

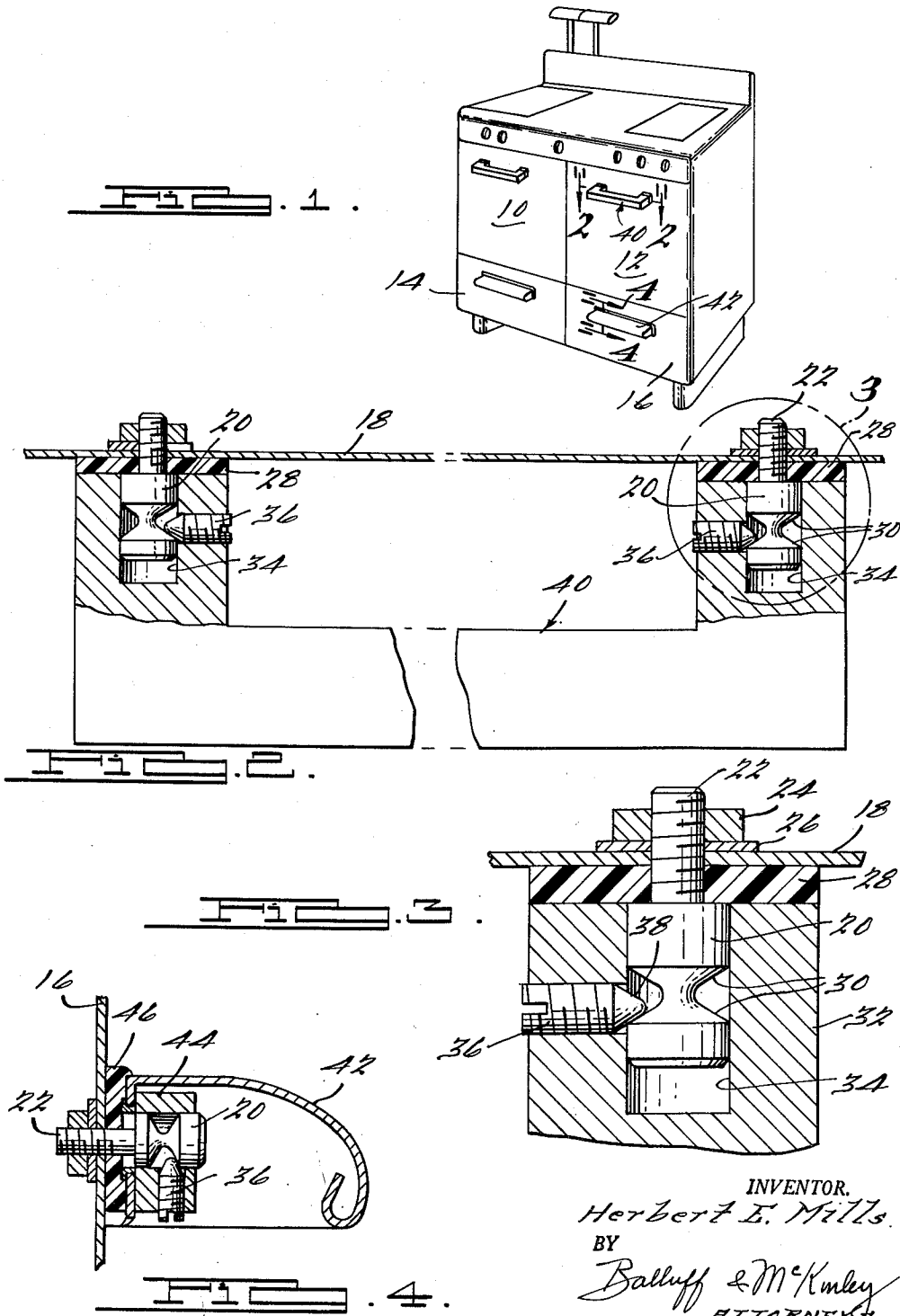
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REMOVABLE HANDLE ASSEMBLY FOR STOVE DOORS

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REMOVABLE HANDLE ASSEMBLY FOR STOVE DOORS

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This invention relates to removable handle assemblies for stove doors.

It is the practice in shipping stoves to crate the same with the door handles mounted in their normal position. Because of the extent to which such handles project, this requires the use of shipping crates in which there is a considerable amount of wasted space. In addition, the handles frequently are subjected to pressure while the stove is in transit, and this often results in damage to the handle or the porcelain door panel upon which the handle is mounted. The present invention contemplates a removable handle assembly for stove doors which makes it possible to ship the stove without the handles, thus eliminating the objections above noted. The removable handle assembly is of such a nature that the handles may readily be installed by the dealer from the front or outside of the door and without taking the door apart.

