Aug. 4, 1964 O. E. HENSLEY 3,142,853

BRUSH ASSEMBLY WITH ATTACHMENT CLAMP

Filed April 1, 1963

FIG. 1.

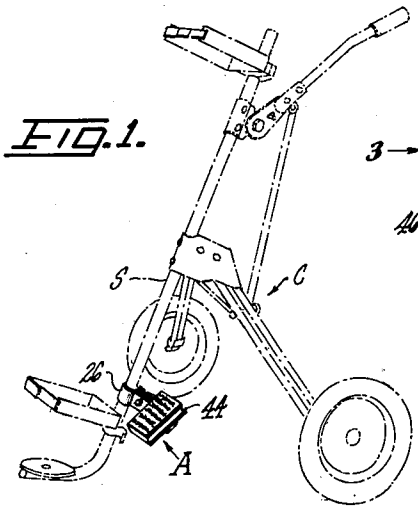


FIG. 2.

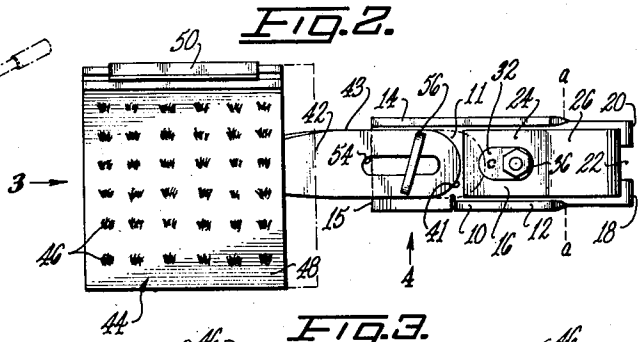


FIG. 3.

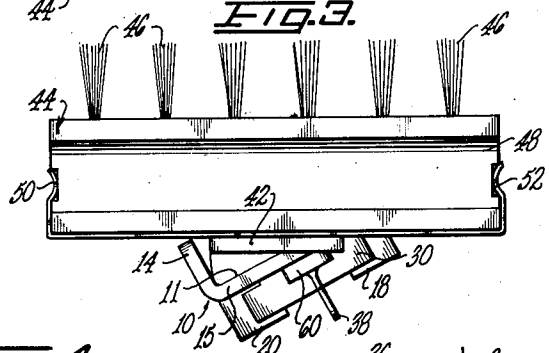


FIG. 4.

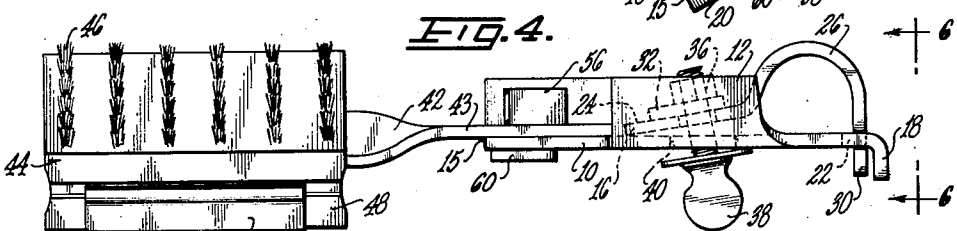


FIG. 5.

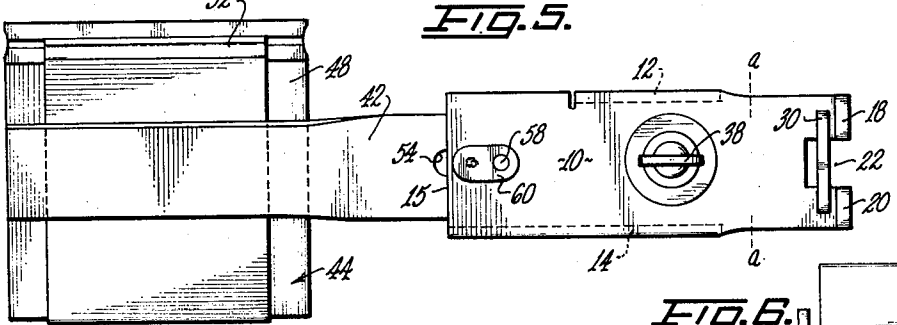


FIG. 6.

