

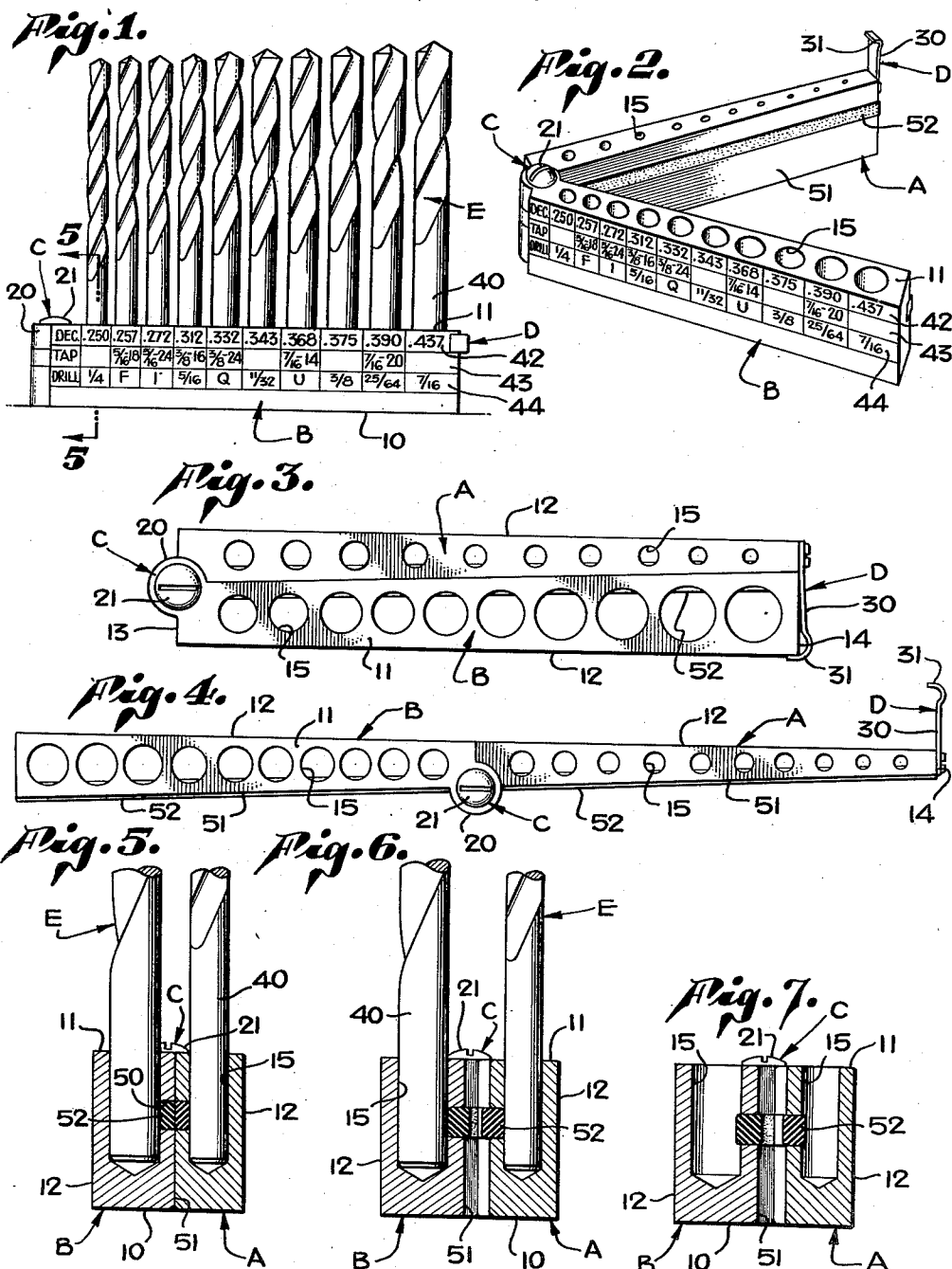
Sept. 18, 1951

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2,568,089

HOLDER FOR DRILLS OR THE LIKE

Filed Feb. 14, 1947



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2,568,089

HOLDER FOR DRILLS OR THE LIKE

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Application February 14, 1947, Serial No. 728,653

3 Claims. (Cl. 211-69)

1

This invention has to do with a holder for drills or the like, it being a general object of the invention to provide a simple, practical, effective device forming a holder for a plurality of tools such as twist drills, or the like.

Twist drills are used extensively for many purposes and although such devices are manufactured in an extensive range of sizes, the average workman or machinist commonly uses but a very few different sizes. As a result of the foregoing circumstances time is often wasted and inconvenience experienced in locating a particular drill desired for use since a stock of drills is ordinarily such that the drills are mixed and when the number is large selection becomes difficult.

It is a general object of this invention to provide a holder particularly suited for handling a selected group or assembly of drills or the like, and in carrying out the invention it is preferred that the drills held be those most commonly used.

A further object of the present invention is to provide a holder which when collapsed or in folded position is compact and simple in form, making it suitable to handle or store and which when expanded or extended may be either straight, and such as to hold the drills in a straight row, or it may be in angular form and such as to have particularly stable bearing support on a bench or the like.

