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PATENTED APR. 10, 1906.

T. VOGT & M. HEBIG.  
DETACHABLE CLAMP FOR GAS TUBING OR THE LIKE.  
APPLICATION FILED JULY 8, 1905.

FIG. 1.

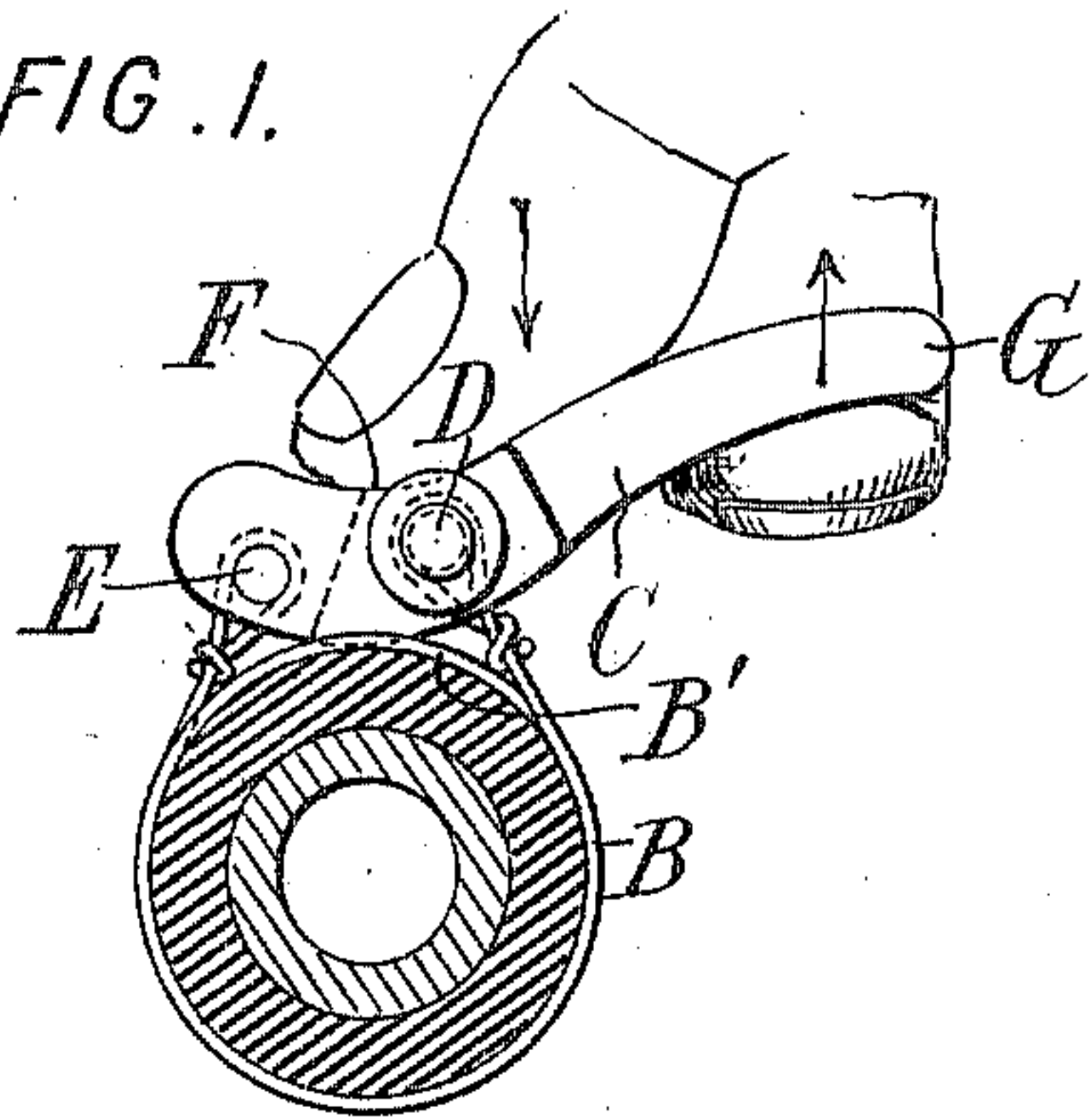


FIG. 3.

