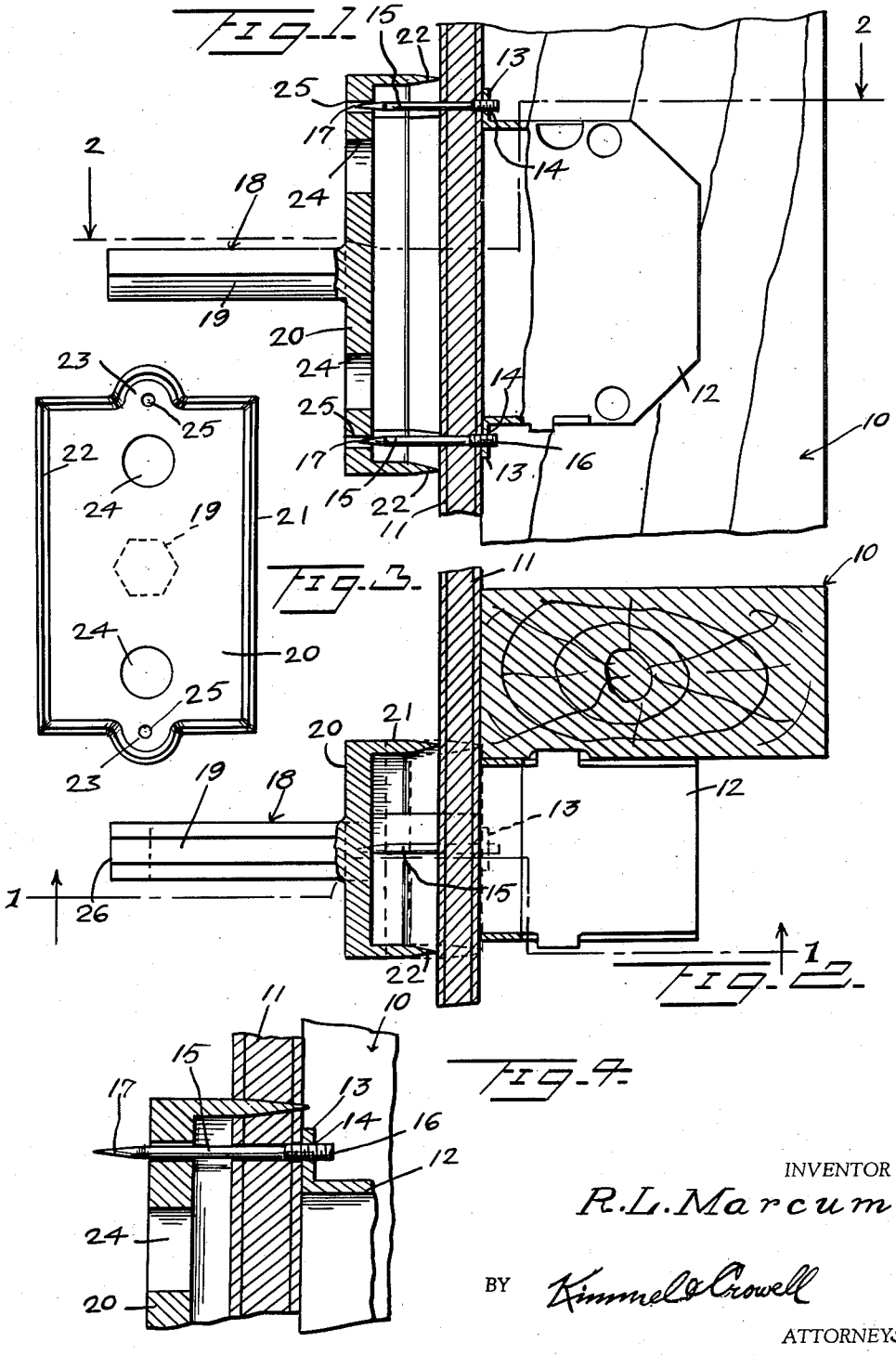
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WALLBOARD CUTTER FOR OUTLET BOXES

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WALLBOARD CUTTER FOR OUTLET BOXES

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3 Claims. (Cl. 164—94)

The present invention relates to wallboard cutters for outlet boxes, and more particularly to devices of the class described which are adapted to cut an opening through the wallboard over an outlet box after the outlet box and wallboard have been installed.

The primary object of the invention is to provide a wallboard cutter which cooperates with aligning elements on an installed outlet box to cut an opening for the outlet box after the wallboard has been installed thereover.

Another object of the invention is to provide a wallboard cutting device of the class described above in which the aligning elements are removable after the operation has been completed.

