

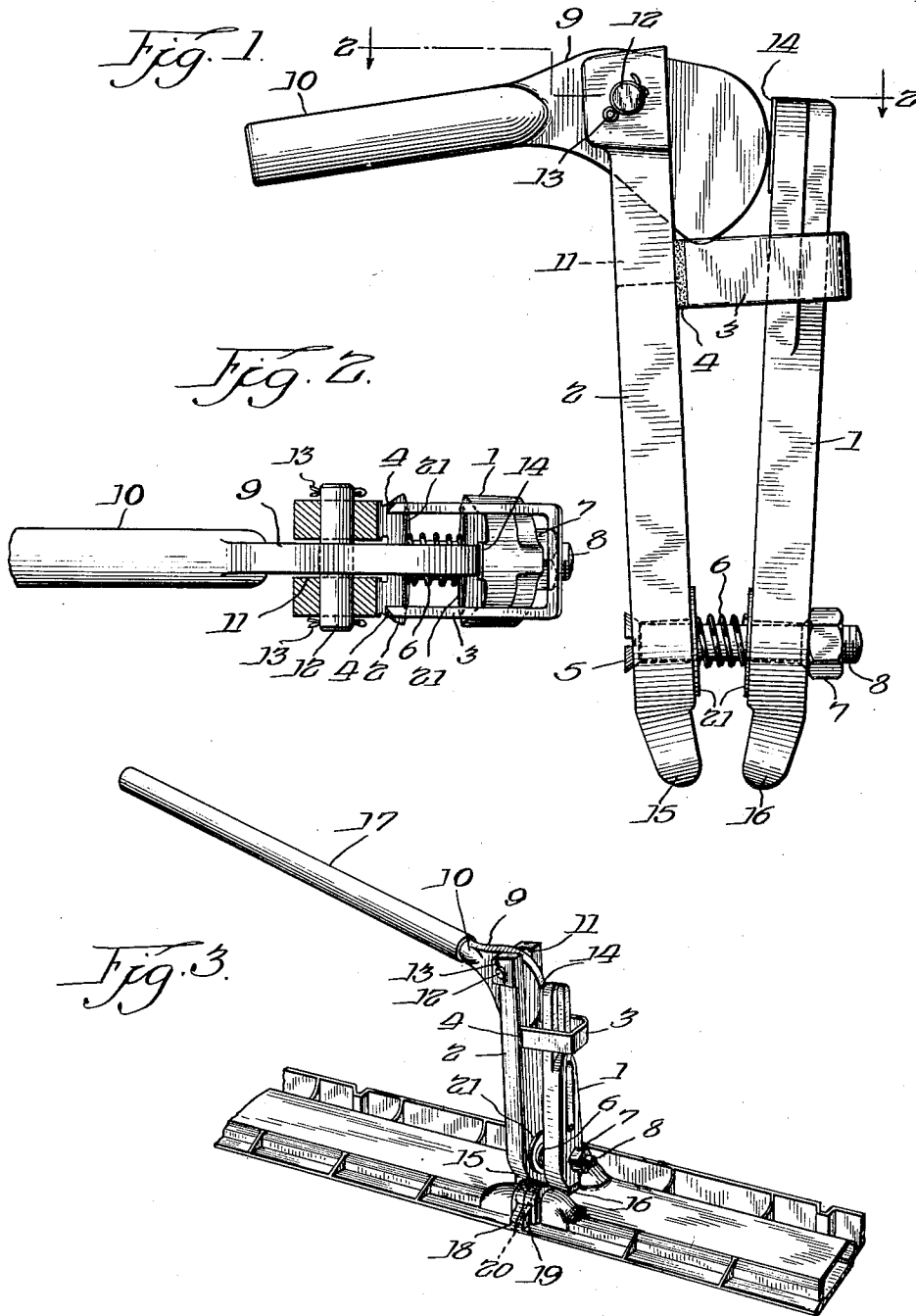
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TOOL FOR ASSEMBLING RADIATOR SECTIONS OR THE LIKE

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TOOL FOR ASSEMBLING RADIATOR
SECTIONS OR THE LIKERobert L. Calbeck, Chicago, Ill., assignor to Crane
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1 Claim. (Cl. 29—238)

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This invention relates broadly to an assembly tool and more particularly it is concerned with a cam type of tool for use especially in assembling baseboard radiant panels and other forms of heating radiator sections normally employing push nipples for the purpose of aligning and making a tight joint therebetween. As will hereinafter be explained in greater detail, the novel tool of this invention is a combination lever and cam assembly so constructed as to develop a high mechanical force for drawing up baseboard panel sections and the like for final fluid tight assembly.

