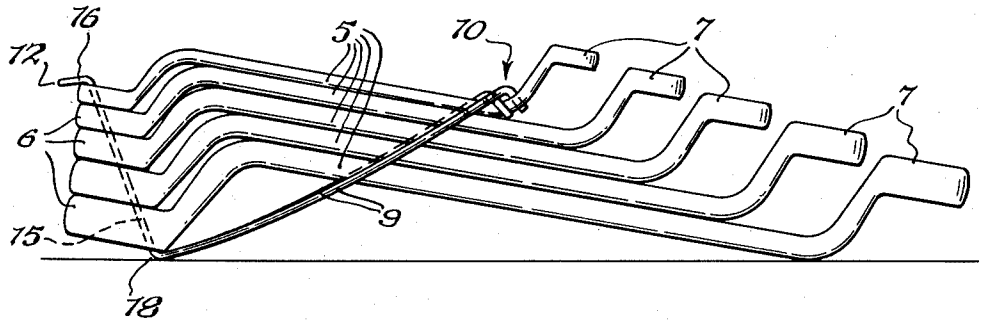
Oct. 11, 1955 A. P. ZUBRICKY 2,720,306

HOLDER FOR TOOLS

Filed Oct. 21, 1952

Fig. 1.



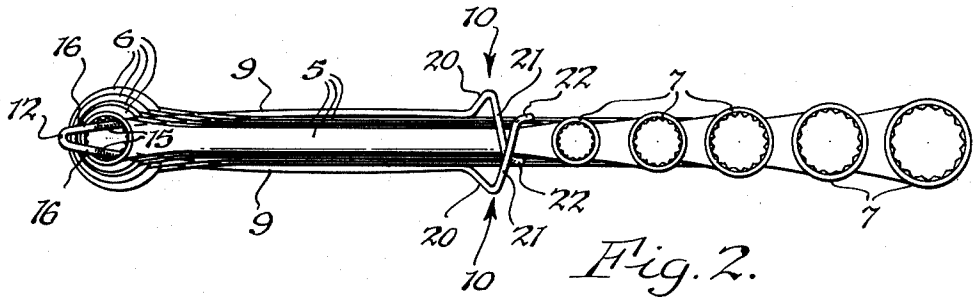


Fig. 2.

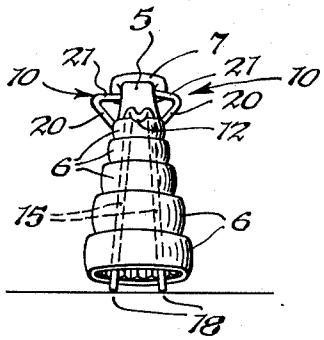


Fig. 3.

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HOLDER FOR TOOLS

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6 Claims. (Cl. 206—16)

This invention relates to holders for releasably securing together a set of tools of various sizes, such as wrenches, whereby the tools may be held together as a set and disconnected from each other for use individually.

One of the objects of this invention is to provide an improved holder for tools which is efficient and easily manufactured and applied to a set of tools.

A further object is to provide a holder of this type with integrally formed parts with extensions which may be grasped by hand to facilitate applying the holder to and removing the same from the tools.

Another object is to provide a holder made of resilient wire so that the holder resiliently grasps the tools to hold them in correct relation to each other.

Other objects and advantages will be apparent from the following description of some embodiments of the invention, and the novel features will be particularly pointed out hereinafter in connection with the appended claims.

In the accompanying drawings:

Fig. 1 is a side elevation of a tool holder embodying this invention showing the same applied to a set of wrenches.

Fig. 2 is a top plan view thereof.

Fig. 3 is an end view thereof.

