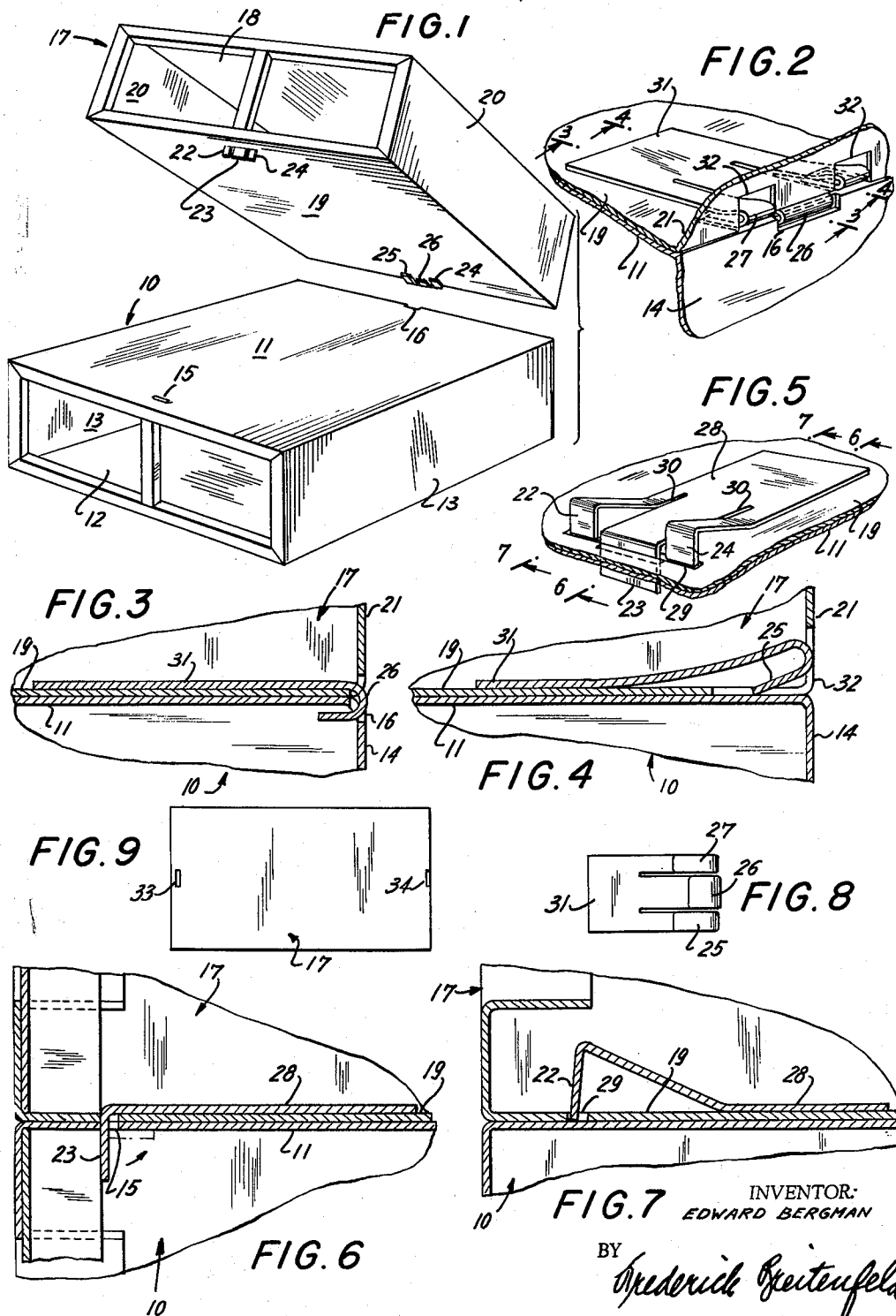


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E. BERGMAN

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INTERLOCKING CABINETS
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INVENTOR:
EDWARD BERGMAN

BY

Frederick Breitenfeld
ATTORNEY

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INTERLOCKING CABINETS

Edward Bergman, New York, N.Y., assignor to Art Steel Company, Inc., New York, N.Y., a corporation of New York

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This invention relates generally to cabinets, and has particular reference to cabinets adapted to be stacked or otherwise assembled in contiguous interlocking relation.

The features of the invention are particularly applicable to file cabinets of the type described in my earlier Patent No. 2,203,716, adapted to be arranged in stacked relation and designed to accommodate sliding drawers for holding office files, card accumulations and the like.