A further object of the invention is to provide a wallboard cutter of the class described above which is inexpensive to manufacture and easy to use.

Other objects and advantages will become apparent in the following specification when considered in the light of the attached drawing, in which:

Figure 1 is a vertical cross section of the invention taken along the line 1—1 of Figure 2, looking in the direction of the arrows;

Figure 2 is a horizontal section taken substantially along the line 2—2 of Figure 1, looking in the direction of the arrows;

Figure 3 is a plan view of the cutter, and

Figure 4 is an enlarged fragmentary vertical cross section similar to Figure 1 with the cutter shown in position with the cut complete.

In the construction of buildings, the normal method followed is for the framework of the partitions to be erected, following which the electricians run their cables and install their outlet boxes. Wallboard, sometimes known as dry wall, is then carefully measured and openings are cut to correspond to the installed outlet boxes. The wallboard is then nailed in place to the partitioned frame with the openings in the wallboard aligned with the outlet boxes. In the case of a skilled worker the measuring and the cutting of the holes for the outlet boxes is time-consuming and costly, and in the case of unskilled workers wallboard is often ruined due to mismeasurements and faulty cutting. The purpose of this invention is to provide means for cutting the wallboard after it is positioned and secured to the framework without the necessity of taking measurements.

Referring now to the drawings in detail wherein like reference numerals indicate like parts throughout the several figures, the reference numeral 10 indicates a partition stud usually known as a two-by-four which extends vertically in a partition wall (not shown) and is adapted to support wallboard 11 on one face thereof and an outlet box 12 on another face thereof. The outlet box 12 is of standard construction and provided with ears 13 extending above and below the box 12 at the forward edge thereof. The ears 13 are provided with threaded bores 14 normally used to secure the fixture (not shown) within the outlet box 12. This fixture is of course installed after the opening is cut in the wallboard. Aligning pins 15 are provided with screw-threaded end portions 16 at one end which are adapted to be threaded into the threaded bores 14 of the ears 13 so that the pins 15 will extend outwardly therefrom. The ends of the pins 15 opposite the threads 16 are sharpened, as at 17, as best illustrated in Figure 4.

A cutting tool, generally indicated at 18, consists of a shank or handle portion 19 having a base plate 20 secured perpendicularly thereto. An annular flange 21 extends perpendicularly to the base 20 and has its free edge 22 sharpened to provide a cutting edge. The upper and lower edges of the base plate 20 are centrally arcuately offset at 23 to permit access to the ears 13 when the wallboard 11 is cut away. The base plate 20 is provided with openings 24 which provide an access into the tool 18 to permit the cut out wallboard portion to be forced from the tool 18.

In the use and operation of the invention, each outlet box 12 is provided with aligning pins 15 and the wallboard 11 is forced over the pins 15 into contact with the stud 10, the pins 15 naturally piercing the wallboard 11 and extending beyond the outer surface thereof. The tool 18 is positioned over the pins 15 with bores 25 engaging over the pins 15. The cutter 18 is then in alignment with the outlet box 12 and is adapted to cut the wallboard 11 so as to make an aperture therethrough somewhat larger than the outlet box 12. The tool 18 is caused to pierce the wallboard 11 by hammering on the end 26 of the shank 19. After the wallboard is cut over the outlet box 12, it is removed from between the flanges 21 of the tool 18 by means of the openings 24, described above. Obviously any tool small enough to go through the opening 24 may be used to push the cut wallboard 11 out of the tool 18.

While the present invention has been shown as related to a standard "Gem" box 12 wherein the box has a generally rectangular cross section, it should be understood that it is contemplated that the tool 18 can be constructed to cooperate with outlet boxes having other shapes such as rectangularly elongated, hexagonal, octagonal, etc.

Having thus described the preferred embodiment of the invention, it should be understood that numerous modifications and structural adaptations may be resorted to without departing from the scope of the appended claims.

What is claimed is:

1. A wallboard cutter comprising in combination an outlet box, sharpened aligning pins secured to said outlet box and extending outwardly therefrom, said pins being adapted to pierce wallboard brought into contact with said outlet box, a cutter, means on said cutter cooperating with said aligning pins for aligning said cutter with said outlet box, and a single annular cutter blade on said cutter adapted for cutting an aperture in said wallboard overlying said outlet box.

2. A device as claimed in claim 1, wherein said cutter comprises a shank, a base plate extending perpendicular to said shank, and an annular flange on said base plate having a sharpened edge for cutting said wallboard.

3. A device as claimed in claim 1, wherein said aligning pins are detachably secured to said outlet box.

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