

Sept. 14, 1965

R. VINCENS

3,206,270

METAL CABINET FRONT PANEL AND HANDLE CONSTRUCTION

Filed Oct. 10, 1963

2 Sheets-Sheet 1

Fig. 1.

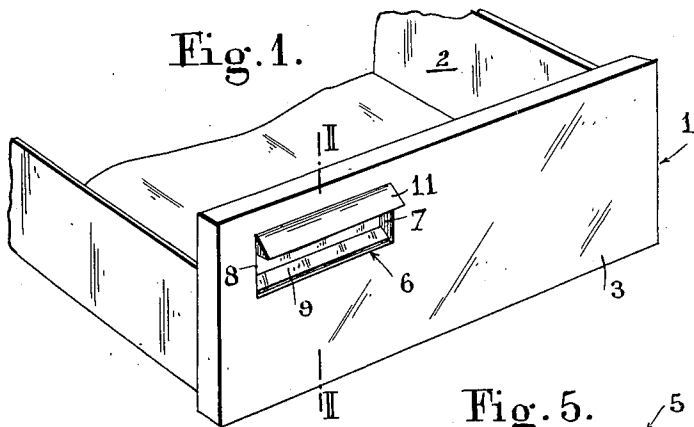


Fig. 6.

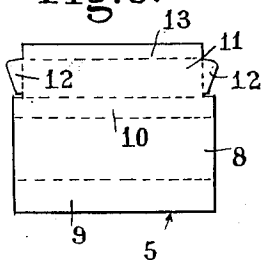


Fig. 2.



Fig. 5.

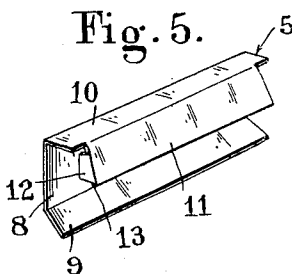


Fig. 3.

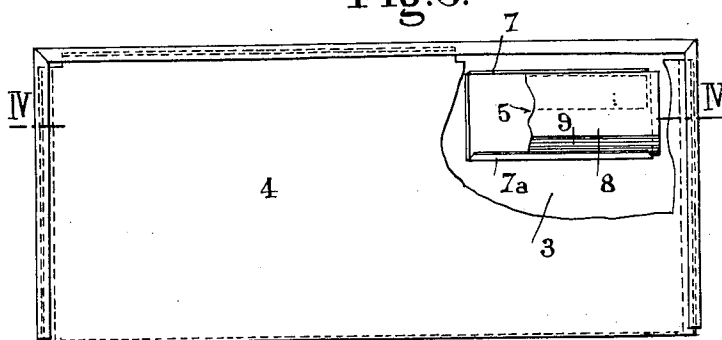
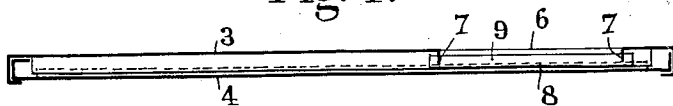


Fig. 4.



