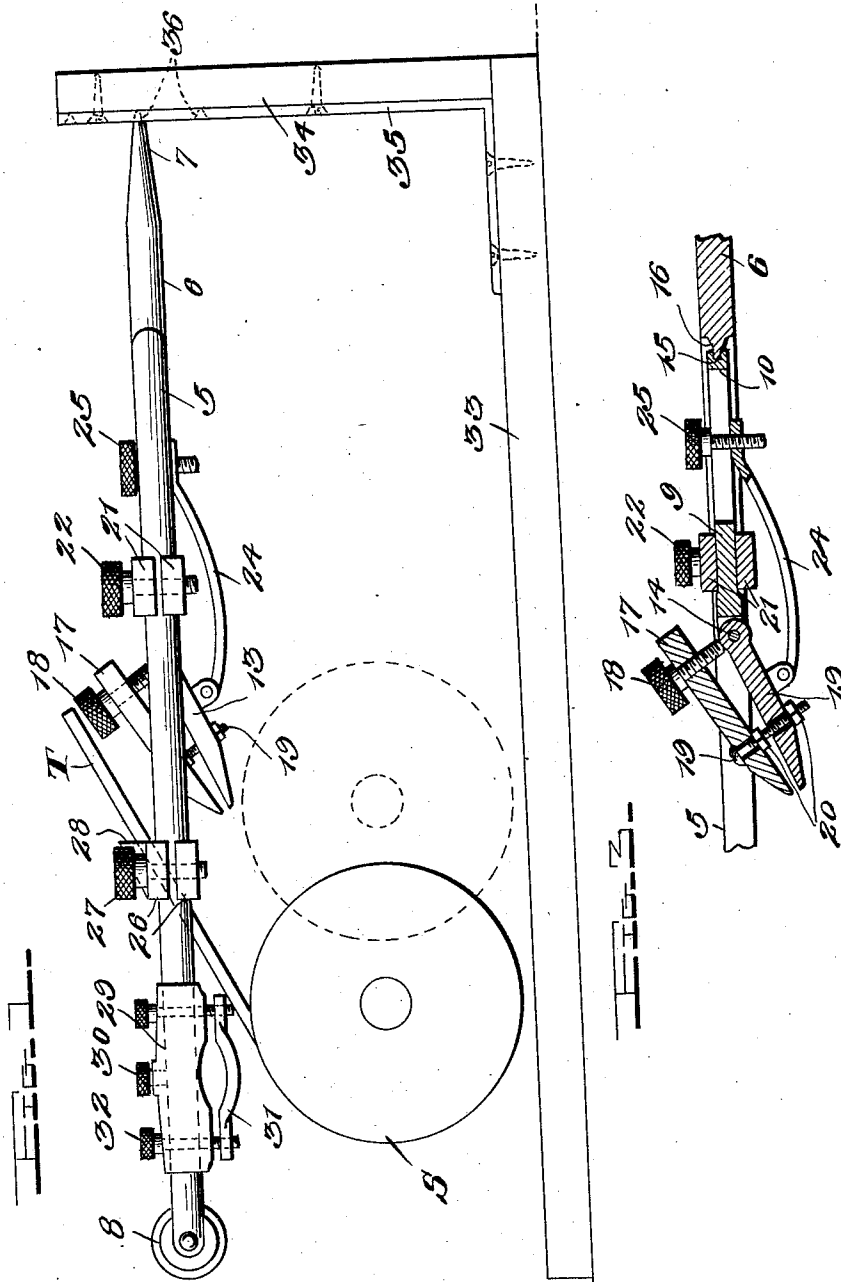


J. N. ANDERSON.
 TOOL HOLDER.
 APPLICATION FILED SEPT. 25, 1912.

Patented Jan. 21, 1913.
 2 SHEETS—SHEET 1.

1,050,781.



Inventor

J. N. Anderson,

Witnesses

Chas. R. Cristauer, By
 A. J. Find.

