Nov. 19, 1929. J. J. TIERNEY 1,736,679

GLOVE CLEANING DEVICE

Filed March 26, 1928

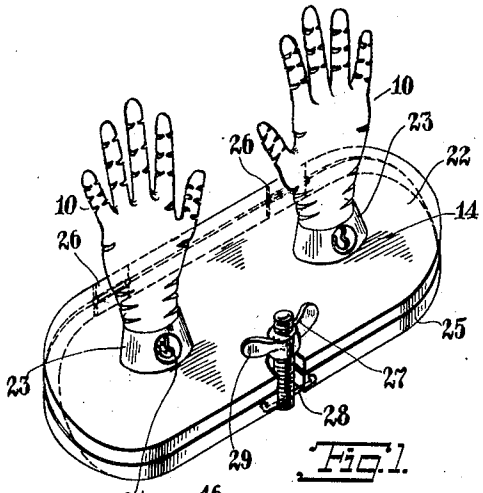

Fig. 1.

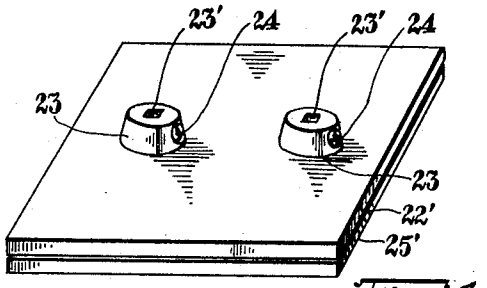

Fig. 4.

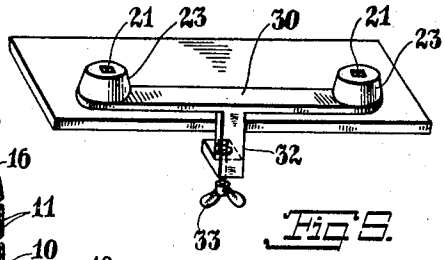

Fig. 5.

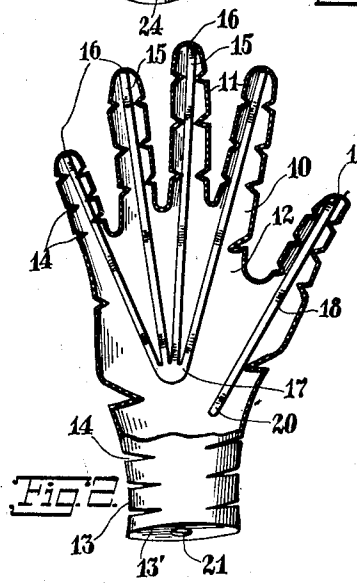

Fig. 2.

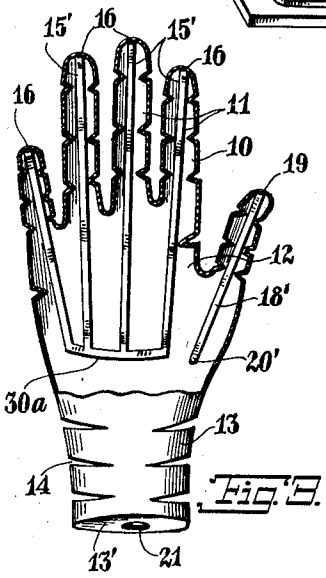

Fig. 3.

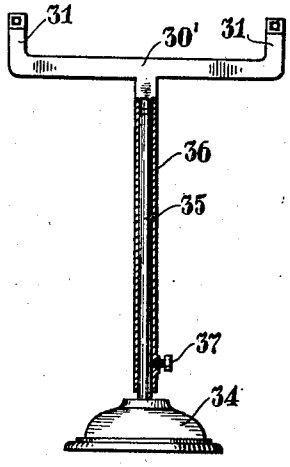

Fig. 6.

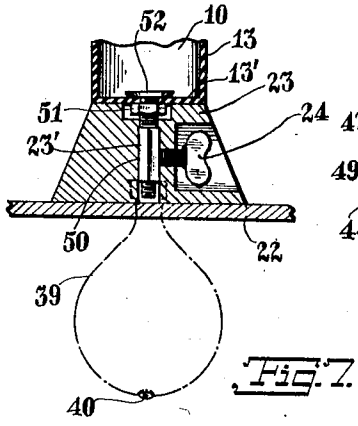

Fig. 7.

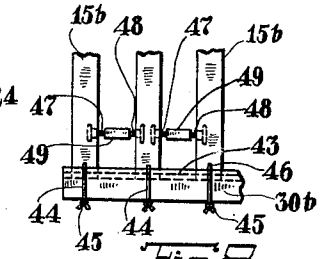

Fig. 8.

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UNITED STATES PATENT OFFICE

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GLOVE-CLEANING DEVICE

Application filed March 26, 1928. Serial No. 264,801.

This invention relates generally to the art of glove cleaning, and has more particular reference to a device for holding the gloves during cleaning.

The invention has for an object the provision of a device of the class mentioned of simple durable construction, desirable and efficient in action, and which can be manufactured and sold at a reasonable cost.

The device consists of dummy hand structures formed of stiff flexible material, such as rubber, and provided with a plurality of pleats so as to be readily adaptable to gloves of various sizes. Within the fingers of these dummy structures, stiffening rods are arranged, these rods being preferably attached to the finger tips at one of their ends and extended to the palm portions of the dummy structures and here the rods are joined to each other. The dummy hand structures are vertically supported by frame structures. Inflating means may be connected with these hand structures, so as to permit gloves to be better held. The said stiffening rods may be adjustably connected at their palm ends so as to direct the fingers of the dummy hand in a desirable spread condition.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

Referring to the accompanying drawing, forming a material part of this disclosure:—

Fig. 1 is a perspective view of a device constructed according to this invention.