A further object of the present invention is to provide a holder of the general character referred to involving retaining means which serves to yieldingly resist withdrawal of tools from the holder and which is such as to effectively grip the tools and prevent their displacement under all ordinary conditions when the device is in the folded or collapsed position.

It is a further object of the present invention to provide a holder of the general character referred to which is exceedingly simple in form and construction, making it inexpensive of manufacture and practical to use.

The various objects and features of my invention will be fully understood from the following detailed description of a typical preferred form and application of the invention, throughout which description reference is made to the accompanying drawings, in which:

Fig. 1 is a side elevation of the holder provided by the present invention showing it in the folded or collapsed position and carrying a group of twist drills. Fig. 2 is a perspective view of the holder showing it without the drills in place and showing it partially open or in an angular

2

position so that it will rest on a support to be particularly stable or firm. Fig. 3 is an enlarged plan view of the holder showing it in the closed or collapsed position and without drills or tools therein. Fig. 4 is a view similar to Fig. 3 showing the device fully open or extended. Fig. 5 is an enlarged detailed sectional view taken as indicated by line 5-5 on Fig. 1. Fig. 6 is a view similar to Fig. 5 showing the device partially open as it appears in Fig. 2, and Fig. 7 is a view similar to Fig. 6 showing the device without tools or drills located therein.

The device of the present invention is intended primarily as a holder for tools and since it is particularly useful for holding a selection or collection of twist drills or the like I have chosen to illustrate it as a holder for twist drills and will refer to it as being used for this purpose, but I do not wish the invention limited to the handling of twist drills or any other particular objects, since it may be employed to handle various articles or objects similar to twist drills or the like.

The device that I have provided involves, generally, an elongated body preferably rectangular in cross sectional configuration so that it has a flat bottom 10, a flat top 11, parallel vertical sides 12 and parallel vertical ends 13 and 14. The body may be formed of metal or any other suitable material, and in accordance with my invention it has two longitudinal rows or series of sockets 15 which are in the nature of round openings or bores that enter the body from its top 11. The two series of sockets provided in the body extend lengthwise of the body and are spaced a substantial distance apart and the several sockets 15 of each series are preferably spaced apart in a substantially uniform manner, as illustrated in Fig. 3 of the drawings. It is to be observed that one series of sockets involves sockets considerably larger than the other and that the sockets of each series progress in size from one end of the series to the other and the series are related so that the smallest socket is at the end of the body where the largest socket occurs.

In accordance with my invention the body above described is divided longitudinally in a vertical plane into two sections A and B, the line of division or separation being located to occur between the two series of sockets so that there is a series of sockets in each of the sections. The line or plane of division forming the sections A and B is at an angle or is inclined relative to the longitudinal axis of the body so

3

that the sections are tapered or wedge-shaped as clearly illustrated in Figs. 3 and 4 of the drawings. I prefer, in practice, to locate and pitch the line of division between the sections A and B so that the section A in which the series of smaller sockets is located is narrower or thinner than the section B in which the larger sockets are located.

In accordance with my invention I provide a connecting means C between the sections A and B whereby the sections are pivotally connected at one end of the body so that they can be moved between a folded or fully collapsed position, such as is shown in Fig. 3, to an extended or end to end position such as is shown in Fig. 4. The connecting means C is preferably a simple hinge connection involving meshing lugs 20 on the sections A and B and a pivot pin 21 carried by the lugs.

My invention further provides fastening means D releasably holding the sections together or in the collapsed position shown in Figs. 1, 3 and 5. The means D may be any suitable form of catch or fastening means. In the case illustrated the means D involves a simple latch 30 pivotally connected to the end 14 of one section and having a turned outer end forming a finger 31 that can be positioned to engage the section B to hold it against section A, as clearly shown in Fig. 3.

The sockets 15 are preferably made of such size as to slidably receive the shanks 40 of twist drills E or the like and they are formed deep enough into the body or into the body sections to receive a substantial amount of each shank 40 as clearly shown in Figs. 5 and 6 of the drawings. I prefer to provide identifying means or markings on the outer sides 12 of the body opposite the sockets 15 or in register therewith to indicate the size of the sockets or the size of the drills to be accommodated by the sockets. In the preferred form of the invention the markings on the sides 12 involve tables of information generally desired by the machinist or person using twist drills. In the particular case illustrated the table on each face 12 involves three rows of markings each of which extends lengthwise of the body, one row 42 of markings giving the decimal size of the drills to be received in the sockets, the next row 43 giving the size of taps to be used with the drills, and the other row 44 giving the fraction size of the drills. It is to be understood that the markings or scales applied to the sides 12 of the body identifying the drills carried in the sockets may be marked on the body in any suitable manner, it being preferred that a form of marking be employed which is permanent so that it will not be removed or disfigured by hard usage such as a device of this kind receives.

