

No. 752,828.

PATENTED FEB. 23, 1904.

W. P. DEVINE.  
CLAMP HANDLE.

APPLICATION FILED MAR. 27, 1903.

NO MODEL.

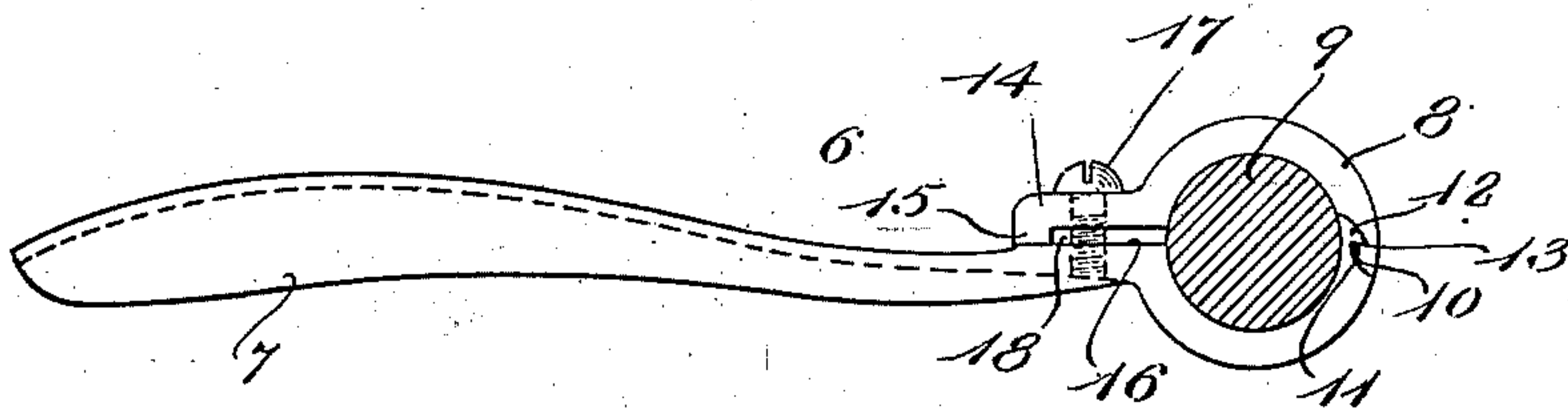


Fig. 1.

