# United States Patent

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[54] **PAPER TRAY**
**13 Claims, 11 Drawing Figs.**


[52] **U.S. Cl.** ..... **312/290,** 206/73, 220/22, 220/23.83
[51] **Int. Cl.** ..... **A47b 81/00,** B65d 25/06
[50] **Field of Search** ..... 220/22, 23, 83; 206/73; 312/240, 290



[56] **References Cited**
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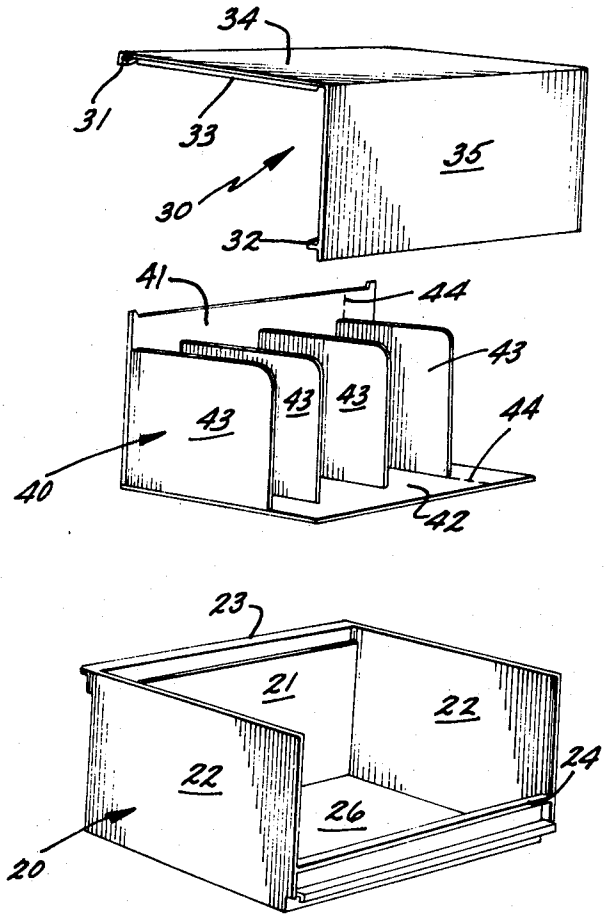
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**ABSTRACT:** A filing tray for use in a file drawer, being removable therefrom, having ends, a side panel, a bottom, and having a detachable cover which can be placed thereon for storing purposes. A paper hopper for use in said tray, being removable therefrom, having a side, a bottom, partitions, and a breakaway line; said hopper capable of being oriented in said tray with its side against the side of said tray, with its side opposite the side of said tray or, with a portion thereof being broken off at said breakaway line, with its side generally parallel to the ends of said tray.

