June 9, 1942. W. HERTZBERG 2,285,383

SHAKER MOP

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Fig. 1

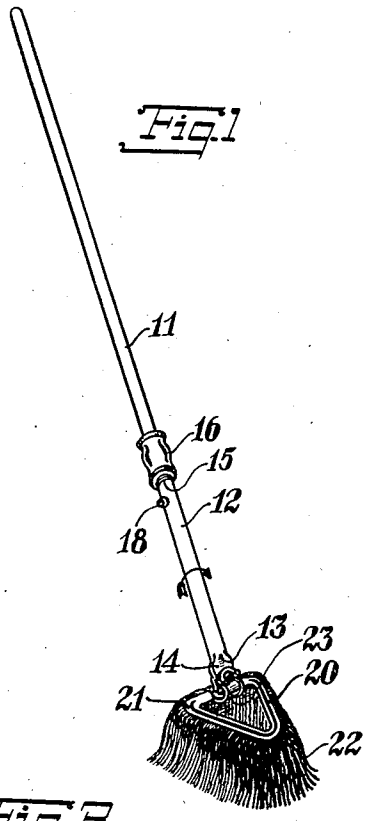


Fig. 4

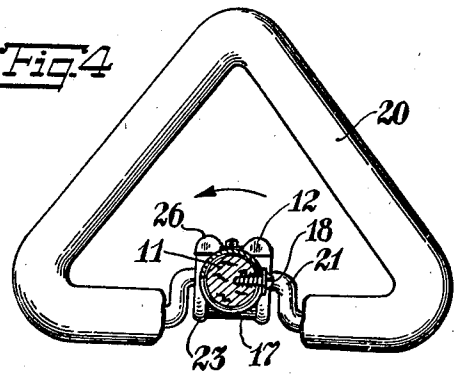


Fig. 5

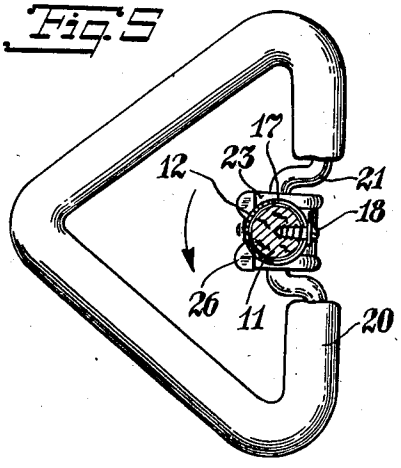


Fig. 3

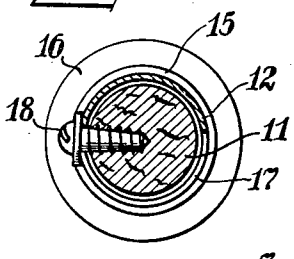
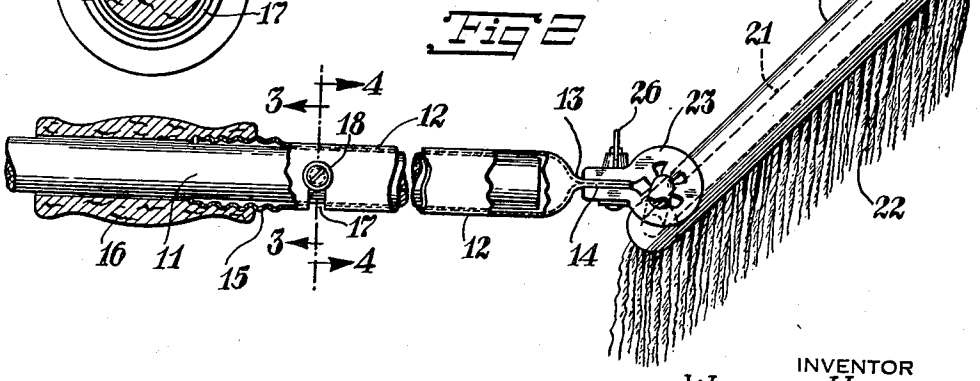