A commonly employed interlocking expedient resides in the provision of a slot in one wall of the cabinet, and a projecting tongue correspondingly located in the opposite wall, whereby the tongue of each cabinet can enter the slot in the adjacent cabinet. It is a general object of the present invention to provide an improved tongue-and-slot arrangement whereby the usefulness of such cabinets may be enhanced. More particularly, it is an objective of the invention to provide a means for allowing a cabinet to be interlocked with another cabinet even though the slot in the latter may be shorter than that for which the former is primarily intended.

The improved cabinet involves the provision, on one of its walls, of a set of locking tongues which are separate but directly adjacent and aligned, at least one of the tongues being mounted in retractable fashion. In the preferred embodiment of the invention, there are three adjacent tongues and the two outermost tongues are retractable. On the opposite wall there is a slot whose over-all length is at least as great as that of the tongues, so that when two identical cabinets are brought together the tongues are jointly insertable into the slot of the adjacent cabinet. Nevertheless, if the second cabinet has a shorter slot, the interlock may still be achieved since at least one of the retractable tongues will retreat and thereby allow at least one other of the aligned tongues to enter and interlock with the shorter slot.

One way of achieving these objects, and the advantages referred to and to be pointed out, is illustratively shown by way of example in the accompanying drawings, in which—

FIG. 1 is a perspective view of two cabinets adapted to be interlocked in accordance with the capabilities of this invention;

FIG. 2 is a fragmentary perspective view, on an enlarged scale, of the interlock at the rear end of FIG. 1;

FIGS. 3 and 4 are enlarged cross-sectional views along lines 3-3 and 4-4 of FIG. 2, respectively;

FIG. 5 is a fragmentary perspective view of the interlock at the front end of FIG. 1;

FIGS. 6 and 7 are enlarged cross-sectional views along lines 6-6 and 7-7, respectively, of FIGURE 5;

FIG. 8 is an enlarged detail of the rear tongues to show their relative lengths; and

FIG. 9 is a top view of the uppermost cabinet shown in FIG. 1.

The cabinets chosen for illustration of the invention are of the sheet metal type commonly employed to hold drawers (not shown) within which reference cards can be accommodated. The cabinet 10 is substantially rectangular, having a flat top wall 11, a flat bottom wall 12, side walls 13, and a rear wall 14 (FIGS. 2, 3, 4). In the central region of the top wall 11, near its front edge, is an elongated slot 15, parallel to the front edge; and at the rear edge is a similar slot 16 which extends slightly down-

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wardly into the rear wall 14. The cabinet 17 is similar in nature and substantially the same as the cabinet 10 in the external dimensions of its top and bottom walls 18 and 19. The cabinet has side walls 20 and a rear wall 21 (FIGS. 2, 3, 4).

Adjacent to the front edge of the bottom wall 19, at the center, are three downwardly projecting tongues 22, 23, 24. They are separate but in direct adjacency, and they are in an alignment parallel to the front edge. At least one of these tongues is mounted in retractable fashion. Preferably the two outermost tongues are of this character. One way of achieving this will be presently described.

Directly adjacent to the rear edge of the bottom wall 19 are three projecting locking tongues 25, 26, 27 which are also separate but in direct adjacency, and here too at least one of them is retractable. Preferably both outermost tongues are so mounted.

The tongues at the rear differ slightly from those at the front because they are insertable into a slot in a different direction. It is to be noted that the tongues 25, 26, 27 have their outer ends doubled back into parallel relation to the wall 19 (FIGS. 1 and 8) whereas the tongues 22, 23, 24 project perpendicularly. Also, the retractable tongues 25 and 27 are slightly longer than the central tongue 26, for a purpose presently to be described.

The tongues may be formed and mounted in various ways. A relatively simple arrangement which is practical and economical is to form the tongues as part of a single blank of metal, and to weld or otherwise secure the unit to the wall with which the tongues are to be associated. Thus, the tongues 22, 23, 24 may be defined by downturned lips extending from the forward edge of a blank 28 (FIGS. 5, 6, 7) secured flatwise to the interior surface of the wall 19. An elongated aperture 29 in this wall allows these lips to project outwardly as indicated in FIG. 1. The retractability of the tongues 22 and 24 can be provided for by forming slits 30 in the blank 28 and by leaving the outer parts of the blank 28, alongside the slits 30, unsecured to the wall 19. In this way, the tongues 22 and 24 are movable into the retracted positions shown in FIGS. 5 and 7. The tongues at the rear may be similarly formed as parts of a single blank 31 welded or otherwise mounted flatwise against the inside surface of the wall 19. The retractability of the outer tongues 25 and 27 is provided for by forming suitable openings 32 in the cabinet walls, each opening extending upwardly into rear wall 21 for a slight distance (FIGS. 2 and 4), and also extending forwardly into bottom wall 19 for the full length of the turned-back parts of the tongues 25, 27. The rear wall 21 need not be cut back or recessed in the central region overlying the central tongue 26.

