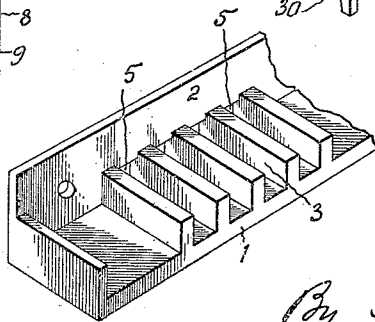
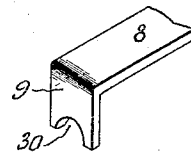
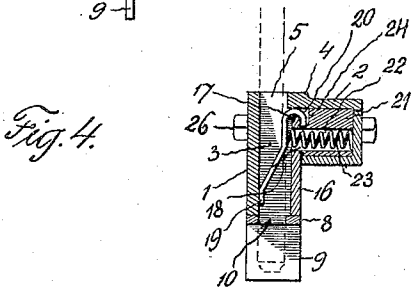
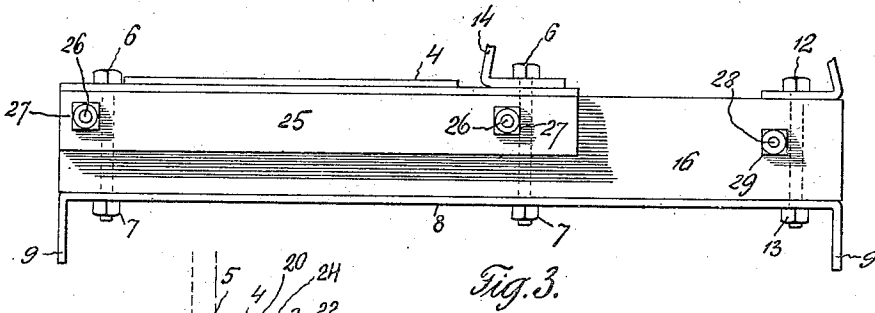
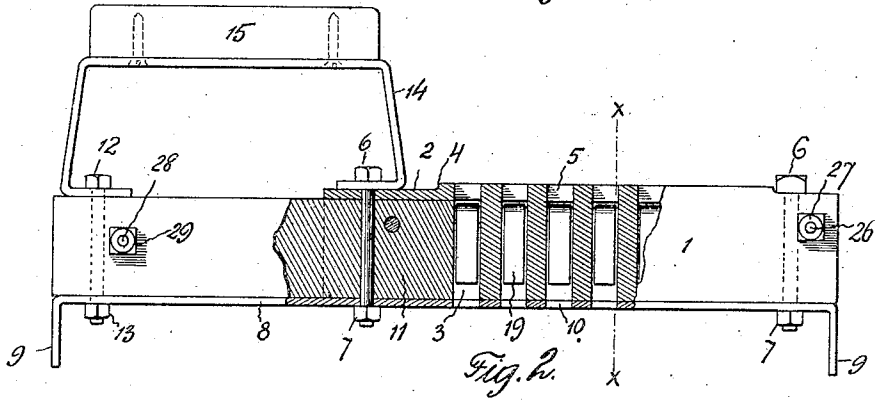
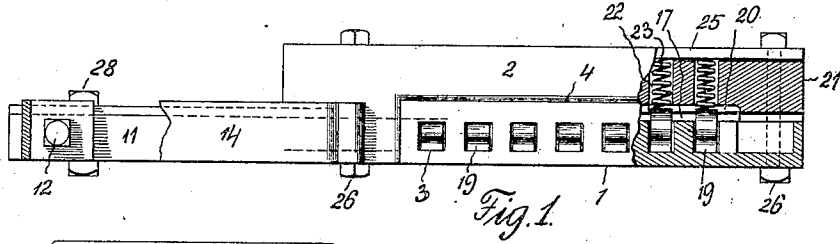


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TOOL HOLDER.

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UNITED STATES PATENT OFFICE.

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TOOL-HOLDER.

942,034.

Specification of Letters Patent.

Patented Nov. 30, 1909.

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To all whom it may concern:

Be it known that I, CHRISTIAN GRUNDER, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Tool-Holders, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to stamp and punch holders, and more particularly to certain improvements of the holder forming the subject matter of my Patent No. 796,324, granted August 1, 1905.

The present invention aims to provide a more durable and efficient holder which will facilitate a workman in accurately using the same; the principal object of the present invention being to support the holder above the piece of work to be stamped or punched, whereby the workman can observe the die ends of the stamps or punches, and determine whether the same are correctly positioned relative to the piece of work.