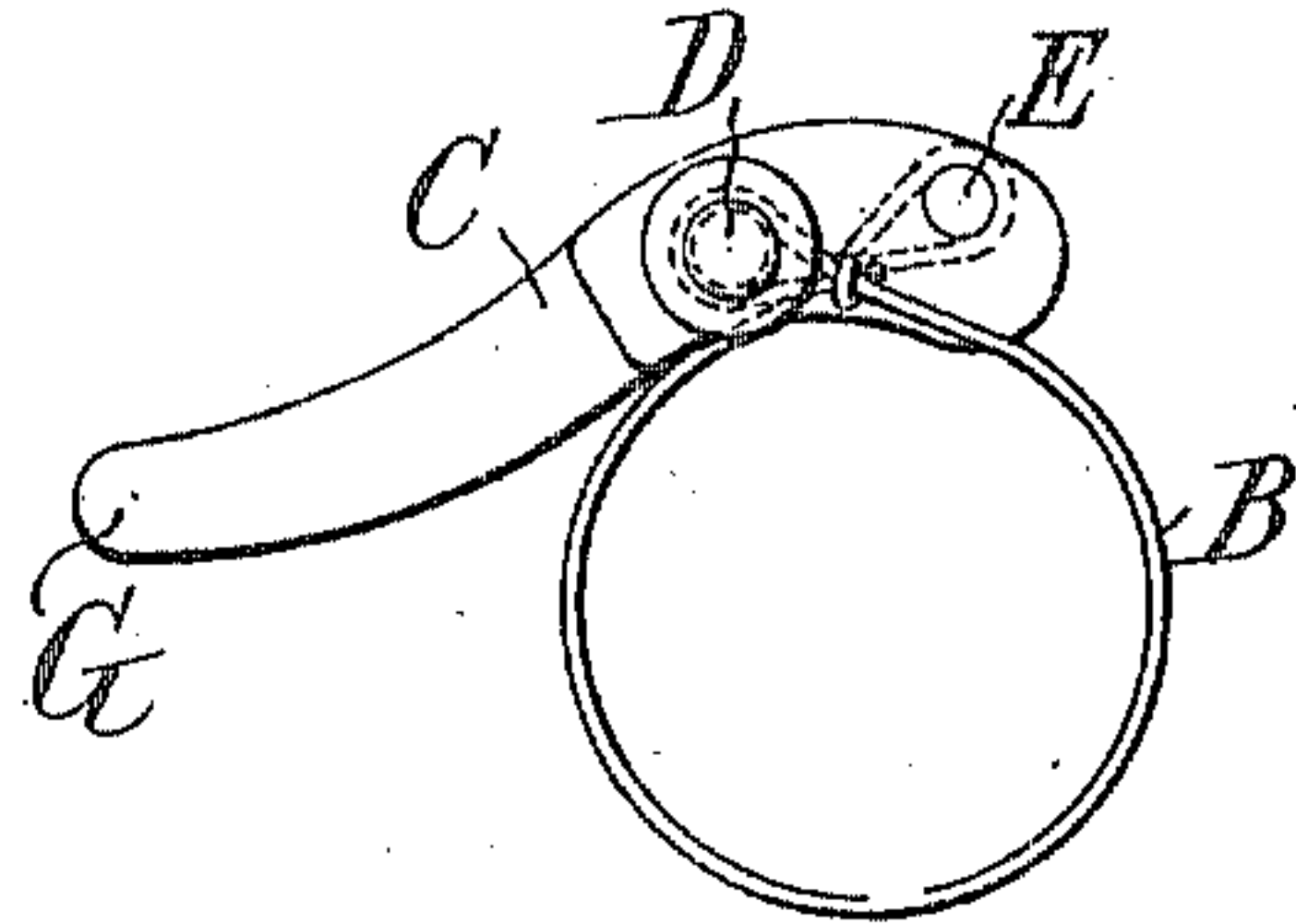


FIG. 2.

