

J. ZSAN.
TOOL HOLDER.
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1,040,484.

Patented Oct. 8, 1912.

2 SHEETS—SHEET 1.

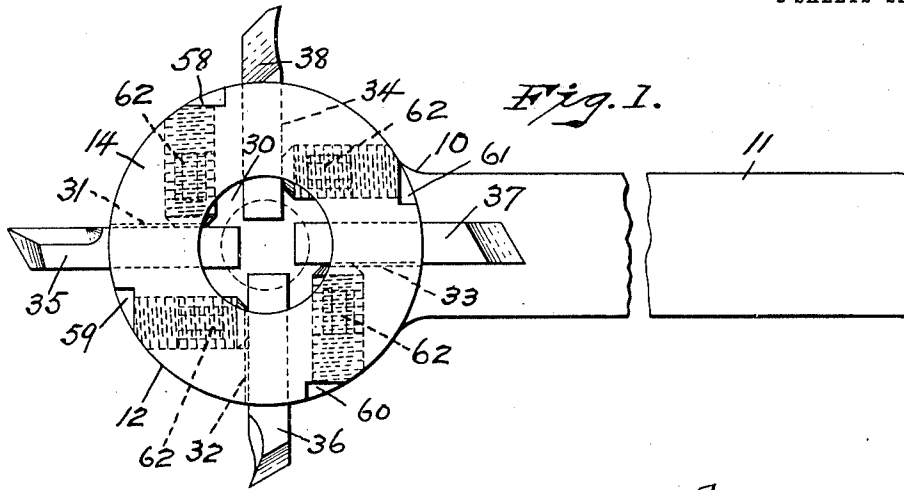


Fig. 2.

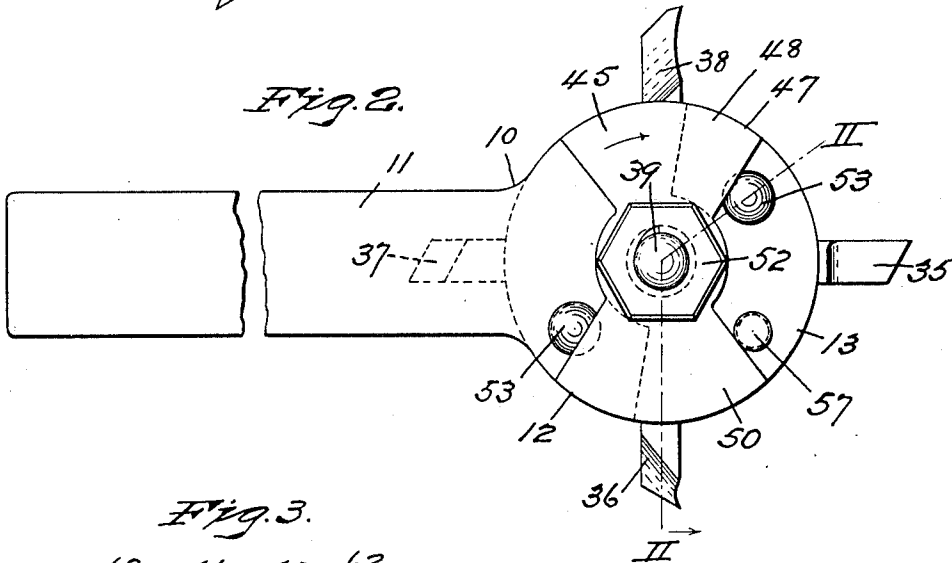
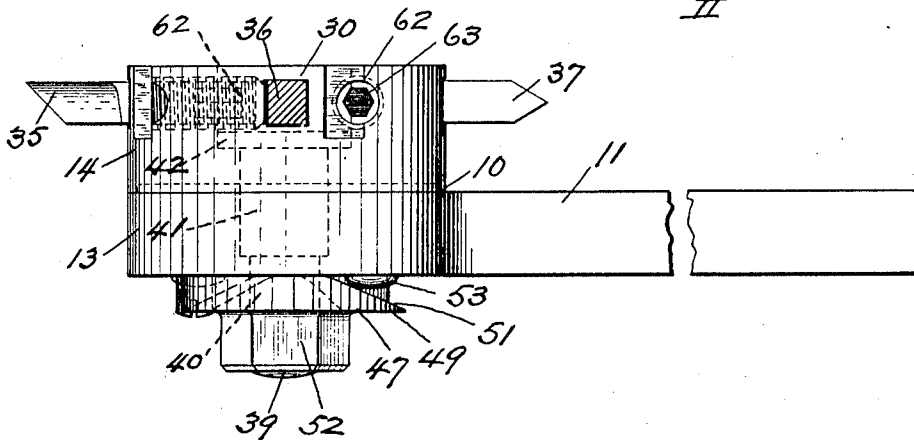


Fig. 3.



