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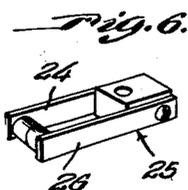
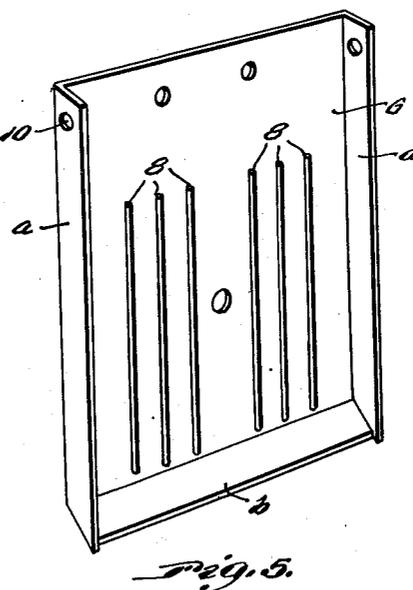
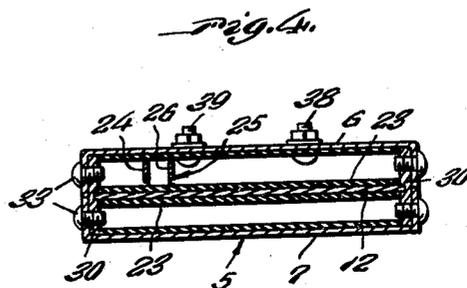
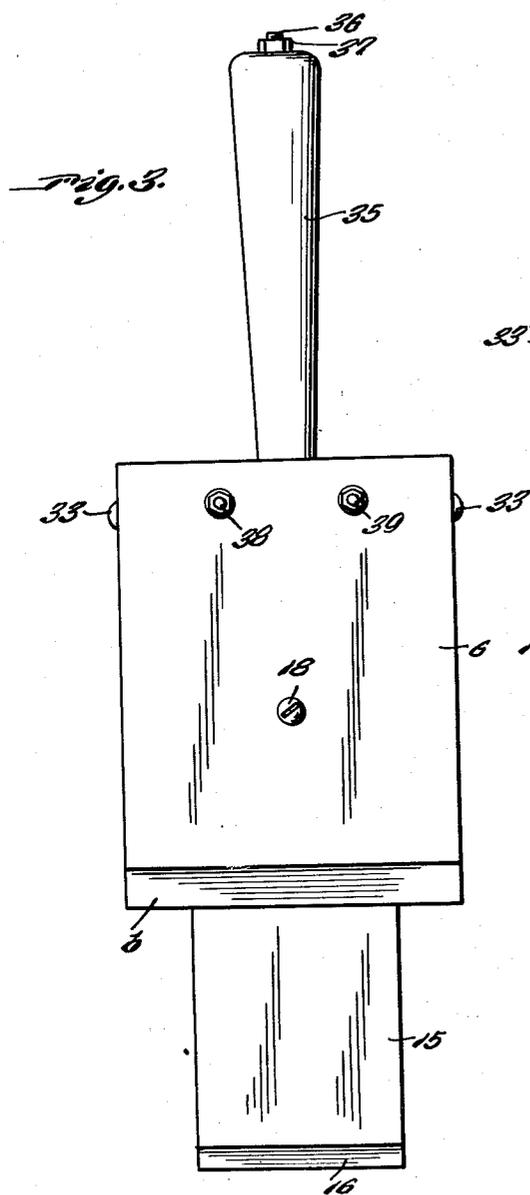
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2,297,103

ELECTRICALLY HEATED TOOL

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3 Sheets—Sheet 2



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# UNITED STATES PATENT OFFICE

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## ELECTRICALLY HEATED TOOL

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Application February 26, 1942, Serial No. 432,522

### 1 Claim. (Cl. 219—21)

This invention relates to new and useful improvements in tools such as are used in removing putty and sealing materials from various structures, the principal object of the invention being to provide an electrically heated tool which will greatly assist in removing the material being worked.