Fig. 2 is a side elevational view of a dummy hand of the device, a portion thereof is broken away to disclose the interior construction.

Fig. 3 is a similar view, but disclosing a modified form of the dummy hand.

Fig. 4 is a perspective view of a base structure of modified form for supporting the dummy hands.

Fig. 5 is a perspective view of another modified form of supporting structure for the dummy hand.

Fig. 6 is a side view of still a further modified form of supporting structure for the dummy hands, a portion thereof being shown in section.

Fig. 7 is a fragmentary central vertical sectional view of a dummy hand structure attached to a supporting structure.

Fig. 8 is a detail side view of a modified form of connection between the stiffening push rods of the dummy hands.

The reference numeral 10 indicates generally a dummy hand structure formed from stiff flexible material, preferably rubber and is of hollow construction, and having finger portions 11, a palm portion 12 and a wrist portion 13 closed at its lower end as at 13′. A plurality of pleats 14 are formed in the material of the said hand structure and extends inwards from the outer surface thereof. Stiffening rods 15 arranged, within the hand structure, extend from the finger tips to the palm portion 12, and the ends at the finger tips are attached to the finger tips as at 16, preferably by vulcanization. The palm ends of the rods are attached to each other, as at 17, by vulcanization. A stiffening push rod 18 is arranged within the hand structure and attached to the tip end of the thumb, as at 19, the other end 20 being loose in the glove, that is, it is attached just at one end. An aperture 21 is formed in the closed end 13′ of the wrist portion 13. An air inlet valve is housed within stem 50 which is engaged thru the aperture 21 and thus held by nut 51 threadedly engaging the stem and clamping hand end 13′ against a flange 52 integral with the stem.

A base member 22 has a pair of frusto conical members 23 attached to its top side. These members 23 are formed with central apertures 23′ accommodating the stems 50 when the dummy hand structures 10 are placed upon the members 23. Screws 24 threadedly engage the frusto conical members 23 and are abutable against the stems 50 to hold the hand structures against displacement.

An auxiliary base 25 connected along one side to the base 22 by hinges 26, has a threaded member 27 pivotally attached, as at 28 on

the side remote from the hinges 26. A wing nut 29 engages the threaded member, and serves as a clamp to hold the bases 22 and 25 together. Gloves that have been cleaned, may be clamped between the bases for pressing purpose.

In Fig. 3 the rods 15′ are connected at their palm ends by a joiner rod 30ª attached to the palm shown. The rods 15′ are nearly parallel so that the fingers 11 are also nearly parallel. Rod 18′ is so positioned that the thumb is also substantially parallel to the fingers. The end of rod 18′ remote from tip 19 is detached from the palm portion 12, as at 20′.

Fig. 4 shows bases 22′ and 25′, and the frusto conical members 23 positioned on base member 22′. The member 23 is provided with the screws 24.

Fig. 5 shows a base member 30 provided with the frusto conical members 23. A clamp arm 32 projects from the base 30, a clamp screw 33 engages the arm 32. This dummy hand supporting structure may be clamped to a bench or table.

Fig. 6 shows another supporting structure, which consists of a base member 34 provided with a projecting rod 35. A tube 36 slidably arranged on the rod, and provided with a set screw 37 engaging the rod. An auxiliary base member 30′ is connected to the top of the tube 36, and this member 30′ is provided with arms 31 for supporting the frusto conical members.

In Fig. 7 the dot dash lines 39 indicate a rubber bulb provided with an air inlet valve 40, and connected to the inlet end of stem 50. The bulb 39 may be repeatedly compressed so as to inflate the dummy hand structure. This should be done before the dummy hand structure is arranged on the frusto conical members.

In Fig. 8 the joiner rod 30ᵇ is provided with a dove tailed groove 43, and the rods 15ᵇ are formed with dove tailed tongue ends slidably engaged in the groove 43. Wires 44 with twisted ends 45 encircle the joiner rod 30ᵇ, and pass thru apertures 46 in the rods 15ᵇ, so as to hold the rods 15ᵇ as desired relative to each other. Right hand studs 47 and left hand studs 48 project from adjacent faces of the rods 15ᵇ, and collars 49 threadedly engage these studs, so that as the collars are turned the rods 15ᵇ are bent at angular relations to each other, which changes the spaced relation of the fingers of the dummy hand structures.

In operation gloves to be cleaned are placed on the hand dummies, which are slightly inflated before forcing the dummies in the gloves. The hand dummies are then attached to the frusto conical bases, and cleaning fluids applied to the gloves.

While I have shown and described a preferred embodiment of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

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

1. In a glove cleaning device, a dummy hand structure of hollow construction formed with a plurality of pleats extending inwards from the outer surface for aiding in the collapsing of the hand structure and permitting expansion of the hand structure without stretching of the material of the hand structure.

2. In a device of the class described, a dummy hand structure of hollow construction, a joiner rod with a dove-tailed groove disposed within the palm portion of the dummy hand, rods engaging in the fingers of the dummy hand and having tongues engaging in the said groove, means for holding the tongues stationary in the groove, and means for holding the rods at adjusted angular positions relative to each other for holding the fingers of the dummy hand in desired spread conditions.

In testimony whereof I have affixed my signature.

JOHN J. TIERNEY.