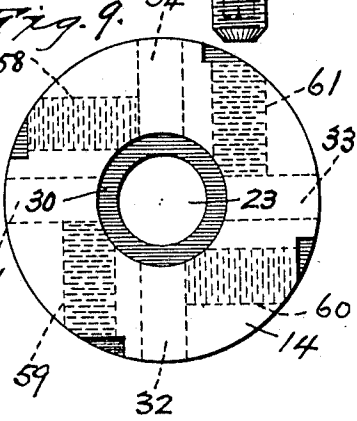
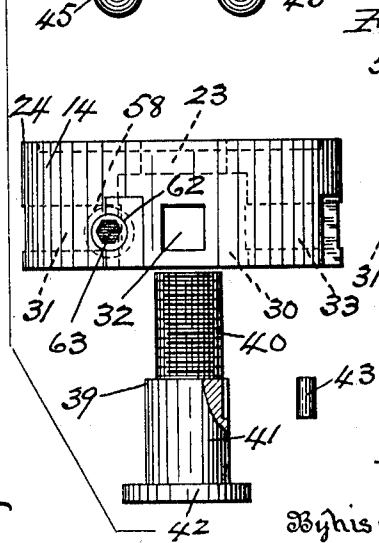
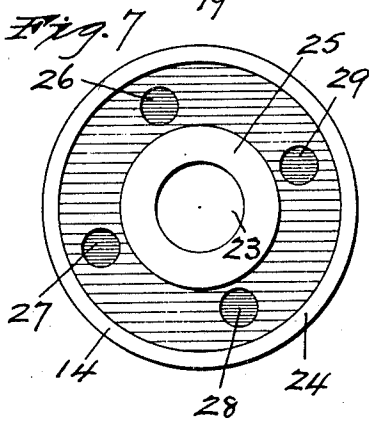
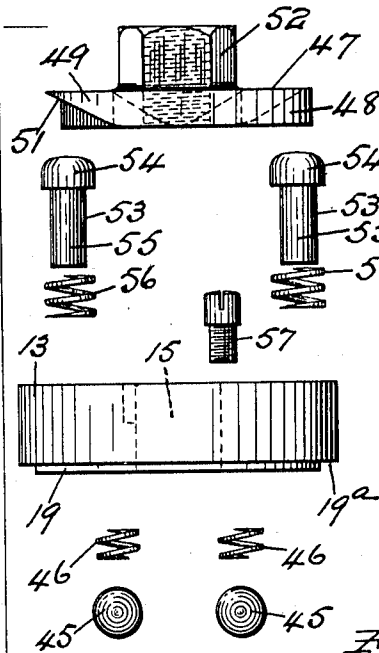
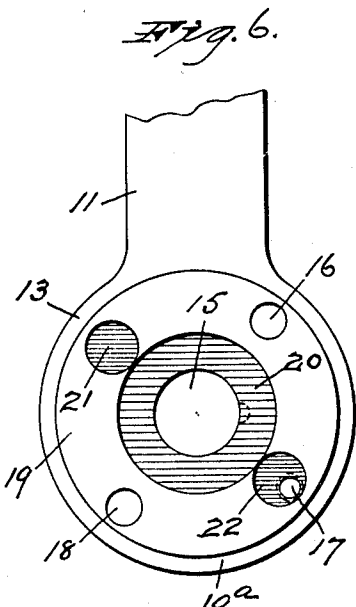
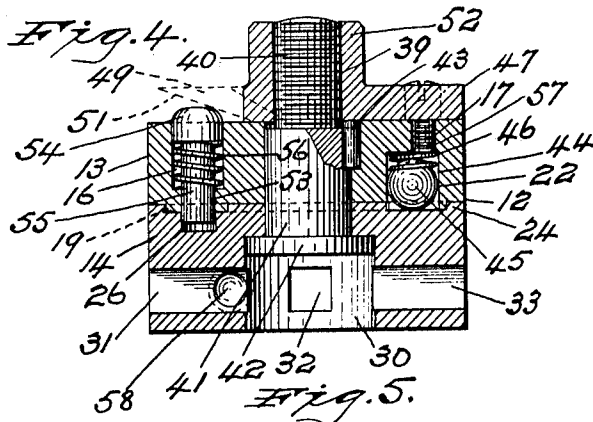
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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TOOL-HOLDER.

