

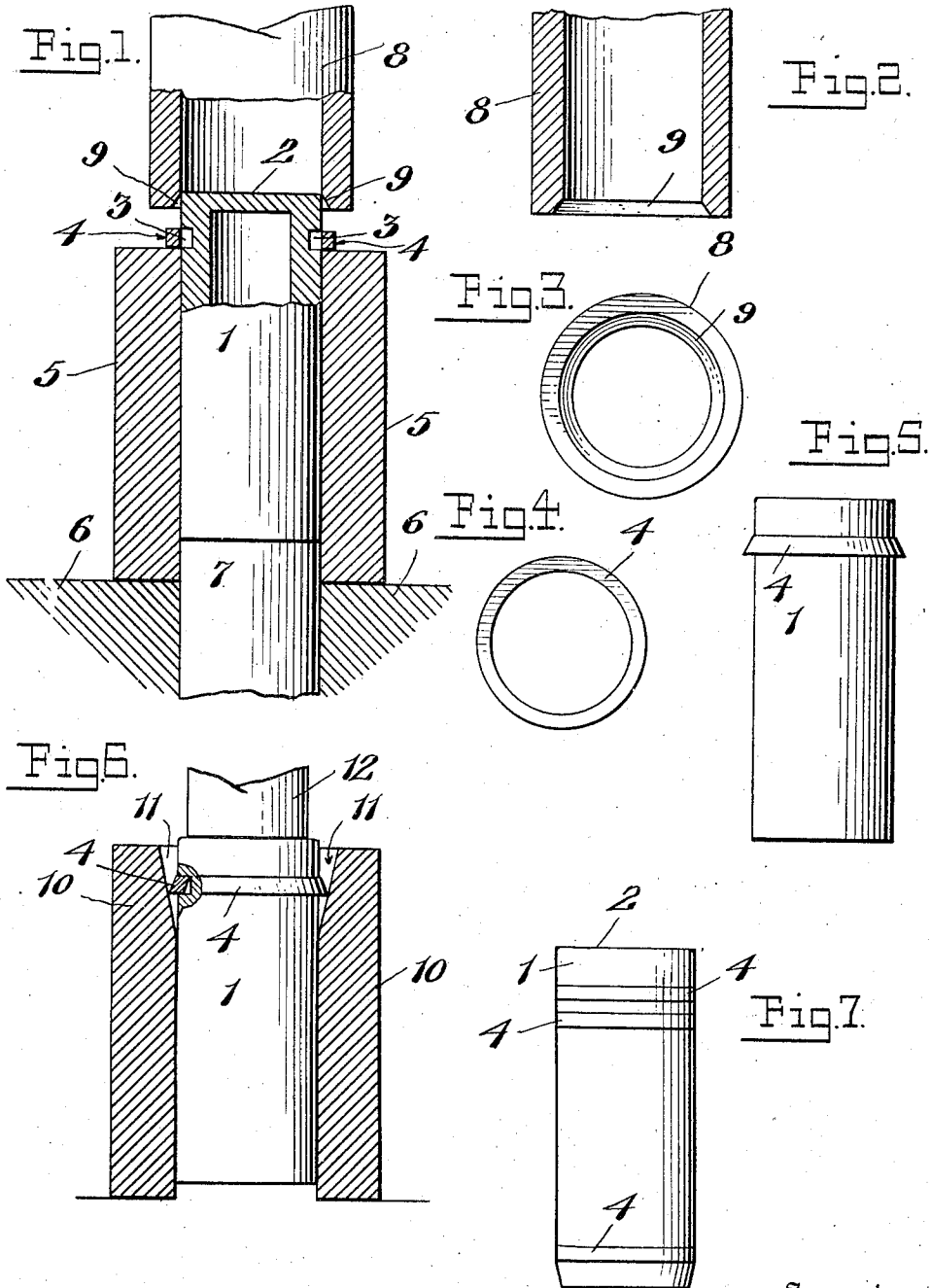
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DEVICE FOR APPLYING BANDS ON PENS OR PENCILS

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DEVICE FOR APPLYING BANDS ON PENS OR PENCILS.

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This invention relates to an improvement in a means for ornamenting the body or cap of a fountain pen or automatic pencil by inlaying in such article an ornamental annulus or ring of metal or a series of such rings to form a design.

It is well known that the body or cap of a fountain pen or automatic pencil is usually made of hard rubber or some similar material and the object therefore of my invention is to provide a means for inserting within grooves formed in said body or cap, rings or bands of a precious or semi-precious metal. By the use of the apparatus and process herein described, the rings or bands inserted in said grooves in the pen or pencil are firmly imbedded or sunk therein and are securely held in place and lie flush with the outer face of the article in which the same are placed.

