April 7, 1959 C. H. CARLSON ET AL 2,881,018

ADJUSTABLE TELESCOPIC HANDLES FOR BROOM HEAD STUBS AND THE LIKE

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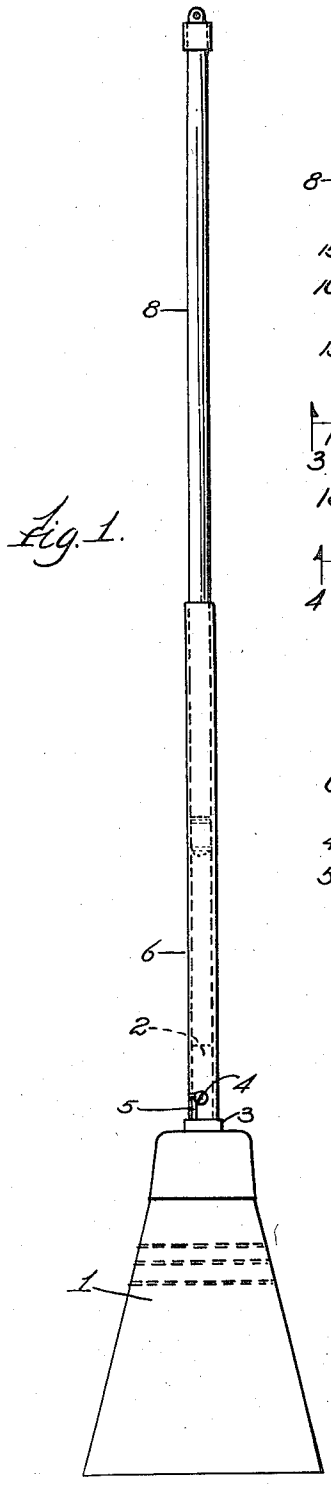


Fig. 1.

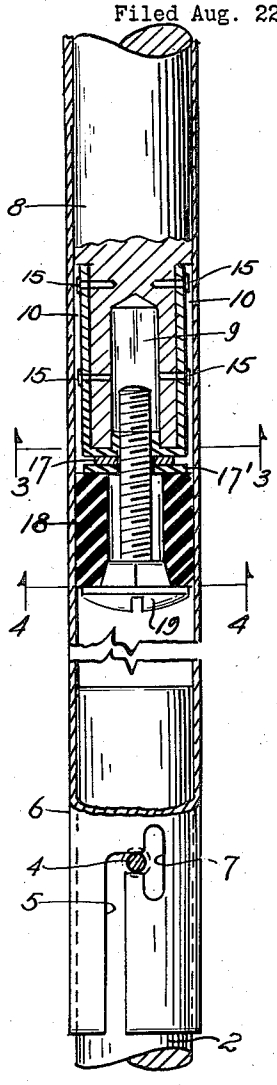


Fig. 2.

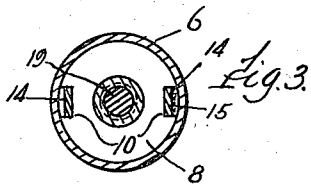


Fig. 3.

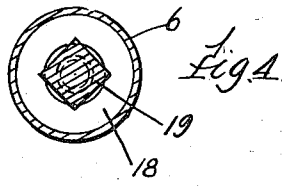


Fig. 4.

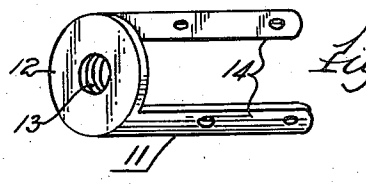


Fig. 5.

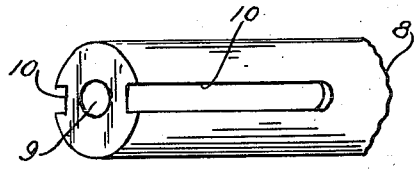


Fig. 6.

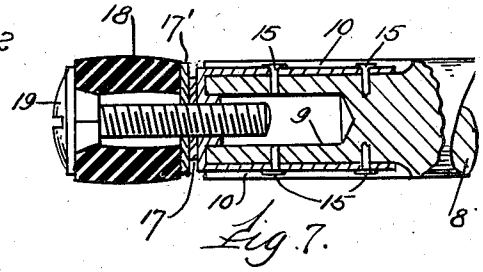


Fig. 7.

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ADJUSTABLE TELESCOPIC HANDLES FOR BROOM HEAD STUBS AND THE LIKE

Carl H. Carlson and William Lee Russell, Chicago, Ill.

