United States Patent

Splan

[15] **3,682,522**

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[54] **FILE BOX AND FILE SUSPENSION DEVICE THEREFOR**

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Related U.S. Application Data

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[52] **U.S. Cl.** **312/184**

[51] **Int. Cl.** **B42f 17/00**

[58] **Field of Search** 312/182, 183; 211/50

[56] **References Cited**

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[57] **ABSTRACT**

A file box and flexible, resilient suspension device therefor in which the flexible, resilient suspension device includes a body portion which is disposed adjacent the inner surface of a side wall of the file box and has flexible, resilient clamping means at its upper end which extends laterally from the said body portion at the outer side thereof and is removably mounted in clamping engagement on and with the upper end portion of a side wall of the file box. The body of the flexible suspension device extends from end to end of the side wall of the file box and has file-supporting means in the form of an inturned supporting arm or flange at its lower end and extending laterally from the said body portion on the inner side thereof. The file members are arranged in vertical parallel relationship in the file box and are removably supported by supporting means arranged at the ends of each file member and which rest on the supporting means at the lower end of the suspension device. The construction of the file box and of the said flexible, resilient suspension device therefor are such that the file box may be closed by means of the cover or lid therefor and the file boxes stacked one upon another without interfering with or damaging or impinging upon the files in the file boxes or the said flexible, resilient suspension devices therefor.

