

Oct. 30, 1928.

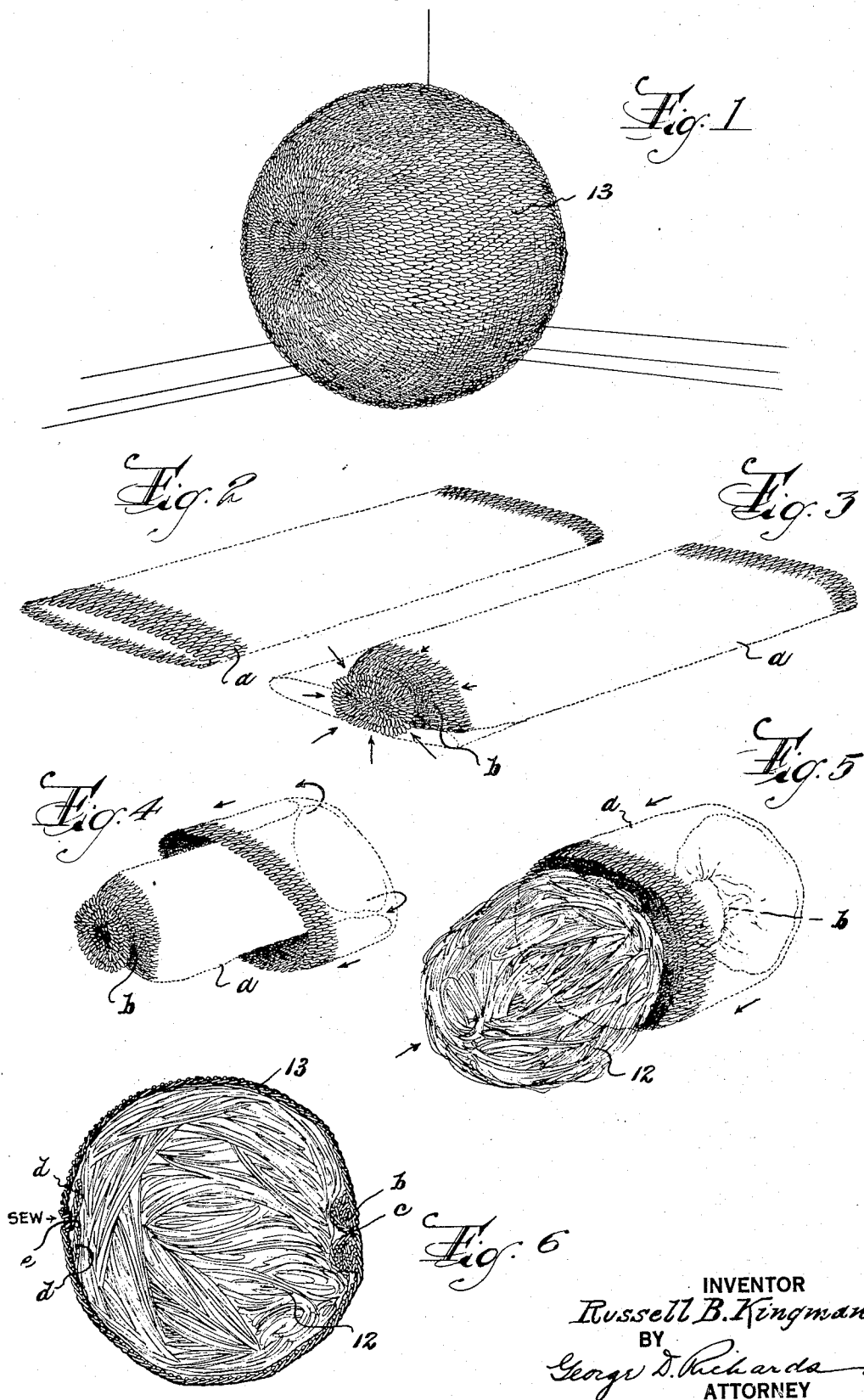
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SCOURING BALL

