

No. 859,022.

PATENTED JULY 2, 1907.

F. W. SPENCER.
NIPPLE OR PIPE HOLDER.
APPLICATION FILED FEB. 9, 1906.

Fig. 1.

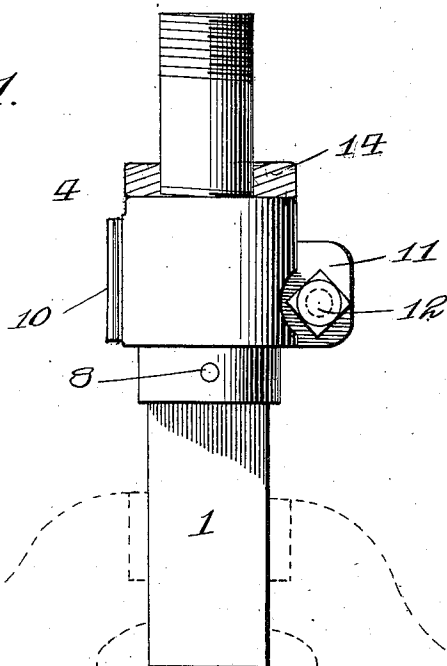


Fig. 2.

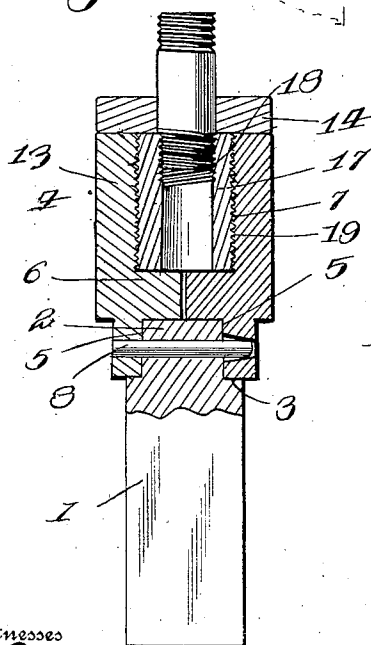


Fig. 3.

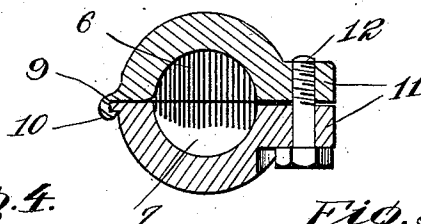


Fig. 4.

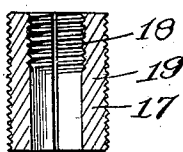
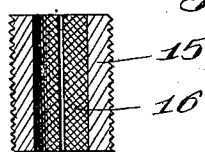


Fig. 5.



Witnesses

John M. Mice
W. N. Woodson

Inventor
F. W. Spencer.

By *W. H. Racy,* Attorneys

UNITED STATES PATENT OFFICE.

FREDERICK WM. SPENCER, OF ODELL, ILLINOIS.

NIPPLE OR PIPE HOLDER.

No. 859,022.

Specification of Letters Patent.

Patented July 2, 1907.

Application filed February 9, 1906. Serial No. 300,340.

To all whom it may concern:

Be it known that I, FREDERICK WM. SPENCER, a citizen of the United States, residing at Odell, in the county of Livingston and State of Illinois, have invented certain new and useful Improvements in Nipples or Pipe Holders, of which the following is a specification.

The object of my invention is to provide an improved tool for use by steam-fitters, plumbers, machinists and mechanics in general in their work.

The particular tool embodying features of my invention is a clamping device or holder particularly for holding nipples or pieces of pipe in a vise for the purpose of cutting threads thereon and for use with any of the ordinary hand thread cutting stocks and dies now commonly employed.

The main object of the invention is to provide a device of this character which may be conveniently used to hold the pipe in the jaws of the vise for operation on the pipe and which may quickly release the pipe or nipple when the work has been completed.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a side elevation of my improved clamping device or holder. Fig. 2 is a similar view illustrating a modified assemblage of parts, parts being shown in section. Fig. 3 is a horizontal sectional view. Figs. 4 and 5 are detail views illustrating the two different forms of bushings employed.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings the numeral 1 indicates the shank of my improved nipple and pipe holder, the same being polygonal in cross section, preferably square. The upper end of the shank 1 is provided with a reduced neck 2 preferably circular in cross section and forming with the body of the shank an upwardly facing shoulder 3. The head 4 of the nipple holder comprises two corresponding members, each of which is provided with a semi-circular recess 5 at its lower end. These two recesses together form a chamber to accommodate the neck 2 of the shank 1. Each member of the head 4 is provided about its middle portion with a solid wall 6 which extends thereacross from side to side so that when the two members face together and are received on the neck of the shank, the walls will form a partition dividing the head of the holder into upper and lower portions as shown. Above the said wall each of the members of the head of the holder is formed with a semi-circular socket 7.

