

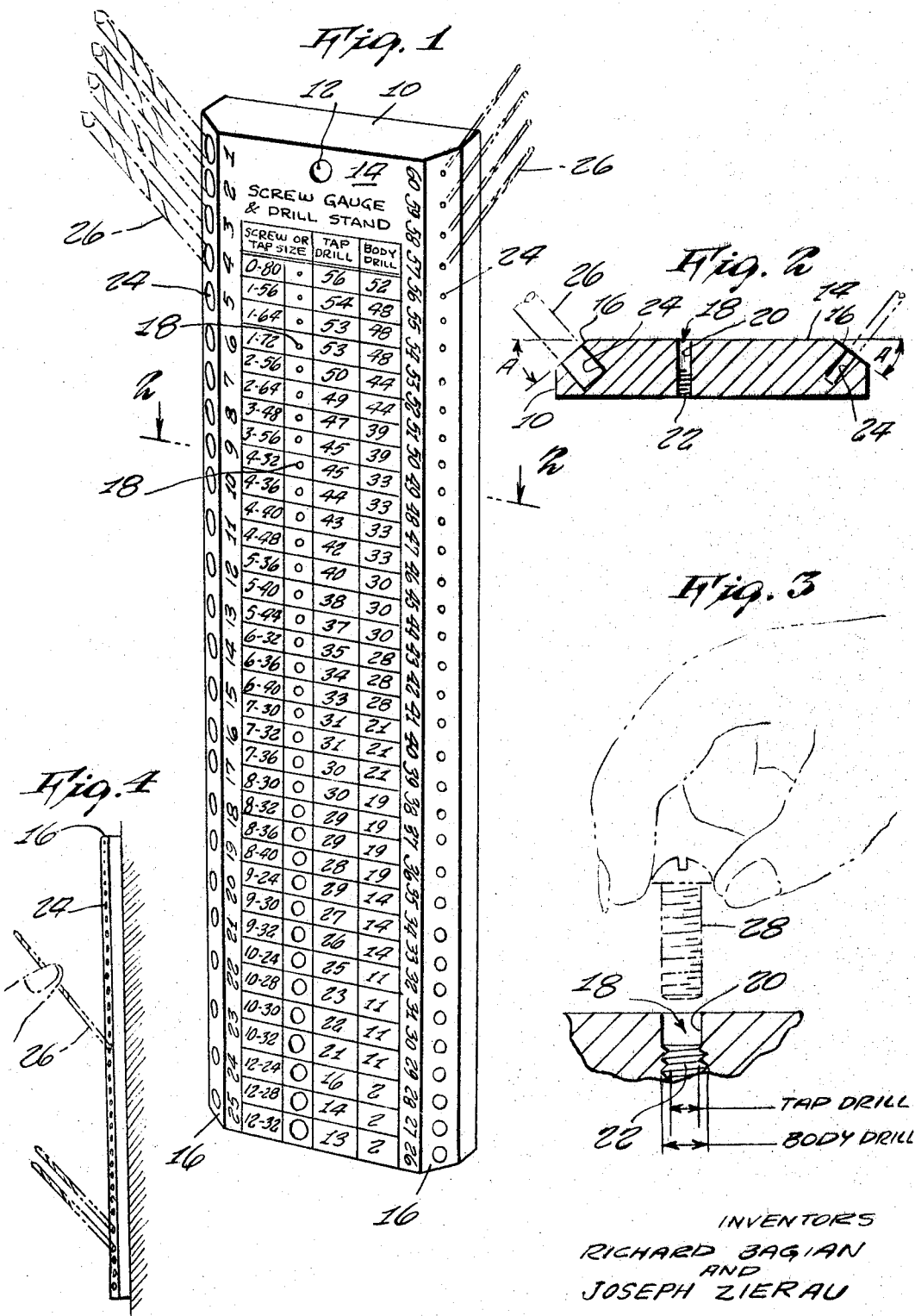
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SCREW GAUGE AND DRILL STAND

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SCREW GAUGE AND DRILL STAND
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ABSTRACT OF THE DISCLOSURE

A screw gauge and drill stand for rapidly determining the appropriate body and top drills for various screw sizes and providing convenient storage for said drills.

This invention relates to a combination screw gauge and drill stand as used by mechanics and the like.