Another important object of the invention is to provide a tool of the character stated which can be easily demounted for the purpose of repair or replacement of parts.

Other objects and advantages of the invention will become apparent to the reader of the following description.

In the drawings:

Figure 1 represents a longitudinal sectional view through the box part of the tool.

Figure 2 is a longitudinal sectional view taken substantially on the line 2—2 of Figure 1.

Figure 3 is a side elevational view of the tool.

Figure 4 is a cross section on the line 4—4 of Figure 1.

Figure 5 is a perspective view of one section of the box.

Figure 6 is a perspective view of the thermal switch.

Figure 7 is an edge elevational view of the tool.

Figure 8 is a fragmentary perspective and exploded view showing the handle and blade structures.

Figure 9 is a diagrammatic view showing the electrical devices electrically connected.

Referring to the drawings wherein like numerals designate like parts, it can be seen that the tool includes a box-like structure generally referred to by numeral 5 and made up of side sections 6, 7. These sections have side flanges *a*, *a* and a sloping bottom wall *b*. Each of these sections 6, 7 has internal ribs 8 for the purpose of increasing the circulation of air just inside of the walls of said sections 6, 7.

Elongated plates 9 are provided within the box-like structure 5 and at opposite sides thereof and over these plates 9 overlap the flanges *a* of the box sections 6, 7. As suggested in Figures 4 and 7, the flanges being formed with openings 10 have machine screws 11 disposed therethrough and into threaded openings of the plates 9.

An elongated blade 12 has its upper corner portions cut away as at 13 to define shoulders 14, while its lower end is reduced to provide a knife portion 15 having a cutting edge 16.

The intermediate portion of this blade 12 has a bolt opening 17 for receiving a bolt 18 which extends through the sections 6, 7 to hold the box

structure 5 together. The central portion of the blade 12 also has an opening 19 so that a connecting wire or jumper from one heating unit 20 can extend to another heating unit 21 located at the opposite side of the blade 12.

Mica plates or plates of some other insulating material and denoted by numeral 22 are interposed between the outermost sides of the heating units 20, 21 and the sections 6, 7, while plates of aluminum or some other high heat conductive material and denoted by numeral 23 are interposed between the units 20, 21 and the blade 12, so as to increase the conductivity of heat from the heating unit to the blade 12 as much as possible.

As can be seen in Figure 9, current flows into one side 24 of a thermal switch generally referred to by numeral 25 and passes by way of the other side 26 by way of jumpers 27, 28 to the heating unit 20, 21. A conductor 29 forms a return to the source of current, of course, exteriorly of the tool.

Numeral 30 denotes a U-shaped head piece for the box structure 5, the interior of which is formed with a groove 31 extending down the leg portion thereof for receiving the upper edge portion of the blade 12.

The leg portions of the head member 30 are formed with threaded openings 32 for receiving machine screws 33 which are disposed through openings in the flanges *a* of the sections 6, 7.

A handle 35 having a bore therethrough is provided for the head 30, a bolt or tie rod 36 extending from the head 30 and longitudinally through the handle 35, this bolt being provided with a nut 37 to hold the handle 35 in firm position.

Binding posts 38, 39 equipped with nuts, are provided on section 6 of the box structure 5, one being connected to the member 24 of the switch 25, while the other has the return wire (see Figure 9) connected thereto.

Obviously, as is suggested in Figure 5, the lower wall *b* of each section 6, 7 is reduced so as to permit the knife portion 15 of the blade 12 to project downwardly therethrough.

Obviously, this tool when heated will assist materially in loosening various sealing materials and facilitates the work of removing such material quickly.

While the foregoing specification sets forth the invention in specific terms it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from

the spirit and scope of the invention as claimed hereinafter.

Having described the invention, what is claimed as new is:

A tool of the character described comprising a box-like structure, a blade protruding from one end of the box-like structure, heating means in the box for supplying heat to the blade, a head

fitting in the other end of said structure and interlocking with said blade to hold the same rigid at one end thereof, a handle extending from said head, the inner side of the box-like structure being provided with corrugations to promote circulation of air.

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