Fig. 2



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Fig. 6

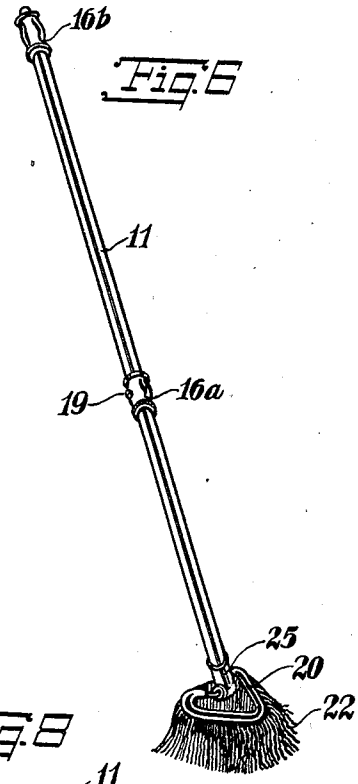


Fig. 9

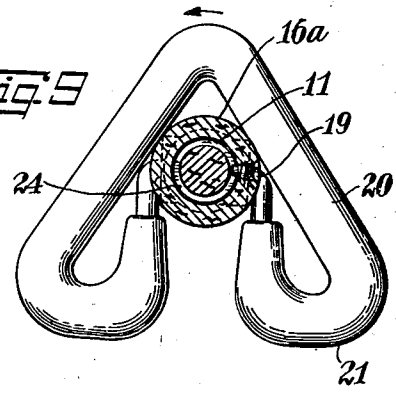


Fig. 10

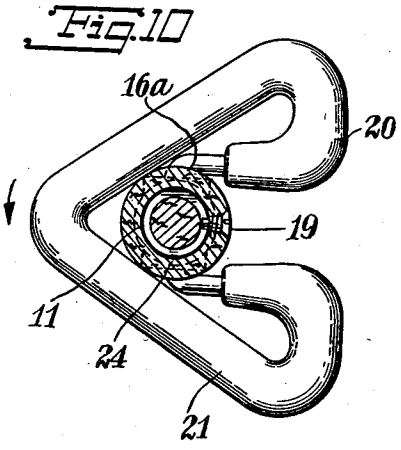


Fig. 8

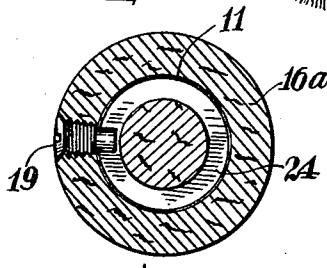
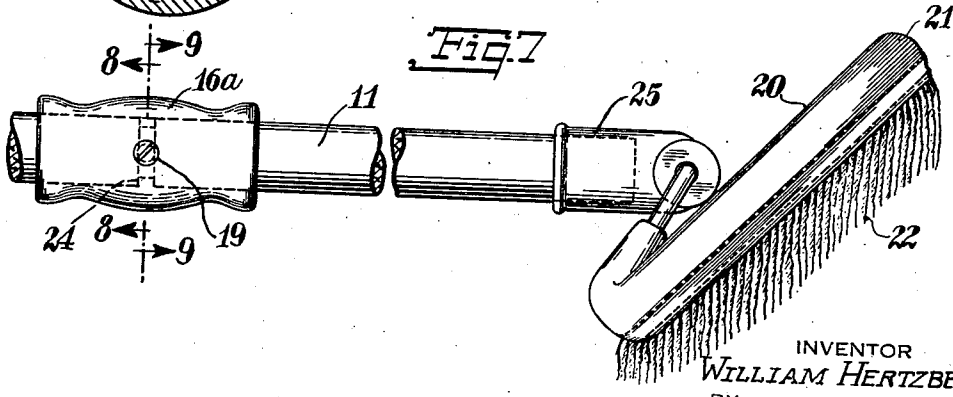


Fig. 7



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UNITED STATES PATENT OFFICE

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SHAKER MOP

William Hertzberg, New York, N. Y., assignor to Hertzberg Patents, Inc., New York, N. Y., a corporation of New York

Application December 14, 1939, Serial No. 309,220

1 Claim. (Cl. 15—147)

This invention relates to mops, brooms, dusters and the like particularly to dry mops and a device combined therewith which facilitates the removal of dust and dirt from the cleaning material thereof.

It is an object of the present invention to provide the mop with means whereby it may be readily shaken to be cleaned quickly and efficiently of dust and dirt.

It is another object of the invention to provide a device of this kind which utilizes centrifugal force for the purpose of cleaning the mop.

It is a further object to provide a mop with a connector which can be adjusted on the mop handle about two axes perpendicular to each other.

It is a still further object to provide a device which is extremely simple in construction and which consists of a small number of parts so that it can easily be manufactured and sold for a very reasonable price.

With these and other objects in view the invention consists in the construction hereinafter described and particularly pointed out in the appended claim.

In the accompanying drawings:

Fig. 1 is a perspective view of a mop embodying my invention.

Fig. 2 is a side elevation in large scale of the device partly in section and having parts broken out to shorten its length.

