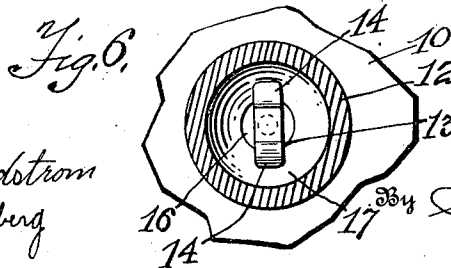
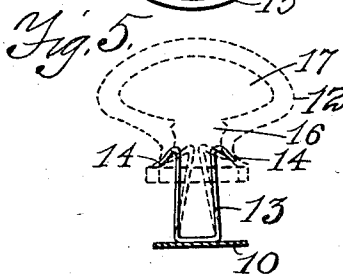
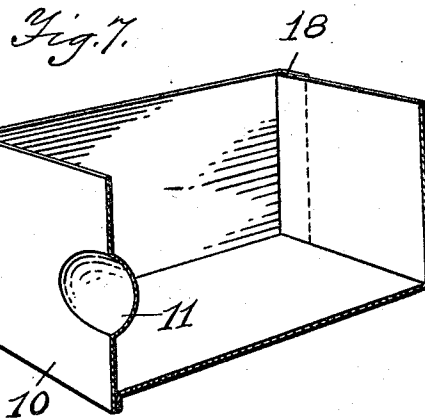
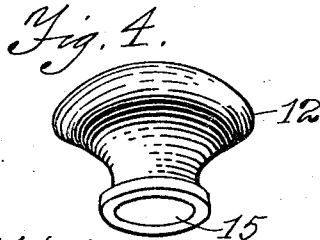
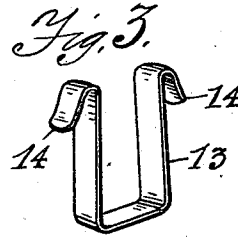
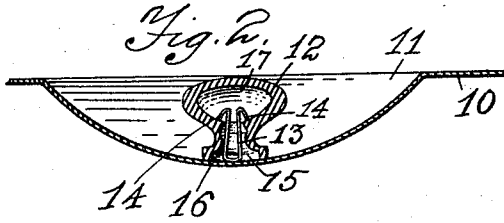
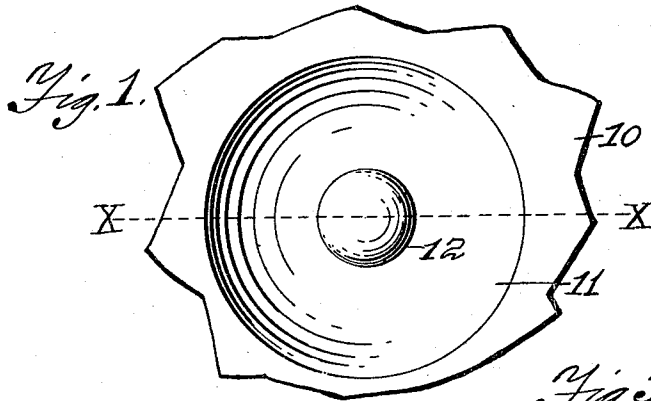


O. M. OTTE.
SUNKEN DRAWER PULL OR HANDLE.
APPLICATION FILED FEB. 8, 1917.

1,286,744.

Patented Dec. 3, 1918.
2 SHEETS—SHEET 1.



