C. G. FERGUSON.

POLISHING MACHINE.

APPLICATION FILED NOV. 20, 1908.

912,102.

Patented Feb. 9, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

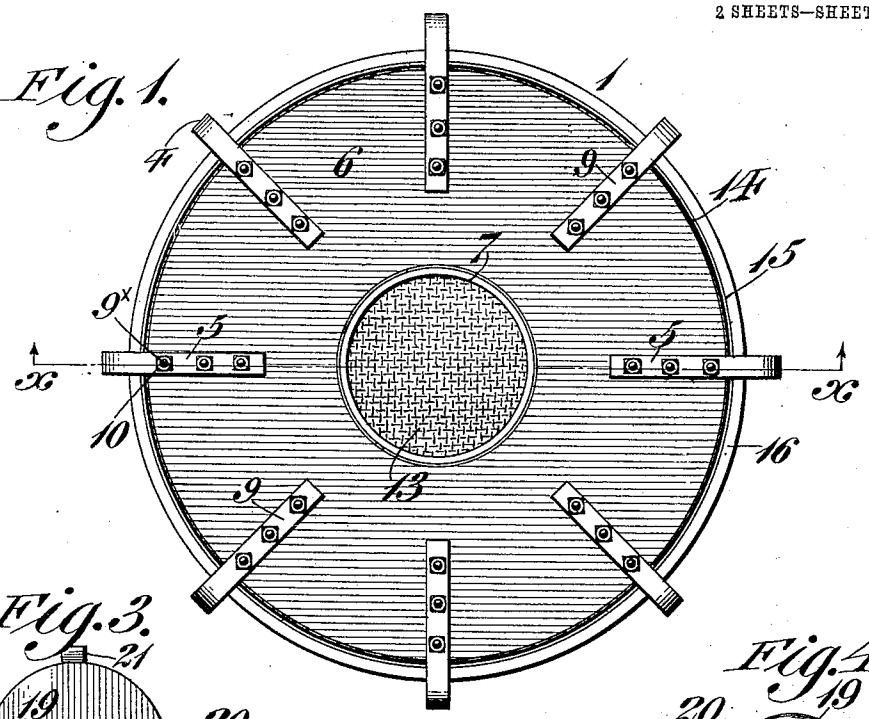


Fig. 3.

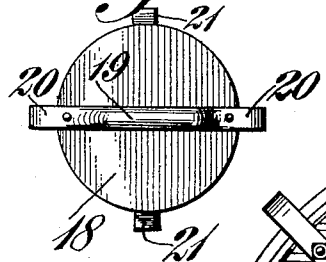


Fig. 4.



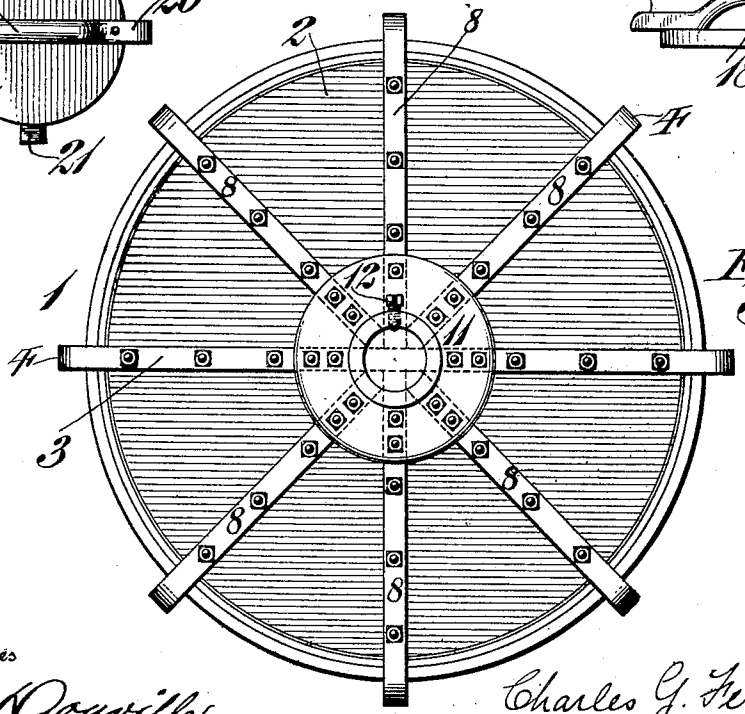


Fig. 2.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 5.