Besides the improvement cited above, I have made certain other improvements in the details of construction, all of which will hereinafter appear as the improvement is more fully described and claimed, and reference will now be had to the drawing accompanying this application, wherein there are illustrated the preferred embodiments of my invention, but it is to be understood that the structural details thereof can be varied or changed without departing from the spirit and scope of the invention.

In the drawings, Figure 1 is a plan of the stamp or punch holder partly broken away and partly in horizontal section, Fig. 2 is a side elevation of the same partly broken away and partly in vertical section, Fig. 3 is a side elevation of a portion of the holder partly broken away, illustrating the opposite side from that shown in Fig. 2, Fig. 4 is a cross sectional view of the holder taken on the line X—X of Fig. 2, Fig. 5 is a perspective view of one end of the modified form of holder support, and Fig. 6 is a perspective view of a portion of the body of the holder, illustrating the same in an inclined position to clearly show the position of said holder.

Referring to the drawings in detail a holder in accordance with this invention comprises a body portion consisting of an angle plate, preferably of metal, embodying

a vertically extending flange 1 and a horizontally extending flange 2. Formed integral with the inner face of the flange 1 and of a length equal to the height of said flange are vertically disposed partitions 3 which at their tops are formed integral with the inner face of the flange 2. The partitions 3 are spaced equidistant so as to provide a series of compartments for the reception of grips to be hereinafter referred to. The partitions 3 are interposed intermediate the ends of the flange 1. The horizontal flange 2 adjacent to the flange 1 is reinforced as at 4 and the said reinforced portion 4 is provided with a series of longitudinally disposed openings 5 which open into the top of the compartments formed by the partitions 3.

The body portion is mounted upon a support 8, the latter being formed with depending ends 9 constituting legs and which maintains the body portion some distance above the work which is to be operated on. The support 8 is formed with a series of longitudinally disposed openings 10 with which the bottoms of the compartments formed by the partitions 3 communicate or in other words, the openings 5, compartments and openings 10 are in vertical alinement with respect to each other. The support 8 is of greater length than the body portion and mounted upon said support 8 and extending in the body portion so as to be positioned below the flange 2 and against the flange 1 is a bar 11, preferably of wood, which constitutes what may be termed a handle support. The handle comprises a frame 14 which is formed at its bottom with inturned flanges resting upon the bar 11 and the flange 2 and has connected to its top by suitable hold fast devices a grip bar 15 preferably of wood. The support 8 at one end thereof is coupled or connected to the flange 2 by a bolt 6 and a nut 7 and the support 8 intermediate its ends is connected to the flange 2 by another bolt 6 and a nut 7, this last mentioned bolt 6 extends through the bar 11 and also one of the inturned flanges of the handle frame 14. The support 8 at its other end is connected to the bar 11 by a bolt 12 and a nut 13. The bolt 12 also extends through the inturned flange of the handle frame 14. Owing to the disposition of the bolts in the manner as stated the body portion, bar 11, support 8 and handle frame 14 are coupled together.

The bar 11 is of less width than the width

of the flange 2 and the support 8 is of less width than the flange 2, but of greater width than the bar 11 and mounted upon the support 8 and against the free edges of the partitions 3 is a plate 16 which corresponds in length to the support 8. The plate 16 is of a height as to extend to the inner face of the flange 2 and the upper edge of said plate 16 is cut away at a plurality of points as at 17 to provide seats for a function to be hereinafter referred to. The said plate 16 in proximity to the cut away portion 17 is furthermore provided with a plurality of longitudinally disposed openings 18 which register with the compartments formed by the partitions 3.

Arranged in each of the partitions 3 are a plurality of gripping members 19, each of which has a hook shaped upper end 20 adapted to be mounted upon a seat formed by the cut away portion 17 whereby the said gripping members are suspended within the compartments, owing to the fact that the hook-shaped ends of the said gripping members overlap the seats formed by the cut away portions 17. The gripping members 19 are suspended within the compartments directly in front of the openings 18 in the plate 16.

Mounted against the outer face of the plate 16 at the top thereof and corresponding in length to the flange 2 a spring holder 21, the latter being provided with a plurality of transversely-extending openings 22 which register with the openings 18 and extend at right angles with respect to the plate 16. Within each of the openings 22 is arranged an extensible and contractible coil spring 23. The springs 23 project into the openings 18 and engage the gripping members 19 whereby said members 19 are maintained in engagement against the inner face of the flange 1 when the said members are not gripping tools or are maintained in engagement with the tools when the tools are mounted in the compartments formed by the partitions 3. The inner face of the holder 21 at the top thereof is provided with a series of cut away portions 24, so as to provide clearances for the hooked ends 20 of the gripping members 19 when the said hooked ends 20 are mounted upon the seats formed by the cut away portions 17 at the top of the plate 16.