Sept. 14, 1965

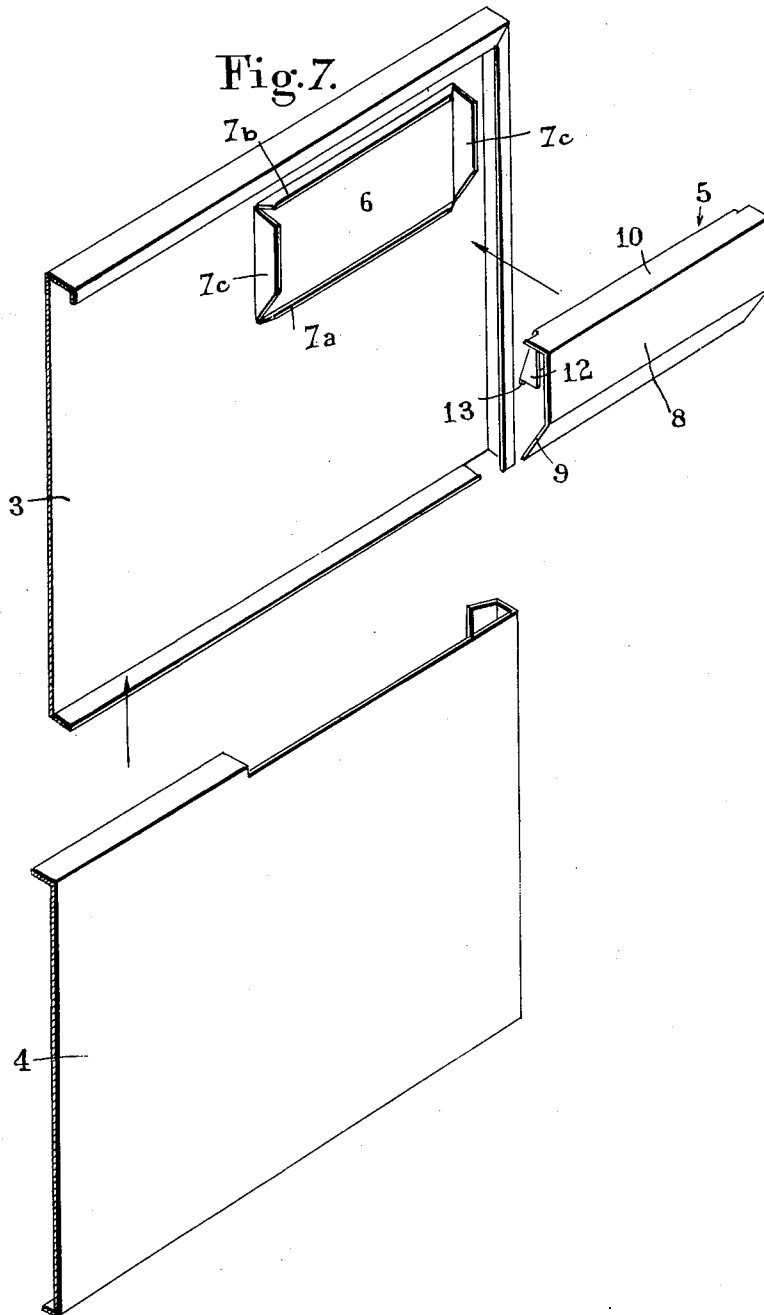
R. VINCENS

3,206,270

METAL CABINET FRONT PANEL AND HANDLE CONSTRUCTION

Filed Oct. 10, 1963

2 Sheets-Sheet 2



1

3,206,270
METAL CABINET FRONT PANEL AND HANDLE
CONSTRUCTION

René Vincens, Martin-Eglise pres Dieppe, France, assignor
to Societe Civile de Recherches et d'Études Industrielles,
Neuville-les-Dieppe, France

Filed Oct. 10, 1963, Ser. No. 315,228

Claims priority, application France, Oct. 10, 1962,

911,807, Patent 1,345,004

3 Claims. (Cl. 312—320)

This invention relates in general to metal cabinet construction and has specific reference to the front panel or face thereof as well as to handle means adapted to be fitted thereon.

Drawer handles fitting in the front panels of cabinets have been known for many years, but these handles have been difficult to fit on the front panels of modern metal cabinets due to the moderate thickness of the sheet metal used in the construction of such cabinets.

Hitherto known handles are usually secured by means of screws or fit in corresponding notches by their inherent elasticity. As a rule, these handles are fitted by inserting them through a front aperture and can sometimes be removed when the drawer is locked. When screw and nut means are used for securing the handle they are visible on, or protrude from, the inner face. Certain handles are particularly difficult and complicated to make due to the considerable number of folds and press operations involved, thus leading to a heavy and costly element. Further, the user should have a complete command of the drawer movements by simply gripping the handle.

The handle according to the present invention is housed in the metal front face of a cabinet drawer or door, even if the thickness of the material constituting this face is apparently not sufficient to withstand such a handle. To this end the front face of the drawer (the term "drawer" being used herein to simplify the description but designating actually any drawer, door or like member, whether of the sliding, hingedly mounted or other type) is cut to form an aperture corresponding to the front dimensions of the handle to be secured, the upper and side edges of said aperture being bent substantially at right angles inwardly, and the lower edge of said aperture being bent at an obtuse angle, the handle proper being obtained by folding the parallel longer sides of a metal blank of a width slightly in excess of that of said front face aperture, said parallel sides being folded with an obtuse angle along the lower edge adapted to bear against the lower bent edge of said front face aperture, and at right angles along the upper edge to form a flap, the upper folded portion or flap being subsequently notched laterally to provide a lug of a length corresponding to the width of said aperture through which it can project from said front face.

To facilitate the gripping of the handle said upper folded portion is folded back by 180° on itself and formed at its lateral ends with a pair of cut ears bent at right angles to constitute stop means adapted to engage the bent edges of the inner face of the front panel.

The handle broadly described hereinabove is fitted very easily in position by presenting the handle on the inner side of the front face so that the lower edge of the blank which is bent to an obtuse angle bears against the lower obtusely bent edge of the aperture and abuts against the bent side edges of the aperture, that the upper edge of the three-fold bent blank fits beneath the upper edge, bent at right angles, of the aperture, said flap projecting from the front face, and that the intermediate portion of the blank bears against the side edges, bent at right angles, of said aperture.

When the front panel is slipped into the back lining thereof the back lining causes the handle to be definitely

2

locked in its recess. Any possibility of removing the handle when the drawer or like member is closed is precluded by the fact that the front panel cannot be removed unless the drawer or like member is open.

The mounting is carried out without resorting to any interfitting parts, therefore the back lining and front panel are free of any pressed portion or element and the mounting is definitely invisible.