1 Claim, 5 Drawing Figures

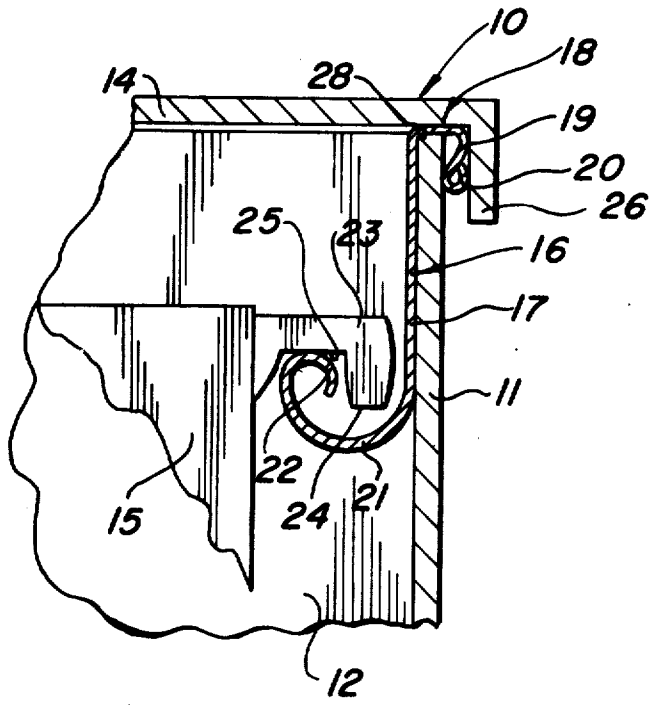


Fig - 1

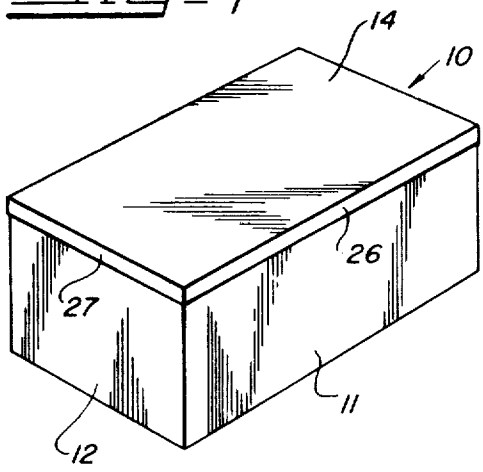


Fig - 2

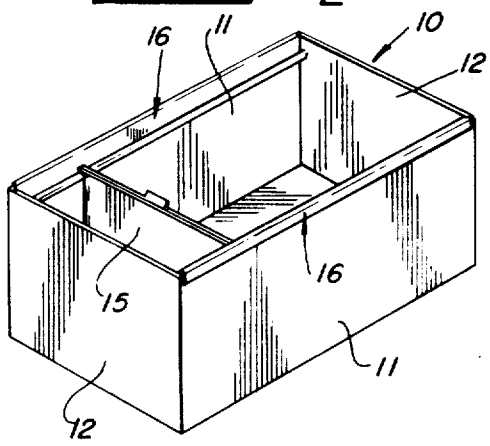


Fig - 3

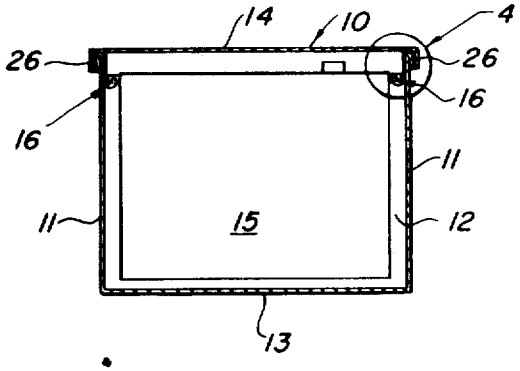


Fig - 4

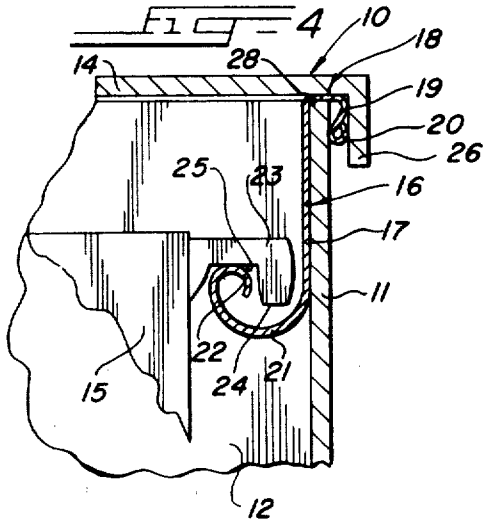
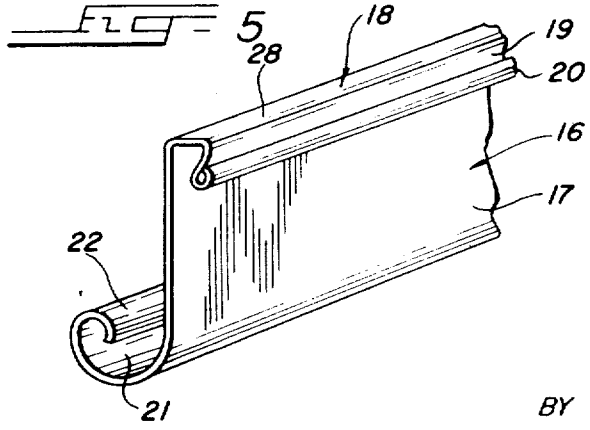


Fig - 5



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FILE BOX AND FILE SUSPENSION DEVICE THEREFOR

This application is a division of applicant's co-pending application, Ser. No. 838,538, filed July 2, 1969 on "File Box and File Suspension Device Therefor, now U.S. Pat. No. 3,614,185 granted Oct. 19,197."

OBJECTS

An object of this invention is to provide a new and improved file box and file suspension device therefor.

Another object of the present invention is to provide a new and improved file box and suspension device therefor for suspending files in vertical-parallel spaced relationship in a file box so that they may be readily inserted into and removed from position of use therein and so that the file box may be closed by applying the lid or cover thereto and the file boxes stacked one upon another without interfering with or damaging or impinging upon the files in the file boxes or the said flexible resilient suspension devices therefor.

Other objects will appear hereinafter.

DESCRIPTION OF DRAWINGS

FIG. 1 is a perspective view of a file box embodying the present invention with the cover or lid therefor in closed position;

FIG. 2 is a perspective view of the file box shown in FIG. 1 with the top cover or lid removed therefrom;

FIG. 3 is a transverse vertical sectional view of the file box shown in FIG. 1;

FIG. 4 is an enlarged fragmentary detail view, partly in section, of the area indicated by the circle marked "4" in FIG. 3; and

FIG. 5 is a fragmentary perspective view of the new flexible, resilient suspension device embodied in the present invention.

DETAILED DESCRIPTION

A file box embodying the present invention is shown in the drawing, wherein it is generally indicated at **10**, and comprises side walls **11**, end walls **12**, a bottom wall **13** and a removable cover or lid **14** which has depending side flanges **26** and depending end flanges **27**. The file box **10** is of the type in which individual file members **15** are suspended vertically in parallel relationship.

However, for the purpose of illustration each of the file members **15** is shown as being provided with a laterally extending supporting arm **23** at each end of each of the file members **15** and each of these supporting arms **23** is shown as including a lower or bottom surface **24** which is provided with a notch or recess **25** (FIG. 4), for a purpose which will be explained presently.

A preferred embodiment of the new flexible, resilient suspension device is generally illustrated at **16** in the drawing, and comprises a generally rectangular-shaped sheet-like body **17** which may be made of any suitable material, such as ferrous sheet metal, aluminum sheet metal, or molded plastic resinous material, which is preferably of a somewhat flexible and resilient nature and is shaped and sized to fit the requirements of the file box **10**. The body **17** has clamping means **18** formed integrally therewith at its upper end, and this

clamping means **18** includes an outwardly or laterally extending flexible and generally flat, horizontally extending flexible, resilient arm **28** which is formed integrally with the body **17** at its upper end and on the outer side thereof. This arm **28** is adapted to extend over the upper edge portion of the side wall **11** of the file box **10** and has a downwardly and inwardly extending flexible resilient clamping flange **19** which, in use, extends inwardly toward the side wall **11** of the file box **10** and is reversely bent downwardly and somewhat inwardly and has an outwardly turned bead **20** at its lower end.

