

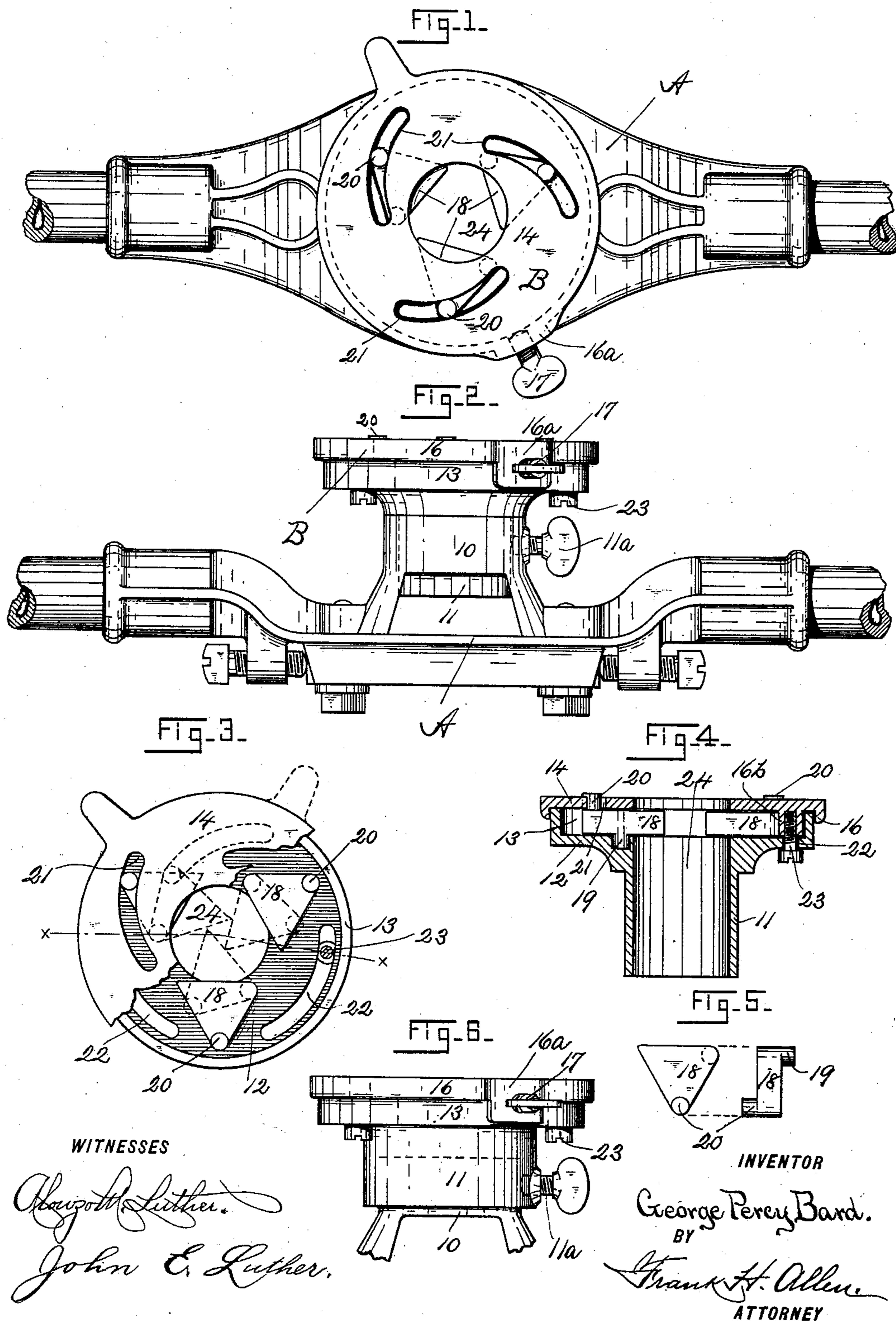
No. 606,774.

Patented July 5, 1898.

G. P. BARD.
BUSHING FOR DIE STOCKS.

(Application filed Dec. 9, 1897.)

(No Model.)



UNITED STATES PATENT OFFICE.

GEORGE PERCY BARD, OF NORWICH, CONNECTICUT.

BUSHING FOR DIE-STOCKS.

SPECIFICATION forming part of Letters Patent No. 606,774, dated July 5, 1898.