The inside of the handle is completely closed in practice and leaves no appreciable passage between the space formed between the front panel and the back lining, on the one hand, and the outside, on the other hand.

The inner shape of the handle is such that the user's fingers fit comfortably therein. The inner side of the fingers can pull the lug without any risk of damaging the nails, notably ladies' nails, against the bottom of the handle.

The inward movement of the drawer which with other handles is controlled by pressing with the thumb, is effected in this case by means of the back side of the bent fingers.

A preferred arrangement of the front panel of a drawer and a gripping handle therefor constituting the subject-matter of the present invention will now be described with reference to the accompanying drawings, in which:

FIGURE 1 is a perspective view showing a drawer equipped with the corresponding handle;

FIGURE 2 is a vertical section taken upon the line II—II of FIG. 1;

FIGURE 3 is an elevational view taken from the rear side of the front face of the drawer with parts broken away from the back lining and from the handle;

FIGURE 4 is a horizontal section taken upon the line IV—IV of FIG. 3;

FIGURE 5 is a perspective view showing the metal plate constituting the handle proper;

FIGURE 6 is a developed view showing the handle blank with its folding lines and cut portions, and

FIGURE 7 is a fragmentary exploded view showing on a larger scale the rear side of the drawer front face.

The front face 1 of the drawer 2 consists of two metal plates 3, 4 having their edges suitably bent at right angles inwardly so that these plates can be assembled by interfitting in one another while providing therebetween a space in which the handle 5 is retained.

The outer face 3 is punched or notched to provide a rectangular aperture 6 having its edges 7 folded inwardly. As will be explained presently, it is advantageous that the lower edge 7a of aperture 6 be bent to an obtuse angle and that the upper edge 7b and side edges 7c be folded at right angles.

The handle 5 consists of a sheet metal blank 8 of a width somewhat greater than that of the aforesaid aperture 6, this blank having its lower portion or flap 9 folded to an obtuse angle and its upper portion 10 folded at right angles, the resulting flap 10 being notched along its lateral edges and formed with ears 12 folded inwards at right angles; the outer end or marginal portion of flap 10 is folded to an obtuse angle to constitute a lug 11 having its outer marginal portion 13 folded in turn inwardly to prevent the user from hurting his or her fingers.

The handle 5 is mounted by causing the lower flap 9 to bear upon the lower edge 7a and to extend between the side edges 7c, having preferably bevelled ends, of aperture 6, whereafter the lower flap 9 is pressed through the aperture until the flap 10 folded at right angles is resiliently wedged against the edge 7b of said aperture. The portion 8, 9 of handle 5 will then conveniently engage the side edges 7c of aperture 6 which are cut beforehand to the corresponding contour, and the grip-forming portion 11 of the handle extends through the aperture 6 and emerges from the outer side of the front face plate 3; the

3

bent transverse ends 12 of this portion 11 are subsequently caused to abut against the edges 7c of aperture 6, to impart a particularly pleasant appearance to the front face equipped with the handle of this invention.

The handle is locked in position as explained hereinabove by fitting the outer panel element 3 of the drawer on the inner panel element 4, and the handle curvature as well as the contour of the side edges 7c of aperture 6 are so designed that when said panel elements are fitted into each other the central portion 8 of the handle is urged resiliently against the inner panel element 4.

The configuration of the handle proper is given by way of example only and may vary to a substantial extent; thus, the same means may be resorted to for mounting a solid or lever-type handle on the front panel, or a panel element forming a box-like structure with said front panel.

What I claim is:

1. A structure comprising a metal cabinet drawer front panel and a handle secured thereon, in which said front panel is provided with a rectangular aperture having its edges folded inwardly to form flaps, the flaps along the upper edge and along the side edges extending at right angles to said front panel and the flap along the lower edge extending at an obtuse angle with respect to said front panel, the ends of said flaps being bevelled, and said handle consists of a metal blank having a width greater

4

than that of said aperture, the lower portion of said blank being folded at an obtuse angle for engagement with the flap along the lower edge of said aperture and the upper portion of said blank being folded at right angles for engagement with the flap along the upper edge of said aperture, said folded upper portion being provided with an extension having the same width as said aperture and being in turn folded at an obtuse angle to constitute a lug projecting outwardly of said front panel.

2. A structure according to claim 1, in which the outer marginal portion of said lug is bent back through 180° on itself.

3. A structure according to claim 1, in which said lug is provided with end portions bent inwardly at right angles for engagement with the flaps along the side edges of said aperture.

References Cited by the Examiner

UNITED STATES PATENTS

20	1,976,118	10/34	Cruikshank	-----	16—124
	2,771,627	11/56	Hammer	-----	16—124
	3,098,686	7/63	Benoit	-----	312—320

FRANK B. SHERRY, *Primary Examiner.*

25 CHANCELLOR E. HARRIS, *Examiner.*