The body **17** of the suspension device **16** also has file-supporting means formed integrally therewith at its lower end and the file-supporting means is shown as having the form of an inwardly curved supporting flange **21** which is disposed on the inner side of the body **17**, that is on the side thereof opposite the flexible, resilient, clamping flange **18**. This supporting flange **21** terminates in an inwardly and reversely turned end portion **22**. The clamping flange **18** is normally urged, by its own innate resiliency toward the body **17** of the suspension device **16** and thus is urged into clamping engagement with the upper end portion of the side wall **11** of the file box **10** on which the suspension device **16** is mounted.

OPERATION AND USE

In the use of the new suspension device **16** the same is formed and shaped of a size generally co-extensive with the end to end length of the side wall **11** of the file box **10** and, with the lid or cover **14** removed from the file box **10**, one of the file suspension devices **16** is mounted on the upper edge portion of each side wall **11** of the file box **10** by slipping the clamping means **18–19–20** downwardly over the upper edge portion of the corresponding side wall **11**, on the outer side thereof, and with the body **17** and the inturned file-supporting means or flange **21–22** arranged on the inner side of the side wall **11**. When the suspension devices **16** are so disposed, the somewhat flexible, resilient body **17** and the flexible, resilient clamping means **18–19–20** resiliently grip the upper edge portions of the side wall **11** and thus retain the suspension devices **16** in position of use on the side walls **11**.

When the suspension devices **16** are thus positioned on the side walls **11** the file members **15** may be mounted in position of use in the file box **10** by inserting the notched portions **24** of the supporting arms **23** over the internal file-supporting means or flanges **21–22** of the body **17** of each of the suspension devices **16** so that the file members **15** are suspended from the suspension devices **16** in spaced vertical and parallel relationship, in the manner illustrated in FIGS. **2**, **3** and **4**.

When it is desired to remove the individual file members **15** from the file box **10** this may readily be accomplished by merely lifting the notched supporting arms **23–24** upwardly off the file-supporting means or flanged portions **21–22** of the suspension devices **16** and then removing the file members **15** from the file box **10**.

As best shown in FIG. **4**, when the removable cover or lid **14–26** is disposed in position of use in the body of the file box **10** the body of the removable cover or lid

14 rests flat upon the generally flat horizontally extending arm 28 of the generally U-shaped clamping means 18 with the depending side flanges 26 of the cover or lid 14 fitting closely against and in bearing relationship with the depending arms 19–20 of the generally U-shaped clamping means 18.

It will be noted that the new suspension devices 16 are relatively simple and economical in design, construction and manufacture and may be readily attached to and used with any file box 10 of the type indicated, or file boxes of similar construction, and with file members 15 of the type shown or file members of similar construction.

It will also be noted (FIGS. 1, 3 and 4) that in the use of the new suspension devices 16, the cover or lid 14 of the file box 10 may be readily applied to the body of the file box, over the generally flat, horizontally extending arms 18 of the suspension devices 16, to close the latter, and that the thus closed file boxes 10 with the files 15 thus suspended therein, may be stacked one upon another without interfering with or damaging or impinging upon the file 15 in the lower file boxes or the suspension devices 16 therefor.

It will thus be seen from the foregoing description, considered in conjunction with the accompanying drawing, that the present invention provides a new and improved file box and file suspension device therefor having the desirable advantages and characteristics and accomplishing its intended objects including those hereinbefore set forth and those which are inherent in the invention.

I claim:

1. A file suspension device for suspending individual file members in a spaced vertical, parallel relationship in a file box which includes side walls having upper edge portions, end walls, a bottom wall, and a removable top wall or cover, each of the said file members having an outwardly and laterally projecting supporting arm attached thereto, and each of the said file members including a lower edge portion having a notch formed therein, said file suspension device comprising

a. a sheet-like body member adapted to be disposed on the inner side of one of the said side walls of the said file box, and extending between the end thereof; said sheet-like body member having

1. a lower end portion;

b. a flexible, resilient clamping member, generally U-shaped in cross section formed integrally with the said body member on the upper end thereof and projecting laterally from the said body member at one side thereof and adapted to resiliently grip the upper edge portion of one of the said side walls of the said file box;

c. a file-supporting flange member formed integrally with the said body member at the lower end portion thereof and on the side thereof opposite the side of the said body member from the side thereof on which the said flexible, resilient clamping member is arranged; and

d. the said file supporting flange member extending laterally away from the said body member and being curved angularly upwardly and having an upper end portion extending angularly inwardly toward the said sheet-like body member and adapted to project into the said notch in the said supporting arm of the said file member to support the said file member in position of use in the said file box.

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