No. 860,112. PATENTED JULY 16, 1907.

J. YULE.

PIPE NIPPLE BLANK HOLDER.

APPLICATION FILED JUNE 7, 1906.

Fig.-1-

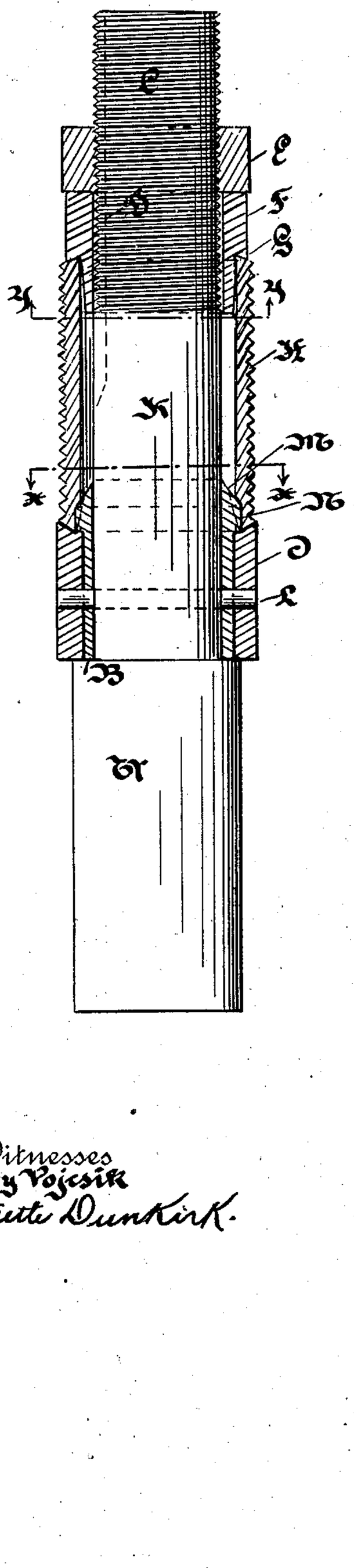


Fig.-2-

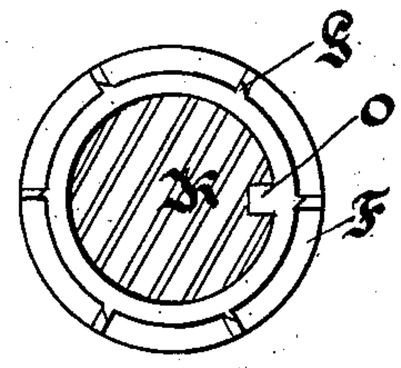


Fig.-3-

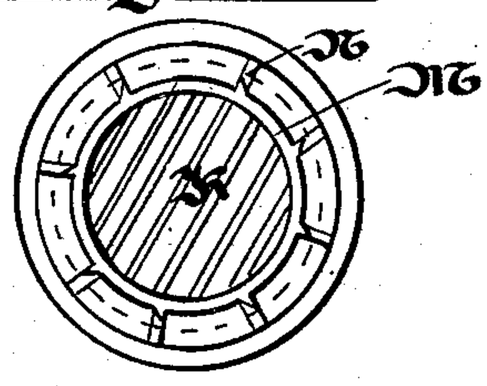
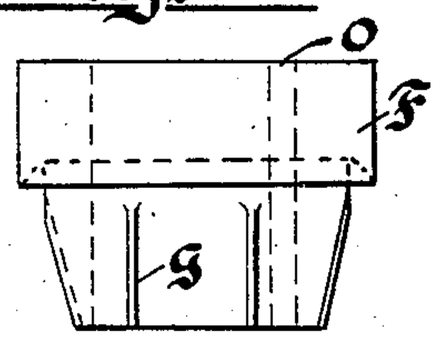


Fig.-4-



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN YULE, OF NEW YORK, N. Y.

PIPE-NIPPLE-BLANK HOLDER.

No. 860,112. Specification of Letters Patent. Patented July 16, 1907.

Application filed June 7, 1906. Serial No. 320,564.

To all whom it may concern:

Be it known that I, JOHN YULE, residing in the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Pipe-Nipple-Blank Holders, of which the following is a specification.

My invention in pipe nipple blank holders relates to that class wherein short lengths of pipe such as those employed in pipe fittings, termed nipples, are adapted to be clamped interiorly for the cutting of the exterior nipple thread; and the object thereof is to provide a more simple, durable, and inexpensive tube for pipe fitters, or for the machines employed in the manufacture of pipe fittings for substantially securing comparatively short lengths of pipe while the same are being subjected to the strain of torsion which is imposed upon these fragmentary pipe blanks when they are having a tapering thread cut upon their exterior surfaces in a more simple and effective manner than by those in vogue and previous to my invention in so far as I am at present aware.