Witness
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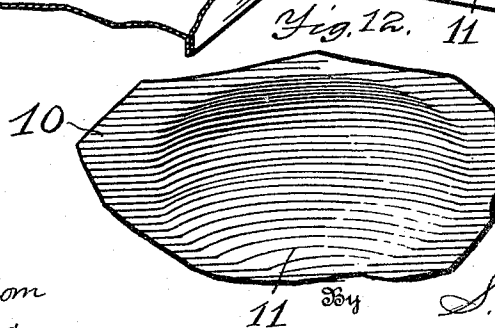
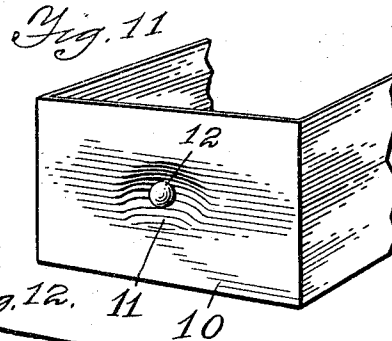
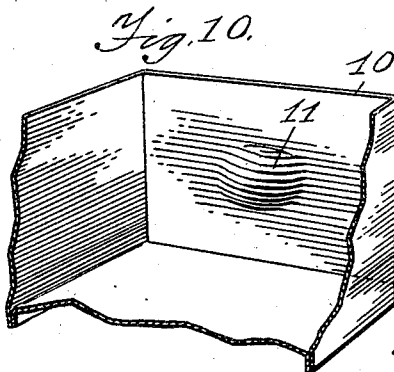
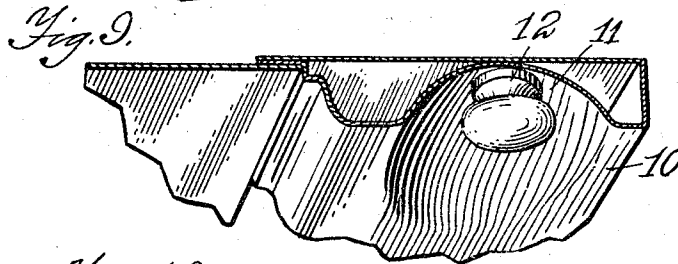
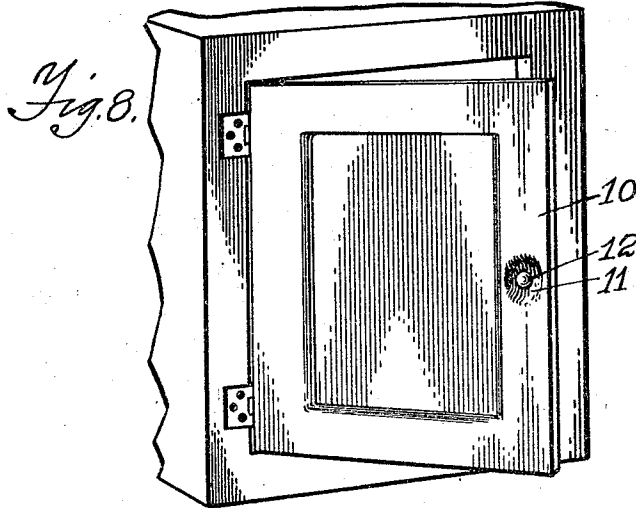
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UNITED STATES PATENT OFFICE.

OTHO M. OTTE, OF JAMESTOWN, NEW YORK.

SUNKEN DRAWER PULL OR HANDLE.

1,286,744.

Specification of Letters Patent.

Patented Dec. 3, 1918.

Application filed February 8, 1917. Serial No. 147,471.

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 draw or handle for sheet metal doors and drawers without perforating the same, which is flush with the surface of the drawer or door thereby being out of the way and not catching on wearing apparel or being liable to accidental removal by articles striking the same, also permitting the closure of doors over the same; and the invention consists in the novel features and combinations hereinafter set forth and claimed.

In the drawings, Figure 1 is a front elevation of the sunken pull 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 the front and flush with the outer surface of the sheet metal front. Fig. 3 is a perspective view of the preferred form of spring catch for holding the knob or handle. Fig. 4 is a perspective view of a hollow knob or handle in position for inserting upon the spring and catch; and Fig. 5 is an elevation of the spring catch with the knob in dotted section outline showing the position of the parts as the knob is pressed onto the spring catch. Fig. 6 is a plan view with the top portion of the knob removed showing the spring catch in holding position therein after expanding within the knob by pressing the knob onto the spring. Fig. 7 is a sectional perspective view of a sheet metal drawer with the inwardly depressed or sunken portion in the front for the attachment of the flush handle therein. Fig. 8 is a perspective view of the front of a sheet metal safe or cabinet with the door having a sunken drawer pull therein; and Fig. 9 is a crosswise sectional view through the sunken portion of the door frame as

shown in Fig. 8. Fig. 10 is a perspective view of the inner side of the end of a drawer; and Fig. 11 is a similar view of the outer side showing the sunken portion of the sheet metal as pressed by the die. Fig. 12 is a rear side top plan view of a fragment of the front.

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

The numeral 10 designates a 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 or handle 12 attached within the center of the depressed or sunken portion 11 and also to bring the outer surface of the knob 12 flush or below the outer surface of the surrounding front 10.