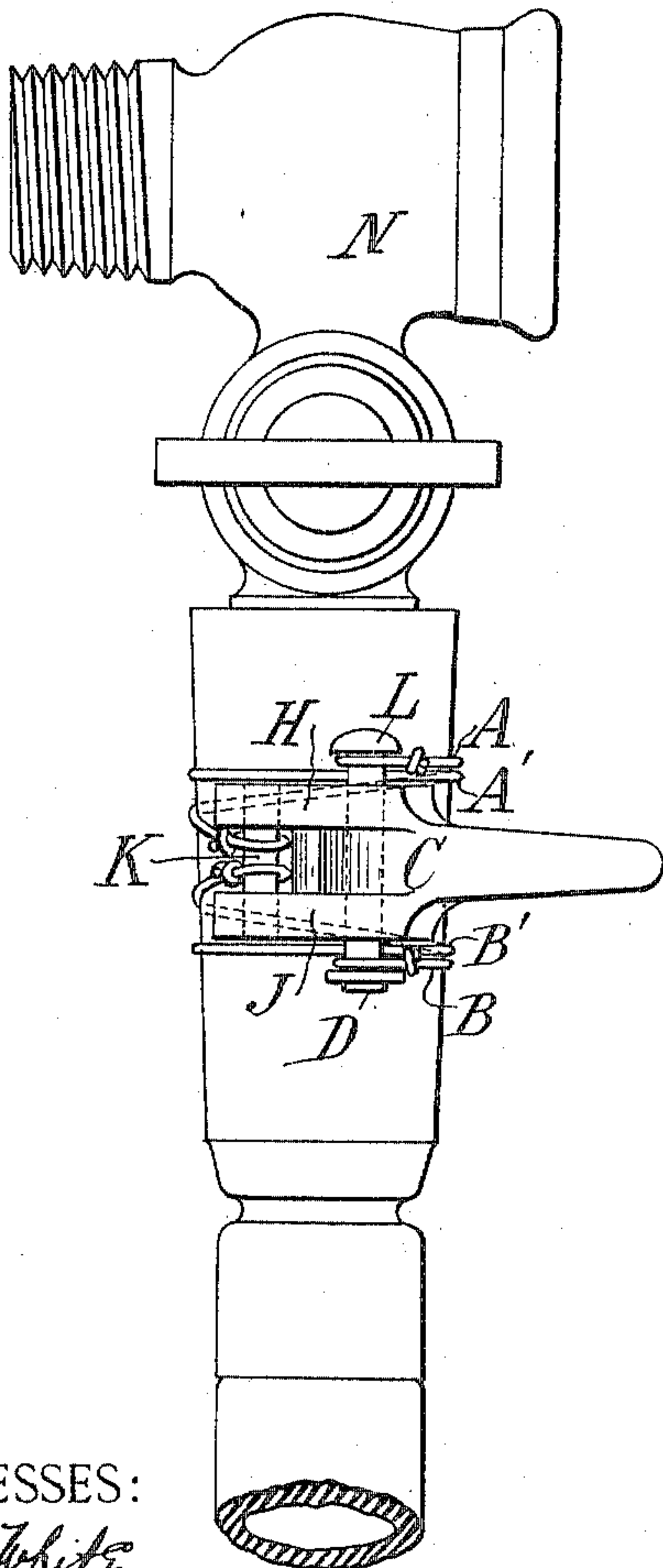
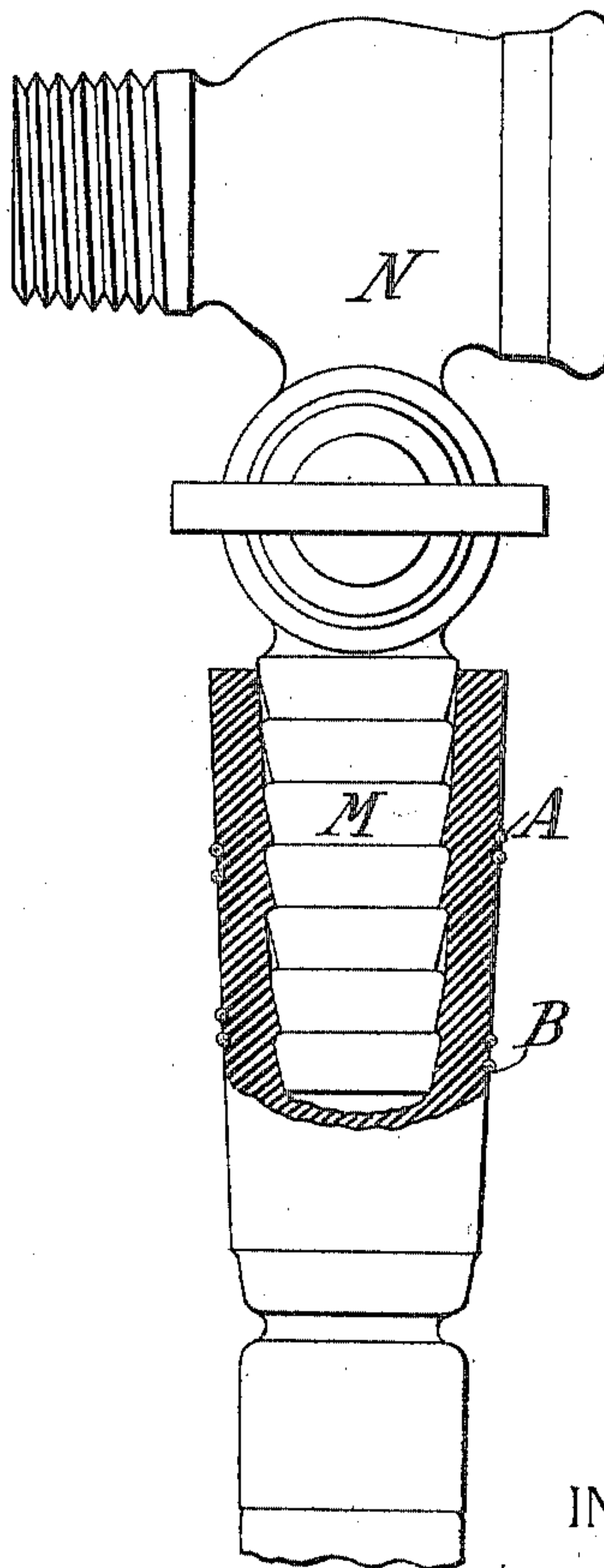