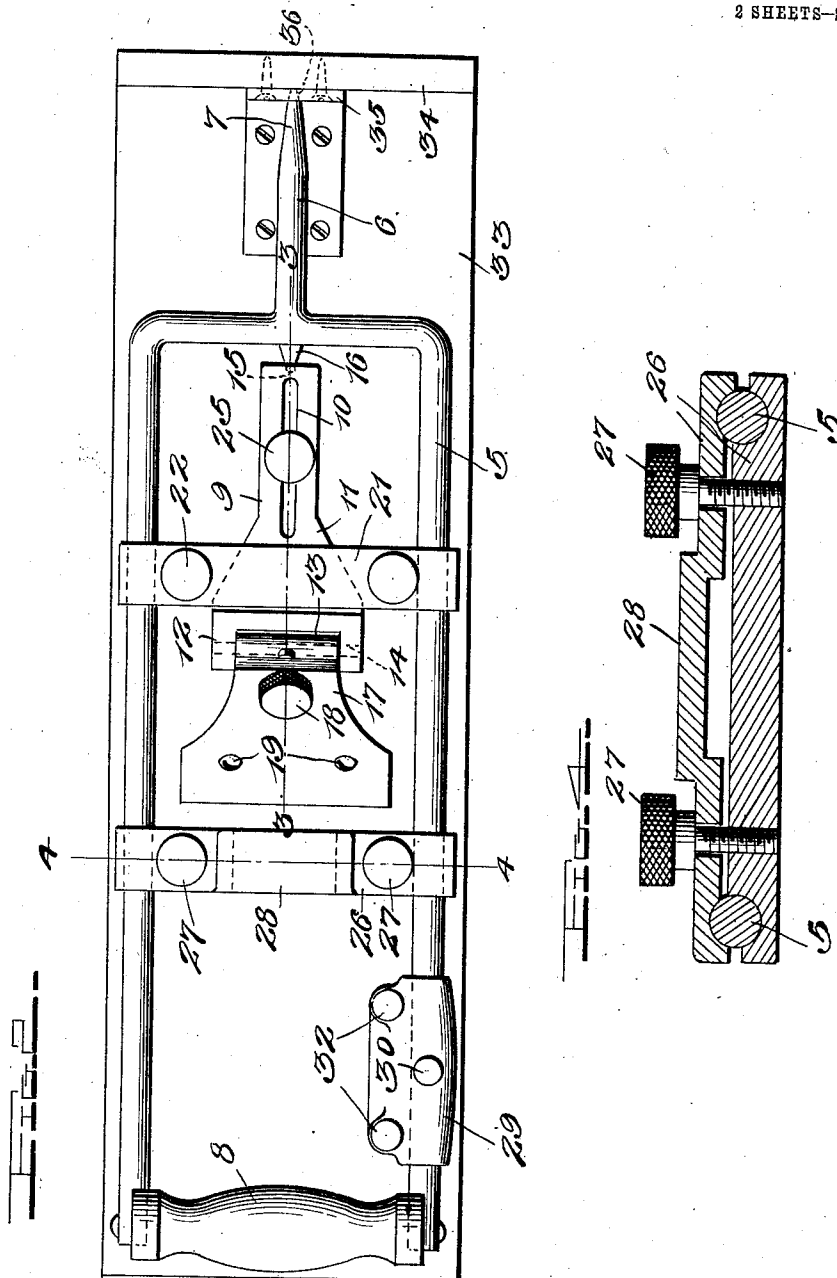
Watson E. Coleman,
 Attorney

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2 SHEETS-SHEET 2.



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UNITED STATES PATENT OFFICE.

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TOOL-HOLDER.

1,050,781.

Specification of Letters Patent.

Patented Jan. 21, 1913.

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To all whom it may concern:

Be it known that I, JOHN N. ANDERSON, a citizen of the United States, residing at Madison, in the county of Dane and State of Wisconsin, have invented certain new and useful Improvements in Tool-Holders, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to improvements in tool holders and has for its object to provide a device of this character whereby various tools may be held in proper position with relation to a grind stone so that the same will be properly and accurately sharpened.

Another and more specific object of the invention resides in the provision of a frame, a tool clamp removably mounted in the frame, and means for angularly adjusting said clamp.

25 Still another object of the invention is to provide a tool holder for the above purpose which is simple and durable in construction, may be manufactured at comparatively small cost and is of great convenience in use.

30 With the above and other objects in view as will become apparent as the description proceeds, the invention consists in certain constructions, combinations and arrangements of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing, in which—

Figure 1 is a side elevation of a tool holder embodying the present invention; Fig. 2 is a top plan view thereof; Fig. 3 is a section taken on the line 3—3 of Fig. 2; and Fig. 4 is a section taken on the line 4—4 of Fig. 2.

Referring in detail to the drawing, 5 designates a frame which consists of an elongated U shaped cylindrical bar, upon the intermediate portion of which a longitudinally extending tang or shank 6 is formed. The extremity of this shank is tapered to a point as indicated at 7 for a purpose which will be later referred to. The extremities of the parallel arms of the

frame 5 are connected by means of a suitable handle 8. A clamp-carrying plate 9 is provided with a longitudinal slot 10. One end of this plate is gradually widened from the slot 10 as indicated at 11 and this widened portion of the plate is provided with spaced ears 12 between which one of the jaws 13 of a tool clamp is pivotally mounted upon a rod or pintle 14 which is fixed at its ends in said ears. At the other end of the plate 9, the same is provided with a socket 15 to receive an inwardly projecting stud 16 formed upon the intermediate portion of the frame 5.

The tool clamp also includes an upper adjustable jaw 17 which is opposed to the jaw 13. In one end of this upper jaw, the adjusting screw 18 is threaded and is adapted to bear against the pivoted end of the lower jaw 13. The other ends of the jaws 13 and 17 are loosely connected by means of a bolt 19 upon which the nuts 20 are threaded, said nuts holding the jaws in proper relative position to receive the tool, and the bolt 19 limiting the inward movement of the tool between said jaws.

The plate 9 is adapted to be securely held in the frame 5 by means of the clamping bars 21 between which the widened end portion 11 of said plate is disposed. Clamping screws 22 are mounted in the upper bar 21 and have threaded engagement in the lower clamping bar to draw said bars together whereby the same are securely clamped at their ends upon the arms of the frame 5 and the plate 9 clamped between said bars and held against longitudinal movement.