1,040,484.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JACOB ZSAN, a subject of the Emperor of Austria-Hungary, and a resident of Mount Vernon, county of Westchester, and State of New York, have invented a certain new and useful Improvement in Tool-Holders, of which the following is a full, clear, and exact specification.

This invention relates to a class of devices or implements adapted for use especially by metal workers.

My invention has for its object primarily to provide a tool holder or device designed to be employed by metal workers for carrying chisels or cutting blades so as to permit them to be properly and readily utilized especially while trimming and shaping metal in a lathe or like machine, and which is of a form to permit a number of chisels of various shapes to be held therein so as to facilitate work while using the implement by obviating the necessity of changing the chisel when it is desired to use different kinds at separate intervals as is incident to holders in ordinary use.

Another object of the invention is to provide a form of head for the tool holder wherein is employed an adjustable member or plate which serves to permit each chisel to be conveniently positioned at various intervals for use, and still another object of the invention is to provide a locking element for holding the adjustable member against movement when one of the chisels is positioned.

A further object of the invention is to provide means serving to permit each of the chisels to be removably held in the head of the holder and which is adapted to securely lock the chisel against displacement.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification in which similar characters of reference indicate corresponding parts in all the views, the said invention being more fully described hereinafter and then pointed out in the appended claims.

In the drawings, Figure 1 is an inverted plan, partly broken away, of one form of tool holder embodying my invention. Fig. 2 is a top plan, partly broken away, of the tool holder. Fig. 3 is a side elevation, partly broken away, of the tool holder. Fig. 4 is a section taken on the line II—II of Fig. 2.

Fig. 5 are detail side views of various parts of the head of the tool holder. Fig. 6 is an inverted plan, partly fragmentary, of one of the members of the head of the holder showing the handle of the implement formed thereon. Fig. 7 is a top plan of the second member of the head of the holder. Fig. 8 is a top plan, partly fragmentary, of the member of the head of the holder shown in Fig. 6, and Fig. 9 shows a detail bottom plan of the second member of the head of the holder, and a side view of one of the bits for securing the chisels against displacement.

The tool holder or device 10 has a handle 11 and a head 12 both of which may be of any desired size or shape. The head 12 is preferably circular in shape, and has a member or supporting plate 13 and a rotatable member or adjusting plate 14. The member or supporting plate 13 is integrally formed upon one end of the handle 11, and has a central opening 15 therethrough. Adjacent to the circumferential edge of the member 13 are three spaced orifices 16, 17, 18 all of which may be smaller in size than the central opening 15. Upon the underside of the member 13 is a circular guide or ring 19 which is integrally formed upon said member, and is of less diameter than the member 13 whereby an annular countersunk edge 19^a is provided. The circular guide or ring 19 is also of a width so that an annular countersunk portion, as 20, is provided centrally of the underside of the member 13 and around the opening 15 thereof. In the ring 19 as well as in the member or supporting plate 13 and substantially midway between the orifices 16 and 18 are recesses 21 and 22.

The member or adjusting plate 14 may be circular in shape, and has a central opening 23 which is adapted to be registered with the opening 15 when said member and the member 13 are assembled. Upon the outer edge of the top surface of the member or adjusting plate 14 is an annular flange 24, and also upon the top surface of said member and around the edge of the opening 23 is a ring 25. When the members 13 and 14 are assembled the annular flange 24 and the ring 25 are adapted to be seated in the annular countersunk edge 19^a and received in the annular countersunk portion 20, respectively, of the member or supporting plate 13 so as to prevent lateral movement

of the member 14 when rotated. In the top surface of the member or adjusting plate 14 and between the annular flange 24 and the ring 25 are provided recesses 26, 27, 28, 29 which are adapted to register with the openings 16 and 18, and the recesses 21 and 22 when the members are assembled. The underside of the member or adjusting plate 14 and surrounding the edge of the opening 23 is a cut-out portion, as at 30, which communicates with said opening, and through the wall of said member or adjusting plate are provided radially disposed passages 31, 32, 33, 34 each of which is preferably square in shape so as to carry therein a chisel or cutting blade 35, 36, 37, 38.