Filed April 13, 1927

2 Sheets-Sheet 1



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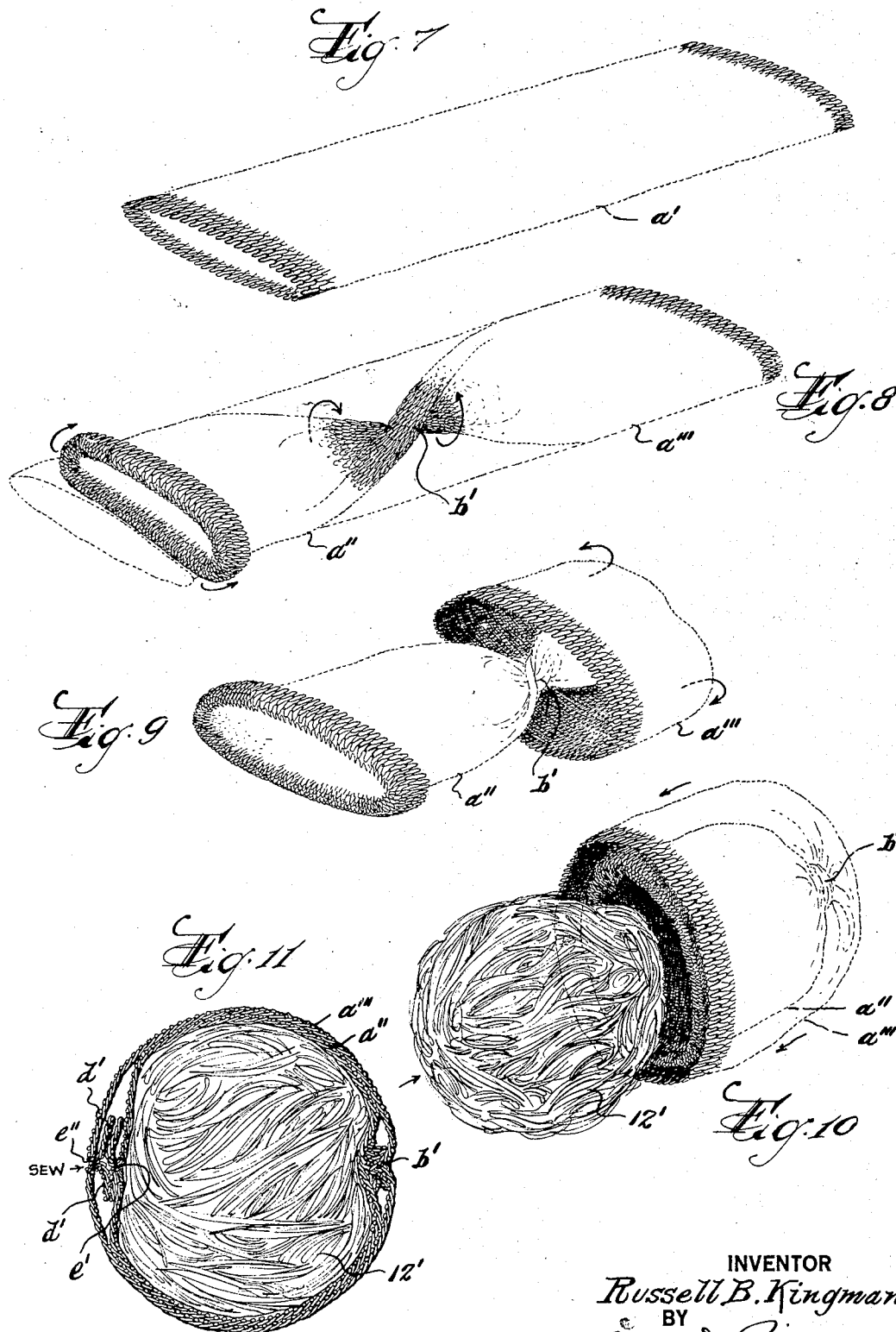
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UNITED STATES PATENT OFFICE.

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SCOURING BALL.

Application filed April 13, 1927. Serial No. 133,319.

This invention relates to an improved construction of resilient all-metal scouring ball adapted for use as a kitchen or household aid for cleansing and brightening surfaces which require the application of abrasive action thereto, such, for example, as pots, pans and various household utensils and fixtures.

The instant invention has reference, more particularly, to an improved scouring ball of the general type and kind shown in my prior United States Letters Patent No. 1,533,868, dated April 14th, 1925. The scouring ball shown in my aforesaid Letters Patent is comprised entirely of a tubular knitted metallic fabric subdivided by a restricted portion into two sections, whereby a cover portion and an interior portion is formed. This particular type of construction produces a body of relatively soft mass and is admirably adapted for use where a highly resilient soft body is desirable. The construction, however, being made entirely of knitted metallic fabric is relatively expensive, and for some purposes, where a body of firmer mass is desirable, is not entirely satisfactory. It is the object of the instant invention, therefore, to provide a novel and comparatively cheap and easily produced form and construction of scouring ball adapted to furnish a body of greater firmness and yet a finished article of equally good appearance as compared with the all fabric ball. To this end the instant invention consists in providing a cover section of tubular knit fabric over an interior filling of loosely entangled and balled up metallic wire in a form which may be described as a metal excelsior mass.

Other objects of the instant invention, not at this time more particularly enumerated, will be clearly understood from the following detailed description of the same.

The invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 shows the complete scouring ball made according to this invention.

Figures 2, 3, 4 and 5 show respectively the various steps followed in producing the scouring ball; Figure 2 showing a body of tubular knit metallic fabric from which the cover portion of the ball is formed; Figure 3 shows the manner in which one end of the cover body is closed; Figure 4 shows how the cover body is reversed or turned upon itself to produce a smooth closed end; and Figure

5 shows the interior balled up filling mass of entangled metallic wire being inserted within the cover body through the remaining open end thereof.

Figure 6 is a view of the completed ball with the cover-body in section, and showing the remaining open end closed to produce a desired smooth finish at such point.

