O. M. OTTE.

SUNKEN DRAWER PULL OR HANDLE.

APPLICATION FILED FEB. 8, 1917.

Patented Dec. 3, 1918.

1,286,745.

Fig. 1.

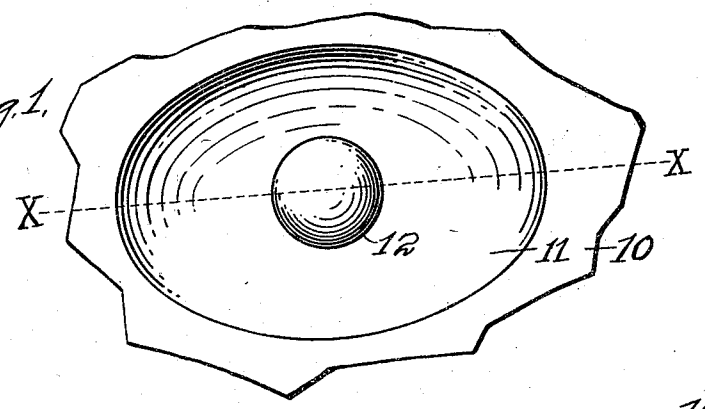


Fig. 2.

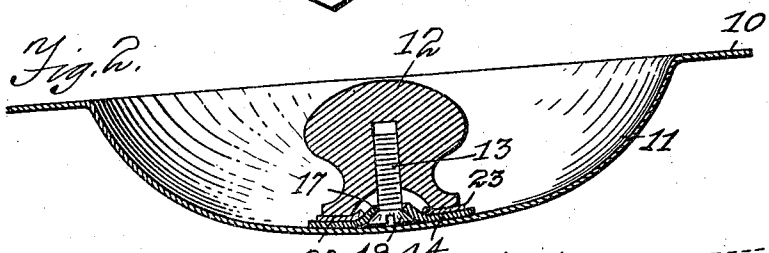


Fig. 3.

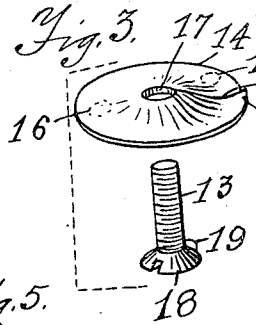


Fig. 4.

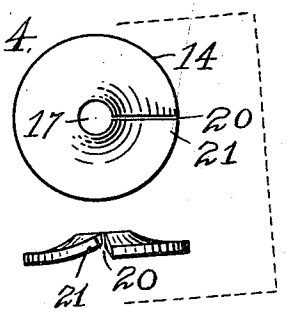


Fig. 9.

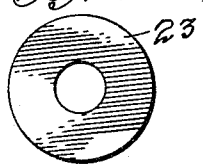


Fig. 5.



Fig. 6.

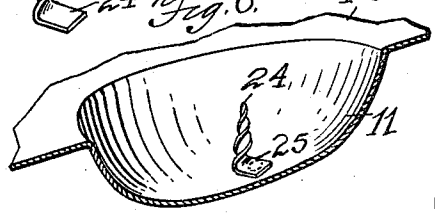


Fig. 7.

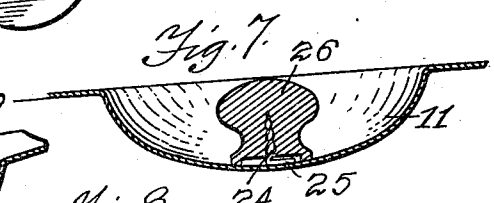
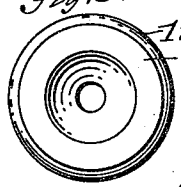


Fig. 8.



Inventor

Otho M. Otte

By S. Arthur Baldwin

Attorney

Witness

J. E. Nordstrom

H. A. Sandberg

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

OTHO M. OTTE, OF JAMESTOWN, NEW YORK.

SUNKEN DRAWER PULL OR HANDLE.

1,286,745. Specification of Letters Patent. Patented Dec. 3, 1918.

Application filed February 8, 1917. Serial No. 147,472.

To all whom it may concern:

Be it known that I, OTHO M. OTTE, a citizen of the United States, residing at the city of Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Sunken Drawer Pulls or Handles, of which the following, taken in connection with the accompanying drawings, is a specification.

The invention relates to handles for drawers, doors and similar devices; and the object of the improvement is to provide a sunken drawer pull or knob for sheet metal doors and drawer fronts without perforating the same and which is flush with the surface of the drawer or door thereby being out of the way and permitting the closure of doors or curtains over the same without liability of removal by articles striking the knob; and the invention consists in the novel features and combinations hereinafter set forth and claimed.