The feature of my invention wherein I am enabled to carry this object into effect, lies in the novel manner of construction as illustrated in the drawings hereto attached, which form part of this specification, in which,

Figure 1 is a longitudinal, elevational view of the standard or holder illustrating the clamping devices or chuck mechanism in sectional elevation; Fig. 2 is a transverse, sectional view taken on the line Y—Y of Fig. 1, indicating one form of my improved upper terminal securing plug in plan, when it is desired to secure comparatively long nipples; Fig. 3 is a transverse, sectional view of the shank taken on the line X—X of Fig. 1, illustrating in top plan, as indicated by the arrows, the nipple base securing means; and Fig. 4 is a side elevational view of one of my improved upper terminal nipple blank holders corresponding with that indicated in plan in Fig. 2.

In the several figures similar characters of reference designate like parts where they occur, wherein A designates the shank of the tool which is adapted to be secured in a chuck, vise or clamp, or other suitable fixture, having the requisite degree of resistance toward rotating against the action of cutting the thread upon a nipple blank adapted to be secured thereto and carried thereby.

K is a longitudinal, cylindrical stem concentric to and integrally formed with the shank A. The upper extremity of the shank A has a threaded portion C which is adapted to receive a nut E. Secured to, and carried by the stem K, is a sleeve I having its lower face shouldered to seat against the shank A and is faced off at its upper edge to assume a concave formation. Within the sleeve I and about the stem K is a closely fitted toothed bushing M provided with the radially disposed and conically cut teeth N. The bushing M and the sleeve I in the instance illustrated, are secured together against rotation to the stem K. The purpose of the teeth N radiating from the bushing M is to cut notches circumferentially about the inner wall of a nipple pipe which is finally converted into the nipple H by cutting the thread thereon, and this is accomplished by forcing the nipple pipe in a direction towards the base B of the tool by means of a conical bushing F and the nut E, which, when sufficient force is applied to the nut E by means of a wrench, and the shank A is restricted to a fixed position, will cut a series of radially disposed notches in the lower extremity of the nipple pipe and in consequence of the concavities in the terminal members F and I, the ends of the pipe will be restrained against bursting.

It will be observed by the illustration Fig. 3, that these teeth are ratcheted in formation and in a direction both right and left. This formation is for the purpose of more easily cutting the notches in the inner wall of the tube, and at the same time provides an effective grip for the tube terminal in resisting the tendency of the same to rotation.

In reducing my invention to practice, I found that in cutting threads in the short nipples it was necessary to secure but one terminal of the nipple pipe H in this manner viz: the lower extremity, and employing at the upper extremity a conical bushing F excluding the teeth, while when comparatively long nipples are to be threaded, I prefer to employ a toothed bushing for the upper terminal as illustrated in plan in Fig. 2, and to restrict the same against rotation. I prefer to construct the stem K with a spline D and the bushing F with an integral feather O. The spline D, however, will not come into requisition when the toothless collet or bushing F is employed.

In employing my improved pipe nippple holder in the securing of short lengths of pipe for the cutting of nipple threads, the nut E and the bushing F are removed and the pipe upon which the thread is to be cut, is placed into a position indicated by the nipple H, and the thread cutting tool is passed over the stem K from the threaded end thereof, and the thread is cut upon the nipple about midway of its length in a familiar manner, whereupon the nipple is removed and reversed in position and secured as previously stated, when the opposite extremity is threaded to meet the previously cut thread.

Having fully described my invention, I claim as new and desire to secure by Letters Patent of the United States:—

1. In a pipe nipple blank holder, a shank adapted to enter a pipe nipple, an abutment carried by the shank and adapted to engage a terminal of the pipe nipple, an internally situated serrated terminal clamping member carried by the shank and secured thereto against rotation; and a centering plug adjustably mounted on the said shank and adapted to engage an opposite extremity

of the said pipe nipple, and adapted to force the same by its terminal into engagement with the said serrated clamping member.

2. In a pipe nipple blank holder, a shank provided with a shoulder, said shank adapted to pass through a nipple blank and said shoulder adapted to enter a terminal of the nipple blank, terminal gripping teeth formed in a portion of the shoulder, a bushing provided with a shoulder, having terminal gripping teeth, and a tapering portion extending from the shoulder, said bushing being adjustable upon the said shank, and means for restricting the bushing against rotation together with means for forcing the said bushing and nipple blank into engagement with the said toothed shoulder of said shank.

3. In a pipe nipple blank holder, a shank provided with a smaller portion and a relatively larger portion, the larger portion having a toothed shoulder, and an annular projecting conical centering stud, a serrated bushing carried by the said shank and freely movable thereon, said bushing having an expansion restricting abutment, formed at one extremity of the said bushing, and means co-acting between the shank and the bushing for forcing the latter into engagement with a nipple terminal.

4. In a pipe nipple blank holder of the character described, a shank having a portion of comparatively large diameter, and a portion of comparatively small diameter, a terminal abutment constituting a shoulder at the junction of the larger portion with the smaller portion, a stationary conical gripping plug carried upon the said shoulder, and an adjustable gripping and centering plug carried by the smaller portion, and a screw thread on the smaller portion, and a nut therefor, adapted to engage the said centering plug and adapted to force the same into engagement with the nipple blank, and to force the said nipple blank also into engagement with the said abutment on the larger portion, substantially as described.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

JOHN YULE.

Witnesses:
PHILIP K. STERN,
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