To maintain the springs 23 in the openings 22 and to furthermore constitute an abutment for the outer ends of said springs 23 an angle bar 25 is provided. The said bar 25 corresponds in length to the holder 21 and the flange 2, and the said bar is so disposed as to engage the outer and lower faces of the holder 21, and to also abut

provided for securing the plate 16, holder 21 and bar 25 in position and in this connection it will be stated that the bolts 26 are right angularly disposed with respect to the bolt 6 and that the said bolts 26 extend through the plate 16, bar 25, holder 21 and flange 1 and project from the bar 25 and carry on their projecting ends the nuts 27. To further maintain the plate 16 in position a bolt 28 and a nut 29 is provided, the said bolt 28 extending through the bar 11 and plate 16. One of the bolts 26 also extends through the bar 11.

The springs 23 which are mounted in the openings 22 are preferably constructed of brass while the gripping members are preferably made of steel. The constructing of the springs of brass makes them more durable and furthermore the employment of the springs in the manner as stated causes the gripping members to perform their function in an unusually satisfactory way and more efficient manner than that obtained by the gripping members solely as disclosed in my prior patent.

The support 8 as shown in Figs. 2 to 4 inclusive is used in connection with flat work, but should the tool holder be used in connection with a cylindrical object or an object of other shape than flat, the depending ends of the holder are recessed as at 30, Fig. 3, to receive the piece of work to be stamped or punched.

The holder as hereinbefore set forth is particularly designed for stamps and punches, but can be used for holding and correctly positioning the various kinds of tools to be struck by a hammer or other instruments for making an impression upon a piece of work.

It is thought that the manner in which the tool holder is used would be readily understood from the foregoing description taken in connection with the accompanying drawings, but it will be stated that the tools, such as stamps and punches, are inserted through the openings 5 into the compartments formed by the partitions 3 and maintained in said compartments by the gripping members 19 and the action of the springs 23 against said members 19 as will be evident.

In supporting the tool holder above the work in such manner as shown, it allows of the circulation of air between the holder and the work, so that should the work be hot, any wooden parts of the holder are cooled from the circulation of air so as to protect said wooden parts from being scorched or burned.

Having now described my invention what I claim as new, is:—

said angle plates having openings formed therein alining with said compartments, a support carried by said angle plate and having depending ends, said support having openings formed therein alining with the openings of said angle plate, an apertured plate secured to said angle plate, a plurality of gripping members suspended from the upper edge of said apertured plate and extending into the compartments, a spring holder connected to said apertured plate, coil springs arranged within said holder and extending through said apertured plate to bear against said gripping members, a bar secured to said angle plate and to said support, and a handle frame connected to said bar and to said angle plate, substantially as described.

2. A tool-holder comprising an angle plate having openings formed therein, a support connected to said angle plate and having depending ends, said support having openings formed therein alining with the first mentioned openings, an apertured plate connected to said angle plate, a plurality of gripping members suspended from the upper edge of said apertured plate, a spring holder carried by said apertured plate, springs arranged within said holder and extending through said apertured plate to bear against said members, and a handle frame connecting with said angle plate.

3. A tool-holder comprising an angle plate having the horizontal flange thereof provided with a plurality of openings, an apertured plate connecting with said angle plate, a plurality of gripping members suspended from the upper edge of said apertured plate and in the path of the openings of said angle plate, springs extending through said apertured plate for holding said gripping members normally in engagement with said angle plate, a handle frame connecting with said angle plate, and means for supporting said angle plate at an elevation relative to a piece of work.

4. A tool-holder comprising an angle plate having the horizontal flange thereof provided with a plurality of openings, an apertured plate connecting with said angle plate, a plurality of gripping members suspended from the upper edge of said apertured plate and in the path of the openings of said angle plate, springs extending through said apertured plate for holding said gripping members normally in engagement with said angle plate, and means for supporting said angle plate at an elevation relative to a piece of work.

5. A tool-holder comprising an angle plate having openings formed therein, an apertured plate connected to said angle plate, gripping members suspended from the upper edge of said apertured plate, means in connection with said apertured plate for nor-

mally holding said gripping members in engagement with said angle plate, and means for supporting said angle plate at an elevation relative to a piece of work.