In assembling the member or supporting plate 13 and the member or adjusting plate 14, a pivot in the form of a bolt, as 39, is employed. The bolt 39 has a threaded end 40, a circular neck 41, and a head 42. As shown in Fig. 2, the bolt 39 is passed through the opening 23 of the member 14 so that the head 42 will rest upon the seat of the recess 30 of said member, and the bolt is then guided through the opening 15 of the member 13 so that its threaded end 40 will extend beyond the top surface of said member 13. The bolt 39 is adapted to be held rigidly in the member 13 and this is accomplished by the use of a key, as 43, thus permitting the member or adjusting plate 14 to rotate freely upon said bolt. In order to properly position one of the chisels when it is desired to use the implement, the member or adjusting plate 14 is rotated upon the bolt 39 one-fourth of a circle so that the chisel to be used will be positioned to extend beyond the wall of the head which is opposite to the handle 11 and in alinement therewith. By rotating the member 14 in like manner it is evident that any one of the chisels may be readily positioned for use, and serving to indicate a fixed position for one of the chisels when its use is desired, in each of the recesses 21 and 22 of the member 13 is a yielding stop 44.

Each of the yielding stops 44 consists of a ball 45 one of which is seated in each of the recesses 21 and 22 of the member 13, and between each of said balls and the seats of said recesses is a spiral spring 46 which normally serves to yieldingly force the balls toward the member 14. Each of the balls 45 are adapted to engage one of the recesses 26, 27, 28, 29 of the member 14 so that the rotation of said member will be yieldingly prevented from further movement when the balls are guided into two of the opposed recesses of the member 14. In this manner the proper position for one of the chisels for use may be indicated, and to securely lock the members 13 and 14 together when one of the chisels is positioned, I employ a locking element, as 47.

The locking element 47 is composed of a plate 48 having the opposite parts thereof cut-out whereby two substantially triangular portions, as 49 and 50, are provided. A portion of the underside of the corresponding edge of each of the triangular portions 49 and 50 is beveled, at 51, and upon the top of the plate 48 is a nut 52 which is screwed upon the threaded end 40 of the bolt 39 so as to rotatably hold said plate upon the top surface of the member 13. In each of the orifices 16 and 18 of the member 13 is a movable locking pin 53, and each of said pins has a head 54 and a shank 55. Encircling the shank 55 of each of the locking pins 53 is a spiral spring 56 normally serving to force the head 54 outwardly of the orifices 16 and 18 in which it is held, and the free end of the shank of each of said pins is adapted to engage one of the recesses 26, 27, 28, 29 of the member 14 when in register therewith by the rotation of said member. In order to operate the element 47 for locking the member 14 to the member 13 when one of the chisels is positioned for use, the plate 48 is revolved upon the bolt 39, and each of the beveled edges 51 of the triangular portions 49 and 50 will engage one of the heads 54 of the locking pins 53. One of the shanks 55 of the pins 53 will be forced into one of the recesses 26, 27, 28, 29 of the member 14 which will then be held against movement, and to limit the movement of the locking element 47 a stop 57 is provided upon the top surface of the member 13.

For the purpose of securing each of the chisels 35, 36, 37, 38 when inserted in the passages 31, 32, 33, 34 of the member or adjusting plate 14, through the wall of the adjusting plate and at an angle with respect to each of said passages is an interiorly threaded opening 58, 59, 60, 61; each of which communicates with one of the passages. Adapted to be screwed into each of the threaded openings 58, 59, 60, 61 is an exteriorly threaded bit 62 having an angular recess 63 therein for reception of a key by which said bit is moved to engage one of the chisels for holding it tightly in the member 14, or for releasing the engagement when it is desired to remove the chisel from the implement.

In the foregoing description I have embodied the preferred form of my invention, but I do not wish to be understood as limiting myself thereto, as I am aware that modifications may be made therein without departing from the principle or sacrificing any of the advantages of this invention, therefore I reserve to myself the right to make such changes as fairly fall within the scope thereof.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. In a tool holder, a handle, a supporting

member provided upon the handle and having an orifice therethrough, a rotatable adjusting member pivoted to the supporting member, said adjusting member having a passage therein for removably carrying a chisel and having a recess adapted to be registered with the orifice of the supporting member, means adapted to hold the chisel against displacement when positioned in the passage, a pin yieldingly held in the orifice of the supporting member and projecting outwardly of the orifice, and a plate rotatable upon the supporting member, said plate being adapted to be revolved so as to engage the pin for forcing it inwardly of the orifice and into the recess of the adjusting member when in an adjusted position whereby both members will be locked together.

2. In a tool holder, a handle, a supporting member provided upon the handle and having a plurality of orifices therethrough, a rotatable adjusting member pivoted to the supporting member, said adjusting member having a plurality of passages therein for removably carrying a like number of chisels and having a plurality of recesses, each adapted to be registered with one of the orifices of the supporting member, means adapted to hold each of the chisels against displacement when inserted in one of the passages, a plurality of pins, each yieldingly held in one of the orifices of the supporting member and projecting outwardly thereof, and a plate rotatable upon the supporting member, said plate being adapted to be revolved so as to engage all of the pins simultaneously for forcing the pins inwardly of the orifice and into the recesses of the adjusting member when in an adjusted position whereby both members will be locked together.