Figures 7, 8, 9 and 10 show respectively the various steps followed in producing a scouring ball having a cover body comprised of a plurality of thicknesses or plies; Figure 7 showing a body of tubular knit metallic fabric from which the plural ply cover body is to be formed; Figure 8 showing the manner of forming one end closing of the cover body; Figure 9 shows how the fabric is doubled back on itself to provide the plural ply cover body; and Figure 10 shows the interior balled up filling mass of entangled metallic wire body inserted within the plural ply cover body.

Figure 11 is a view of a completed scouring ball provided with a plural ply cover body, the latter element being shown in section, with its respective end closing features disclosed.

Similar characters of reference are employed in all of the hereinabove described views, to indicate corresponding parts.

Referring first to the form of scouring ball illustrated in Figures 1 to 6 inclusive, the same consists of a tubular knit metallic fabric cover body and a balled up entangled filling mass of wire, preferably comprising a flat ribbon-like wire of copper. To form the cover body I take a suitable length of tubular knit metallic fabric *a*, as shown in Figure 2, and I close one end of the same by gathering an end portion together, as shown at *b*, retaining the same in such condition by winding a wire tie *c* around the same, or by sewing or other suitable fastening means. One end of the tubular body *a* having been thus closed, I turn the same inside out in the manner indicated in Figure 4, thus carrying the flaring rough end of the gathered portion into the interior of the body and leaving a comparatively smooth finish at the exposed outer side, as shown in Figure 6. The cover body is now ready to receive the filling mass. This filling mass is indicated by the reference character 12, and consists, as above stated, in a balled up body of entangled metallic wire. The filling mass 12, thus constituted, is inserted

through the remaining open end of the cover body so as to be enclosed therein, whereupon, said remaining open end portion of said cover body is drawn together with its raw edge portions *d* inwardly tucked as shown in Figure 6, and thereupon secured in the resulting closed condition by sewing through the cover body material with wire stitching *e*. The completed cover body, thus produced is generally indicated by the reference character 13.

It will be noted that the filling mass, being separate from the cover and formed of balled up wire, may be easily compacted to any degree of firmness desired, and consequently a scouring body having a wide range of resiliency from a comparatively soft to a comparatively hard character may be easily produced, while at the same time the knitted metallic fabric cover not only provides the good appearance desired, but serves to strongly retain the filling mass against loosening. Another advantage of the instant construction lies in the fact, that the scouring ball is splinterless, since both the cover body and filling mass may each be made of a continuous length of wire, so that small filaments which easily shed off are avoided. The scouring ball of this invention easily retains its initial shape; it affords the interstitial mass whereby water may readily penetrate through the same to rid it of accumulated dirt, and being preferably made of copper it is substantially non-corrosive. I prefer to use flat or ribbon-like wire for both the filling mass 12 and the cover body 13, since such form of wire presents many sharp edges whereby the abrasive effects of the device is materially increased.

Referring now to the form of scouring ball illustrated in Figures 7 to 11 inclusive, I have shown therein the provision of a plural ply cover body to enclose the filling mass. To produce this form of cover body I take a suitable length of tubular knit metallic fabric *a'* as shown in Figure 7, and I twist the same upon itself intermediate its ends as indicated at *b'* in Figure 8, thus closing the interior intermediate its ends. When thus formed, I

have two sections *a''* and *a'''*, whereupon I turn the section *a'''* over upon the section *a''*, thus producing a two-ply cover body, as indicated in Figures 9 and 10. The two-ply cover body is smoothly closed at one end by the intertwisted portion *b'*, and I have introduced a filling mass 12' of balled up entangled wire into the interior of the cover body. To close the remaining open end of the cover body thus formed, so as to provide a smooth exterior surface at the point of closure, I first turn the raw edge portion of the inner section *a''* upon itself, preferably outwardly, and then gathering the turned edge portion together I secure the same by sewing or otherwise fastening the parts with a wire stitching or tie *e'*; I then draw together the open end portion of the outer section *a'''* with its raw edge portions *d'* inwardly tucked as shown in Figure 11, and thereupon secure the parts by wire stitching or fastening means *e''*. The completed plural ply cover body is generally indicated by the reference character 13''.

Having thus described my present invention, I claim:—

1. A scouring ball comprising an interior filling mass of balled up metallic wire, and an exterior tubular cover body of knitted metallic fabric, the free open end portions of said cover body being in-turned and gathered together to form end closures, and means to hold said end closures against opening.

2. A scouring ball comprising an interior filling mass of balled-up metallic wire, an exterior tubular cover body of knitted metallic fabric twisted together intermediate its ends with one section folded back upon itself to provide a plurality of thicknesses and at the same time close one end of the cover body thus constructed, the remaining open ends of the cover body sections being gathered together to close the same in enveloping relation to said filling mass, and means to hold said ends in such closed relation.

In testimony, that I claim the invention set forth above I have hereunto set my hand this 8th day of April, 1927.

RUSSELL B. KINGMAN.