Application August 22, 1955, Serial No. 529,876

1 Claim. (Cl. 287—108)

This invention relates to tool handles and more particularly to an adjustable telescopic structure which may be substituted for a missing or broken original handle or used to extend a stub handle, and means for instantly locking same in any adjusted position. This structure or device is adapted for use in connection with the head of a broom, as well as in connection with other tools, such as fishing poles, pole vaulting poles, hand rakes, etc.

By means of the instant device a fastening connection is provided whereby a worn out handle may be instantly replaced by an extension handle applied directly to the socket carried by the broom head and as readily detached therefrom at any time without the use of tools of any kind by persons such as house-wives, chamber-maids, janitors and others without the requirement of skill or previous experience in such matters.

The instant device is of very simple structure and few parts, durable and efficient in use, not easy to get out of order, the parts being inexpensive to manufacture. It is an improvement or further development of our patent on Auxiliary Tool Handles, No. 2,454,989, granted Nov. 30, 1948.

The above features and the additional advantages which characterize the tool handle structure of this invention will be described in detail in the following specification, defined in the claim and illustrated in the accompanying drawing, wherein:

Fig. 1 is a view in elevation of a broom head with a stub showing the application of the instant structure.

Fig. 2 is an enlarged fragmentary sectional view of Fig. 1 showing the interior structure and assembly of the parts thereof.

Figs. 3 and 4 are horizontal cross-sectional views taken respectively on the lines 3—3 and 4—4 of Fig. 2.

Fig. 5 is a detail perspective view of one member of a coupling device employed.

Fig. 6 is a perspective view of the inner end of the handle processed to receive the device of Fig. 5, and,

Fig. 7 is a longitudinal sectional view taken axially of the lower or inner end of the handle with the coupling and expanding member in place.

The reference numeral 1 denotes a broom head having a stub 2 and stub socket 3, the stub 2 provided with a screw-like member 4 the head of which is disposed slightly outwardly from the periphery of said stub to permit its reception in the slot 5 opening through the lower end of the tubular metal member 6, said slot having a rectangular body portion terminating in a head 7 disposed parallel and in spaced relation to the longer portion of the body of slot 5 and at right angles to the shorter portion

of said slot body and extending in opposite directions from the end thereof.

Telescopically received snugly in the upper or non-slotted end of said tubular member is the lower or inner end of the desirably wooden round bar 8, said bar inner end formed axially with the somewhat elongated cavity 9 and with the two oppositely disposed twin elongated recesses 10, 10, said recesses and said cavity opening through the adjacent end of said bar.

Received upon the inner end of said bar is a spider 11 having a round head 12 of slightly less diameter than said bar end and an interiorly threaded neck portion 13 snugly received in the mouth of cavity 9, the legs 14 of said spider received in the said recesses 10, 10 and fixedly secured in such position by nails or the like 15.

Received upon said head 12 are the washers 17, 17' and receiving one end of the tubular, expansible rubber dilator 18, the inner periphery of the outer or upper end of said dilator desirably bevelled to receive the screw 19 that passes axially through the washers 17, 17' and engages the threads of the neck 13 and extends into the said cavity 9.

In use the bar 8 is introduced, processed end first, carrying the dilator 18, into the outer end of the tubular member 6 causing the screw 19 to expand the dilator and bind same against the inner wall or face of the member 6 releasably locking said bar and tubular member together. Rotating said bar in the opposite direction will unlock said members.

What is claimed is:

The combination of a broom head stub or the like, of a headed screw-like member carried by said stub, the head of said member spaced from the periphery of said stub, a tubular member having an angular slot terminating at one end in a head disposed parallel to the slot body portion and at right angles to a connecting shorter slot portion, said tubular member telescopically receiving said stub and said slot receiving said screw-like member in releasable locking engagement therewith, said slot permitting limited rotary and longitudinal movement of said tubular member and said stub to alternately lock and release said last two members, a round bar snugly and telescopically received in the upper end of said tubular member, said bar formed axially at one end with an elongated cavity and with diametrically opposed surface recesses, a spider received upon one end of said bar with its legs in said recesses, said spider having a perforate threaded head, the perforation in said spider head aligned with the cavity in said bar, an expansible dilator at said bar end in snug fitting engagement with the inner periphery of said bar, a screw connecting said dilator to said spider head with its threads meshing with said spider head threads and extending into said bar cavity, said bar when rotated in one direction actuating said screw to expand said dilator into releasable positive frictional locking engagement with said tubular member.

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