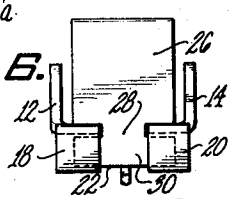
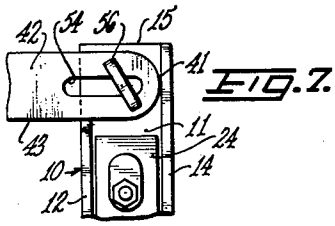


FIG. 7.



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United States Patent Office 3,142,853 Patented Aug. 4, 1964

3,142,853

BRUSH ASSEMBLY WITH ATTACHMENT CLAMP

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Filed Apr. 1, 1963, Ser. No. 269,624
1 Claim. (Cl. 15—160)

This invention relates to a brush assembly having particular utility for (detachable) connection to a golf cart or the like. The device presents an upturned (wire) brush mounted in position wherein a person can readily draw the sole of his boot or shoe across the brush surface to clean off mud or other adhering substance. It is particularly useful thus to clean the cleats or spikes which are fastened to the bottom of track shoes or golfers' shoes. In addition, the brush head can be readily detached from the rest of the assembly and manually applied to clean the wheels of the golf cart, clubs, or other objects. Likewise, when mounted at foot level, other objects beside shoes can be drawn over it for cleaning—for example, the head of a golf club, or a ball, etc.

A particular feature of the invention is a clamp unit by which such assembly can be securely fastened to (cylindrical) shafts of different diameters, by such a firm anchorage that foot pressure upon the brush head in a direction more-or-less parallel to the supporting shaft, will not displace the clamped unit lengthwise along the shaft. The present construction also enables the brush head to be disposed at two alterntae positions perpendicular to each other so that a person may draw his mounted shoe thereover from different angles or directions in order better to clean it; or alternately the assembly can be attached to a supporting object (such as a projecting pipe or building conduit) where one position or the other may be more satisfactory.

Other objects and advantages will become apparent as the description proceeds, having particular reference to the accompanying drawings showing a presently preferred embodiment of the invention wherein:

FIGURE 1 is a perspective view of a golf cart with my brush assembly mounted thereon in functional position;

FIGURE 2 is a top plan view of the brush assembly;

FIGURE 3 is an end elevation as viewed in the direction of the arrow in FIGURE 2;

FIGURE 4 is a side elevational view taken in the direction of the arrow in FIGURE 2;

FIGURE 5 is a bottom plan view;

FIGURE 6 is an end elevation of the clamp as seen in the direction of the arrow of FIGURE 4; and

FIGURE 7 is a fragmental view in top plan, showing the shank of the brush assembly disposed perpendicular to the clamp.

To illustrate one intended use, the brush assembly A is here shown attached to the principal upright shaft S of a two-wheeled carrier for a golf bag, commonly known as a "golf cart" C. The clamp proper is formed of two, proximately articulated, pieces, of which the longer and lower one (in use) **10** is an elongated, generally flat member having a central channel **11** formed by a generally parallel pair of side or edge walls **12, 14** projecting upward for a short height along opposite longitudinal margins. From a common transverse line of origin *a—a*, the lower wall **14** extends completely to the distal end **15** of the channel, while the opposite, shorter wall **12** stops short of the distal end of the channel by a distance equal at least to the width of the overlying coupling member **16.**

The proximate end of the channel member is formed with a pair of short, perpendicularly downturned tabs **18, 20** projecting from opposite side edges of the channel and separated by a central open-end slot **22** extending a short distance inward, in general alignment with the longitudinal axis of the channel.

The coupling member **16** is formed with a flat plate portion **24** receivable in justaposition with the channel **11** between edge walls **12, 14.** Proximately adjacent, is an outwardly bowed portion or yoke **26** adapted to partially encircle and frictionally embrace a shaft S when the latter is in abutment with the ends of the edge walls **12, 14** along the lines *a—a.* Outwardly the yoke **26** merges into a laterally restricted neck **28** which is loosely received in the slot **22.**