3. In a tool holder, a handle, a supporting plate provided upon the handle and having an orifice therethrough, a rotatable adjusting plate pivoted to the supporting plate, said adjusting plate having a passage therein for removably carrying a chisel and having a recess adapted to be registered with the orifice of the supporting member, means adapted to hold the chisel against displacement when positioned in the passage, a pin yieldingly held in the orifice of the supporting member and projecting outwardly of the orifice, and a plate rotatable upon the supporting member, said plate being adapted to be revolved so as to engage the pin for forcing it inwardly of the orifice and into the recess of the adjusting member when in an adjusted position whereby both members will be locked together.

4. In a tool holder, a handle, a supporting plate provided upon the handle and having a plurality of orifices therethrough, a rotatable adjusting plate pivoted to the support-

ing plate, said adjusting plate having a plurality of passages therein for removably carrying a like number of chisels, and having a plurality of recesses, each adapted to be registered with one of the orifices of the supporting plate, means adapted to hold each of the chisels against displacement when inserted in one of the passages, a plurality of pins, each yieldingly held in one of the orifices of the supporting plate and projecting outwardly thereof, and a plate rotatable upon the supporting plate, said plate being adapted to be revolved so as to engage all of the pins simultaneously for forcing the pins inwardly of the orifice and into the recesses of the adjusting plate when in an adjusted position whereby both members will be locked together.

5. In a tool holder, a handle, a supporting member provided upon the handle and having an orifice therethrough, a rotatable adjusting member pivoted to the supporting member, said adjusting member having a passage therein for removably carrying a chisel and having a recess adapted to be registered with the orifice of the supporting member, a plurality of stops adapted to yieldingly hold the adjusting member when adjusted on the supporting member, means adapted to hold the chisel against displacement when positioned in the passage, a pin yieldingly held in the orifice of the supporting member and projecting outwardly of the orifice, and means provided upon the supporting member and adapted to force the pin inwardly of the orifice and into the recess of the adjusting member when in an adjusted position whereby both members will be locked together.

6. In a tool holder, a handle, a supporting member provided upon the handle and having a plurality of orifices therethrough, a rotatable adjusting member pivoted to the supporting member, said adjusting member having a plurality of passages therein for removably carrying a like number of chisels and having a plurality of recesses, each adapted to be registered with one of the orifices of the supporting member, means adapted to hold each of the chisels against displacement when inserted in one of the passages, a plurality of stops adapted to yieldingly hold the adjusting member when adjusted on the supporting member, a plurality of pins, each yieldingly held in one of the orifices of the supporting member and projecting outwardly of the orifice and means provided upon the supporting member and adapted to simultaneously force all of the pins inwardly of the orifices and into the recesses of the adjusting member when in an adjusted position whereby both members will be locked together.

7. In a tool holder, a handle, a supporting plate provided upon the handle and having

an orifice therethrough, a rotatable adjusting plate pivoted to the supporting plate, said adjusting plate having a passage therein for removably carrying a chisel and having a recess adapted to be registered with the orifice of the supporting plate, means adapted to hold the chisel against displacement when positioned in the passage, a plurality of stops adapted to yieldingly hold the adjusting plate when adjusted on the supporting plate, a pin yieldingly held in the orifice of the supporting plate and projecting outwardly of the orifice, and means provided upon the supporting plate and adapted to force the pin inwardly of the orifice and into the recess of the adjusting plate when in an adjusted position whereby both plates will be locked together.

8. In a tool holder, a handle, a supporting plate provided upon the handle and having a plurality of orifices therethrough, a rotatable adjusting plate pivoted to the supporting plate, said adjusting plate having a plurality of passages therein for removably

carrying a like number of chisels and having a plurality of recesses, each adapted to be registered with one of the orifices of the supporting plate, means adapted to hold each of the chisels against displacement when inserted in one of the passages, a plurality of stops adapted to yieldingly hold the adjusting plate when adjusted on the supporting plate, a plurality of pins, each yieldingly held in one of the orifices of the supporting plate and projecting outwardly of the orifice, and means provided upon the supporting plate and adapted to simultaneously force all of the pins inwardly of the orifices and into the recesses of the adjusting plate when in an adjusted position whereby both plates will be locked together.

This specification signed and witnessed this 9th day of January A. D. 1912.

JACOB ZSAN.

Witnesses:

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