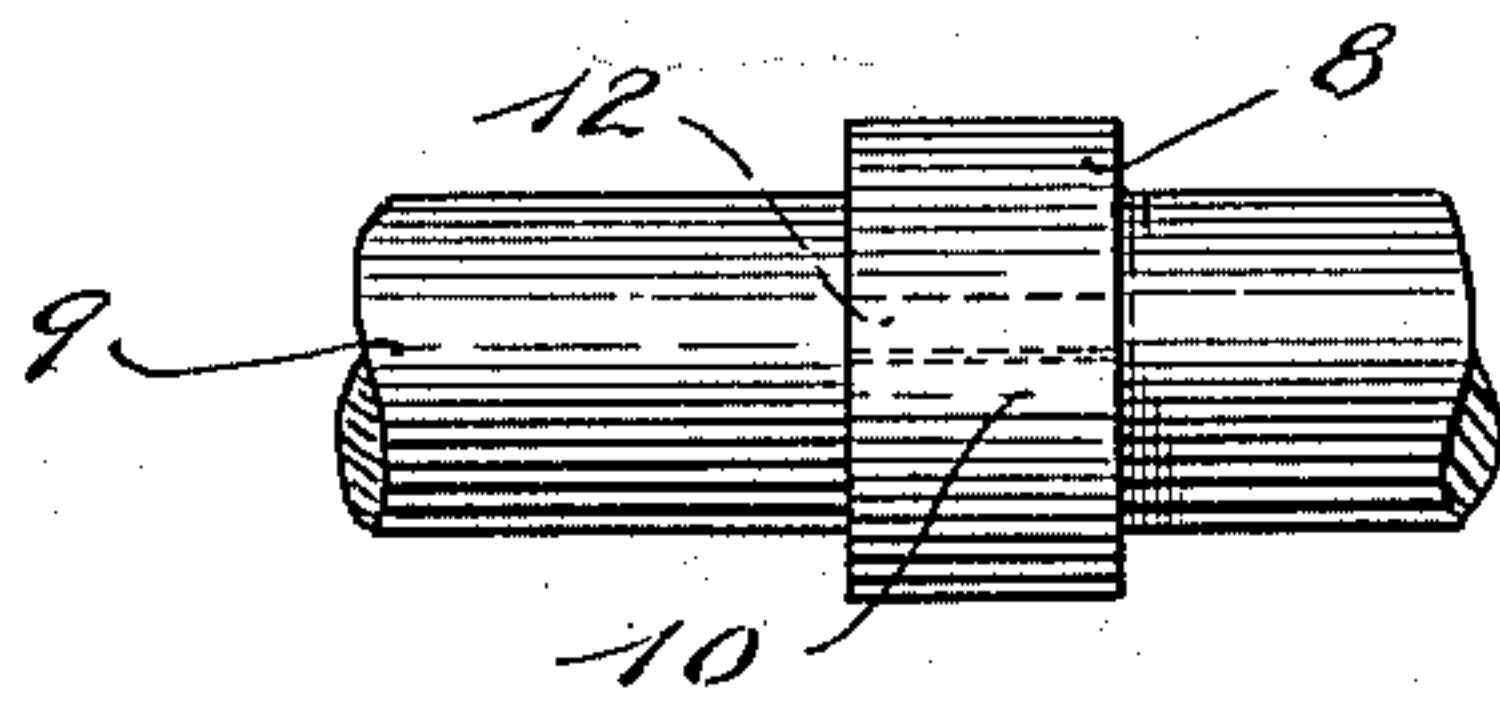


Fig. 2.

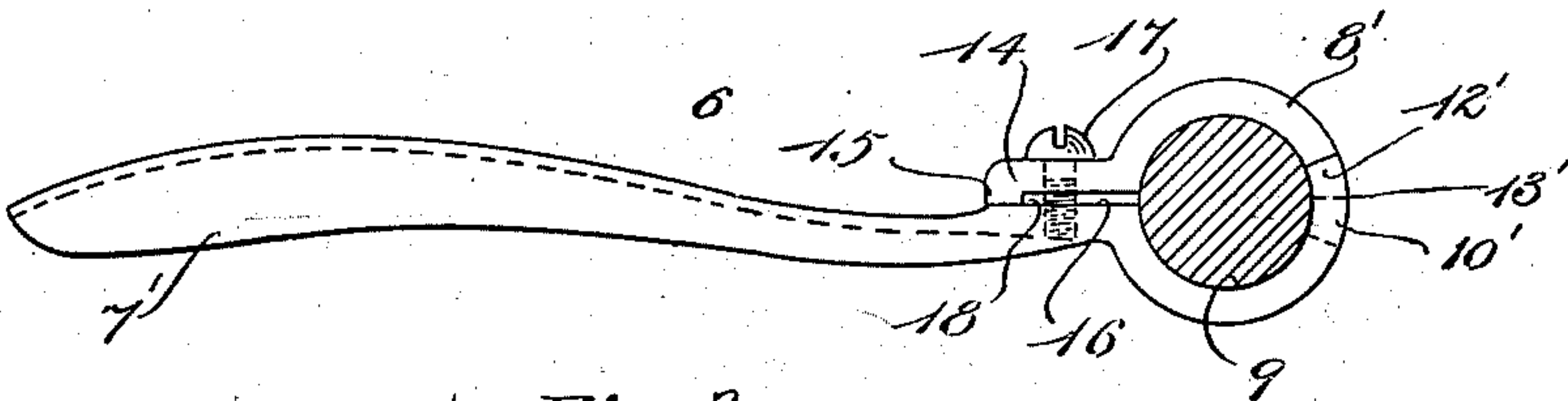


Fig. 3.