The knob 12 is centrally attached to the front 10 within the sunken portion 11 without perforation to leave the inner side smooth, by means of a spring 13 which is preferably made U-shaped and attached to the sheet metal 10 at the bottom of the depression 11 by means of spot welding thereto, thereby supporting the U-shaped or pronged spring 13 in the upright position within said depression 11 without perforation at the bottom of the U. The outer ends 14 of the spring 13 are given a return bend with an outward inclination which causes the ends 14 to act as engaging barbs.

The knob or handle 12 is provided with an opening 15 therein, being made hollow so as to be light and at the same time provide the proper opening to receive the outwardly projecting prongs or barbs 14 of the spring 13, said opening 15 having a narrow portion or throat 16 and an inner enlargement 17 in the head of the handle so shaped that the ends 14 of the spring 13 are pressed toward one another as the knob or handle 12 is pressed onto the spring 13 until said ends 14 pass through the throat 16 and expand out into the enlarged portion 17 firmly engaging the wall of said enlarged portion, as shown in Figs. 2 and 6, thereby anchoring the knob 12 firmly in position within the sunken portion 11. The length of the legs of the spring 13 and the return bend ends 14 are proportioned to the length of the throat portion 16 of the opening within the knob 12 so as to firmly secure or lock the knob 12 against the sheet metal around the base of the spring 13.

It is apparent that the shape of the spring 13, and of the opening 15 within the handle 12 as well as the handle 12 and the depression 11 may be changed in design without departing from the spirit of my invention, the purpose being to provide a simple sunken handle which can be quickly and easily assembled by spot welding the spring 13 within the sunken portion 11 and pressing the handle 12 onto the spring 13, from which it cannot be removed without fracture of the spring 13 or knob 12 or both spring and knob.

As shown in Figs. 2, 7-12, the sunken portion 11 is formed by pressing the sheet metal inwardly in the desired shape by a suitable die which forms smooth rounded edges around the sunken portion 11. The handle 12 is attached within the depressed or sunken portion 11 without perforating the sheet metal front as described, thereby providing a smooth interior surface for the portion 11 for the drawer front 10, so that there is no projection to hurt the hand or catch and tear the contents of the drawer and so that the drawer front 10 can be made of a single thickness of sheet metal. This arrangement attains a simple and strong flush handle construction at low cost that is neat and convenient and has a pleasing appearance.

I claim as new:—

1. In a flush handle structure a front having a sunken portion, a spring attached within said sunken portion having engaging projections thereon, and a handle having a head with an opening in the head adapted to receive said projections in said opening in anchoring attachment.

2. In a flush handle structure a front having a sunken portion, a spring attached to said front in said sunken portion, projecting return bend ends on said spring, and a knob having an opening therein with a contracted entrance throat to receive said spring there-through into spring anchorage within said knob.

3. In a flush handle structure, a metal front having a sunken portion, a U-shaped spring attached within said sunken portion, the

other ends of the legs of said U-shaped spring having return bends, and a handle having an opening therein with a contracted entrance throat to receive said spring into expanded engagement when said handle is pressed onto said spring.

4. In a flush handle structure, a metal front having a sunken portion therein, a U-shaped spring spot welded within said sunken portion at the bottom of said U, a handle having an opening therein with a narrowed throat, and the outer ends of said U-shaped spring turned outward to expand into engaging attachment within said handle when pressed through said throat.

5. In a flush handle for structures having metal fronts, a relatively thin imperforate concavo-convex part formed in the front by depressing an integral part of the front whereby said part and front are unitary and said part is of substantially the same thickness as that of the front, a handle, and a supporting connection for the handle secured to the latter and having a relatively thin part spot welded to the outer concave face of said concavo-convex part whereby to leave the inner convex face smooth and uninterrupted throughout.

6. In a flush handle for structures having metal fronts, a relatively thin imperforate concavo-convex part formed in the front by depressing an integral part of the front, handle securing means having one end thinned and abutting and spot welded to the outer concave face of said part so as to leave the inner convex face smooth and uninterrupted throughout, means on the other end of said handle securing means to engage and secure the handle against removal and a handle formed to receive and engage over said means whereby to positively connect the handle to said means upon inward movement of the handle.

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

OTHO M. OTTE

Witnesses:

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