In the drawings, Figure 1 is a front elevation portion of the sunken pull or handle as applied to the front of a door or drawer, the front being broken away around the sunken portion. Fig. 2 is a sectional view at line X—X in Fig. 1 showing the construction and arrangement of the knob and sunken portion of the front with the means for holding the knob in said sunken portion without perforating said front and flush with the outer surface of the sheet metal front. Fig. 3 is a perspective view of the screw and attaching plate for the same for attachment in the bottom of the sunken portion without perforating the front; and Fig. 4 shows plan and edgewise views of the attaching plate with the bent up portion of the same. Fig. 5 is a detail perspective view of a modification of the screw for attaching the knob in the sunken portion as formed from a flat tapered strip; and Fig. 6 is a similar view of the sheet metal sunken portion of the front in section showing the modified form of the screw attached therein; and Fig. 7 shows a sectional view of the modified form of the screw with the knob attached thereon in the sunken portion of the front. Fig. 8 is a plan view of the underside of the knob with the hole therein for the preferred form of the screw. Fig. 9 is a plan view of the resilient or leather washer which aids in holding the knob in place.

Like characters of reference refer to corresponding parts in the several views.

The numeral 10 designates the drawer or door front as shaped from the sheet metal with the sunken portion 11 depressed therein by means of a suitable die to a sufficient depth and breadth to permit an easy hand grip on the knob 12, which is attached within the central portion of the depressed or sunken portion 11 to thereby bring the outer surface of the knob 12 substantially flush or below the outer surface of the front 10.

The knob 12 may be of metal or wood or other suitable substance and is attached to the front 10 at the bottom of the sunken portion 11 without perforating said front 10, to thereby leave the inner side of said front smooth, by means of a screw 13 which is firmly held in the upright position with the threaded end outward by means of the split plate 14. The split plate 14 is spot welded, preferably at 15 and 16 to leave part 21 free, to the front 10 within the sunken portion 11, the screw 13 having first been placed within the hole 17 so that the plate 14 binds upon the head 18 of the screw binding it firmly to the front 10 without perforating said front.

In order to clamp the head 18 more firmly in position so that it will not turn, a lug 19 may be provided on the head 18, one side of the plate 14 having been split at 20 and the lug 19 entering said cut or split. The head 18 is further bound and the knob 12 is tensionally held by the wing 21 of the plate 14 being bent upward so that when the knob 12 is turned against the split plate 14 on the screw 13 the outwardly turned point or wing 21 binds firmly against the flat portion 22 of the knob thereby pressing the resilient wing 21 down onto the head 18 and binding it more firmly in position and also giving tension to the holding of the knob 12. This simple method of attachment holds the knob 12 firmly in position upon the screw 13 and also the head 18 upon the sheet metal front.

It has been experimentally found that the holding of the knob 12 in place is also aided by the use of a soft or resilient packing ring 23, preferably of leather. The knob 12 presses into the this soft material thereby holding it more firmly in the attached position.

A simple and cheap modification of the screw 13 is shown in the flat pointed piece of sheet metal which is twisted into a screw 24 which has the angularly turned end 25

for attachment by spot welding to the sheet metal front at the bottom of the sunken portion 11, after which a wooden knob 26 can be quickly and easily turned onto the same thereby attaining the purpose in a simple and convenient manner at low cost and without perforation of the sheet metal front. A resilient packing may be used beneath the knob 26 to aid in holding the same.

I claim as new:—

1. In combination with a sheet metal front having a sunken portion therein, a screw supported in said sunken portion with threaded end outward by a plate welded to said front in said sunken portion around said screw, said plate having a cleavage therein, one side of said plate adjacent said cleavage turned upward slightly to form a tensional spring, and a knob turned onto said screw and engaged with said tensional spring.

2. In combination with a metal front having a relatively thin continuous imperforate depressed part, a screw, a knob secured to the screw, and relatively thin means spot welded to the sunken face of the depressed part to secure the screw to the outer face of said depressed part so as to leave the inner face of the depressed part smooth and uninterrupted throughout.

3. In combination with a metal front, a screw having the outer face of its head abutting the outer face of the front, a knob, means interposed between the knob and front and rigidly secured to the latter for securing the screw rigidly to the front and means borne by said first named means for tensioning the knob to hold same onto the screw.

4. In combination with a metal front, a screw having the outer face of its head seated against the outer face of said front, a plate perforated to receive the screw and rigidly secured to the outer face of the front to hold the screw head thereagainst, a knob engaged over the screw, and means on the plate to tension the knob.

In testimony whereof I have affixed my signature in the presence of two witnesses.

OTHO M. OTTE.

Witnesses:
H. A. SANDBERG,
I. E. NORDSTROM.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."