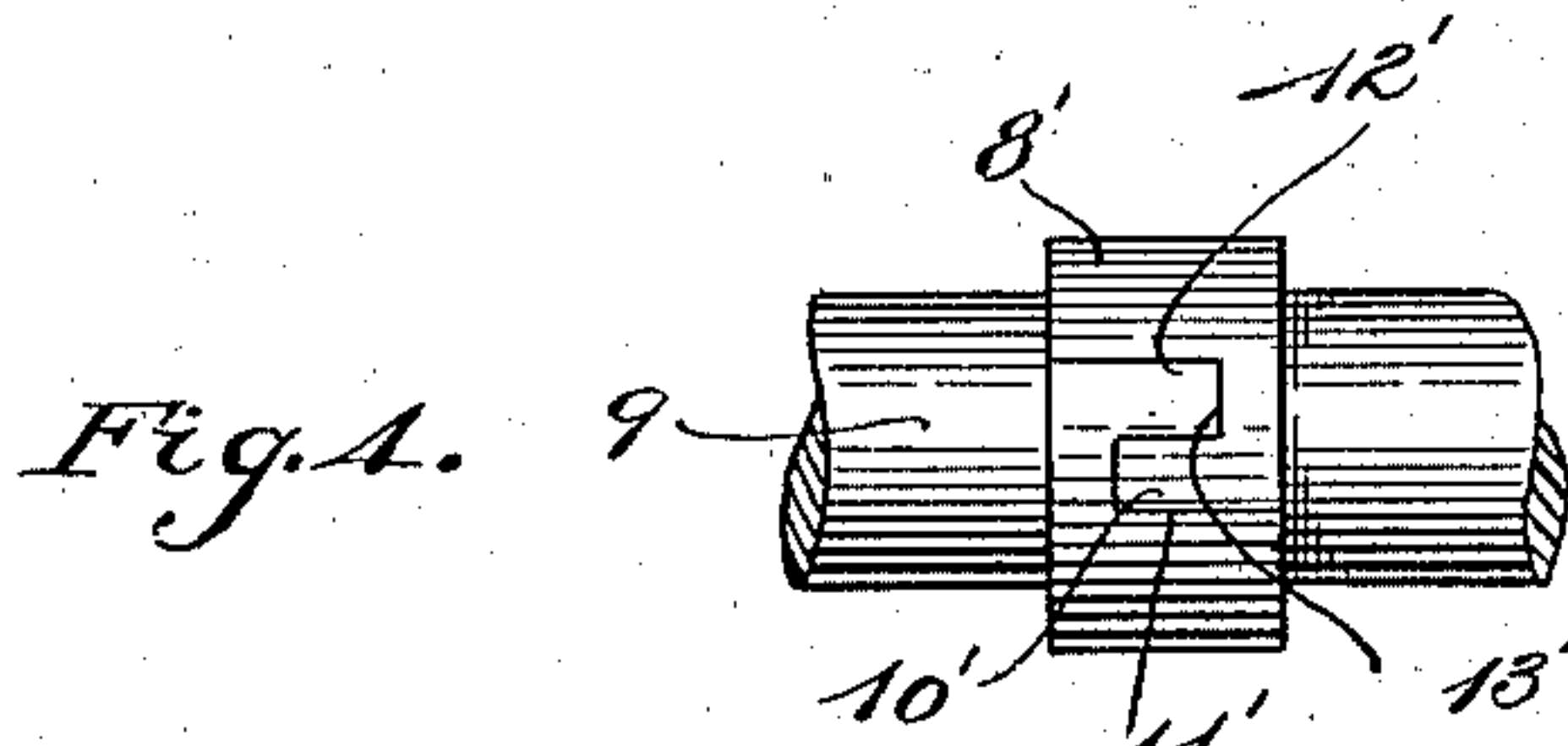


Fig. 4.

