Nov. 17, 1931. W. N. VANCE 1,832,158

SHELF BOX

Filed June 20, 1929

Fig. 1

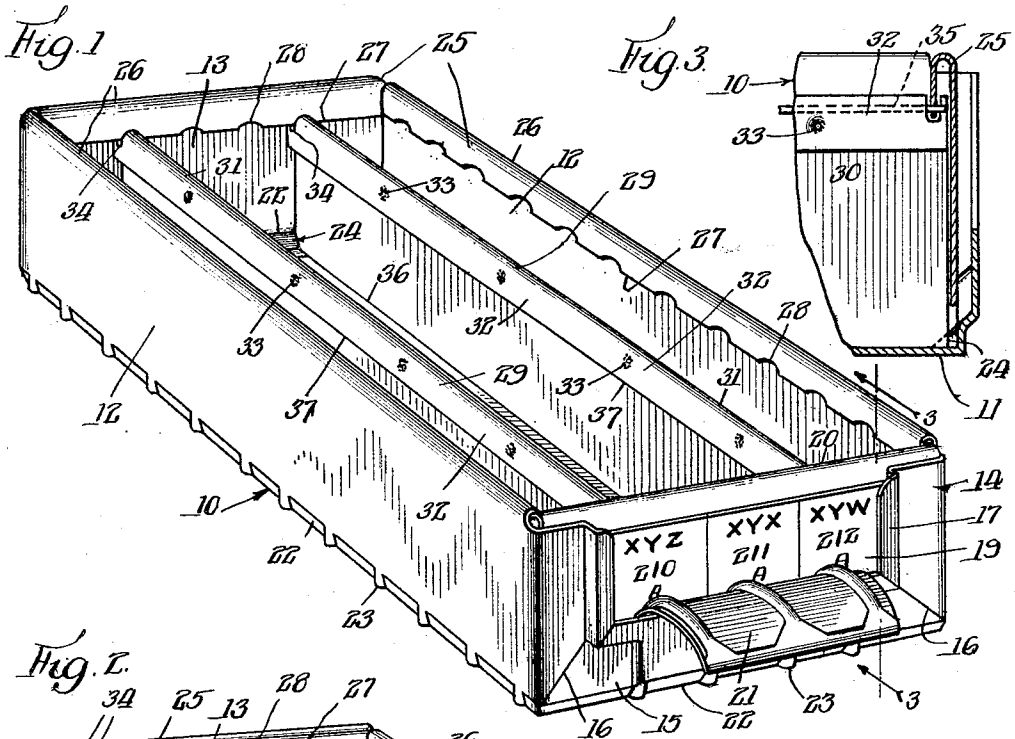


Fig. 3

Fig. 2

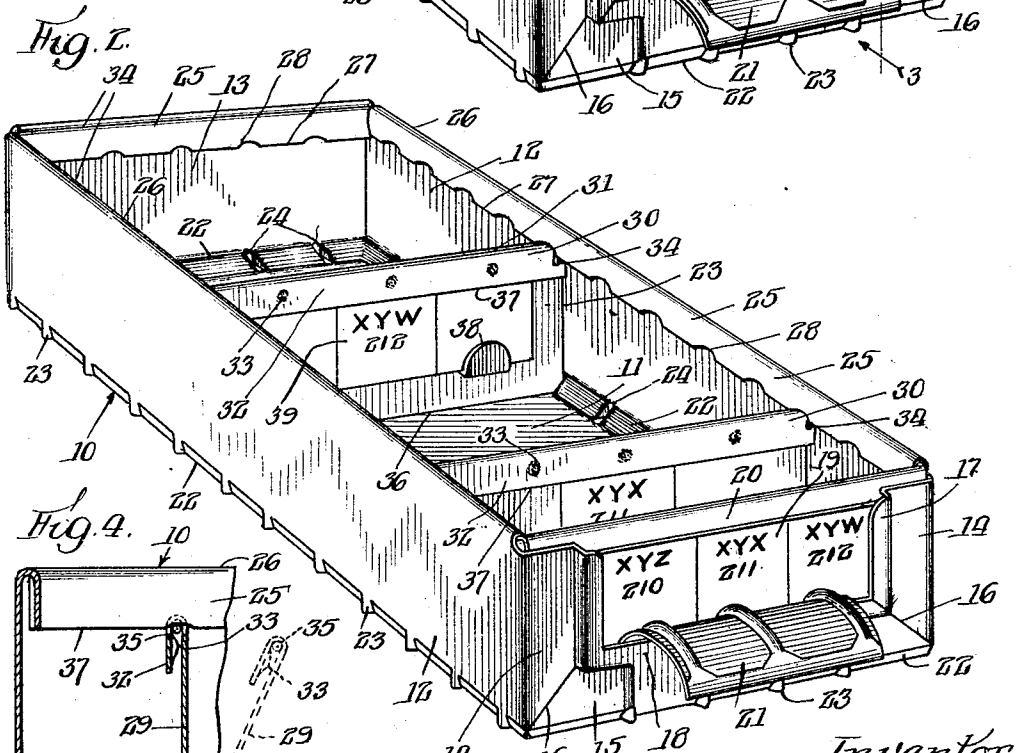


Fig. 4

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Patented Nov. 17, 1931 1,832,158

UNITED STATES PATENT OFFICE

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SHELF BOX

Application filed June 20, 1929. Serial No. 372,302.

