No. 801,050. PATENTED OCT. 3, 1905.

J. H. SHEARN.

SPOOL STAMPING DIE.

APPLICATION FILED DEC. 30, 1903.

Fig. 1.

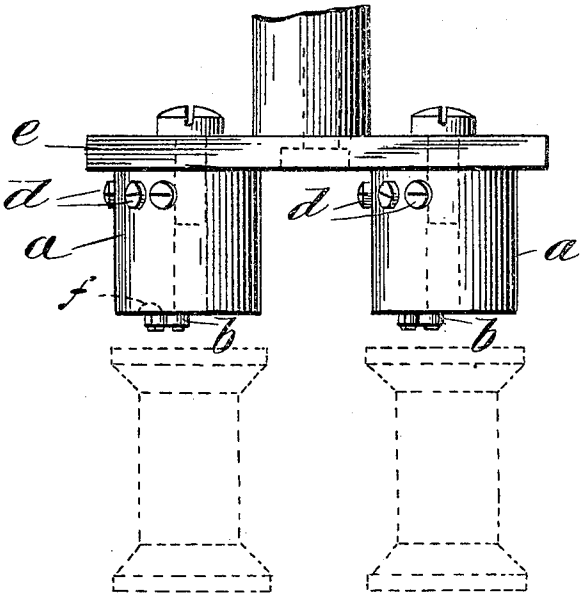



Fig. 2.

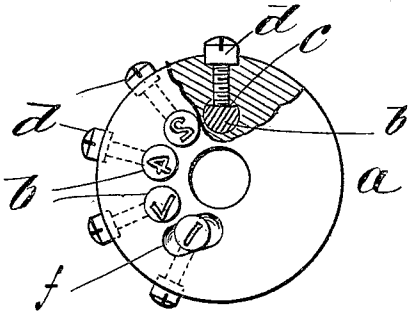
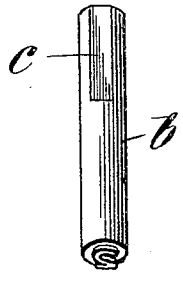



Fig. 3.

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# UNITED STATES PATENT OFFICE.

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## SPOOL-STAMPING DIE.

No. 801,050. Specification of Letters Patent. Patented Oct. 3, 1905.

Application filed December 30, 1903. Serial No. 187,102.

*To all whom it may concern:*

Be it known that I, JOSEPH H. SHEARN, a citizen of the United States of America, residing at Leeds, in the county of Hampshire and State of Massachusetts, have invented new and useful Improvements in Spool-Stamping Dies, of which the following is a specification.

This invention relates to machines for printing or stamping the ends of spools, and specifically to an improved die for this purpose.

The object of this invention is to provide a die for spool-printing and the like having a line of circularly-disposed type removably mounted in the die and provided with means to justify the type in said circular line, whereby each may be located in proper radial position relative to the center of the die; and the invention consists in the construction described in the following specification and clearly pointed out in the claim.

In the drawings forming part of this application, Figure 1 is a side elevation of a couple of spool-printing dies having my improvement applied thereto. Fig. 2 is an end view of one of the dies, a portion thereof being broken away, showing the manner of securing the removable type in the die. Fig. 3 is a perspective view of one of the dies.

In spool-printing it has heretofore been customary to make a cylindrical steel die of the right diameter of the spool and to have cut thereon any matter desired. These dies are suitably mounted to impress in one or more colors the proper letters on the ends of the spools as the latter are fed through the machine. A practice has grown up recently, however, of denoting the color of the thread on the spool by a number, each mill usually having different numbers to designate the various colors.

In the case of silk-twist manufacturers who make a great variety of colors the designation thereof by number has made it very expensive to provide dies for stamping the spools, as each color has required the cutting of a separate die, thus rendering necessary the provision of something like between three and five hundred dies. To obviate the great expense attendant upon making these dies in such quantities, I have constructed the die which forms the subject-matter of this application, by the use of which it becomes necessary to supply only a few steel types having one numeral cut on each.

In carrying my invention into practice I construct a die such as is shown in Figs. 1 and 2 and indicated by *a*, on the face of which, as is customary, the name of the manufacturer, the length of thread which the spool carries, &c., are cut in the usual manner. Arranged concentrically about the center of the die are a number of holes located longitudinally thereof. These holes receive the type *b*, the inner ends of which are provided with the flattened portions *c*, against which the screws *d* may bear, which are located in the body of the die at right angles to the type opposite the flattened portions *c* thereof. Preferably the holes through the die in which the type are fitted extend entirely through and bear upon the cross-head *e* or whatever the dies *a* are secured to, as this affords a much surer means of locating the face of the type in the same plane than if they were adjusted in any other way.

In locating the screws, whereby the type are secured in the die, care must be taken to place them on the proper radial line, and great care must also be exercised in slabbing off the type to make the flat portion *c*, which must always bear a certain relation to the numeral on the end of the type, said flattened portion always occupying a plane at right angles to the radial line running through the numeral. This particular construction of die not only saves the great expense of duplicating dies, but when it comes to changing the color-number on the die to run through a lot of spools bearing a different number it can all be effected without removing the die from the head in which it is supported by merely loosening the set-screw of whichever type is to be changed and inserting a new type which will be adjusted to proper position by tightening the set-screw against the flattened portion thereof.

The type being small are most easily removed from the die by means of a pair of sharp-nosed pincers, and, if desired, the metal in the face of the die near the end of the type may be cut away, as at *f*, to expose more of the type-body to permit the latter to be more readily grasped.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent of the United States, is—

A die for spool-printing having a type-receiving perforation extending through the die at right angles to its face, a cylindrical-bodied type having a flat surface on one side thereof at right angles to the vertical line of the type, and a screw in the die-body to bear on said flat surface to justify the type and to secure it in the die.

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