The principal objects of this invention is to provide a new and improved combination screw gauge and drill stand which stores removably a collection of drill bits and enables the user to select a proper tap drill size and body drill size as well as a proper tap for a given diameter hole.

Another object is to provide a new and improved combination screw gauge and drill stand for the character indicated which can be manufactured easily and inexpensively.

All of the foregoing and still further objects and advantages of our invention will now be described with reference to this specification and to the accompanying drawings wherein:

FIGURE 1 is a perspective view of our invention;

FIGURE 2 is a view through 2-2 in FIGURE 1;

FIGURE 3 illustrates a step in using our invention; and

FIGURE 4 illustrates another step in using our invention.

Referring now to FIGURES 1-4, there is shown a vertical plate like elongated member 10 having a hole 12 at the top end thereof which can be used in detachably securing the member to a wall or other supporting surface. Member 10 has a flat vertical center section 14 with flat vertical side sections 16 extending away from the section at oppositely directed acute angles A thereto.

Section 14 contains four columns, the first and second columns at the left having a common heading "Screw or Tap Size," the third column being headed "Tap Drill," the fourth column being headed "Body Drill." The first column carries a plurality of pairs of numbers (i.e. two numbers separated by a hyphen) arranged vertically, with the set of first numbers in these pairs being arranged in ascending order, the set of the second numbers being arranged in descending order. The second column contains a plurality of threaded holes 18 arranged vertically one below the other. The number pair in the same row with a particular hole identifies the screw or tap size for this hole. The third column contains a plurality of tap drill sizes arranged in descending order, each tap drill size being that of the threaded hole in the corresponding row. The fourth column contains a plurality of body drill sizes arranged in descending order, each body drill size being that of the threaded hole in the corresponding row. Note that each hole has an unthreaded portion 20 of given diameter (known as the pilot hole) followed by a threaded portion 22, the inner thread diameter being the requisite tap drill size, the outer thread diameter being the requisite body drill size.

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Each side section 16 carries a plurality of drill sizes arranged in ascending order in the left hand section and in descending order on the right hand section. Each section carries aligned with each drill size a corresponding drill hole or bore 24 oriented to extend upward from the side section and outward from the center section and side section. A drill 26 of proper size is detachably positioned in each one of holes 24.

Our invention can be employed to drill a threaded hole for example for use with a given screw 28. To this end, the screw is fitted into one and another of holes 18 until a hole of proper size and thread is found on member 10. The reading in the corresponding entry in the first column in the same row will give the size of the proper tap size, thus permitting the user to select this tap from a set of taps stored conveniently to member 10. The readings on the same row for both tap drill and body drill in the third and fourth columns permit the user to select and remove the appropriate drills from the side sections. These drills and tap can then be used to drill and tap the right size hole.

While we have described our invention with particular reference to the drawings, our protection is to be limited only by the terms of the claims which follow.

Having thus set forth and disclosed the nature of this invention, what is claimed is:

1. A combination screw gauge and drill stand comprising a vertical plate-like elongated member having a front flat vertical center section with oppositely disposed front side sections extending away from the center section at oppositely directed equal acute angles, each side section having a plurality of drill holes, said holes being disposed vertically one below the other, each hole being oriented to extend upward from the corresponding side section and a plurality of differently sized drills equal to the total plurality of holes in both side sections, each drill being detachably stored in a corresponding one of said drill holes, the two edges of said center section adjacent said side sections bearing vertically displaced numbers each identifying a different one of the drill sizes, each drill being disposed horizontally adjacent the number identifying its drill size wherein said center section contains a plurality of vertically spaced tapped holes of different diameters arranged in a column including an additional column containing a like plurality of indicia arranged in vertically spaced relation each indicia horizontally aligned with the corresponding tapped hole and identifying size for this hole, including a third column containing a like number of vertically spaced indicia each aligned horizontally with the corresponding tapped hole and identifying the tap drill size and a fourth column containing a like number of vertically spaced indicia, each aligned horizontally with the corresponding tapped hole and identifying the body drill size thereof.

References Cited

UNITED STATES PATENTS

1,104,650	7/1914	Fries	211-69 X
1,246,536	11/1917	Bristol	211-69
2,260,086	10/1941	Matter	211-69
2,267,008	12/1941	Zimmer	211-69

FOREIGN PATENTS

234,195	6/1925	Great Britain.
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