Heretofore it has been a difficult task to assemble baseboard radiation quickly and effectively because the previous methods employed have been ineffective in producing a uniform tight joint throughout.

It is therefore, one of the more important objects of this invention to provide a relatively simple durable tool, cheap to manufacture and capable of being applied without any special skill on the part of the mechanic in making the baseboard section assembly referred to. It should be understood that in making the latter sectional assembly a strong evenly applied force, as distinguished from any hammering or other form of impact, is relied upon in making a tight joint between the usual tapered push nipples employed and the adjoining radiator sections.

Other important objects and advantages will become more readily apparent upon proceeding with the specification in which:

Fig. 1 is a side exterior assembly view of the tool constituting this invention.

Fig. 2 is a section taken on the line 2—2 of Fig. 1.

Fig. 3 is a perspective view showing the preferred method of application of the novel tool in assembling baseboard radiator sections.

Similar reference numerals are used throughout the several views.

Referring now to Fig. 1, the tool consists essentially of a handle jaw 1 and a plain jaw 2, the handle jaw having a U-shaped (in plan) guide member 3 weldably or otherwise integrally attached to it as indicated at 4. It should be noted that in addition to holding the plain jaw 1 and the handle jaw 2 together, the cap screw 5 having a spring 6 interposed between the jaws as shown and having a nut 7 to complete the assembly, is provided with the threads 8 thereby allowing for suitable adjustability between the jaws for reasons hereinafter explained in greater detail.

At the opposite end of the plain jaw 1 a cam 9 is pivotally journaled within the recess 11 (see

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Fig. 2) of the bifurcated end and mounted upon the rod 12 for such movement, the cotter pins 13 being used to prevent accidental removal of the rod 12. As illustrated, the transverse working edge of the cam 9 normally bears against the pad 14 of the plain jaw 1 and it will therefore be apparent that upon swivelable movement of the cam 9 upon the pivot rod 12 the ends 15 and 16 of the jaws 2 and 1 respectively are either drawn together or else spread apart depending upon the direction of rotation of the cam.

As illustrated more clearly in Fig. 3, the tool is shown applied to a pair of assembled baseboard sections. In this view a length of pipe 17 has been slipped over the short extension 10 of the jaw 2 to provide greater leverage. Movement downwardly of the pipe handle 17 causes the end points 15 and 16 to be pulled together and in so doing the end flange sections 18 and 19 are drawn together uniformly on the tapered push nipples 20 shown in dotted lines, thus easily effecting a pressure tight joint with a minimum of effort.

It should be noted that if the thickness of the adjoining flange portions 18 and 19 of the baseboard sections are increased it is of course simple to arrange for such adjustability by merely increasing the effective length of the cap screw 5 by moving the nut 7 outwardly along the threads 8. Obviously if the flanges 18 and 19 are reduced in thickness then the effective length of the cap screw 5 may be decreased by moving the nut 7 inwardly.

It should be clear that after the tapered push nipples 20 are placed in position in the respective radiator sections the sections are preferably but not necessarily drawn together lightly and evenly by hand. The ends 16 and 17 of the jaws are then placed in the recesses back of the flanges 18 and 19 with the cam handle 17 in the upward or near vertical position. The adjoining sections are then drawn together tightly in final assembly by simply pushing down on the cam handle. It has been found that apparently because of the uniformity of the force applied, breakage of flanges 18 and 19 of the sections has been reduced to a minimum and the radiator sections have been assembled more quickly than heretofore.

It should of course be understood also that while a single embodiment has been shown merely for purposes of illustration, this invention is capable of being produced in several different forms. It is the desire therefore to be limited only by the scope of the appended claim interpreted in light of the prior art.

I claim:

An assembly tool for cooperation with radiator sections positioned end to end to draw the latter sections together, the said tool including a pair of resiliently mounted oppositely disposed jaws pivotally movable in substantially a single plane and having inwardly inclined end portions for engagement with end limits of the radiator sections, the ends of the jaws removed from the inwardly inclined jaw portions being arranged relatively loosely to permit said pivotal movement of the jaws, substantially parallel banded guide means enclosing and slidably engaging oppositely disposed edges of one of the jaws, means for effecting aligned pivotal movement thereof, said latter means including an interposed cam on one of the jaws positioned beyond the said guide means, the said cam being pivotally supported within a relieved portion of the said jaw and upon prede-

terminated movement thereof being receivable within said guide means to bear against the other jaw to effect said pivotal movement of opposite ends of the said jaws toward each other thereby to draw the radiator sections together.

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