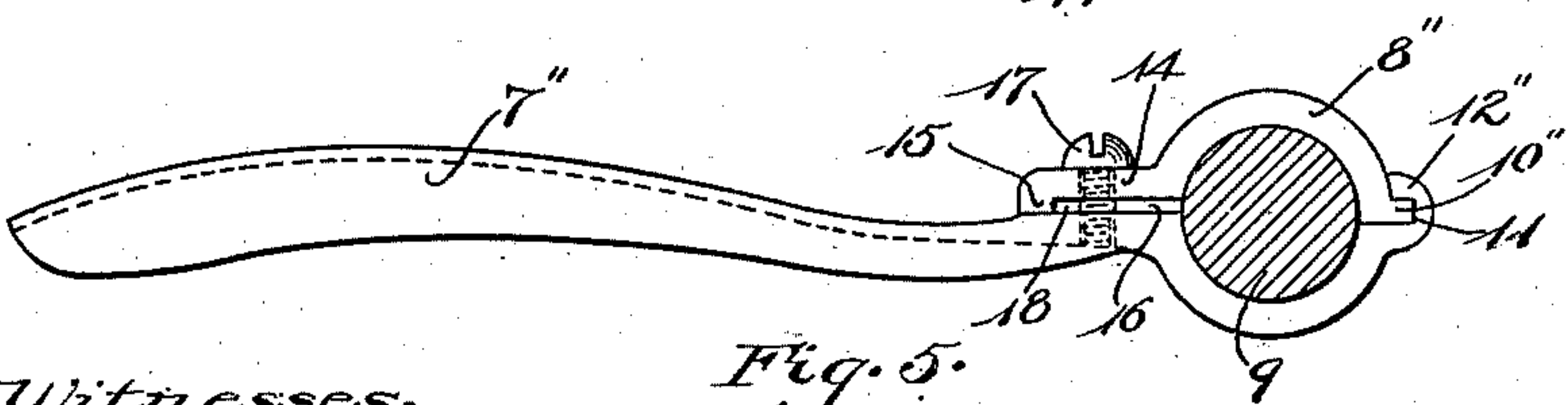


Fig. 5.

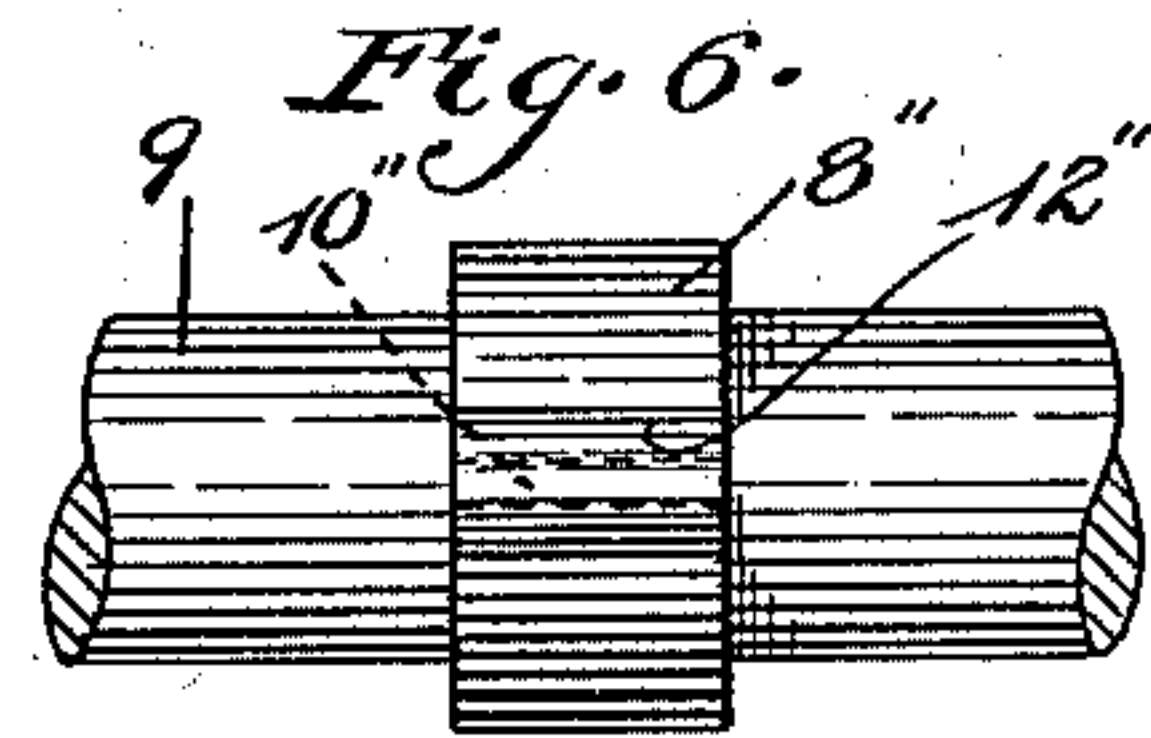


Fig. 6.