6. A tool-holder comprising a body portion provided with a plurality of compartments, a gripping member suspended within each of said compartments, means extending at right angles with respect to and engaging each of said gripping members for normally holding the lower end of its respective member in engagement with one wall of its compartments, and each of said compartments having an open top and an open bottom.

7. A tool-holder comprising a body portion provided with a plurality of compartments, a gripping member suspended within each of said compartments, means extending at right angles with respect to and engaging each of said gripping members for normally holding the lower end of its respective member in engagement with one wall of its compartments, and each of said compartments having an open top and an open bottom, and means carried by said body for positioning it at a point removed from the work to be operated on.

8. A tool-holder comprising a body portion provided with a plurality of compartments, a gripping member arranged in each of said compartments, means for supporting the upper end of each of said members for suspending the members within the compartments, an extensible and contractible means engaging with each of said members for normally maintaining the lower ends of the members in engagement with one wall of said compartments, and each of said compartments having open ends.

9. A tool-holder comprising a body portion provided with a plurality of compartments, a gripping member arranged in each of said compartments, means for supporting the upper end of each of said members for suspending the members within the compartments, an extensible and contractible means engaging with each of said members for normally maintaining the lower ends of the members in engagement with one wall of said compartments, and each of said compartments having open ends, and means connected to said body portion for positioning it at a point removed from the work to be operated on.

10. A tool-holder comprising a body portion provided with a plurality of compartments, a gripping member arranged in each of said compartments, means for supporting the upper end of each of said members for suspending the members within the compartments, a right angularly disposed extensible and contractible means engaging with each of said members for normally maintaining the lower ends of the members in

engagement with one wall of said compartments, and each of said compartments having open ends.

11. A tool-holder comprising a body portion provided with a plurality of compartments, a gripping member arranged in each of said compartments, means for supporting the upper end of each of said members for suspending the members within the compartments, a right angularly disposed extensible and contractible means engaging with each of said members for normally maintaining the lower ends of the members in engagement with one wall of said compartments, and each of said compartments having open ends, and means carried by the body portion for positioning it at a point removed from the work to be operated on.

12. A tool-holder comprising a body portion provided with a plurality of compartments, a gripping member arranged in each of said compartments, means for supporting the upper end of each of said members for suspending the members within the compartments, a right angularly disposed extensible and contractible means engaging with each of said members for normally maintaining the lower ends of the members in engagement with one wall of said compartments, and each of said compartments having open ends, and means carried by the body portion for positioning it at a point removed from the work to be operated on, said compartments positioned at one side of said holder, and a handle connected to the other side of said holder.

13. A tool-holder comprising a body portion having a plurality of partitions providing a plurality of compartments, each of said compartments having open ends, an apertured plate engaging said partitions, a plurality of gripping members suspended by said apertured plate within said compartments, and means extending through the apertures of said plate and engaging said members for maintaining the lower ends of said members normally in engagement with one wall of said compartments.

14. A tool-holder comprising a body portion having a plurality of partitions providing a plurality of compartments, each of

said compartments having open ends, an apertured plate engaging said partitions, a plurality of gripping members suspended by said apertured plate within said compartments, and means extending through the apertures of said plate and engaging said members for maintaining the lower ends of said members normally in engagement with one wall of said compartments, said means disposed at right angles with respect to said members and capable of contracting and expanding.

15. A tool-holder comprising a body portion having a plurality of partitions providing a plurality of compartments, each of said compartments having open ends, an apertured plate engaging said partitions, a plurality of gripping members suspended by said apertured plate within said compartments, and means extending through the apertures of said plate and engaging said members for maintaining the lower ends of said members normally in engagement with one wall of said compartments, and means carried by the body portion for positioning it at a point removed from the work to be operated on.

16. A tool-holder comprising a body portion having a plurality of partitions providing a plurality of compartments, each of said compartments having open ends, an apertured plate engaging said partitions, a plurality of gripping members suspended by said apertured plate within said compartments, and means extending through the apertures of said plates and engaging said members for maintaining the lower ends of said members normally in engagement with one wall of said compartments, said means disposed at right angles with respect to said members and capable of contracting and expanding, and means carried by the body portion for positioning it at a point removed from the work to be operated on.

In testimony whereof I affix my signature in the presence of two witnesses.

CHRISTIAN GRUNDER.

Witnesses:

LIZZIE GRUNDER,
MAX H. SROLOVITZ.