Along the rear face of the channel member **10,** the neck **28** flares laterally to form a transverse abutment edge or terminal segment **30** which serves as a fulcrum or pivot line for swinging the coupling member **16** toward and away from the seated position of the plate **24** in the channel **11;** that is, whether or not the plate portion **24** comes down in complete juxtaposition with the channel floor **11** depends upon the thickness of the shaft S embraced by the yoke **26.**

The plate portion **24** is traversely apertured more-or-less centrally and a "spot weld nut" **32** is welded thereto with its tapped opening or threaded neck (FIGURE 4) fixed in the aperture so as to receive therethru a fastening element such as a nut **36** and headed bolt **38.** The shaft of the latter is consecutively inserted thru an elongated slot **40** which extends longitudinally to the channel **11** so that the coupling plate **16** can be adjusted lengthwise along the chanel **11** (the neck **28** sliding along the slot **22**) to accommodate shafts S of different diameters thus clamped by the unit. In other words, referring to FIGURE 4, the yoke **26** can be adjusted from right to left (to the depth of the slot **22**), and also up and down by moving the nut **36** so as jointly to fit a shaft which is embraced by the yoke **26.**

At the distal end of the channel **11,** a flat-ended shank **42,** which may be spirally twisted 45° or so along its longitudinal axis, terminally or outwardly supports a brush head **44** which may have rows of wire bristles **46** set in a wooden or plastic backing **48** and held to the shank by an opposing pair of inturned side-engaging jaws **50, 52.** The shank **42** has slightly less width than the channel **11** and is formed with a longitudinal, closed slot **54** by which an inserted thumb screw **56** fastens the shank **42** against the channel member **10** at selected positions of longitudinal displacement, or alternately with the shank **42** disposed transversely (FIGURE 7). It will be observed that with the butt end **41** of the shank **42** held against the long wall **14,** and with the edge **43** lodged against the end of the shorter wall **12,** the brush head is securely anchored; in addition, it can be fastened at any intermediate angle thru the possible 90° turn. When longitudinally aligned with the channel **11,** the sides of the shank **42** can be slid more-or-less loosely between the channel walls **12, 14** to a fully inserted position (FIGURE 2) wherein the end **41** is inserted between the plate **24** and the channel **11** before the bolt **38** is fastened, thus affording a greater adjustability to the yoke **26** in attaching to a larger diameter shaft S. The end **58** of the screw **56** is threadedly received in another spot-weld nut **60,** while the flat-sided head of the screw, when disposed parallel to the slot **54,** allows the shank **42** (and brush head **44**) to be easily detached from the clamp unit by being lifted off over the top of the retained screw **56.** In other words, the clamp can be left attached to the golf cart, and the brush head removed for cleaning the wheels (or other objects) without completely unscrewing the thumb screw **56;** in the same manner, a new brush head can be substituted for the old worn one.

I claim:

A brush assembly of the character described, adapted for detachable mounting to the shaft of a golf cart and the like, and comprising in combination:

(*a*) a generally flat-bottom, longitudinal channel member having generally parallel edge walls upstanding along opposite sides, one of which walls extends beyond the other one toward the distal end of the channel, and both of which walls end short of the proximate end of said member, the proximate end of said member being formed with a pair of downturned tabs, laterally spaced apart to define an open-ended slot in general alignment with the longitudinal axis of the channel;

(*b*) an opposing coupling plate formed with a generally flat portion receivable in juxtaposition within said channel, an adjacent, outwardly bowed portion adapted to frictionally embrace a shaft to which the assembly is attached, and a proximate portion disposable transverse to the channel member and characterized by a laterally restricted neck receivable in said slot, and a laterally flared, terminal segment pivotally engageable beneath said downturned tabs;

(*c*) a fastening element adapted to secure said flat portion and said channel member in juxtaposition and having a limited radial adjustability in the direction of the longitudinal axis of the channel member so as to accommodate shafts of different diameter

embraced by said bowed portion by permitting positioning of the restricted neck along said slot toward and away from the adjacent ends of said side walls;

(*d*) a shank carrying a brush head at its outer end and having a generally flat, inner end disposable in juxtaposition with the distal end of said channel, and locking means adapted to secure said juxtaposed flat end selectively (1) parallel to the channel and alternately clear of and received between the flat portion of the coupling plate and said channel, and (2) transverse to said channel and in end abutment with said longer side wall, which shank and brush head are selectively detachable from said channel member.

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