

S. A. BERGH.
 BAND TONGS FOR FORMING TUBE JOINTS.
 APPLICATION FILED DEC. 14, 1908.

949,411.

Patented Feb. 15, 1910.

Fig. 4.

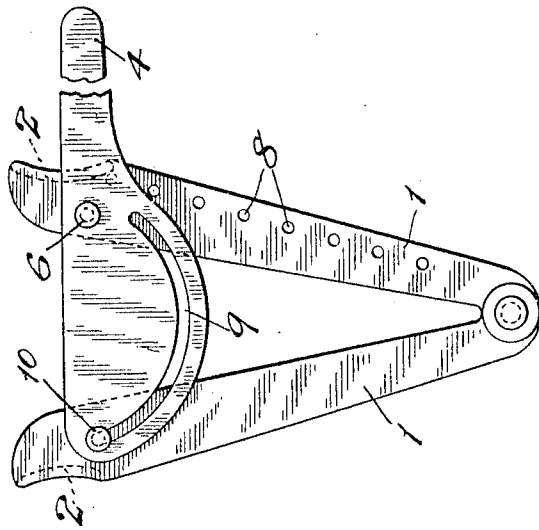


Fig. 3.

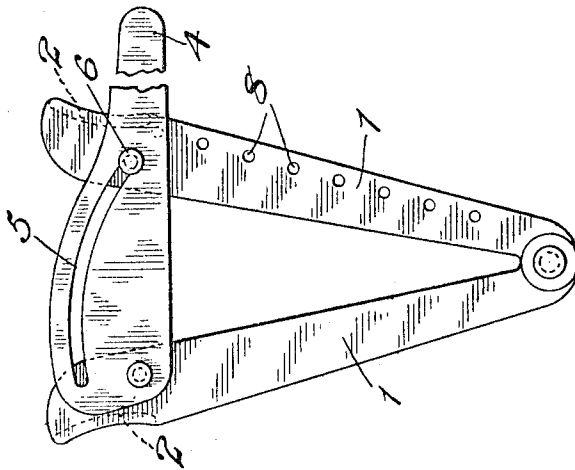


Fig. 2.

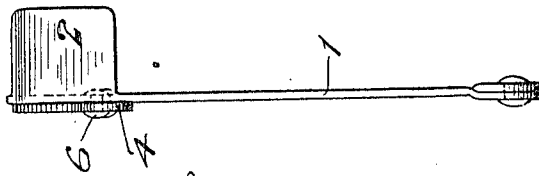
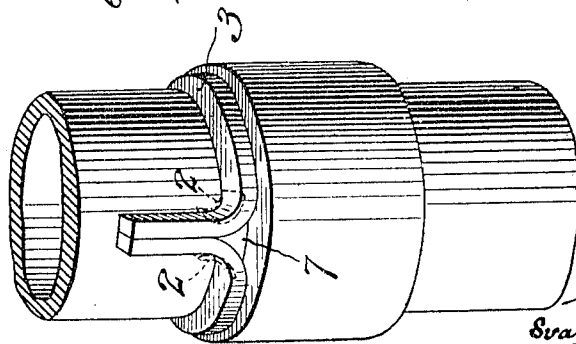


Fig. 1.



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UNITED STATES PATENT OFFICE.

SVANTE ARVID BERGH, OF STOCKHOLM, SWEDEN.

BAND-TONGS FOR FORMING TUBE-JOINTS.

949,411.

Specification of Letters Patent. Patented Feb. 15, 1910.

Application filed December 14, 1908. Serial No. 467,506.

To all whom it may concern:

Be it known that I, SVANTE ARVID BERGH, a subject of the King of Sweden, and resident of Drakensgränd 2, Stockholm, in the Kingdom of Sweden, have invented certain new and useful Improvements in Band-Tongs for Forming Tube-Joints, of which the following is a specification, reference being had therein to the accompanying drawings.

In tightening or forming tube joints in conduits especially in laying down water- and gas-conduits molten metal, lead or the like, is generally cast into the space between the ends of the tubes, inserted one in the other, the tightening operation being then completed by calking. In order to prevent the metal cast into said space from escaping from the same soft clay is generally applied around the tube, near the joint. Owing to the fact that the clay easily bursts and, especially during the cold time of the year, is not sufficiently plastic for the purpose, a band of asbestos or other suitable material is preferably used nowadays which is put around the tube close to the end of the outer tube and is tightened by some connecting device embracing its ends located close to each other. For the said closing or the necessary tightening of the band a suitable tool is necessary so that the application of the band can be effected in a reliable and easy manner and in few manipulations. There has not been such a tool up to the present time and this invention relates to such a tool somewhat in the shape of a pair of tongs.

Figure 1 in the accompanying drawings shows the tube and the band mounted around the same near the joint. Figs. 2 and 3 show the tongs viewed from two different sides. Fig. 4 shows a modification.

The tongs, which may consist of single or two arm levers, are provided on the comparatively long arms or shanks 1, 1 with side jaws or projections 2, 2, the inner fluted sides of which are rounded and adapted to embrace the ends of the band at the point where the ends are bent toward each other, as shown in Fig. 1 in which the band is designated 3 and the said projections indicated by dotted lines. To one of the shanks, on the opposite side with relation to the

jaws 2, 2 a lever arm 4 is pivoted, which crosses the other shank and is provided with a slot 5, into which projects a pin 6 on the last mentioned shank. The said slot is curved and eccentric with relation to the pivot of the lever in such manner, that the shanks are forced toward each other as the lever arm is swung backward. If the ends of the band are embraced by the tongs, as shown in Fig. 1, the band will be tightened around the tube and its ends forced together, when the shanks are acted upon by the lever arm, so that only a small space remains between the ends of the band and the end of the tube. The metal is poured into the said space. The shape of the slot 5 is so adapted, that the lever arm after the tightening operation remains automatically in position. For safety, however, a series of holes 8 is provided in one of the shanks 1, in which a pin is inserted for holding the lever arm. Owing to the fact that the jaws project laterally the tongs will bear firmly against the side of the tube, while the lever arm, which serves also as a handle for the tongs, is easily accessible from the top side. Consequently, the tongs can easily be manipulated and the band sufficiently tightened. The shape of the latter in cross section may be either square with the lower edge rounded, or circular or elliptical, the shape of the jaw 2 on its inner side being accommodated to the shape of the band.

The modification shown in Fig. 4 consists in the lever being pivoted at 6 to the shank of the tongs, which the lever crosses, the lever being consequently two-armed, and in the lever being provided with a slot 9, engaging a pin 10, fixed in the opposite, other shank 1 of the tongs. The mode of action is the same as stated above and is easily comprehended without any explanation.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is:

Means for drawing together and holding the ends of bands comprising tongs provided at the free swinging ends of the members with curved gripping jaws offset laterally from the members in planes substantially at right angles to the plane in which the members swing and a lever for oper-

ating the swinging members toward and
away from each other, said lever being lo-
cated on the side of the tongs opposite that
from which the gripping jaws project and
5 being pivoted to one member and provided
with a curved slot through which it is con-
nected with the opposite member by a pin.

In witness whereof, I have hereunto
signed my name in the presence of two sub-
scribing witnesses.

SVANTE ARVID BERGH.

Witnesses:

CARL FRIBERG,
HJALMAR ZETTERSTRÖM.