Aug. 24, 1948. J. D. GRAHAM 2,447,748

BUFFER

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FIG 1

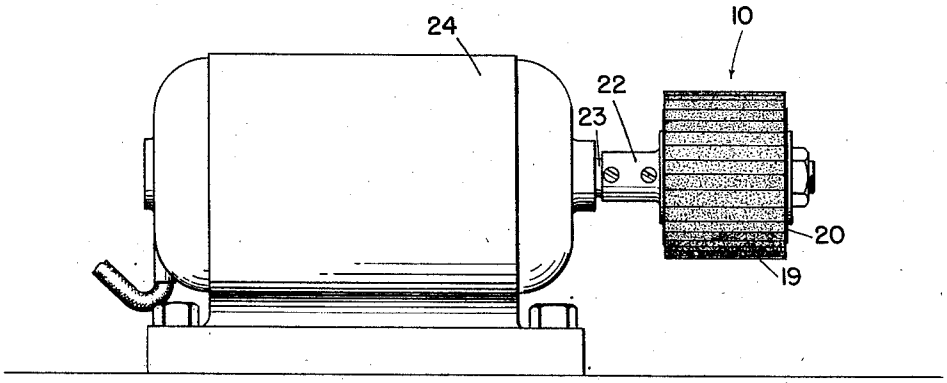


FIG 3

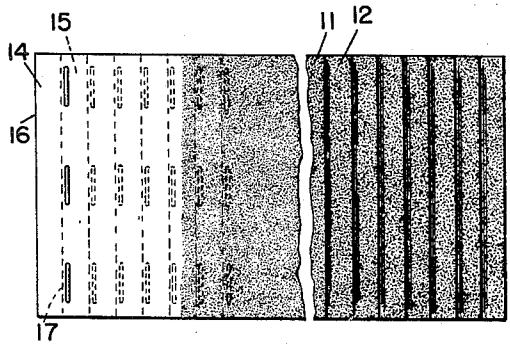


FIG 2

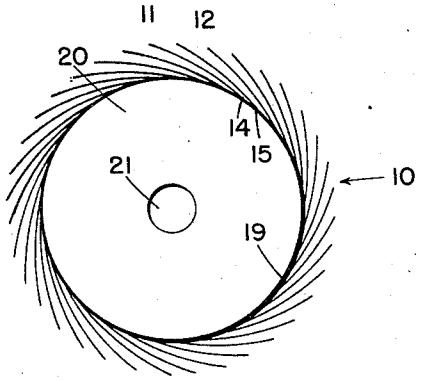


FIG 4

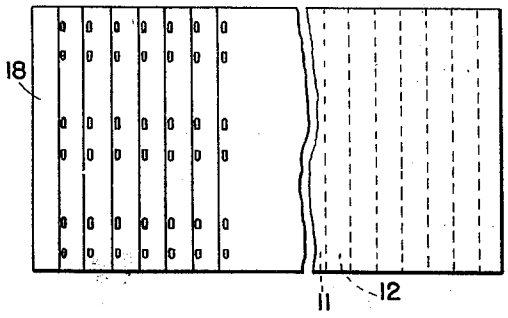
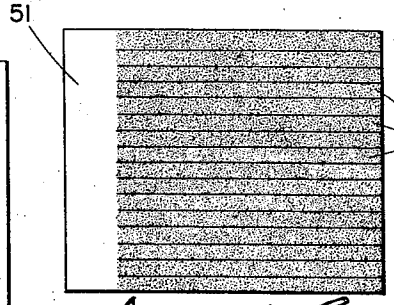


