

G. H. CARGIN.
ADJUSTABLE BRAZING CLAMP.
APPLICATION FILED NOV. 12, 1912.

1,084,130.

Patented Jan. 13, 1914.

Fig. 1.

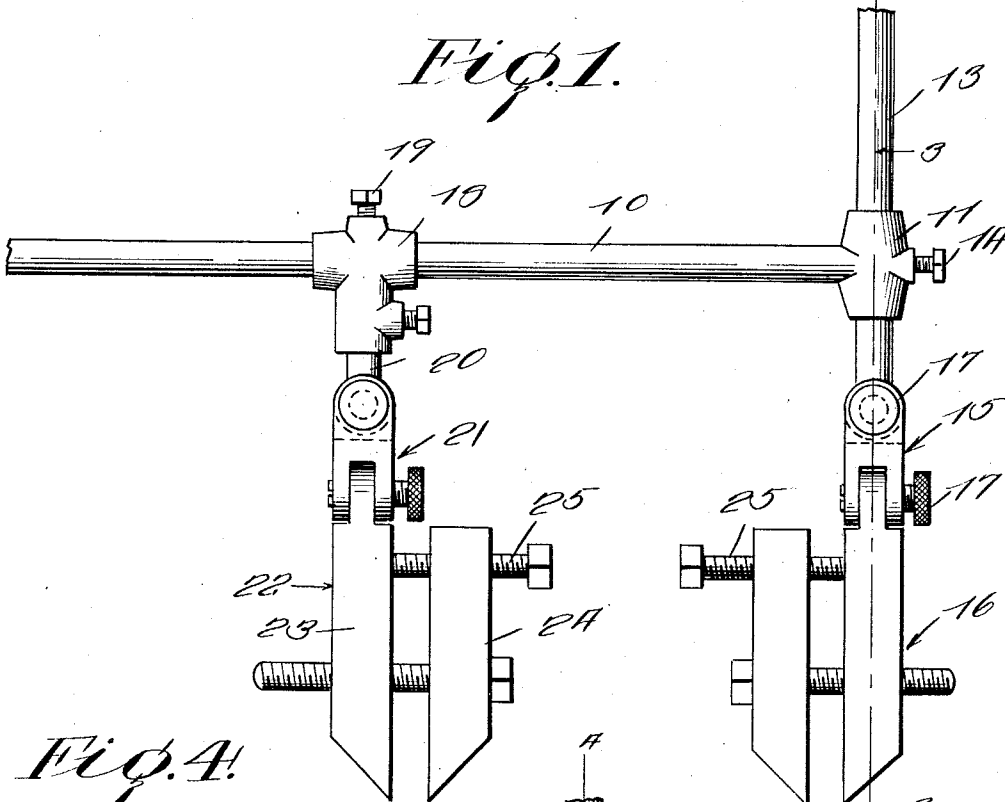
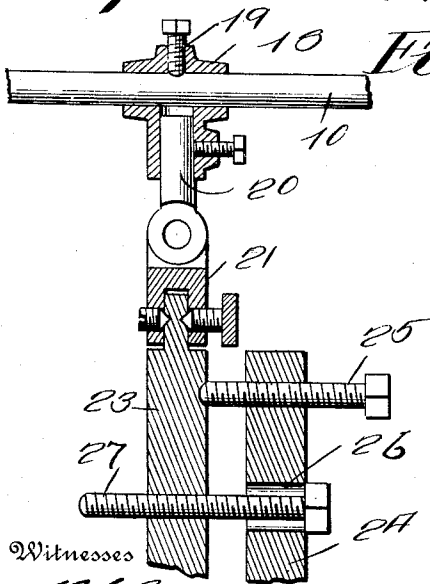


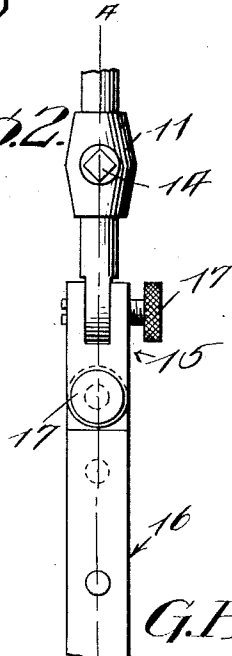
Fig. 4.



Witnesses

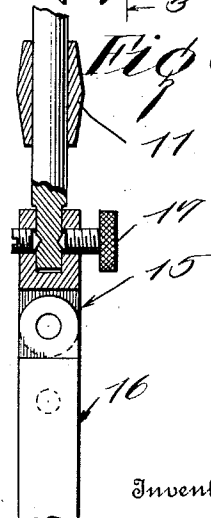
B. H. Bram
F. A. Patchiff

Fig. 2.



