

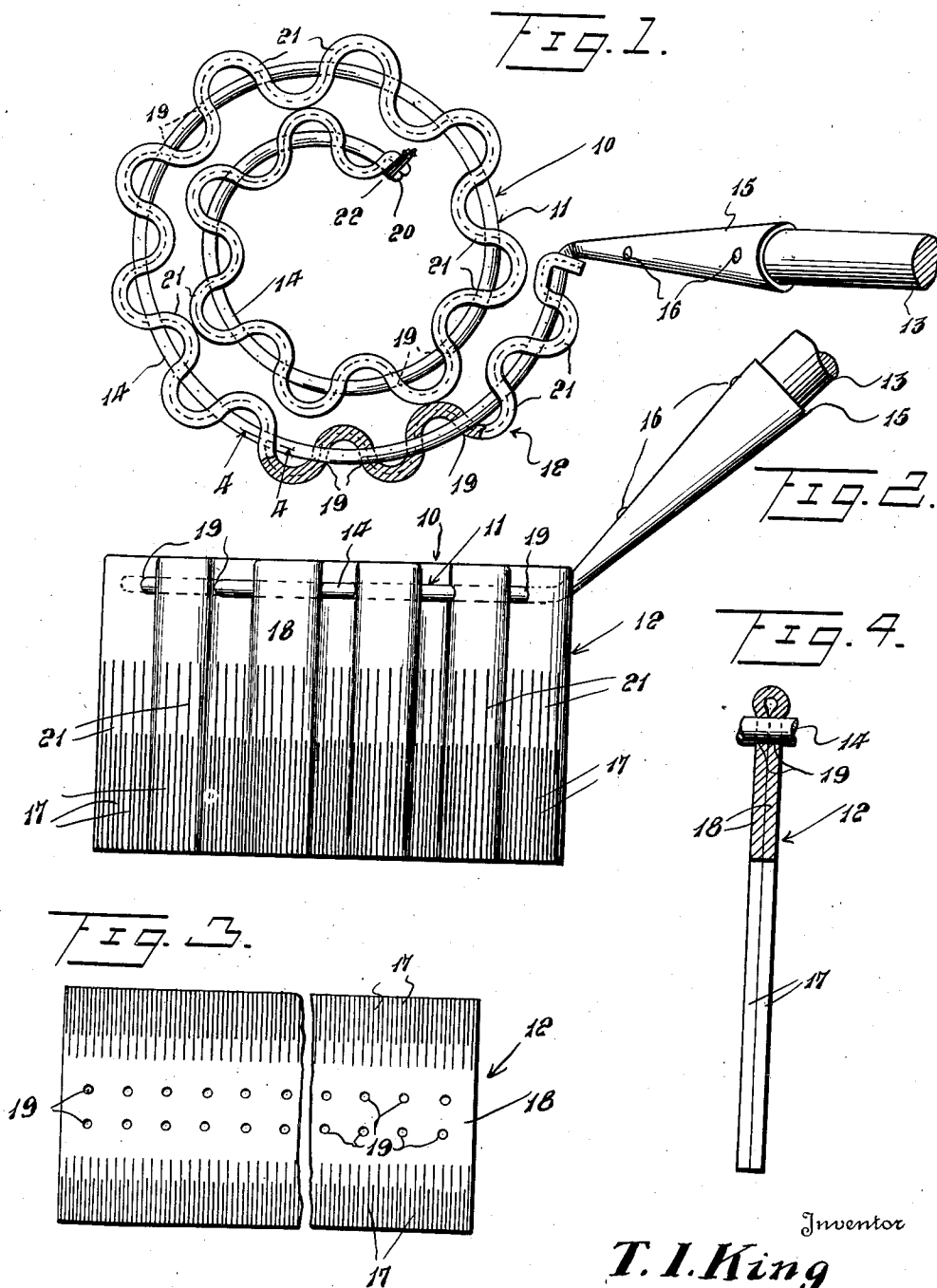
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CLEANING DEVICE

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CLEANING DEVICE

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2 Claims. (Cl. 15-159)

This relates to an improved cleaning device invention in the form of a broom having a cleaning element made of rubber and adapted for use for dusting, cleaning of walls, floors, rugs, furniture, the interior of automobiles, for sweeping floors, pavements, and especially for use in hospitals where a minimum amount of dust raised is paramount.