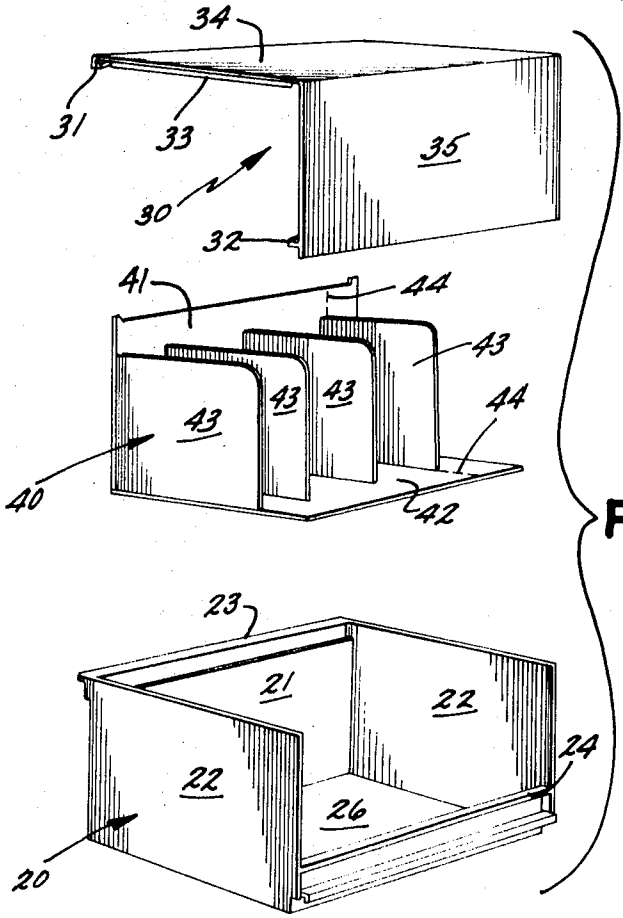



FIG. 1.

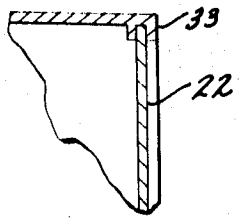



FIG. 5.

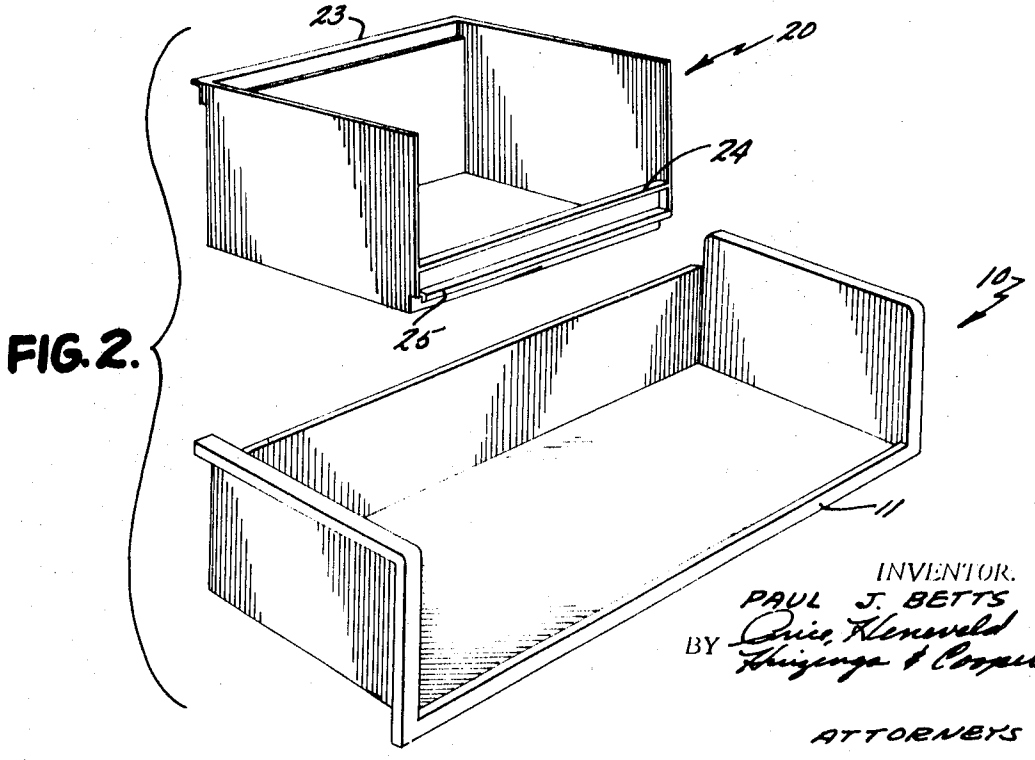



FIG. 2.

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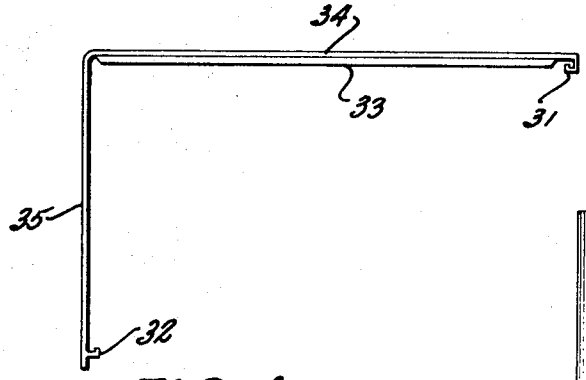



FIG. 4.