A principal object of the invention therefore is to provide a new and improved handle assembly for stove doors.

Other and further objects of the invention will be apparent from the following description and claims and may be understood by reference to the accompanying drawing, which by way of illustration shows a preferred embodiment of the invention and what I now consider to be the best mode of applying the principles thereof. Other embodiments of the invention may be used without departing from the scope of the present invention as set forth in the appended claims.

In the drawing:

FIGURE 1 is a perspective view of a stove cabinet having door handle assemblies embodying the invention;

FIGURE 2 is an enlarged sectional view taken along the line 2-2 of FIGURE 1;

FIGURE 3 is an enlarged fragmentary sectional view of the part enclosed in circle B in FIGURE 2; and

FIGURE 4 is an enlarged sectional view taken along the line 4-4 of FIGURE 1.

In FIGURE 1 there is illustrated a conventional type of porcelain cooking stove having hinged doors 10 and 12 and drawer fronts 14 and 16. The exposed surface of the doors 10 and 12 is provided by a porcelain sheet metal panel 18. The doors 10 and 12 are usually insulated doors and include an inner liner (not shown) with suitable insulation therein.

A handle assembly embodying my invention comprises a pair of studs 20 projecting from the outer surface of the panel 18, each stud including a threaded shank 22 projecting through a hole in the panel 18, and the nut 24 threaded on the shank 22 reacts on a washer 26, which in turn is seated on the inside of the panel 18 for securing the stud 20 in position. An insulating washer 28 is disposed between the stud 20 and the outer surface of the panel 18. The stud is provided with a tapered annular groove 30. A portion 32 of a handle, which may be made of plastic, is provided with a recess 34 into which the stud 20 projects. A set screw 36 having a cone point 38 bearing against the tapered groove 30 in the stud removably secures the handle portion 32 to the stud. The insulating washer 28 provides a thermal break between the handle and the exposed door panel 18.

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Thus, the stove may be shipped without the handle indicated generally at 40 and with the studs 20 projecting from the outer surfaces of the panels of the doors 10 and 12. Normally the studs would project approximately an inch, although they may be made so that the extent of their projection is considerably less than an inch. The two studs 20 are spaced for receiving the recesses or sockets 34 in the handle 40 which may be shipped in one of the drawers 14 or 16. With the construction illustrated a service man can readily attach the handle 40 to the studs 20 when the stove is installed in a customer's home. The cone point on the set screw 36 serves to firmly seat the handle 40 on the washers 28. If the handle 40 is damaged in use, which often occurs, particularly when plastic handles are used, the same may be readily replaced by releasing the set screws 36.

In the construction illustrated in FIGURE 4, the arrangement of the studs 20 is the same as previously indicated. However, the sheet metal handle 42 is provided with a collar 44 clinched or otherwise suitably secured therein. The collar 44 carries the set screw 36 and is provided with a recess for receiving the projecting end of the stud 20. The sheet metal handle 42 seats against the insulating washer 46 which is secured in position by the shank 22 of the stud 20.

While I have illustrated and described a preferred embodiment of my invention, it is understood that this is capable of modification, and I therefore do not wish to be limited to the precise details set forth but desire to avail myself of such changes and alterations as fall within the purview of the following claims.

I claim:

1. In a stove door having an outer exposed porcelain sheet metal panel, a handle assembly on the outer side of said panel and comprising a stud projecting from said panel, means concealed within the door for securing said stud thereto, an insulating washer between said stud and panel, said stud having a tapered annular groove, a handle seated against said washer and having a recess into which said stud projects, said stud and recess being of such size and shape so that the stud has a close fit in said recess, and a set screw on the handle and having a cone point bearing against the tapered groove for removably and positively securing the handle on said stud and for drawing said handle axially inwardly along said stud against said insulating washer.

2. In a stove door having an outer exposed porcelain sheet metal panel, a handle assembly on the outer side of said panel and comprising a pair of spaced parallel studs projecting from said panel and fixedly secured thereto, an insulating washer between each stud and said panel, each stud having a tapered annular groove, a handle seated against said washers and having a recess into which each stud projects, said studs and recesses being of such size and shape so that the studs have a close fit in said recesses, and set screws threaded into the handle and each having a cone point bearing against one of the tapered grooves for positively securing the handle on said studs, and for clamping said handle against said insulating washers.

References Cited in the file of this patent

UNITED STATES PATENTS

Table with 3 columns: Patent Number, Inventor Name, and Date. Includes entries for Whitlock (Feb. 24, 1885), Brooks (Jan. 31, 1888), Kubelka (Dec. 6, 1927), Ring et al. (Sept. 14, 1943), Thousand (Nov. 4, 1952), and Condon (June 22, 1954).