

Dec. 17, 1940.

C. GINSBERG

2,225,432

SQUEEGEE

Filed July 25, 1939

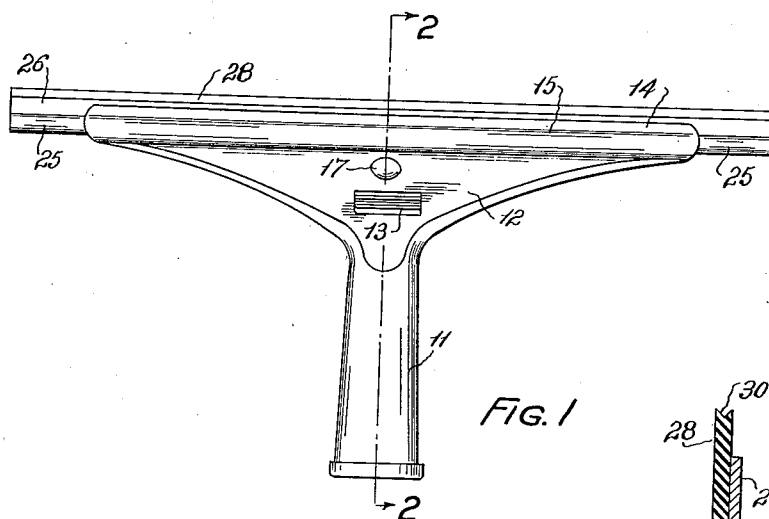


FIG. 1

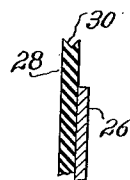


FIG. 6

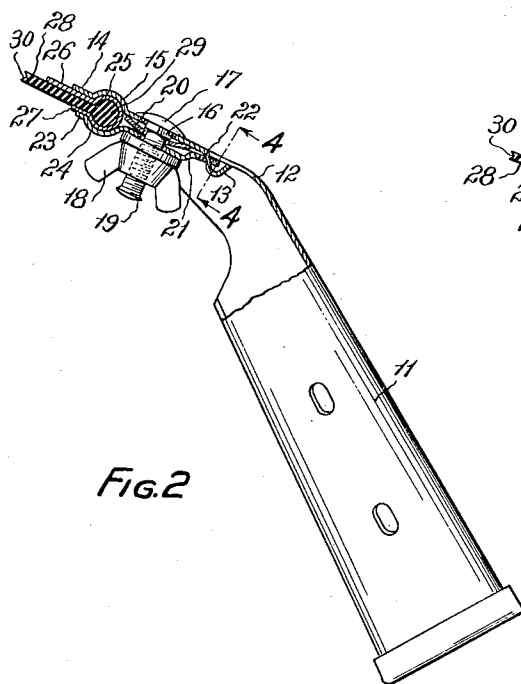


FIG. 2

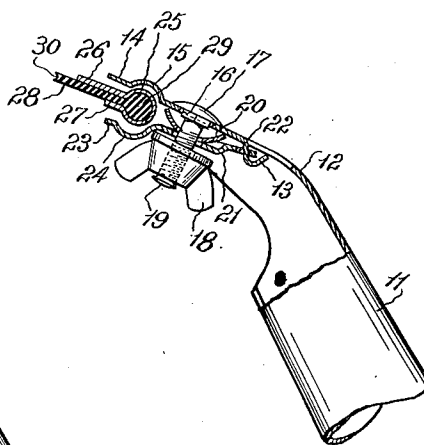


FIG. 3

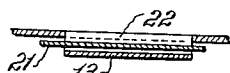


FIG. 4

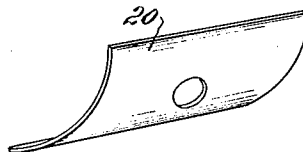


FIG. 5

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2,225,432

SQUEEGEE

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Application July 25, 1939, Serial No. 286,438

2 Claims. (Cl. 15—245)

This invention relates to brushing, scrubbing or cleaning and particularly to implements used in the washing of windows, such as scrapers or squeegees.

The primary object of the invention is to provide a device of the type mentioned which has an interchangeable or removable blade member.

Another object of the invention is to construct such device so that the blade member may be quickly and easily removed, replaced or reversed.

These and other objects and features of the invention will become apparent from a study of the following description and claims together with the accompanying drawing in which like parts are designated by like reference characters and wherein:

Figure 1 is a plan view of the squeegee which embodies the features of this invention;

Figure 2 is a side view partly in section taken along the lines 2—2 of the Figure 1;

Figure 3 is a side view similar to that of Figure 2, except that the clamp members are shown partly open to receive a removable blade member;

Figure 4 is an enlarged view of the hinge portion of the device taken along the lines 4—4 of the Figure 2;

Figure 5 is an enlarged view of the spring member; and

Figure 6 is an enlarged, cross-sectional view of a part of the wiper blade.

This invention consists of two separable parts. There is first, the handle member and then the resilient wiper member.

The handle member, made of some rust-resisting metal, has a conventional socket portion 11 tapered slightly so as to conveniently receive and retain therein a long wooden pole. The pole, however, is not shown in the drawing but its application and use is well known in the art. The socket portion 11 is also of sufficient size and shape to be conveniently gripped by the hand.

Extending forward and downward at an angle from the socket portion 11, there is a somewhat flatter section referred to herein as the first or rigid jaw portion 12. This first jaw portion 12 is integral with or is firmly attached to the socket portion 11 and at about where the two portions join, the jaw portion 12 is stamped or otherwise slotted so as to form a longitudinal hinge loop 13, which loop extends transversely of the socket portion 11.