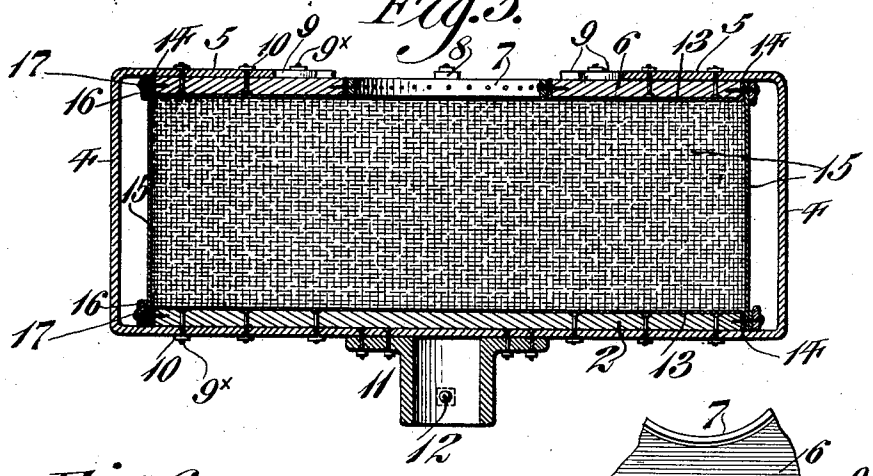


Fig. 6.

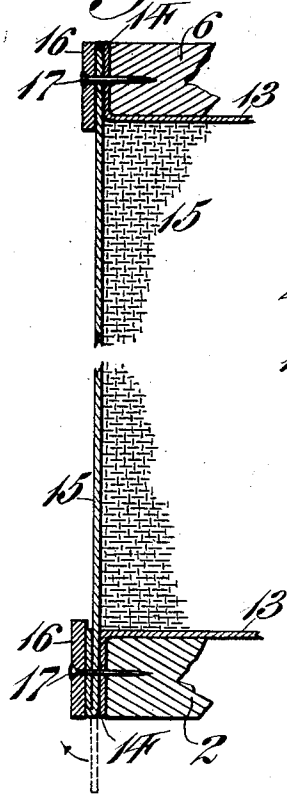


Fig. 7.

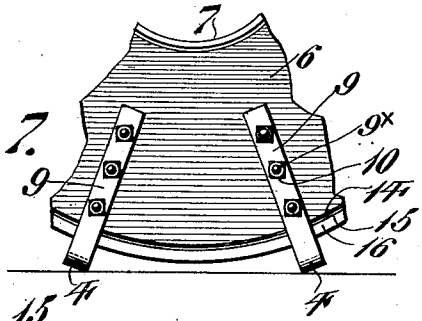
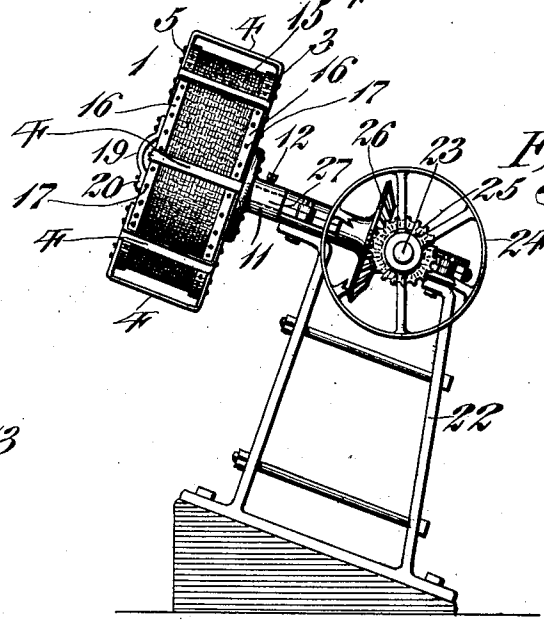


Fig. 8.



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POLISHING-MACHINE.