By the construction above described, the head is mounted on the neck 2 of the shank 1, the lower edge

of said head resting upon the upwardly facing shoulder 3. The neck 2 is provided with a transverse aperture, as is also each member of the head 4, and a pivot or dowel pin 8 extends therethrough to secure the head to the shank. Preferably the said pin has slight play in the apertures in which it is secured.

One of the members of the head 4 is provided along one edge with a longitudinal flange 9 and the other member is formed along the corresponding edge with an overhanging or dovetailed finger 10 designed to take over the flange 9 so as to prevent the two parts or members of the head from freely separating at such edges. The opposite edge of each member of the head 4 is formed with a lug 11, and said lugs are provided with registering apertures designed to receive a clamping bolt 12. Preferably the play allowed for the dowel or pivot pin in the head and neck of the shank is such as to only compensate for a slight outward movement of the two members with respect to each other, but is not sufficient to permit the overhanging finger 10 to have complete disconnection with the lug 11. The lug 11 and said finger act in a measure as a hinge, the two parts of which may be readily separated by sliding one member longitudinally with respect to the other after the dowel or pivot pin has been removed to permit such longitudinal movement. Each semi-circular recess at the upper end of the two members of the head 4 is threaded as indicated at 13.

In the practical operation or use of my improved nipple or pipe holder, the square or polygonal shank 1, may be readily secured between the jaws of the vise or the like. The nipple or pipe in which the thread has to be cut is seated in the socket at the upper end of the head 4, if it is large enough to be accommodated thereby without the addition of thimbles or the like, and the clamping screw or bolt is then adjusted so as to tighten the two members of the head securely around the nipple or pipe. Then one or more followers 14 are inserted over the pipe and the operation of cutting the thread thereon is accomplished.

If the exterior diameter of the pipe or nipple to be operated upon is so small that the head 4 will not accommodate it in its socket and have it fit snugly therein, I preferably employ split bushings or thimbles. For instance, a bushing such as shown in Fig. 5 may be used, designated 15, and formed of sufficiently springy metal and serrated or corrugated on its inner side as indicated at 16 to grip short pieces of pipe which have been cut off the bar without threads. It is to be understood that these thimbles are inserted in the upper socket of the head so as to accommodate nipples or pipes of small diameter, the fitness of each bushing or thimble being commensurate or proportionate to the diameter of these smaller pipes or nipples. The serrated inner faces of the bushings assist in holding short pieces of pipe or nipples

from turning while being threaded, while otherwise such short pieces would be thrown away as useless. Again, as shown in Fig. 4 the bushing, a sample of which is there shown and designated 17, may be provided with threads 18 and 19 both inside and out, to fit the different sized threads for use with pieces of pipe or nipples being only threaded on one end, so that they may be screwed into the particular bushing for the operation of threading. The bushings are all split as before described so as to allow them to close up on the nipples or pipes when the pressure from the adjusting bolt of the clamping head is exerted thereon; and also to allow the bushings to expand automatically to release the pipes or nipples when the adjusting bolt is screwed out to permit the two members of the clamping head to expand. It is to be understood that a large variety of these bushings may be employed according to the different sizes of pipes upon which it is desired to cut threads. Followers are also employed of different sizes to fit the exterior of the different sized bushings.

From the foregoing description in connection with the accompanying drawings, it will be seen that I have provided a simple, strong, durable and efficient holder or clamping head for holding nipples or pipes in a vise while the operation of cutting threads thereon is being performed. The dowel or pivot pin securely holds the two members of the clamping head to the square shank while at the same time it permits said members to have sufficient play to accommodate pipes of different sizes within the prescribed limit

and also permits the two members to be clamped securely around the pipe or nipple and slightly separated whenever it is desired to attach the same therefrom.

Having thus described the invention, what is claimed as new is:

1. A device of the character described, comprising a shank designed to be secured in a vise or the like, said shank having a neck at its upper end and an upwardly facing shoulder at the juncture of the neck with the body of the shank, a clamping head constructed in two corresponding sections and provided at its lower end with a socket which receives said neck and at its upper end with a pipe receiving socket, the two sockets being separated by solid walls on each member of the head, a detachable hinge connection between corresponding edges of said members at one side of the head, an adjustable connection between said members at their opposite side, and a pivot or dowel pin inserted through the lower ends of said members and through said neck, as and for the purpose set forth.

2. A device of the character described, comprising a polygonal shank, a clamping head secured thereto and constructed in sections, one of which is provided with a flange along one edge and the other of which is provided with an overhanging finger taking around said flange, the flange and finger constituting a detachable hinge connection, which may be separated by the longitudinal movement of one section or member with respect to the other, and means for adjustably connecting said members together at their opposite sides or edges.

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

FREDERICK WM. SPENCER. [L. S.]

Witnesses:

J. MCWILLIAMS, Jr.,
J. A. HOSSECK.