Application filed December 9, 1897. Serial No. 661,220. (No model.)

To all whom it may concern:

Be it known that I, GEORGE PERCY BARD, a citizen of the United States, residing at Norwich, in the county of New London and State of Connecticut, have invented certain new and useful Improvements in Bushings for Die-Stocks, which improvements are fully set forth and described in the following specification, reference being had to the accompanying sheet of drawings.

This invention is in bushings or guides for use with pipe-threading die-stocks; and my purpose is to provide a simple and inexpensive form of guide complete in itself which can be utilized with die-stocks as now commonly made and which may be readily attached to such die-stocks and adjusted to support pipes of various diameters. Heretofore it has been a common practice to use with this class of die-stocks bushings of simple ring form for centering the piece of pipe to be threaded, it being necessary to provide a separate ring for each size of pipe which it is desired to thread. My present invention does away with such rings and provides a single independently-organized holder that may be quickly attached to the die-stock and adjusted to center the pipe with the threading-dies, so as to support it during the threading operation.

In the annexed drawings, Figure 1 is a plan view of a die-stock having my newly-invented bushing mounted thereon. Fig. 2 is an elevation of the same parts. Fig. 3 is a plan view of my device partly broken away to expose the interior mechanism; and Fig. 4 is a cross-sectional view taken on line *xx* of Fig. 3. Fig. 5 shows plan and edge views of one of the jaws of my said bushing. Fig. 6 illustrates a slightly-modified means for attaching my bushing to the die-stock.

In the drawings, A indicates the die-stock, and B my adjustable bushing as a whole.

The die-stock is formed with an integral collar 10, that projects from the side of the stock opposite the threading-dies, and 11 denotes a hub projecting from the said bushing and of a size suitable to either slip inside the stock-collar 10, as seen in Fig. 2, or to slip over said collar, as seen in Fig. 6—that is to say, one of the parts (stock or bushing) is

provided with a collar and the other part is formed with a hub adapted to enter and be supported by said collar. Said collar and hub may be clamped together by a set-screw 11^a. Supported by the hub 11 is a disk 12, having a circumferential flange 13.

14 denotes a disk formed with a flange 16, that is of a size adapted to easily fit over the flange 13, and mounted in the flange 16 (or preferably in an enlargement 16^a thereof) is a thumb-screw 17, by means of which the disks 12 14 may be clamped together after the bushing has been adjusted, as I shall explain.

Within the cupped disk 12 are three jaws 18 18 18 of substantially triangular form, each of which jaws is provided with a stud 19, that enters a hole in the disk 12, thus locating the said jaws at a given distance apart, and each of said jaws is also provided with a stud 20 upon its outer face and at its free end, which studs lie in cam-slots 21 in the disk 14, the said slots being of such pitch that when the disk 14 is partially rotated on the disk 12 the studs 20 are forced outward or inward, as the case may be, and the jaws 18 are correspondingly moved to vary the opening between them in order that large or small pipes may be inserted between and held by said jaws.

In order to hold the outer disk 14 in position on the cupped disk 12, I form slots 22 in the last-named disk, and in said slots I locate screws 23, that are screwed into bosses 16^b, formed on the inner side of the disk 14, the slots 22 being of sufficient length to allow the cam-disk 14 to be moved at least one-sixth of a revolution relatively to the fixed disk 12. The central opening 24 should be of a diameter sufficient to receive the largest pipe which it is desired to thread. Then by properly adjusting the jaws 18 (by partially rotating the cam-disk 14, as explained) any pipe of smaller diameter may be supported, and inasmuch as the jaws 18 move simultaneously toward the center of the described bushing or holder a pipe supported thereby is always centered with the threading-dies.

My described bushing may be cheaply produced, is complete in itself, may be used with ordinary die-stocks, is readily operated by any person of average intelligence, and ef-

fectually performs the work of the several removable and separate ring-bushings now so commonly used.

Having thus described my invention, I
5 claim—

As a new article of manufacture, a separate and independent bushing for a die-stock and which is provided with a collar that is adapted to fit in a corresponding collar upon a die-

stock, whereby the same bushing is adapted to be used upon different die-stocks, combined with the adjustable jaws pivoted in the bushing, substantially as shown and described. 10

GEORGE PERCY BARD.

Witnesses:

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