FIG 8



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FIG 5

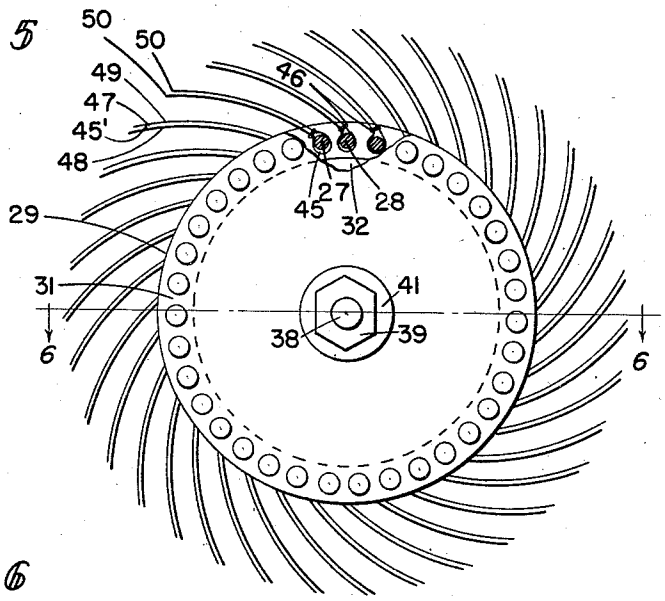


FIG 6

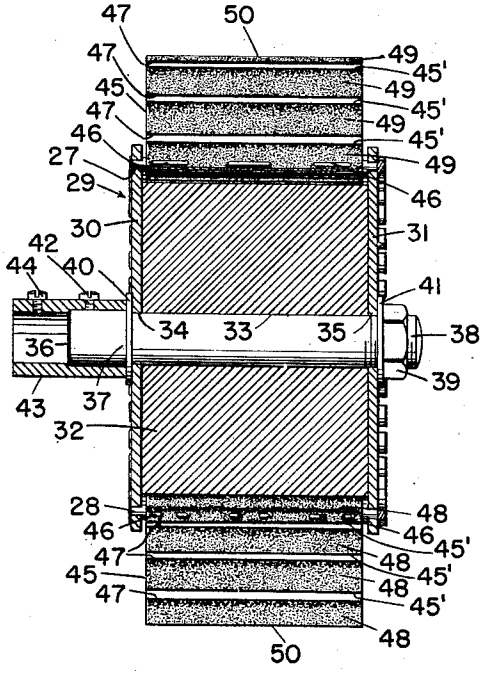
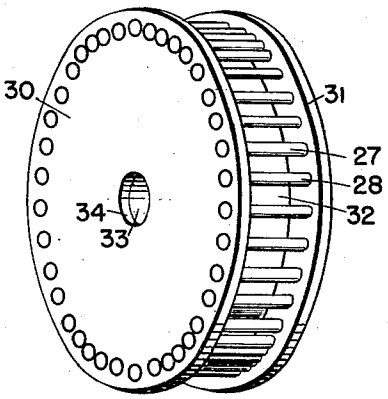


FIG 7



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BUFFER

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Application January 4, 1947, Serial No. 720,212

2 Claims. (Cl. 51—190)

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The invention described herein and illustrated in the accompanying drawing consists of a buffer comprising a series of tangentially arranged leaves.

An object of the invention is to provide a buffer formed of a series of flexible leaves.

Another object of the invention is to provide a buffer formed of segments, each connected together and adapted to act successively upon an article being buffed.

A further object of this invention is to provide a buffer formed of a multiplicity of tangentially arranged leaves of abrasive material forming a cylinder adapted for detachable connection with a rotatable drum or pulley.

A still further object of the invention is to provide a reel shaped drum to which is detachably connected a series of pivotally mounted abrasive leaves.

With the above and such other objects in view as may hereinafter more fully appear, I have invented the buffer illustrated in the accompanying drawings, in which:

Figure 1 is an elevational view of my buffer shown attached to an electric motor,

Figure 2 is a side elevational view of one form of the invention,

Figure 3 is a plan view of Figure 2 shown collapsed,

Figure 4 is a similar view showing the inner side of Figure 3,

Figure 5 is a side elevational view of another form of the invention,

Figure 6 is a transverse central sectional view of Figure 5, taken on line 6—6 thereof,

Figure 7 is a detail perspective view of a cage or reel upon which abrasive leaves are adapted to be mounted, and

Figure 8 is a plan view of a modified form of an abrasive leaf.

In the accompanying drawings, and in the following specification, the same reference characters are used to designate the same parts and elements throughout, and in which 10 refers to the invention in its entirety which consists of a buffer comprising a plurality of independently cut leaves or brushes 11, 12 etc. of a preferably flexible abrasive material, such, for instance, as sanded cloth. All of these leaves are stepped relative to one another, as particularly indicated in Figure 3 of the drawings. The inner ends 14 and 15 etc. of the members 11 and 12 are preferably wire stitched together adjacent their inner edges 16 and 17, while all of the remaining edges thereof are left free.