More particularly, it is an aim of this invention to provide an improved cleaning device adapted for use as a broom, whiskbroom or duster and formed of a flexible material such as rubber which may be easily cleaned or washed and from which lint and dust may be much more readily removed than from material such as broom straw, hair bristles, cotton, wool, etc.

Still a further aim of the invention is to provide an improved construction of frame or head particularly designed and adapted for supporting the cleaning element.

Still another object of the invention is to provide a cleaning device of the class described which can be very economically manufactured in any desired size and which will be light in weight yet strong and durable.

Other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, which illustrates a preferred embodiment thereof, and wherein:

Figure 1 is a top plan view of the device,
Figure 2 is a side elevational view of the same,
Figure 3 is a plan view of the strip from which the cleaning element is formed, and
Figure 4 is a vertical sectional view taken along the line 4-4 of Figure 1.

Referring more particularly to the drawing, wherein like reference characters designate like or corresponding parts throughout the different views, 10 designates generally the broom or cleaning device comprising the invention which includes a head or frame 11, a cleaning element 12, and a handle 13.

Head 11 comprises a rod 14, which is bent to form a helix, all the convolutions of which are substantially in a plane. A socket 15 is formed integral with, or suitably secured to, the outer end of the rod 14, and is disposed at an oblique angle thereto. Socket 15 preferably tapers toward its secured end to receive the tapered end of the handle 13, which is secured therein as by means of the fastenings 16.

The cleaning element 12, as best seen in Figure 3, comprises a strip of flexible material such as rubber which is cut transversely from its longitudinal edges to form the longitudinal rows of narrow strips 17. The body portion or central strip 18 of the cleaning element 12 is provided with two corresponding rows of openings 19 which are spaced substantially an equal dis-

tance from the center of the strip 18. Cleaning element 12 is adapted to be folded lengthwise so that the corresponding openings 19 of the two rows will be in alignment and adjacent one longitudinal edge of the element 12, as seen in Figure 4, which constitutes its top edge. The rod 14 is adapted to be threaded through the aligned openings of the rows 19 of the element 12 beginning from its free end 20 to form a plurality of undulating convolutions 21. End 20 and the complementary end of the cleaning element 12 are connected by means of a wire or cord 22 to retain the cleaning element 12 on the frame 11 with its opposite end in engagement with the socket 15. The strips 17 depend downwardly from the frame 11 to form the tines of the broom 10.

Cleaning element 12 may be formed from a portion of an automobile tire inner tube which is split longitudinally after which it may be readily stamped or cut to provide the strips 17 and rows of openings 19. The length, width and thickness of the rod 14 and cleaning element 12 may obviously vary depending upon the type of work for which the broom or cleaner is intended and the handle 13 may be made short where the brush 10 is to be used as a whiskbroom or duster or relatively long where the cleaning device 10 is to be used as a broom for sweeping.

A further description of the operation of the device is deemed unnecessary.

Various changes are contemplated and may be resorted to provided they fall within the spirit and scope of the invention as hereinafter defined by the appended claims.

I claim as my invention:

1. In a broom, a cleaning element comprising a strip of sheet rubber having its longitudinal edges formed of a plurality of narrow transversely disposed strips, the intermediate portion of said strip being provided with two spaced rows of corresponding openings, said strip being folded lengthwise to aline corresponding openings of said rows, and said openings being threaded on a helix supporting frame.

2. A broom or cleaner comprising a head in the form of a rod, said rod being of helical form having substantially concentric convolutions and being provided with a socket at the outer end thereof for connecting with a handle; and a cleaning element comprising a strip of rubber cut transversely along its longitudinal edges to provide rows of narrow strips, the intermediate portion of said strip having two spaced corresponding rows of openings, said strip being folded lengthwise to aline the corresponding openings of said rows, and said rod being threaded through said openings for mounting the cleaning element on the head.

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