This invention relates to boxes or drawers in general and particularly to shelf boxes for filing cards, papers or the like.

The primary object of the invention is to provide a box having a plurality of partitions which may be readily positioned and removed, or relocated as conditions may require.

Another object is to provide a partition of novel and improved construction, which is arranged in a box or drawer in such a manner that the partition may be easily installed and removed.

Another object is to provide a partition which is adjustably and removably arranged in a box or drawer so that the partitions may be readily positioned and securely held against displacement.

A further object is to provide a sheet metal box or drawer which has shelf inserts which are constructed and arranged so that they may carry indices or labels relating to the matter contained in the compartment set off by the partition.

A still further object is to provide a box or drawer which has removable portions arranged therein which are locked in position so that the box may be lifted or carried by these partitions without displacing them.

Another object is to provide a box or drawer which has means arranged therein for removably supporting and positioning a plurality of partitions, and which is reinforced by the said means.

Another important object of the invention is the provision of a box particularly adapted for positioning upon a shelf and having partitions dividing said box into compartments, the box being adapted to receive a label reciting the contents of the various compartments and each partition thereof being adapted to receive a label identifying the material in the compartment therebehind.

Numerous other objects and advantages of the invention will be apparent throughout the progress of the specification.

The invention comprises in general a box or drawer which is made from a single piece of sheet metal. The bottom edges of the box are indented at intervals to provide slots or recesses for receiving the lower edges of the partitions to position them. An inturned flange is provided about the inside of the drawer, and notches are arranged in this flange to receive a wire which extends across a notch arranged in the downturned flange on the partitions.

The construction of the box and the engagement of the divider with the box is broadly disclosed and claimed in a copending application, Serial No. 191,585, filed May 16, 1927. The present case covers the specific manner in arranging and locking the divider in the box.

The accompanying drawings illustrate a selected embodiment of the invention and the views therein are as follows:

Fig. 1 is a perspective view of a sheet metal shelf box divided into compartments by longitudinally extending partitions.

Fig. 2 is a view similar to Fig. 1 showing a box or drawer divided into compartments by transversely extending partitions.

Fig. 3 is a detail sectional view on the line 3—3 of Fig. 1.

Fig. 4 is a detail sectional view showing the manner in which the partitions are arranged in place.

Referring to the drawings, 10 designates generally a sheet metal box or drawer formed of a single sheet of material and comprising a bottom 11, side walls 12, a rear wall 13, and front wall forming flanges 14 and 15. These parts of the box may be conveniently constructed from a single blank, the side walls 12, rear wall 13 and the front flanges 14 and 15 being bent to the finished form shown. The side walls 12 and the rear wall 13 extend at right angles to the bottom and are preferably secured at adjacent ends in a suitable or preferred manner. The flanges 14 and 15 are respectively bent at right angles to the plane of the side and bottom walls and meet in mitered joints 16. These flanges are preferably offset, as shown at 17, to receive a label 19, as will be presently more fully described. The front wall is preferably completed by the insertion of a front wall member 20 arranged behind and secured to the flanges 14 and 15.

If desired, a handle 21 may be inserted between the flange 15 and the front wall

member 20, as indicated at 18, to withdraw the box from closed position on a shelf.

The side walls 12, the rear wall 13, and the flange 15 are indented and provide the inclined portions 22. The parts 23 between the inclined portions 22 provide inner recesses or slots 24 which extend out horizontally in the plane of the bottom 11 and vertically in the plane of the side walls 12, rear wall 13, and front flange 15. These slots or right angle depressions 24 constitute recesses at the bottom, which together with the inclined connecting parts 22 provide a rigid box construction. The inclined portions 22 and the intermediate portions 23 reinforce the construction of the box itself, as well as provide the partition receiving recesses 24.

The side walls 12, the rear wall 13, and the front wall member 20 are provided along their top edges with inturned downwardly extending flanges 25, which are bent along the line 26 and are arranged, as shown in Figs. 3 and 4, inwardly of the side and end walls of the box. The lower edge 27 of these downwardly extending and inwardly arranged flanges are recessed at intervals at 28 to receive the upper edges of the longitudinal and cross partitions 29 and 30 respectively. It will, of course, be understood that recesses in the flanges 25 at each side and at each end are in registration with recesses at the opposite side and end.

The partitions 29 and 30 are adapted for like connection in the box, and each consists of a metal sheet of general rectangular form and having its top edge folded or looped over along the line of fold 31 to provide a downwardly extending flange 32. This flange, in accordance with the disclosure of the invention shown on the drawings, is depressed inwardly at intervals at 33 to adjacent the body portion of the partition.