No. 912,102. Specification of Letters Patent. Patented Feb. 9, 1909.

Application filed November 20, 1908. Serial No. 463,527.

To all whom it may concern:

Be it known that I, CHARLES G. FERGUSON, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Polishing-Machine, of which the following is a specification.

My invention relates to a new and useful polishing machine wherein I provide a drum having a rigid frame to which the canvas or other suitable material forming the sides and lining will be connected and disconnected as desired.

It further consists in mounting or holding the canvas forming the sides at a suitable distance from the side bars of the frame.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

Figure 1 represents a front elevation of a drum for a polishing machine embodying my invention showing the cap or closure removed. Fig. 2 represents a rear elevation thereof. Fig. 3 represents an elevation of a lid or closure in detached position. Fig. 4 represents a side elevation thereof. Fig. 5 represents a sectional view on line x—x, Fig. 1. Fig. 6 represents a sectional view of a detached portion on an enlarged scale, showing the manner of connecting the fabric with the frame. Fig. 7 represents a side elevation of a portion of the drum illustrating the manner in which the same can be rolled along the floor or a support without interfering with the canvas side. Fig. 8 represents a side elevation of a polishing machine showing my drum in position.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, in polishing machines now in use on the market, I have found that the material such as wax which the drum is adapted to receive and to which the pills, candy or other articles to be polished are subjected will slide along the walls of the drum and it is necessary or desirable to form the drum of such material, that the material will adhere suitably thereto, in order that the proper polish will be imparted to the article. It is further necessary that the pills, candy or other articles to be polished have a free and unobstructed passage around the interior of the drum.

My invention is designed to accomplish these results and in the drawings I have shown a construction which I have found in practice operates successfully but it will be evident that the arrangement of the parts may be varied, other instrumentalities may be employed and different forms may be substituted which will come within the scope of my invention and I do not therefore desire to be limited in every instance to the exact construction as herein shown and described but desire to make such changes as may be necessary.

1 designates a drum for a polishing machine embodying my invention the same consisting of a rigid frame to which is connected in any suitable manner canvas or other similar material which forms the sides and lining of the frame.

2 designates a plate or disk preferably formed of wood and which constitutes the rear of the drum. Rigidly connected with said plate are a plurality of braces one of which, 3, extends across the entire rear face and is bent over forming side bars 4 and has the arms 5 extending substantially parallel with the rear portion of the brace, it being noted that the rear portion of this bar 3 extends a suitable distance beyond the edges of the disk 2, as will be best seen in Fig. 5, so that the side bars 4 will be situated some distance from the sides of the drum. Connected with said arms 5 is the front plate or disk 6 having a suitable opening 7 therein through which the material can be inserted in the drum as will be hereinafter described. Suitably connected in any desired manner with the disk or plate 2 are a plurality of braces 8, the same in the present instance being six in number, each of which is bent or extends forwardly from the rear plate 2 forming side bars similar to 4 and which I have designated with the reference numeral 4 and each of which is provided with the arm 9 extending substantially parallel to the braces 8, said arm 9 being likewise secured in any desired manner to the front plate 6. In the present instance I have shown bolts or pins $9^{\times}$ passing through the plates 2 and 6 and receiving the nuts 10 for holding the parts in proper position.

Bolted or otherwise secured to the braces 8 and the brace 3 is a journal 11 provided