Witnesses.

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by his Attorney,

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# UNITED STATES PATENT OFFICE.

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## CLAMP-HANDLE.

SPECIFICATION forming part of Letters Patent No. 752,828, dated February 23, 1904.

Application filed March 27, 1903. Serial No. 149,838. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM P. DEVINE, a citizen of the United States, residing at Dorchester, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Clamp-Handles, of which the following is a specification.

This invention relates to a handle, preferably formed of sheet-steel, adapted to be clamped to a cylindrical rod, the device being particularly adapted for use in handles to be attached to rods connected with the registers in street-cars or where it is desired to clamp a handle to a long cylindrical rod at a portion thereof midway of its length without being obliged to slip the handle onto the rod at one of the ends of said rod.

The object of the invention is to provide a cheap, strong, simple, and durable device for the purpose hereinbefore referred to.

The invention consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims thereof.

Referring to the drawings, Figure 1 is a side elevation of my improved clamp-handle. Fig. 2 is an end elevation thereof, showing the same clamped to a portion of a rod. Fig. 3 is a side elevation of a modified form of my invention. Fig. 4 is an end elevation of the form shown in Fig. 3, showing the same clamped to a portion of a cylindrical rod. Figs. 5 and 6 are side and end views, respectively, of a modified form.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, Figs. 1 and 2, 6 is a clamp-handle constructed in accordance with my invention, in which 7 is the handle portion and 8 the cap, both cap and handle portions being struck up from sheet metal. Both the cap portion 8 and handle portion 7 are formed to extend substantially half-way around a rod 9, lying therebetween. The cap portion 8 is provided with a projection 10, extending longitudinally of the rod 9 and projecting into a recess 11, provided in the end of the handle 7. The handle 7 is provided with a projection 12,

extending longitudinally of the rod 9 and projecting into a recess 13, provided in the cap 8. The projections 10 and 12 are undercut, so as to lock into the recesses 11 and 13, respectively. Upon the side of the rod 9 diametrically opposite the locking projections 10 and 12 a clamping-flange 14 is provided, which extends longitudinally of the rod 9 and has upon the side adjacent to the handle 7 a bearing-flange 15, which rests upon a flat surface 16, provided upon the handle 7. The cap 8 and handle 7 are clamped together and against a rod 9 by a screw 17, having screw-threaded engagement with the handle 7, the parts being so fitted and formed that when the screw 17 is screwed into the handle 7 it will bring the flange 15 to a bearing upon the flat surface 16 of the handle 7 and will clamp the two cylindrical parts of the handle 7 and cap 8 against the rod 9, holding said handle firmly fastened thereto. It will be noted that there is a space 18 between the flange 14 and the flat surface 16, so that when the screw 17 is turned in the proper direction to clamp the handle to the rod 9, as hereinbefore set forth, the tendency would be to separate the adjacent ends of the cap 8 and handle 7 upon the diametrically opposite side of the rod 9 from the flange 14 if it were not for the interlocking projections 10 and 12 upon said cap and handle, respectively. When the screw 17 is turned to clamp the cap and handle together and against the rod 9, as hereinbefore set forth, and after the bearing-flange 15 comes to a seat against the flat surface 16, a further turning of the screw 17 will bend the clamping-flange 14 between the bearing-flange 15 and the rod 9. This is rendered possible by the space 18, which lies between the clamping-flange 14 and the handle 7, and the result is an increased clamping power as compared with the result which would be attained if the flange 14 rested throughout its width upon the flat face 16 or at any point thereon intermediate the screw 17 and said rod. It is evident that the flange 15 could be formed upon the handle 7 instead of upon the clamping-flange 14 without departing from the spirit of my invention.



It will be seen that the handle 7 and cap 8 can both be formed of sheet metal and that when the same are clamped to the rod 9, as hereinbefore set forth, a very strong, light, cheap, and durable device is provided for the purpose specified.