The top edge of the partition is cut away adjacent its ends to provide downwardly extending grooves 34 into which the flanges 25 of the box may be received. A spring wire or retaining member 35 is positioned in the fold at the top of each partition member, being snapped past the depression 33. The wire or spring member 35 extends across a recess or groove 34 at each end. The bottom corners of each partition member are left square and these corners are adapted to be received in the registering bottom recesses or slots 24 when the partition is positioned.

Each partition may be installed by resting the bottom edge 36 thereof upon the bottom of the box with the corners engaged in the recesses or slots 24. Thus positioned, the partition has generally the inclined position shown in broken lines in Fig. 4, the sides of the partition being spaced apart a distance to bring them relatively close to the side walls between which the partition extends. Thereafter the partition is moved to vertical position about its bottom edge as an axis causing the spring member or wire 35 to be first depressed by the lower edges 27 of the flanges 25 until said spring member or wire is opposite the recesses 28 into which the wire or spring member snaps to hold the partition in place.

The downwardly extending ends 37 of the flanges 32 of the partition, particularly when they are provided to extend transversely of the box or drawer, are preferably arranged to cooperate with lower label holding members 38 to secure labels 39 indicating the material or contents of the compartments behind the partitions. These label holding members 38 are preferably constructed by striking out tongues from the body of the partitions, as shown in Fig. 2.

A box embodying my invention provides for the reception of a main label 19 at the front of the box between the flanges 17 and the main front wall member 20. Individual labels indicating the contents of particular compartments and preferably reproducing the indicia of the main label are readily positioned upon the partitions themselves, as will be understood.

It will be manifest that the wires or spring members 35 serve to press the partitions downwardly within the box or shelf insuring firm and permanent engagement of the corners of the partitions in the recesses or slots 24.

The invention provides a box for removably holding either longitudinal or cross partitions in substantially rigid position. The box has indented portions at its bottom to provide recesses for receiving the lower corners of a partition, and notched flanges at the top of the box engage the top of the partition. A label receiving element is provided on the front of the box to designate the contents therein, while the partitions have label receiving elements to designate the contents of each compartment formed by the partitions. Both the box and partition are strong and durable and can be readily and economically manufactured.

Changes may be made in the form, construction and arrangement of the parts without departing from the spirit of the invention or sacrificing any of the advantages thereof, and the right is hereby reserved to make all such changes as fairly fall within the scope of the following claims.

The invention is hereby claimed as follows:

1. A box and partition therefor, said box having oppositely facing partition receiving recesses at the top and bottom of a vertical wall, and said partition member being provided with a vertically acting spring member engageable in a said recess.

2. A box and partition therefor, said box having oppositely facing partition receiving

recesses at the top and bottom of a vertical wall, and a spring wire member arranged along an edge of said partition member and adapted for engagement in one of said recesses.

3. A box and partition therefor, said box having oppositely facing partition receiving recesses at the top and bottom of a vertical wall, said partition member having a fold extending along one of its horizontal edges, and a spring member arranged in said fold and adapted to engage a said recess.

4. A box and partition therefor, said box having oppositely facing partition receiving recesses at the top and bottom of a vertical wall, said partition member having a fold extending along a horizontal edge and cut away adjacent the ends of said edge, and a spring member arranged in said fold and exposed at said cut-away portion and adapted at its exposed point to engage in a said recess.

5. A box and partition therefor, said box having opposite side walls provided with inwardly arranged and downwardly extending notched flanges at their upper edges, and said partition having a downwardly yielding wire member extending along its top and adapted to engage in the notches of said flanges of the side walls.

6. A box and partition therefor, said box having oppositely facing recesses at the tops and bottoms of its side walls, said partition having square corners at its bottom edges adapted to seat in the recesses at the bottom of opposite side walls, and a spring wire member extending along the top of said partition and adapted to spring into the recesses at the tops of said side walls when said partition is positioned by inserting its square bottom edges in bottom recesses and thereafter tilted to upright position to bring said spring wire member into registration with the upper recesses.

7. A box comprising means forming a compartment and partition therefor, said box having a vertical wall provided with registering recessed portions adjacent its upper and lower portions whereby to permit the partition to be inserted between said recessed portions and a spring member on said partition and extending into and yieldingly engaging a said recessed portion, to resiliently secure the partition in place between said recessed portions.

8. A box and partition therefor, said box having registered and opposed upper and lower formed wall portions capable of receiving the partition removably there between, a depressible member carried by said partition and extending into and engaging a said formed portion to secure the partition in position between the said opposed wall portions.

9. A box comprising means forming a compartment and partition therefor, said box being formed with opposed recessed portions formed to removably receive the partition therebetween and resilient depressible means mounted on said partition and extending into and engaging the said recessed portion.

10. A box comprising means forming a compartment and partition therefor, said box having walls formed with spaced apart opposed portions therein whereby to receive the partition removably between said spaced apart portions and a resilient spring member carried by said partition and adapted to enter into and engage said portions, to resiliently secure the said partition in place therebetween.

In witness whereof, I have hereunto subscribed my name.

WALTER N. VANCE.