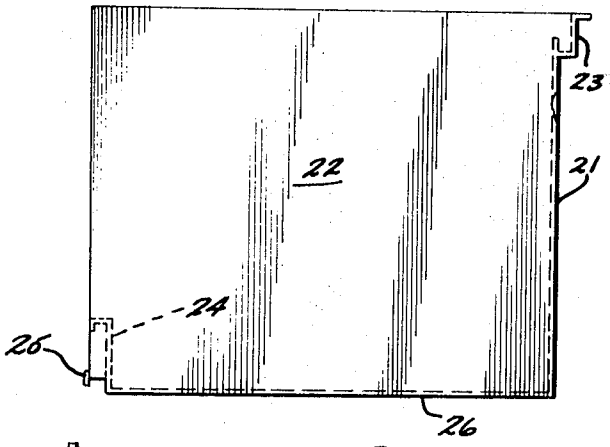



FIG. 3.

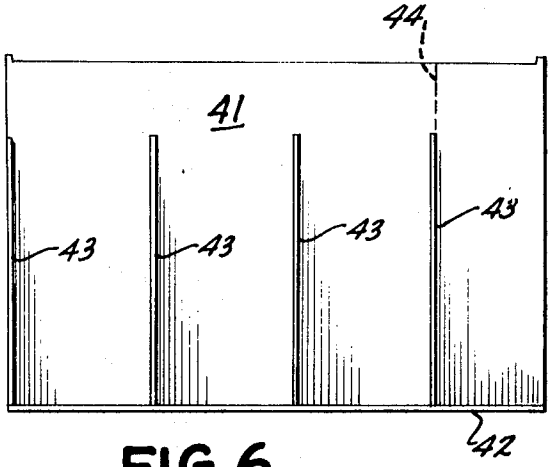



FIG. 6.

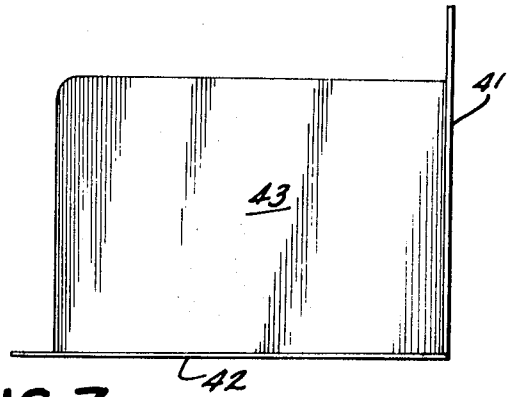



FIG. 7.

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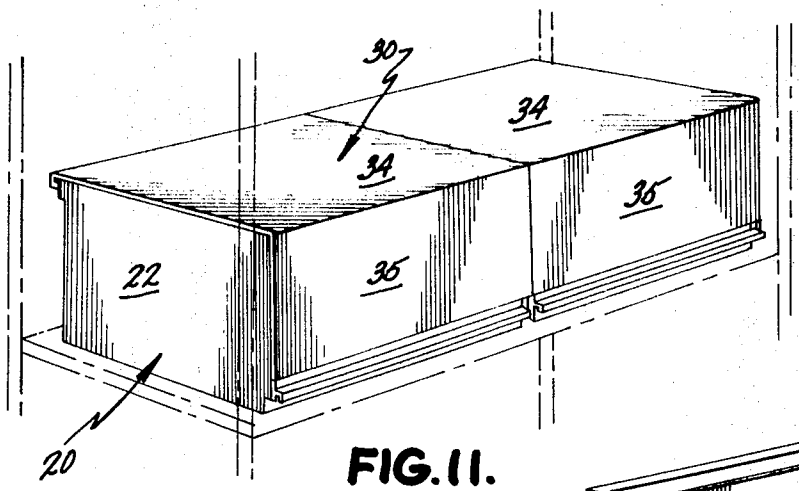



FIG. 11.