By *A*

Fig. 3.



Inventor

G. H. Cargin

Thomas C. Chandler

Attorneys

UNITED STATES PATENT OFFICE.

GEORGE H. CARGIN, OF MARCUS, IOWA.

ADJUSTABLE BRAZING-CLAMP.

1,084,130.

Specification of Letters Patent.

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Application filed November 12, 1912. Serial No. 730,951.

To all whom it may concern:

Be it known that I, GEORGE H. CARGIN, a citizen of the United States, residing at Marcus, in the county of Cherokee, State of Iowa, have invented certain new and useful Improvements in Adjustable Brazing-Clamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in adjustable clamps, especially that type which is designed to hold articles in relation, for brazing or other purposes. With the advent of the practice of mending broken castings by brazing the same, there has arisen a pressing need for clamps for holding the parts of the casting in relation so that they can be placed in a brazing furnace.

The object of this invention is to provide an adjustable clamp of the above mentioned type, which will adjustably hold two articles, such as castings, in relation.

A further object of this invention lies in the provision of means whereby tapered members as well as members having parallel sides may be efficiently held.

With these and other objects and advantages in view, the invention resides in the novel combination, arrangement and formation of parts more fully described in the following specification and particularly pointed out in the appended claim.

Reference is had to the accompanying drawings wherein similar characters of reference designate corresponding parts throughout the several views and in which:

Figure 1 is a side elevation of the clamp. Fig. 2 is an end view of the same. Fig. 3 is a sectional view on the line 3—3 of Fig. 1. Fig. 4 is a sectional view on the line 4—4 of Fig. 2.

Referring to the accompanying drawings, there is shown a preferred form of clamp which includes the main rod 10. This rod is of considerable length, having one end as a handle which is grasped to place the other end containing the clamping members into a brazing furnace. The end of the rod is provided with an enlarged head 11 having a bore for receiving one of the clamping members. This clamping member comprises a rod 13 which extends through the bore and is locked in the bore by means of a thumb

screw 14 carried by the head. The lower end of the rod is reduced for connection with the upper end of the universal joint 15. A clamp 16 is provided which includes the main block having a reduced upper extension for engagement with the universal joint. Thumb screws 17 are carried by the universal joint for locking the clamp and the rod 13 in fixed position.

This invention includes another clamping member which is suspended from the rod 10 by a T 18 which is slidable thereon. A thumb screw 19 is threaded into the T and locks same against movement on the rod 10. The depending rod of the T has slidable in the bore thereof one end of the rod 20 which supports the other clamping member. This rod has secured to its lower end a universal joint 21 and clamp 22. A thumb screw is threaded into the lower depending arm of the T and serves to lock the rod 20 within said arm.

It will be readily understood that the rods 13 and 20 have rotative as well as slidable connection within the respective pairs of their retaining members, also that the T 18 can rotate as well as slide upon the rod 10.

Each of the clamps 16 and 22 is formed in a manner similar to the ordinary clamp. They comprise main clamping jaws 23 and loose clamping jaws 24. The loose jaws 24 are threaded at their upper ends for receiving the bolts 25 which press against the main jaws in the usual manner. The lower ends of the loose jaws are provided with openings 26 for receiving the usual lower bolts 27 which are threaded into the main jaws 23. The openings 26 extend longitudinally of the jaw and thus allow the head of the bolt to move up and down. It will thus be seen that clamps are provided which will firmly hold tapered pieces.

When two articles, such as the pieces of a broken casting, are desired to be brazed, they are placed in the clamps 16 and 22. The positions of these clamps are then adjusted so that the parts which are to be brazed are held together. They are then put in the brazing furnace.

What is claimed is:

In a device of the kind described, a bar provided with a socket at one end, a sleeve slidably and rotatably mounted on said bar, means to lock the sleeve in adjusted position on the bar, a socket on said sleeve, rods slidably and rotatably mounted in said sockets,

locking means for each of said rods to secure the same in adjusted position, a link pivoted to the end of each rod, locking means to secure said links in adjusted position relative
5 to said rods or to permit free movement thereof, clamps each pivoted to a respective link, the pivotal axes of the clamps being at right angles to the pivotal axes of the links and rods, and means to lock said clamps in

adjusted position relative to the links or to 10 permit free movement thereof about the pivotal connection to said links.

In testimony whereof, I affix my signature, in the presence of two witnesses.

GEORGE H. CARGIN.

Witnesses:

L. H. TALCOTT,
S. LONDERGAN.