with a set screw 12, said journal being adapted to receive the shaft of the machine and it will be held thereon by means of the set screw 12. The inner face of each of the plates 2 and 6 are lined with canvas 13 which can be connected in any suitable manner therewith and in the present instance I have shown the same with the edges 14 bent over the edge of the plates and which edges are held in place as will be hereinafter described. In order to provide for the sides of the drum, I employ canvas or other suitable material 15 which extends across from one plate to the other and which is connected with the said plates in any suitable manner. In the present instance I have provided a wooden band or hoop 16 which extends entirely around the drum adjacent the edge of the plates 2 and 6 and through which the nails or other suitable devices 17 pass into the said disks 2 and 6 for holding the canvas in suitable position, it being understood that said band 16 serves to protect the edge of the canvas as will be evident. By this means I provide a suitable material for the wax with which the interior of the drum is supplied and into which the pills or other articles to be polished are placed, the canvas providing a suitable surface for preventing slipping of the wax and at the same time forming a flexible or soft bearing for the pills etc., the advantages of which are that in the polishing of pills, for example, it is necessary, owing to the fact that they are of material which is easily broken, that no inequalities are presented and that they do not strike against any obstruction. By reason of the location of the side bars 4, being situated at a suitable distance from the side canvas 15, the pills or candy cannot strike the side bars 4 as the drum is rotated, whereby breaking of the articles is prevented. A suitable cap or closure is provided for the opening 7 through which the substance and the articles are introduced into the drum, said cap in the present instance consisting of a plate 18 having a handle 19 thereon with the extending portions 20 to limit the insertion of the cap or closure and the cap is also provided with an ear 21 which assists in preventing the cap from being turned in the opening when it is in position. It will also be seen from Fig. 7 that by reason of the arrangement of the cross bars 4 that the drum can be rotated on the floor or other support without touching the canvas side 15, the effect of which is evident.

While the same forms no part of my invention, I have shown a form of machine to which my drum is applicable in which 22 designates standards suitably braced and supported and carrying a shaft 23 on which is mounted a pulley 24 to which power can be employed for operating the machine. A suitable gear 25 is mounted on the shaft 23 which meshes with a gear 26 carried on the shaft 27 which latter is adapted to receive the journal 11 and which is attached to said shaft by means of a set screw 12, as already described.

By reason of the arrangement of my rigid frame it will be apparent that the canvas forming the sides 15 and the lining 13 can be quickly and easily removed and new canvas replaced without dismembering the frame which will be held in its proper position nevertheless and the advantages of which are evident.

By connecting the journal with the bands or braces in the manner described, all strains are prevented upon the disks or plates 2 and 6, as the bands or braces take up the strain. In case the journal should break at any time due to poor castings or from overloading, the same can be quickly and easily removed and a new one attached, without disturbing the frame.

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

1. In a drum for polishing machines, a rigid frame having suitable front and rear portions, and sides formed of canvas or like material suitably connected with said portions.

2. In a drum for polishing machines, a rigid frame having cross bars and sides formed of canvas or similar material and situated an appreciable distance from said cross bars.

3. In a drum for polishing machines, a frame formed of front and rear plates, cross bars connecting the same, and sides formed of canvas connected with said plates and situated an appreciable distance from said cross bars.

4. In a drum for polishing machines, a frame formed of front and rear plates, cross bars connecting said plates and sides formed of canvas or similar material suitably connected with said plates and situated an appreciable distance from said cross bars, and a journal connected with said frame.

5. In a drum for polishing machines, front and rear plates, braces connected with said plates and extending beyond the edges thereof, cross bars on said braces and sides formed of canvas connected with said plates.

6. In a drum for polishing machines, front and rear plates, braces connected with said plates and extending beyond the edges thereof, cross bars on said braces, sides formed of canvas connected with said plates, and a lining of canvas for said plates.

7. In a drum for polishing machines, a rigid frame formed of braces, cross bars thereon, front and rear plates connected with said braces the front plate having an opening therein, canvas lining for said plates,

sides of canvas for said drum connected with said plates and protectors for the edges of said side canvas.

8. In a drum for polishing machines, a rigid frame formed of braces, cross bars thereon, plates suitably connected with said braces the edges of which are situated a suitable distance from said cross bars, canvas suitably secured to said plates and extending between the same forming the sides of the drum, and a journal suitably connected with said braces.

9. In a drum for polishing machines, a rigid frame formed of braces and cross bars, plates suitably connected with said braces, the edges of which plates are situated a suitable distance from said cross bars and one of said plates having an opening therein, canvas extending between said plates and suitably secured thereto forming the sides of the drum, a closure for said opening and a journal suitably connected with said braces.

10. In a drum for polishing machines, a rigid frame formed of braces, cross bars therebetween, plates suitably connected with said braces, the edges of which plates are situated a suitable distance from said cross bars and one of said plates having an opening therein, canvas extending between said plates and suitably secured thereto said canvas forming the sides of the drum, a protector for the edges of said canvas, a closure for said opening, means on said closure for preventing improper positioning of the same and a journal on said braces.

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