While I have shown my improved holder by way of example as applied to a set of box wrenches, it will be obvious that this holder may be applied to wrenches of other types or to other tools. It is of course necessary that such tools have in at least one end thereof holes or openings through which a part of the holder may extend. The drawings show a set of five box wrenches having handles **5** which, when stacked, are suitably positioned one above the other with the largest wrench at the bottom of the set and the smallest at the top. The work-engaging ends **6** of these wrenches are provided with the usual holes or boxes therein into which the nuts, bolt heads or other workpieces may enter when the wrenches are in use for applying torque thereto. The wrenches shown are also provided with similar box ends **7** at the opposite ends thereof, but it is immaterial whether these ends of the wrenches are of box shape, open-ended or of any other suitable construction. The wrenches are formed in the usual manner so that the apertured ends **6** thereof may be positioned one above the other in such a manner that the boxes or openings in the wrenches can be arranged approximately in alinement or registration with each other.

The holders embodying this invention are preferably formed of a single piece of wire, although, if desired, the holders may be made in two halves or parts separated from each other. These holders each comprise an anchoring portion which extends through and is anchored or releasably held in the alined openings or boxes in the wrench parts **6**. The holders also include tool alining parts **9** which constitute continuations of the anchoring parts and which extend along opposite edge portions or sides of the handles **5** of the tools so that the tools will

be held one above the other between these alining parts. These tool alining parts **9** terminate at their upper ends in locking parts **10** forming hooks or hook-shaped parts which interlock with the uppermost wrench of a set to lock the holder in fixed but releasable relation to the set of wrenches.

If the holder is formed of a single piece of wire, this wire is bent intermediate of its ends at **12** to form two substantially parallel legs. If desired, however, the holder may be made of two parts, in which case the bent portion **12** is eliminated and the two adjacent ends of the holder parts terminate in proximity to each other above the apertured end **6** of the upper wrench of a set. The term "holder" as herein employed is intended to apply to the construction shown regardless of whether the holder is made of a single piece of wire or two pieces of wire.

The anchoring part of the holder includes portions **15** which extend through the various alined apertures or boxes of an end **6** of each wrench or other tool, and the upper ends of the parts **15** terminate in bent-over end portions **16** which are formed to engage a part of the upper face of the box or aperture of an end **6** of the uppermost tool of the set. The lower ends of the anchoring parts **15** each terminate in a bend **18** at which the tool alining parts **9** of the holder start. The holders are preferably made of wire having a certain amount of resilience and the alining parts **9** are yieldingly urged downwardly, due to this resilience. These parts **9** extend upwardly at an inclination along the opposite edges of the handles **5** of the tools and terminate at their upper ends in hooks or hook-shaped locking parts **10** which cross over the uppermost tool toward opposite sides thereof and are engaged therewith so as to hold the holder in correct operative relation to the wrench set. The anchoring part of the holder supports the same in such position that the locking parts **10** must be moved upwardly into their operative positions against the spring pressure of the alining parts **9**.

The two locking ends of the holder are prferably formed in such a manner as to provide lateral extensions which may be readily grasped by the fingers to move the locking parts into and out of engagement with the upper wrench of a set. For this purpose the upper end of each tool alining part **9** is first bent outwardly to form the parts **20** and then inwardly to form the parts **21**, which are shaped to extend across the upper face of the uppermost tool of a set. These transversely extending parts **21** terminate at their outer ends in downwardly extending parts **22** which are formed to engage opposite side edges of the uppermost tool. The outwardly extending parts **20** of the holders may, of course, be omitted since it is possible to remove the ends of the holder into and out of engagement with the uppermost tool of a set by grasping the upper portions of the tool alining parts **9**, but use of these finger grips formed by the outwardly extending parts **20** greatly facilitates the applying and removal of the holder to a set of tools. The locking parts **10** of the holder are yieldingly held in gripping engagement with the uppermost tool of a set because of the resilience of the holder so that the upper ends to the tool alining members **9** are urged downwardly so that the locking parts **10** are firmly but yieldingly held in their operative positions.

In the use of holders as herein described, the anchoring parts of the holders are first passed through the openings or boxes at one end of the set of tools so that the bent part **16** engages the upper face of the uppermost tool of the set about the opening or box therein, or if desired, the anchoring portion may be passed through the holes or openings in the opposite direction so that the bent part **16** engages a part of the lower face of the lowest tool of the set. The tool alining parts **9** then extend at an angle across the opposite edges of the tools and the locking

parts **10** are moved into engagement with the face of the tool with which the bent part **16** engages. In this manner all the tools of the set are locked together. The tools may be easily released for individual use by moving the locking parts out of engagement with the tool with which they are in engagement. This removal of the locking parts from such tool is materially facilitated by the outwardly extending parts **20**, which may be readily grasped by a finger.

