J. J. KERRIGAN.

BOILER TUBE CRIMPER.

APPLICATION FILED APR. 30, 1912.

1,042,121.

Patented Oct. 22, 1912.

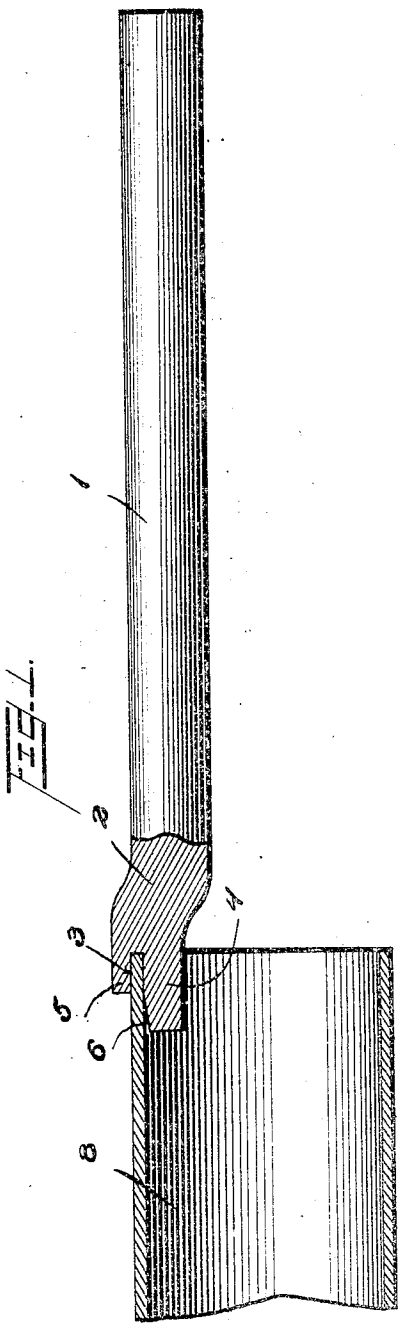

Fig. 1.

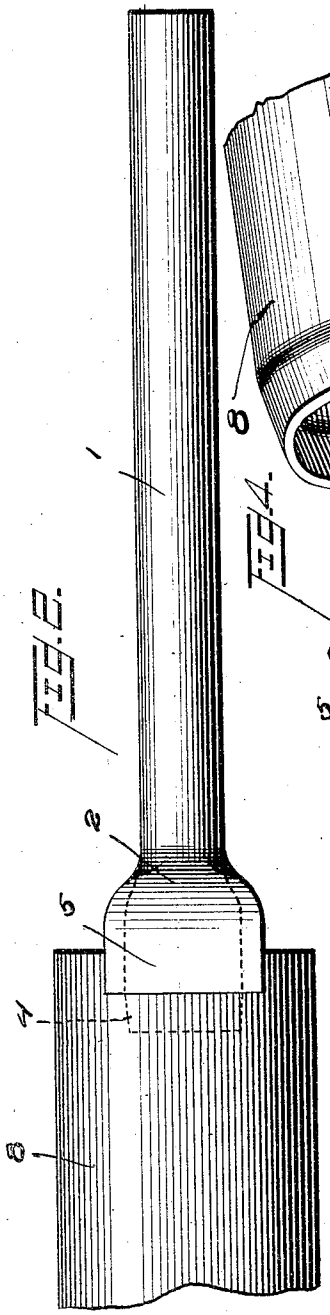

Fig. 2.

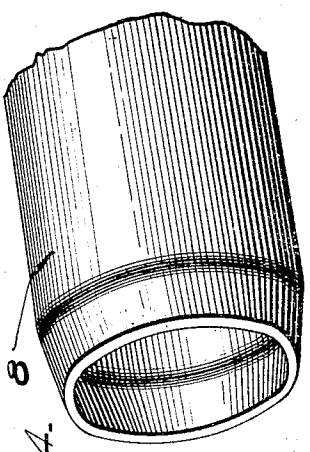

Fig. 4.

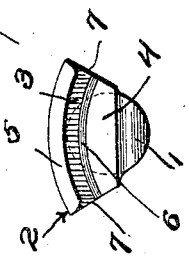

Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

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BOILER-TUBE CRIMPER.

1,042,121. Specification of Letters Patent. Patented Oct. 22, 1912.

Application filed April 30, 1912. Serial No. 694,153.

To all whom it may concern:

Be it known that I, JOHN J. KERRIGAN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Boiler-Tube Crimpers, of which the following is a specification.

My invention relates to improvements in boiler tube crimpers and has for an object to provide a device of this character which will crimp the ends of boiler tubes and allow the same to be removed from the head, or the head from the tubes, without destroying the tubes.

Heretofore when a tube or head became defective or for some other reason it was desired to remove the same from the boiler, it was necessary to cut the tube longitudinally and then bend the ends of the tube inwardly, thereby destroying the tube. With my invention I provide a lever which simply bends the ends of the tube inwardly without having to cut the same, thus allowing the tube to be used over again.

A further object is to provide a device of this character which is simple and cheap to manufacture, yet will efficiently do the work for which it is intended.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1, is a view partly in section and partly in elevation showing my improved device ready to crimp the wall of a tube. Fig. 2, is a plan view of Fig. 1. Fig. 3, is an end view of the device removed, and Fig. 4 is a fragmentary perspective view of the tube after it has been crimped.

My improved device is formed from a single piece of metal and comprises a handle 1 and an enlarged head 2. The head 2 has a curved groove 3 therein in which the tube 8 is positioned and divides the head into an outer and an inner jaw. The inner jaw 4 is longer than the outer jaw 5 and is beveled from its end to a point directly below the end of the outer jaw 5, forming a fulcrum 6. This insures the end of the tube being bent uniformly throughout its circumference and compels the metal of the tube between the outer jaw and the inner jaw to bend at the fulcrum point 6. The edges of the head 2 are beveled inwardly from their outer to their inner edges as shown at 7, thereby making the jaw 5 of greater width than the jaw 4.

In operation, the tube is first heated and then my improved device is placed thereon with the end of the tube inserted in the groove 3 between the jaws 4 and 5 as shown in Fig. 1. The handle 1 is then moved upon the fulcrum 6 and this movement will cause the tube to bend at a point where the end of jaw 4 comes in contact with the wall of the tube. After the tube has been crimped at one point, the device is moved farther around on the tube and the operation repeated. When the entire circumference of the tube has been so treated, it will have the appearance shown in Fig. 4, and the tube may easily be removed from the boiler. When all of the tubes are thus crimped, the head may be removed.

Various slight changes might be made in the general form and arrangement of parts described without departing from my invention, and hence I do not limit myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

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

1. A device of the character described, comprising a handle, and a head thereon, said head having a curved groove therein, dividing the said head into an inner and an outer jaw, said inner jaw longer than the outer jaw and beveled from its end to a point directly below the end of the outer jaw, substantially as described.

2. A device of the character described,

comprising parallel tube gripping fixed jaws curved transversely, the inner jaw longer than the outer jaw and beveled at the end forming a fulcrum point below the outer end of the outer jaw, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN J. KERRIGAN.

Witnesses:
WM. F. OBERHUBER,
CHAS. E. POTTS.