With these objects and such other objects as may hereinafter appear, in view, I have devised the particular arrangement of parts hereinafter set forth and more particularly pointed out in the claim appended hereto.

Reference is to be had to the accompanying drawing, forming a part hereof in which—

Figure 1 is a sectional view showing the first step in the process of applying an annulus or band within a groove in a fountain pen cap, and the mechanism by which this step is performed.

Figure 2 is a sectional view of one of the dies for causing a contraction of the annulus partly into the groove in the fountain pen cap.

Figure 3 is a view of the lower end of the die shown in Figure 2.

Figure 4 is a plan view of the metal annulus which is adapted to be placed within the groove in the fountain pen cap.

Figure 5 is a side elevation of the fountain pen cap showing the annulus in the position it occupies after the die disclosed in Figures 2 and 3 has operated upon it.

Figure 6 is a sectional view of a second die which performs the final operation of forcing or contracting the annulus into the groove in the cap; and

Figure 7 is a finished view of a fountain pen cap provided with a number of bands or rings placed in position by the means herein described.

Throughout the various views of the draw-

ings, similar reference characters designate similar parts.

In the preferred embodiment of my invention disclosed in the accompanying drawing, 1 indicates a fountain pen cap which is of the conventional form and is tubular in nature and has the usual closed upper end 2. Said cap is provided with an annular groove 3 near its upper end which is adapted to receive an annulus or metal ring 4 for ornamental purposes. It will be understood that the groove 3 may be placed at any point on the cap to suit the desired design or that a large number of these grooves and rings may be placed on the cap or on the barrel of a fountain pen or automatic pencil. The cap is usually made of hard rubber or some similar material.

Referring to the mechanism shown in Figure 1, it will be seen that said cap is supported in an upright position within a snugly fitting bushing 5 and in such a way that the part of the cap 1, which is provided with the groove to receive the annulus 4 projects above the top of the bushing 5 and the annulus 4 rests on the upper face of the bushing 5 and has its periphery completely exposed.

The bushing 5 is supported upon a suitable base 6 and a stem 7 projects up in said bushing and supports the cap 1. The stem 7 may be raised and lowered to accommodate fountain pen caps of various length or to properly locate the cap according to the point where the groove 3 is located.

At 8 is shown a die which is in the form of a tubular member or bushing of the proper diameter to snugly fit about the fountain pen cap. This bushing 8 has its lower inner edge cut away or inclined as at 9 so that when the same is forced down over the cap and passes over the annulus 4 for the full width of said annulus, the entire outer face of the annulus will be inclined inwardly so that the upper part of said annulus will be squeezed into the groove 3, causing the same to assume the position shown in Figure 5.

It will be understood that the annulus 4 is made of the proper width to securely fit within the groove 3 and this annulus is usually cut from a piece of tubing of the proper diameter and thickness. After the die 8 has acted, the cap appears as is shown in Figure 5 where it will be seen that the annulus or band 4 has its upper portions contracted into the groove 3. Thereupon, the cap is

placed in a second die member 10 which is provided with a conical opening 11 near its top so that when the cap is forced through the center of the die member 10, the face of the conical opening 11 will act as a cam member and cause the ring or annulus 4 to be squeezed tightly into the groove 3 and lie flush with the outer face of the cap. A plunger 12 is usually used for forcing the cap 1 through the die member 10.

In Figure 7 is shown a cap in which three bands or rings have been applied in the manner heretofore described. It will be understood that as many of these bands as desired may be applied at any position on the cap as may be desired or bands may be similarly applied to a pen or pencil barrel without departing from the spirit of my invention.

What I claim is:

20 A device of the class described comprising means for applying an annulus within a groove in a pen or pencil part, said means comprising a support for holding said part

with its groove completely exposed and projecting entirely beyond said support and for supporting an annulus on its upper surface whereby the entire outer face of said annulus is completely exposed, a die for partly contracting the annulus, said die consisting of a tubular member fitting snugly about the pen or pencil member and adapted to pass over the entire outer face of the annulus, said die having an inclined surface at one of its ends for inclining inwardly the outer face of the annulus and squeezing the upper part of the annulus into the groove in the pen or pencil part, and another die for squeezing inwardly into the groove the lower part of the annulus, said last mentioned die having a bore through which the pen or pencil part is forced, said bore being provided with an inclined face near one of its terminations.

Signed at the city, county and State of New York, this 4th day of March, 1926.

HARRY ESTEROW.