FIG. 4.



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# UNITED STATES PATENT OFFICE.

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## DETACHABLE CLAMP FOR GAS-TUBING OR THE LIKE.

No. 817,285.

Specification of Letters Patent.

Patented April 10, 1906.

Application filed July 8, 1905. Serial No. 268,809.

*To all whom it may concern:*

Be it known that we, THEODORE VOGT, residing at Grand View, in the county of Bergen, and MAX HEBIG, residing at Jersey City Heights, in the county of Hudson, State of New Jersey, citizens of the United States, have invented certain new and useful Improvements in Detachable Clamps for Gas-Tubing or the Like, of which the following is a specification.

This invention aims to provide an improved device for tightly clamping the end of a gas-tubing onto the usual tapered and corrugated nipple of a connection to a stove or other apparatus. The device is of course applicable in other situations.

An embodiment of the invention is illustrated in the accompanying drawings.

Figure 1 is a side elevation of the same in place on a tubing, but loose, so as to permit the removal of the tube. Fig. 2 is a plan of the same. Fig. 3 is a side elevation in the fastened position. Fig. 4 is a sectional plan.

Referring to the embodiment illustrated, the clamping is effected by means of spring-wires A B, the ends of each of which are connected to a lever C at two different points D and E. The lever C is adapted to be inverted, so as to cross the ends in the manner apparent from a comparison of Figs. 1 and 3, thereby tightening the wire and at the same time automatically holding the lever in position. The point E serves as a center of rotation, and the point D is swung around it until past its dead-center, when the wire of course tends to pull it farther around, and thus holds it.