In Figs. 3 and 4 a modified form of my invention is illustrated, in which the interlocking projections 12' and 10' upon the handle 7' and cap 8', respectively, extend longitudinally of the rod 9, but do not extend entirely across the width of said cap and handle, the projection 12' projecting into a space 13' in the cap 8' and the projection 10' projecting into a space 11' in the handle 7'; but the result attained is practically the same as in the form hereinbefore described, and illustrated in Figs. 1 and 2.

It will be seen that the cap 8 and handle 7 where said parts encircle the rod 9 form practically a cylindrical sleeve throughout the periphery thereof, with the exception of that portion of said sleeve to which the handle proper, 7, and the flange 14 are joined, the result being a very neat appearing device and also a device presenting a smooth surface, which may be easily nicked or otherwise finished and upon which no projections are presented to interfere with or injure the hands of the user.

In Figs. 5 and 6 a modified form of my invention is illustrated in which the interlocking projections 12'' and 10'' upon the handle 7'' and cap 8'', respectively, extend longitudinally of the rod 9 and entirely across the width of said cap and handle, the projection 10'' projecting into a space 11'' in the handle 7'', the action of the clamping-screw 17 being as hereinbefore described.

In applying my improved handle to a rod at any point intermediate the ends thereof the cap and handle are placed against the rod upon opposite sides thereof and lying in different planes transversely of said rod. The cap and handle are then slid toward one another longitudinally of the rod 9 until the projections interlock, as shown in Figs. 2, 4, and 6.

Having thus described my invention, what I claim, and desire by Letters Patent to secure, is—

1. A device of the character described comprising a handle portion and a cap, a recess in each of said parts, a projection on said handle extending transversely thereacross and constructed to project into the recess in said cap, a projection on said cap extending transversely thereacross and constructed to project into the recess in said handle, and means to clamp said parts together and against a rod lying therebetween.

2. A device of the character described comprising a handle portion and a cap, a recess in

each of said parts, a projection on said handle extending transversely thereacross and constructed to project into the recess in said cap, a projection on said cap extending transversely thereacross and constructed to project into the recess in said handle, and means to clamp said parts together and against a rod lying therebetween, said parts constructed to be disengaged one from the other by lateral displacement.

3. A device of the character described comprising a handle portion and a cap, each of said parts formed to extend substantially halfway around a rod lying therebetween, a recess in each of said parts, a projection on said handle extending transversely thereacross and constructed to project into the recess in said cap, a projection on said cap extending transversely thereacross and constructed to project into the recess in said handle, and means to clamp said parts together and against a rod lying therebetween.

4. A device of the character described comprising a handle portion and a cap, each of said parts formed to extend substantially halfway around a rod lying therebetween, a projection on each of said parts extending longitudinally of said rod, said projections constructed to interlock one with the other against displacement transversely of said rod and constructed to be disengaged one from the other by movement longitudinally of said rod, and means to clamp said parts together and against said rod.

5. A device of the character described comprising a handle portion and a cap, each of said parts formed to extend substantially halfway around a rod lying therebetween, a projection on each of said parts extending longitudinally of said rod, said projections constructed to interlock one with the other against displacement transversely of said rod and constructed to be disengaged one from the other by movement longitudinally of said rod, a clamping-flange upon said cap extending longitudinally of said rod and located upon the side thereof diametrically opposite said locking projections, and a clamp-screw joining said flange and handle and adapted to clamp said parts together and against said rod.

6. A device of the character described comprising a handle portion and a cap, each of said parts formed to extend substantially halfway around a rod lying therebetween, a projection on each of said parts extending longitudinally of said rod, said projections adapted to interlock one with the other against displacement transversely of said rod, a clamping-flange upon said cap extending longitudinally of said rod and located upon the side thereof diametrically opposite said locking projections, a bearing-flange on one of said



parts lying between said clamping-flange and  
handle and providing a space therebetween  
adjacent to said rod, and a clamp-screw inter-  
mediate said bearing-flange and rod, joining  
5 said clamping-flange and handle together and  
adapted to clamp said parts together and  
against said rod.

In testimony whereof I have hereunto set  
my hand in presence of two subscribing wit-  
nesses.

WILLIAM P. DEVINE.

Witnesses:

CHARLES S. GOODING,  
ANNIE J. DAILEY.