Fig. 3 is a detail section on the line 3—3 of Fig. 2.

Fig. 4 is a detail sectional elevation on line 4—4 of Fig. 2 showing the mop head at one end of its oscillatory motion.

Fig. 5 is the same sectional elevation as Fig. 4 but the mop head is shown at the middle of its oscillatory motion.

Fig. 6 shows a perspective view of a mop constructed according to the same principle but of further simplified construction.

Fig. 7 is a side elevation of the device shown in Fig. 6 in large scale and shortened by breaking out portions.

Fig. 8 is a transverse section in large scale on the line 8—8 of Fig. 7.

Fig. 9 is a detail sectional elevation on the line 9—9 of Fig. 7 showing the mop head at one end of its motion.

Fig. 10 is the same sectional elevation as Fig. 9 showing the mop head at 90 degrees from its position of Fig. 9.

Referring to the drawings, 11 represents a cylindrical mop stick or handle on which is mounted a tubular sleeve 12 covering the lower portion of handle 11 and being collapsed at 13 beyond the end of said handle to form a flat like extension 14. The opposite end of tube 12 is provided with a coarse thread 15 which engages a tubular handle 16 of wood or other suitable material which forms an extension of sleeve 12 and is adapted to rotate on mop stick 11 together with sleeve 12. Outside of handle 16 a transverse slot 17 is provided in sleeve 12 which extends about 180° around its circumference. Through this slot passes a screw 18 into the wood of mop handle 11 so that tube 12 is limited in its rotation on handle 12 to 180° and prevented from any longitudinal motion thereon.

A mop head 20 of conventional type having a substantially triangular frame 21 as shown, or of any other shape desired having mop material 22 suitably held thereon, is held on tubular sleeve 12 by means of a suitable connector 23; the one shown in Fig. 2 being the one patented to Harry Hertzberg in Patent No. 1,735,278 issued Nov. 12, 1929, and is adjustable to clamp the mop head 20 in any angle with the axis of mop handle 11 and also with an axis of screw 26, which is perpendicular to the mop stock axis.

When the user of the mop desires to shake the dust out of the mop after a mopping operation, he takes hold of the handle 11 near its free end or any convenient point therealong and with the other hand he takes hold of the hand or grip portion 16 and oscillates this latter portion back and forth about 180 degrees whereby he imparts the same motion to the mop head 20 through the tubular member 12, said mop head 20 moving from the position shown in Fig. 4 to that of Fig. 5 and finally to a position opposite to that shown in Fig. 4, thereby shaking the dust out of the mop material 22 of the head 20, which function is increased by the centrifugal force created by the circular swing of mop head 20.

The same principle and mode of operation is applied in the form of mop shown in Figs. 6 to 10, but the construction of the device is greatly simplified by the elimination of the tubular member 12 and by attaching the mop head to the handle 11 for oscillation and holding the sleeve by hand.

Fig. 6 shows a cylindrical mop handle 11 on which is mounted, a sleeve-handle 16a of wood or other suitable material, which handle 16a is adapted to rotate on the mop stock 11 and is rotatably held thereon by means of a screw 19 which has a pivot point entering into a peripheral groove 24 which extends around about the

mop handle. It permits rotary motion of the mop handle 11 in sleeve 16a and prevents longitudinal motion of these elements relative to each other. Handle 11 also carries at one end a mop head 20 of any conventional type having a frame 21 and mop material 22 fastened thereto. Head 20 is fastened to one end of mop handle 11 by means of any suitable kind of mop connector 25. To facilitate the operation, a second sleeve handle 16b is fastened tightly to the free end of mop stick 11 to provide for larger hand-gripping surface.

To remove dust and dirt from the mop head, the operator takes hold of handle 16a with one hand and with the other hand grasps handle 16b. Handle 16a is held tight in the hand while handle 16b is oscillated back and forth by the other hand thereby shaking mop head 20 back and forth whereby the dirt and dust are effectively shaken out.

The execution of this invention has only been shown in two modified forms and it should be understood that changes in details may be made without departing from the spirit of the invention and therefore I desire to be limited only by the appended claim.

I claim:

A mop of the character described comprising an elongated mop stick, an elongated socket member loosely encircling the lower end of the stick and having a flat extension, a frame member, mopping material attached to said frame member, a manually rotatable sleeve-like hand piece secured to said socket member for actuating the latter, means for connecting the frame member to the flat extension for hinge movement of the frame member in one direction and means for permitting limited bodily oscillation of said frame member relative to the mop stick in a different direction including a screw and slot connection between the stick and socket.

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