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The stitching together of 16 and 17 forms an elongated stepped strip of leaves, which, when the inner end 16 is stapled to the terminal end 18, forms a cylindrical sleeve 19, adapted to be fitted tightly to a wood or other drum 20. This drum is provided with a center bore 21 whereby it may be fitted to an arbor 22, which in turn may be attached to the shaft 23 of any motor 24.

In the form of the invention illustrated in Figures 6, 7 and 8, each of the leaves 25, 26 etc. are separately mounted upon cross bars 27, 28 etc. of a cage 29, formed by said bars and the end disks 30 and 31 to which the terminals of each bar is secured in any suitable manner, adjacent the peripheries of said disks. Spacing the said disks is a wooden drum 32 of a lesser diameter than said disks so as to seat spaced from the bars 27 and 28. The drum and disks are provided with aligning center bores 33, 34 and 35 respectively through which passes an arbor 36 provided with an integral collar adjacent one end 37, the other end 38 being screw threaded to receive the nut 39. Clamping washers 40 and 41 are provided on each end of the arbor and are held securely against the disks by the action of said collar and nut whereby the cage and drum are held fixed against movement on the arbor.

Attached to the projecting end 37 of the arbor by means of a set screw 42 is a connection nipple 43 whereby the device may be attached to the shaft of a motor 24, by means of the set screw 44. To each of the bars 27, 28 etc. are attached, preferably sand paper or sanded cloth leaves 45, which are returned over the bars and secured loosely thereto by staple stitching 46, or otherwise. The doubling of these leaves over the bars (which are preferably rounds) provides two leaves 45' and 47, the sanded surfaces 48 and 49 of which are the exposed sides on each side of their respective bars, thus providing double life to the buffer as it may be operated in one and then in the opposite direction. In buffing certain articles merely the tips 50 of the leaves contact said articles and the worn out edges thereof may be trimmed off providing an indefinite number of abrasive surfaces for each leaf, and a very long lived buffer of a comparatively very inexpensive nature.

Although the above described buffer may be used for many purposes, I have designed it primarily for the cleaning of eggs without the use of water which has a tendency to shine the shells and destroying their fresh appearance. I have one of these buffers in constant use for cleaning eggs and find it not only cleanses perfectly,

but saves considerable time. Furthermore prematurely glossed eggs are restored to their flat condition.

In Figure 8 of the drawings I show a modification of the abrasive leaf construction and in which the leaves **51** are longitudinally split in to a multiplicity of strips **52**, or sanded strings may be substituted for the leaves. This arrangement permits the exact contour of an egg or other article being buffed, which saves further time in the operation.

From the foregoing specification it will become apparent the invention disclosed will adequately accomplish the functions for which it has been designed, and in an economical manner, and that its simplicity, and use of cheap material are such as to provide a relatively inexpensive buffer considering the work it will accomplish, and that it will find an important place in the art to which it appertains when once placed upon the market. It is also obvious that those skilled in the art to which the invention relates will be able to obtain a clear understanding thereof after considering the description in connection with the accompanying drawings; therefore a more detailed and lengthy specification is deemed unnecessary.

Having now described my invention that which I claim to be new and desire to procure by Letters Patent is:

1. A buffer in the form of a sleeve adapted to be detachably mounted upon a rotatable drum comprising a plurality of leaves made of flexible, abrasive material, the leaves being arranged in superimposed relation, each leaf having an end positioned in staggered relation with respect to the ends of the other leaves, said ends being secured together so as to form a stepped strip of leaves, the opposite ends of said strip being joined together so as to form a sleeve.

2. A buffer in the form of a sleeve adapted to be detachably mounted upon a rotatable drum comprising a plurality of leaves made of flexible, abrasive material, the leaves being superimposed one upon the other, one end of each of said leaves being positioned in staggered and overlapping relation with respect to each other, said ends being stitched together so as to form a stepped elongated strip of leaves, the opposite ends of said strip being secured together so as to form a sleeve.

JOHN D. GRAHAM.

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