To the under side of the lower clamping jaw 13, one end of an arm 24 is pivotally connected. The other end of this arm is engaged upon the bottom surface of the plate 9 beneath the slot 10 thereof. A clamping screw 25 is disposed through the slot 10 and threaded in the end of the arm 24. It will be readily seen that by simply moving this screw longitudinally in the slot, the clamping jaws 13 and 17 may be swung upon the pivot rod 14 to vary the angle at which the tool is held with relation to the periphery of the grinding wheel.

In addition to the tool holder above de-

scribed, I also provide the holding bars 26 which are similar to the clamping bars 21 above referred to and are adapted to be clamped at their ends upon the arms of the frame 5 by means of the screws 27. The intermediate portions of the bars 26 are offset and disposed at an oblique angle with relation to the longitudinal plane of the frame as indicated at 28. In these offset portions of the bars 26 and between the same the plane bit or other tool indicated at T is adapted to be arranged and by adjusting the screws 27, said tool is securely clamped between the bars and retained in an angular position with relation to the grinding surface.

Upon one of the arms of the frame 5 a longitudinally slidable block 29 is mounted and is adapted to be secured in its adjusted position by means of the set screw 30. The clamping plate 31 is held in opposed relation to the under surface of this block by means of the screws 32. Between said block and the plate 31 the body of a pocket knife is adapted to be disposed and upon turning the screws 32 in the block, the plate 31 is drawn upwardly to securely clamp the knife in position and hold its blade in engagement with the periphery of the grinding wheel.

33 indicates a base which is provided at one end with an upright or standard 34. This base is adapted to be clamped upon a work bench or other suitable support and upon the same the grinding or sharpening machine indicated at S is mounted. To the inner face of the vertical end 34 of the base a plate 35 is secured, said plate having an angular end portion which is secured to the base 33. This plate is provided adjacent to its upper end with a series of spaced recesses 36 any one of which may receive the point 7 of the tang or shank 6 formed upon the end of the frame 5. Thus it will be seen that when the frame is mounted to dispose the tool carried thereby in proper relation to the grinding surface of the tool sharpener, said frame may be swung vertically in order to disengage the tool edges from the grinding wheel, and the requisite pressure of the tool upon the grinding surface may be obtained.

From the foregoing the construction and manner of use of my improved tool holder will be clearly understood. After the base has been clamped upon the work bench or other support, the frame of the holder is mounted in position over the sharpener by disposing the point 7 thereof in one of the recesses or sockets 36 of the plate 35. The tool to be sharpened is clamped between the jaws 13 and 17 and said clamp adjusted by moving the screw 25 in the slot 10 so as to dispose the tool at the proper angle with relation to the surface of the grinding wheel. The operator then grasps the handle 8 and

holds the frame in the proper position so that the necessary pressure of the edge of the tool upon the periphery of the wheel will be obtained. The sharpening machine is now operated and the tool sharpened in the usual manner. The operator may easily and quickly disengage the tool from the wheel without changing its angular position in the frame by simply lifting the handle, thus permitting an examination of the tool edge so that progress in the sharpening of the tool may be noted at intervals. The manner of use of the additional tool holders carried by the frame will be obvious, and it will be understood that if desired these additional holders may be removed from the frame and the adjustable clamp alone provided, thereby affording an unobstructed view of the tool point mounted in said clamp. My improved tool holder provides means whereby tools of various kinds may be easily and quickly and properly sharpened. As the same embodies but few parts of simple form in construction, it will be obvious that the device can be produced at comparatively small cost. It is also extremely strong and durable and of great convenience in practical use.

While I have shown and described the preferred construction and arrangement of the various parts, it will be understood that the invention is susceptible of considerable modification without departing from the essential features or sacrificing any of the advantages thereof.

Having thus described the invention, what is claimed is:

1. The combination with a frame, of a plate having a socket in one end, said frame being provided with a stud to engage in said socket, clamping means mounted in the frame to engage said plate adjacent its other end and clamp the same in position, a tool holder pivotally mounted in one end of said plate, and means mounted upon the plate and connected to said holder to adjust the holder and angularly position the tool held thereby with relation to the frame.

2. The combination with a frame, of a plate and means for removably clamping said plate in the frame, a tool holder pivotally mounted upon said plate, an arm pivotally connected at one of its ends to said holder, and means for adjusting said arm at its other end longitudinally upon said plate to move the tool holder and angularly position the tool held thereby with relation to the frame.

3. The combination with a frame, of a longitudinally slotted plate and means to removably clamp said plate in the frame, a tool holder pivotally mounted in one end of said plate for movement in a vertical plane, a bar pivotally connected at one end to the holder, the other end of said bar be-

ing engaged upon the under side of said
plate, and an adjusting screw disposed
through the slot in said plate and threaded
in the end of said bar to adjust the bar upon
5 the plate and move the tool holder to angu-
larly position the tool held thereby with re-
lation to the frame.

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

JOHN N. ANDERSON.

Witnesses:

CARL N. HILL,

A. C. HOFFMANN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