The first jaw 12 flares or extends sidewise for about five or six inches and has a straight forward edge 14, which edge also extends transverse-

ly of the socket 11 axis and is parallel to the hinge loop 13. Just inside the straight edge 14 there is a channel-like depression 15 on the inside surface of the jaw portion.

At a point approximately half way between the hinge loop 13 and the depression 15 there is a square hole 16 which is intended to receive the square shoulder of the bolt 17.

The second or movable jaw 21 is made of a triangular piece of metal shaped very much like the first or rigid jaw portion 12. The inverted apex of the triangular piece of metal has a horizontal slot 22 through which there passes the hinge loop 13 in a manner permitting the second jaw 21 to spread or swing away from the first or rigid jaw portion 12.

The forward edge 23 is about as long as the forward edge 14 of the first jaw and is parallel to it. Similarly, just inside the forward edge 23 there is another channel-like depression 24 which is parallel to and abuts the depression 15.

Between the horizontal slot 22 and the depression 24 there is a round hole suitable for freely engaging the shank of the bolt 17. The bolt 17 extends through the two aligned holes in the two jaw members 12 and 21 and is provided with a conventional wing-nut 18 which is used to operate or close the two jaws.

The bolt 17 is not turnable in the square hole 16 and the nut 18 is prevented from coming off the bolt 17 by the enlargement 19 on the extreme end of its threaded portion.

In order to permit the user of the device to more conveniently insert or remove the blade member hereinafter described, and therefore, in order to cause the movable jaw member 21 to automatically open upon the loosening of the wing-nut 18, a small flat metal spring 20 is mounted between the inside surfaces of the two respective jaws 12 and 21. The spring 20 is held in place by reason of the small round hole in it through which there freely passes the bolt 17.

The wiper blade member consists of a split tubular metal section 25 which has two parallel flanges 26 and 27 extending lengthwise, one on each side of the split. The top flange 26 is about twice as wide as the bottom flange 27. The wider flange portion acts as a support or back for the resilient rubber blade 28 hereinafter described.

The resilient rubber blade 28 fits between and is held by the two flanges 26 and 27. It passes through the split of the section 26 and has a bead 29 extending lengthwise along one edge thereof, which bead 29 fits into the tubular section 25. The longitudinal edge of the rubber

blade opposite the bead 29 is cut or is otherwise formed so as to provide a longitudinal groove 30 therein. This groove 30 tends to make the extreme edge of the rubber more resilient and flexible than the rest of its body and this extra resiliency facilitates the removal of the water from glass or surfaces which are not entirely smooth.

The tubular section 25 may be a little longer than the two jaw members but regardless of its length the tubular section 25 with its encased rubber blade 28 is of such dimensions that it can be gripped by the inside surfaces of the two jaw members 12 and 21 and particularly at their respective depressions 15 and 24. The forward edges 14 and 23 of the two co-acting jaw members about the two flanges 26 and 27 respectively, so that the blade is unable to turn in the holder but is instead rigidly held therein.

The two main advantages of this device over similar articles of the prior art are, first, that the jaws are linked or hinged together and are not separable, thus preventing a loss of parts; secondly, the jaws open automatically when a new blade is to be inserted or removed, thus preventing a sticking or jamming of the parts which usually requires special manipulation to loosen.

These advantages while not wholly necessary for domestic devices or for devices used very seldom or on comparatively safe levels or stations, yet are important to professional window cleaners who are compelled to work in a precarious position while high up on a ledge of a tall building. At such times and in such places, the operator desires to make the quickest change possible and with as little inconvenience as possible. On commercial work of this nature the blades wear out quite rapidly and the convenience in replacing them is important.

It will now be clear that there is provided by this invention a squeegee which accomplishes the objects of the invention. While the invention has been described in a specific form and while certain broad general terms have been used in its description, it is to be understood that the

embodiment of the invention is illustrative only and is not to be considered in a limiting sense. It is to be further understood that there may be other forms or adaptations of the invention which will suggest themselves to persons familiar with the art and those modifications are also considered to be within the broad scope of the invention as no limitations upon it are intended other than those imposed thereon by the breadth of the appended claims.

I claim:

1. A squeegee comprising, a hollow handle member, an upper jaw integral with the outer end of the handle member and extending outwardly therefrom and having an open bottom and an opening in its top, a hinge member of substantially U-shape having an outer leg formed integral with and depending from the top of the jaw and connected thereto at the wall defining the outer side of the opening, and having the end of its inner leg free and in register with said opening, said hinge member extending transversely of the handle member, a lower jaw having a free inner end formed with a slot adjacent the extremity of said end to receive the free end of the inner leg of the hinge member, said free inner end of the lower jaw being movable in one position to extend into the open bottom of the upper jaw and through the said opening in the top of the upper jaw, thereby to engage over the free end of the inner leg of the U-shaped hinge member so that upon movement of the lower jaw to bring the latter into its operative position to hingedly connect the jaws, a blade member between the jaws, and a screw member extending through the spring member and through each of the jaws to clamp the blade member therebetween.

2. A squeegee, in accordance with claim 1, wherein there is a curved spring plate interposed between the two jaws and which has a substantially central opening to receive the screw therethrough, whereby the screw functions to also hold the plate in assembled relation.

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