My present invention provides retaining means for the shanks 40 of the drills E. The preferred form of retaining means involves a longitudinal channel 50 cut or formed in the inner side 51 of each body section to extend into or to intersect the socket openings 15. A gripping member 52 is carried in each channel and in the preferred form of the invention the gripping member is in the form of a pad or body of rubber or the like fitted to the channel 50 to be secure or tight therein, so that it will not become displaced, and proportioned so that when in its normal position as shown in Fig. 7 it has a part projecting into the sockets 15. In the preferred form of the invention one single or continuous gripping member is provided in each body section in which case one

4

continuous channel 50 is formed in each body section from one end to the other, as shown in the drawings.

In practice it is preferred to form each gripping member so that when in its normal position it has a portion projecting into the sockets of the body section carrying the gripping member so that it is deflected somewhat by the shank of a drill applied as shown in Fig. 6 of the drawings. Under these circumstances the gripping member serves at all times to yieldingly resist withdrawal of a shank from a socket but when the device is open, as shown in Figs. 2, 4 and 6, this resistance is little and does not materially interfere with convenient withdrawal of the shanks, and furthermore, the gripping member does not interfere with ready insertion of the shanks 40 into the sockets.

In accordance with the preferred form of my invention I locate the channels 50 in the two sections A and B so that they are opposite each other and I proportion the gripping members so that when in their normal positions they have parts projecting somewhat from the inner sides 51 of sections A and B. As a result of this arrangement and proportioning of parts the gripping members of the two sections A and B engage each other when the sections are folded together or collapsed, as shown in Figs. 1, 3 and 5, with the result that the gripping members are put under compression and therefore act to firmly grip the shanks of the drills. In practice I may proportion or shape the gripping members to permit of the desired compression or I may form the gripping members of a collapsible or sponge material which is subject to compression.

From the foregoing description it will be apparent that I have provided a holder for twist drills or the like which has sockets varying in size to accommodate a suitable selection of twist drills, which sockets are arranged as to size so that the drills are in an orderly arrangement and are arranged in two series which occur in the two hinged sections of the body. The body sections being hinged together enables them to be swung between the folded or collapsed position in which the device is compact and in a form suitable for storing or handling, and a fully extended position, as shown in Fig. 4 where all of the drills held by the device are carried in a straight row, or to an angular position such as is shown in Fig. 2 where the drills are conveniently located and the device is such as to rest firmly on a bench or the like. The retaining means that I have provided causes the shanks of the drills to be retained in the sockets preventing accidental displacement and at all times offering some resistance to withdrawal of the drills from the holder yet allowing convenient withdrawal whenever the device is open from the collapsed position shown in Figs. 1 and 3. When the device is folded or collapsed as shown in Figs. 1 and 3 the retaining means is under pressure and acts to firmly grip the shanks of the drills and effectively prevents displacement of the shanks from the sockets making it possible for the holder with the group of drills therein to be handled in a tool box or the like without danger of the drills becoming displaced from the holder.

Having described only a typical preferred form and application of my invention, I do not wish to be limited or restricted to the specific details herein set forth, but wish to reserve to myself any variations or modifications that may appear to those skilled in the art and fall within the scope of the following claims.

5

Having described my invention, I claim:

1. A holder for tools having shanks including, an elongate body having two longitudinal rows of shank receiving sockets in it from its top and divided longitudinally into two sections each with a row of sockets, means pivotally connecting the sections together at one end of the body, and means resisting withdrawal of tool shanks from the sockets including yielding gripping members held in channels formed lengthwise of the sections in communication with the sockets, the channels being in adjacent sides of the sections and being located opposite each other, the gripping members having portions normally projecting into the sockets and having portions normally projecting from the said sides of the sections to be in pressure engagement with each other when the sections are together.

2. A holder for tools having shanks including, an elongate body having two longitudinal rows of shank receiving sockets in it from its top and divided longitudinally in a vertical plane extending at an angle to form two tapered sections each with a row of sockets, means pivotally connecting the sections at one end of the body, a pivoted latch releasably holding the sections together at the other end of the body, each row of sockets including sockets of different sizes progressing in size from one end of the row to the other, the sockets in one row being larger than those in the other row and the largest socket in one row being at the same end of the body as the smallest socket in the other row, and yielding shank gripping members held in longitudinal channels formed in the sections from their inner sides to communicate with the sockets, the channels being opposite each other and the gripping members having parts normally projecting into the

6

sockets and having parts normally projecting from the inner sides of the sections to be in pressure engagement with each other when the sections are together.

3. A tool holder including a substantially solid body of uniform cross section formed by a pair of pivotally joined oppositely tapering sections, the taper of said members being equal and opposite and being normally engaged side by side, each section having a row of graduated sockets formed by a series of bores of successively increasing diameter entering from the top of the body and terminating short of the bottom thereof, there being opposed channels in adjacent sides of said sections extending parallel to said rows of sockets and opening into said bores, and gripping members mounted in said channels, each of said members comprising a strip of resilient deformable material frictionally held in a channel to extend into bores in communication with the channel, said members normally projecting from said adjacent sides of the sections to be in pressure engagement with each other when the sections are engaged side by side.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
Re. 13,408	Sine	Apr. 23, 1912
828,051	Powers	Aug. 7, 1906
969,228	Wells	Sept. 6, 1910
2,260,086	Matter	Oct. 21, 1941
2,429,305	Barnes	Oct. 21, 1947