The lever is made in a very convenient shape by having an inner curved face F, which in the fastened position, Fig. 3, lies close around the tubing, and which in the unfastened position, Fig. 1, furnishes a convenient and secure thumb-hold. The tail or handle G is curved reversely to the inner portion, so that in the unclamped position it furnishes a good finger-hold, permitting the tail to be lifted securely and forcibly, while the inner end is held down by the thumb. At the same time the shape of the tail or handle G makes it stand out from the tubing in the clamped position, so as to facilitate getting one's thumb or finger under it to swing it to the unclamped position when it is desired to

remove the tubing from the nipple. The device is therefore well adapted for temporary use, since it is most conveniently and quickly clamped or unclamped.

Each of the wires A and B passes twice around the tubing, thus providing an intermediate convolution A' B', which hugs the tubing closely at all points in its circumference, and thus fills in the gap which might occur at the point where the ends of the wire cross.

In order that both wires shall be most effective on a tapered nipple and that the clamping shall be as tight at one point as at another in the length of the nipple, the wires A and B are made of different lengths corresponding to the taper of the nipple, and each wire is entirely independent of the other.

In order to permit the direct crossing of the ends of the wire, the two ends are fastened to the lever in different planes, and the use of two wires serves to balance the lever and prevent its being slewed around sidewise by reason of the fact that the ends of any one wire lie in different planes. The construction illustrated obtains the desired result very simply. The lever C is provided with a pair of arms H and J, respectively, between which extends a pivotal pin K, to which the inner ends of the two wires are pivotally fastened. A pin L passes through the body of the lever and projects slightly at each end and carries opposite ends of the wires one at each side. Thus the crossing of the ends of the wires to pass the dead-center and hold the lever firmly in the clamped position is very simply effected, and the lever is entirely balanced against sidewise slewing. Now when the lever is swung from the unclamped to the clamped position the arm H swings between the ends of the wire A and the arm J swings between the ends of the wire B.

Fig. 4 shows the tapered corrugated nipple M upon the end of a gas-cock N and the rubber tubing O fitted over the nipple and pressed into the corrugations of the nipple by the wires A and B, so as to prevent withdrawal. Though we have described with great particularity of detail a certain specific embodiment of the invention, yet it is not to be understood therefrom that the invention is limited to the specific embodiment disclosed. Various modifications thereof in de-



tail and in the arrangement and combination of the parts may be made by those skilled in the art without departure from the invention.

What we claim is—

5 1. A device for clamping gas-tubing on a tapered nipple, including in combination a pair of spring-wires A and B, each passing twice around the tubing so as to provide a convolution hugging the tubing closely at all  
10 points in its circumference, and a lever C provided with a pair of arms H and J, and a pivotal pin K between said arms, and a pivotal pin L projecting outside of said arms at a different point, one end of each of said wires being  
15 pivoted directly on the pin K, and one end of each of said wires being pivoted directly on a corresponding end of the pin L, whereby each arm swings freely between the two ends of one of said wires, said lever adapted to be in-  
20 verted to clamp the tubing on the nipple, said pins K and L being a substantial distance outside of the inner face of the lever in the clamped position so as to cross the ends of the wires and thereby tighten them and  
25 automatically hold the lever in position, said lever having an inner curved face F lying close to the tubing in the tightened position and affording a good thumb-hold in the loose position, and said lever having a reversely-  
30 curved tail or handle G for affording a good

finger-hold in the loose position, whereby the lever may be securely grasped and strongly turned in tightening it.

2. A device for clamping gas-tubing on a tapered nipple, including in combination a 35 pair of spring-wires A and B, and a lever C provided with a pair of arms H and J, and a pivotal pin K between said arms, and a pivotal pin L projecting outside of said arms at a different point, one end of each of said 40 wires being pivoted directly on the pin K, and one end of each of said wires being pivoted directly on a corresponding end of the pin L, whereby each arm swings freely between the two ends of one of said wires, said 45 lever adapted to be inverted to clamp the tubing on the nipple, said pins K and L being a substantial distance outside of the inner face of the lever in the clamped position so as to cross the ends of the wires and thereby 50 tighten them and automatically hold the lever in position.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

THEODORE VOGT.  
MAX HEBIG.

Witnesses:

DOMINGO A. USINA,  
THEODORE T. SNELL.