The holder is of simple and inexpensive construction and very efficient in operation and may be readily applied to or released from a set of tools.

The terms "upper" and "lower" are herein employed to facilitate description of this invention and not as a limitation, since it will be obvious that the set of wrenches may be inserted or placed on a side thereof.

It will be understood that various changes in the details, materials and arrangements of parts, which have been herein described and illustrated in order to explain the nature of the invention, may be made by those skilled in the art, within the principle and scope of the invention as expressed in the appended claims.

I claim:

1. A holder for a set of tools, each of which has an opening in at least one end thereof, said holder comprising a wire having one end portion thereof bent to form an anchor part extending through the alined openings of said tools, the end of said anchor part being bent over to engage the upper face of the upper tool of the set, said wire having intermediate tool alining parts formed integral with said anchor part and comprising two legs bent at an angle thereto and extending upwardly from the lower face of the lowest tool of the set along opposite sides of the tools of the set, the upper ends of said alining parts having hook-shaped locking parts formed to extend in opposite directions across the upper face of the upper tool of the set and down to a slight extent across the opposite edges of the upper tool, said hooked-shaped parts, when moved out of engagement with said upper tool, releasing said tools for removal from said holder.

2. A holder according to claim 1, in which said holder has outwardly extending parts between said hook-shaped locking parts and said tool alining parts which may be grasped to facilitate releasing of said hook-shaped parts from said upper wrench.

3. A holder according to claim 1, in which said tool alining parts are resilient and biased to hold said hook-shaped parts in engagement with the upper tool of the set.

4. A holder for a set of tools arranged in a stack and having openings in at least one end of each tool, said holder comprising a single length of wire doubled over on itself by bending the wire mid-way of its ends to form two substantially parallel legs, the part of said holder adjacent to said bent end of said wire constituting an anchor part which extends through the openings of all of said tools at one end of said stack, said anchor part having bends at opposite ends thereof to engage the upper and lower tools of the set, the parts of said legs of the wire beyond said anchor part being bent to extend along opposite sides of said stacked tools to aline said tools, the outer ends of said wire beyond said alining parts being bent over to extend over and grip the uppermost tool of the stack from opposite sides thereof adjacent to the other end thereof, said bent-over parts being movable out of engagement with said upper tool of said set for releasing said tools from said holder.

5. A holder for a set of tools, each of which has an opening in at least one end thereof, said holder comprising a wire having one end portion thereof bent to form an anchor part extending through the alined openings of said tools, said bent end of said holder being turned over to engage the upper face of the upper tool of the set, said anchoring part terminating in a pair of legs bent upwardly to engage the lower face of the lower tool of the set at said opening thereof, said legs extending upwardly from said lower face of said lower tool of the set along opposite sides of the tools of the set, the outer ends of said wire beyond the upwardly extending parts thereof being bent toward each other to form hooks extending across the upper face of the upper tool of the set and downwardly toward the opposite edges of said upper tool to support said tools in vertical alinement, said hooks when released from engagement with said upper tool permitting said tools to be removed from said holder.

6. A holder for a set of tools, each of which has an opening in at least one end thereof, said holder comprising a wire having one end portion thereof bent to form an anchor part extending through the alined openings of said tools, the end of said anchor part being bent over to engage the upper face of the upper tool of the set, said wire having intermediate tool alining parts formed integral with said anchor part and comprising two legs bent at an angle thereto and extending upwardly from the lower face of the lowest tool of the set along opposite sides of the tools of the set, the upper ends of said alining parts having hook-shaped locking parts formed to extend in opposite directions across the upper face of the upper tool of the set, said wire being resilient and urging said hook-shaped parts downwardly against the upper face of the upper tool, said anchoring part holding said tool alining parts and said hook-shaped parts in position to resist the flexing of said hook-shaped parts out of their positions in engagement with said upper tool.

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