drawn over an adjustable table, a supply of water being forced through the scraper wheel into contact with the intestines while the scraping process was going on.

The object of my present invention is to provide yielding scrapers adapted to be removably secured to the scraper-wheel, whereby the tendency to tear the intestine when a thicker portion or slight bunch comes beneath the scraper is entirely avoided and the intestine more completely cleaned.

With this end in view my invention consists in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of the scraper-wheel in vertical section, and Fig. 2 is a view of the scraper-wheel in side elevation, and Fig. 3 is a modification.

A represents the drum or wheel, to the periphery of which the scrapers are secured. The drum or wheel A is hollowed and provided with a series of longitudinal ribs or flanges, B, located on the outer surface and set obliquely or radially, as shown. To each of the outer sides of the said ribs or flanges is bolted a pair of thin metallic plates, C, between which are clamped the yielding scrapers D. The scrapers D are preferably formed of rubber, but may be of any tough flexible material which will yield when unusual pressure is exerted thereon. Their edges are preferably beveled, as shown at *d*. The bolts *c*, which secure the plates and the scrapers to the ribs or flanges, extend through

the scrapers, and the plates C serve as washers, and also support the scrapers and prevent them from folding over. The freedom with which the scrapers yield will depend upon the distance which the plates C are set back from their working edges. I find it preferable to extend the plate at the back of the scraper somewhat nearer the edge than the plate to the front extends, the reason being obvious.

The drum or wheel A is provided with openings E, located between the ribs or flanges B, adapted to conduct the water, which is conducted within the drum by means of the perforated hollow shaft F, out into contact with the intestine as it is being operated upon by the scrapers. The water may be led into the drum A from either end, as found most convenient, and the construction of the adjustable table and gear for rotating the drum, and the pipe for conducting water over the wheel and sprinkling it onto the table from above, may be constructed as shown, or in any other well-known and approved manner.

The effect of the yielding scraper is to adjust itself to the different thicknesses of the intestine, exerting a constant pressure on every part as it passes beneath it, and preventing the tearing which is liable to occur when a bunch of the intestines or of any foreign substance chances to pass beneath it.

The modification shown in Fig. 3 consists in a scraper formed of some yielding material—rubber, for example—provided with a strengthening or stiffening plate, C', being located within it. The rubber may be molded around the plate, or may be provided with a recess adapted to receive the plate, as found most convenient and best.

It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention; hence I do not wish to limit myself strictly to the construction set forth.

I am aware that a yielding scraper secured to the periphery of a drum is not new; hence I make no claim, broadly, to such construction.

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

1. In a machine for cleaning intestines, the



combination, with a hollow wheel or drum having ribs or flanges on the periphery thereof and openings in the periphery of the drum for discharging water, of yielding scrapers secured  
5 to the front face of the ribs or flanges, and stiffening-plates secured to the rear faces of the scrapers for limiting the movement of the scrapers.

2. In a machine for cleaning intestines, the  
10 combination, with a hollow wheel or drum having oblique or radial ribs or flanges on the periphery thereof and openings in the periphery

of the drum for discharging water, of yielding scrapers secured to the ribs or flanges, and stiffening-plates secured against both faces of  
15 the scrapers, substantially as and for the purpose set forth.

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

JAMES CUNNING.

Witnesses:

H. L. KREIDER,  
W. H. STONEMAN.