It is the cabinet 17 which embodies the novel features of the invention, and it is provided in its top wall 18, near the front edge, with an elongated slot similar to the slot 15. This slot is designated 33 in FIG. 9. It is located directly above and in line with tongues 22, 23, 24, and its over-all length is slightly greater than that of the tongues. Similarly, the slot 34 at the rear (FIG. 9) is slightly longer than the over-all length of the tongues 25, 26, 27. The "length" of a tongue or tongues refers of course to the dimension in the same direction as the longitudinal axis of the corresponding slot.

It follows that any two identical cabinets like the one designated 17 (the uppermost cabinet shown in the drawings) can be brought into contiguous stacked relation, and interlocked, by inserting the projections on one into the corresponding slots in the other. The procedure is to hook the rear tongue projections into the slot 34 of the cabinet directly beneath, then pull the upper cabinet forwardly, and then push the front tongues downwardly

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into the slot 33 of the lower cabinet. If desired, the front tongues may be clinched as indicated by dot-and-dash lines in FIG. 6.

Should it become desirable or necessary to associate the cabinet 17 with another of similar shape and character, but which, like cabinet 10, has slots 15 and 16 which are shorter in length than slots 33 and 34, the desired interlock may nevertheless be made, if these slots are as long as, or slightly longer than, the central tongues 23 and 26. (In the cabinet illustrated, that is the case.) As before, the engagement at the rear is of first concern. The upper cabinet is positioned with its rear edge projecting slightly beyond that of the cabinet below, until the free turned-back edge of tongue 26 lies rearwardly of the rear wall 14. Under these circumstances, the free turned-back edges of the longer outer tongues 25, 27 remain in contact with the top wall 11 of cabinet 10, and when the cabinet 17 is pressed downwardly these tongues are deflected into their retracted positions. This allows the tongue 26 to become aligned with the slot 16 and to enter it as the upper cabinet is pulled forwardly. The front of the cabinet is then pushed downwardly, and the retractable tongues 22, 24 are pushed to their retracted positions, thus allowing the tongue 23 to enter the slot 15.

The deflectable or retractable tongues are not necessarily resilient or springy, although a spring action may be provided for if desired. Moreover, while by implication the central tongues 23 and 26 are not retractable, it is not necessary that immovability be provided for, because as these tongues enter their respective slots there is no force operating upon them to urge them into retraction.

It will also be understood that the invention is applicable to cabinets made of materials other than sheet metal, and that the contiguous relationship need not be a stack of cabinets but may involve side-by-side interlocks. Also, it is not in all cases necessary to provide turned-back connecting tongues at the rear and perpendicular tongues at the front. These and many other details may be altered or modified without necessarily departing from the spirit and scope of the invention as expressed in the appended claims.

What is claimed is:

1. A cabinet adapted to be arranged in interlocking

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contiguous relation to another of the same kind, comprising a pair of opposite flat walls, one of said walls being provided with separate but directly adjacent aligned locking tongues projecting outwardly of said one wall, the other of said walls being provided in a corresponding location with a slot whose overall length is at least as great as that of said tongues, the tongues being jointly insertable into the slot of a contiguous cabinet, one of said tongues being mounted in retractable fashion so that if the cabinet is brought into contiguity with another in which there is a shorter slot the retractable tongue will retract to allow entry of the other tongue into said shorter slot.

2. A cabinet as defined in claim 1, in which there are three of said locking tongues, the two outermost tongues being retractable.

3. A cabinet as defined in claim 1, in which said opposite walls are the top and bottom walls.

4. A cabinet as defined in claim 1, in which there is a slot-and-tongue construction, as defined, at the front ends of the pair of cabinets and also at their rear ends.

5. A cabinet as defined in claim 1, in which said tongues have free ends turned back to lie parallel to the wall with which they are associated, the retractable tongue having a longer turned-back end portion.

6. A cabinet as defined in claim 1, in which there is a slot-and-tongue construction, as defined, at the front ends of the pair of cabinets and also at their rear ends, the tongues at the front lying perpendicular to the wall and the tongues at the rear having their ends turned back to lie parallel to the wall.

7. A cabinet as defined in claim 6, the wall supporting said turned-back projections, as well as the adjacent wall, having cut-outs to allow said retractable tongue to retract.

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