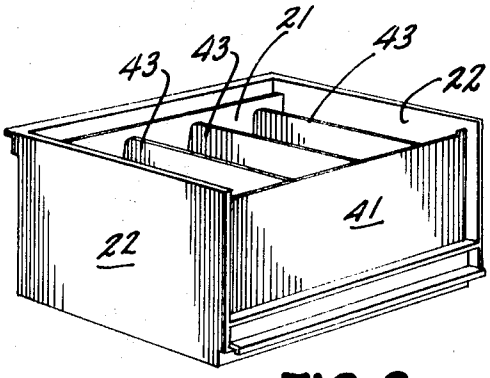



FIG. 8.

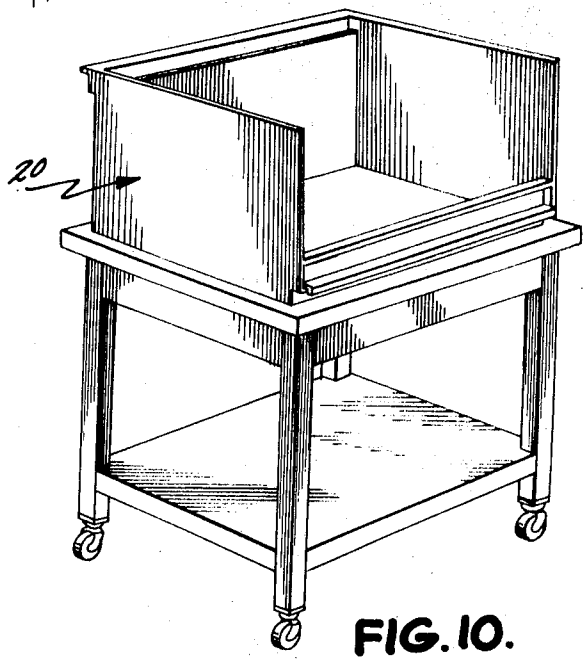



FIG. 10.

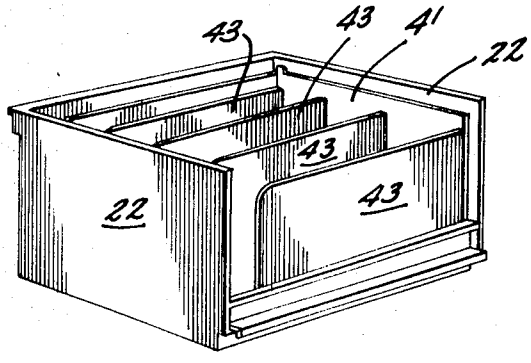



FIG. 9.

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# PAPER TRAY

## BACKGROUND

This invention relates generally to filing systems, and furniture and equipment required for filing.

The filing and storage of papers, a necessary chore in any administrative operation, generally involves the filing of different sized papers and generally requires the use of various types of folders. Most papers are either legal size or a somewhat shorter letter size, with papers of various other dimensions appearing less frequently. These are usually filed in either legal sized or letter sized folders. In addition, the most popular types of folders include top-tab folders, side-tab folders and hanging folders. Thus, the filing equipment of almost any office must accommodate all of these different types and sizes of papers and folders in order to have optimum usefulness and effectiveness.

Consequently, the office management committee is faced with quite a dilemma when it is forced to appropriate filing cabinets and equipment for use in its filing system. Top-tab folders can generally be accommodated in standard-type drawers with open tops. Side-tab folders, on the other hand, must be filed in drawers which have at least one open side or a side which is not particularly deep. Frequently, it is found that drawers which have been suitable for the top-tab folders are unsuitable for the side-tab folders and hence new equipment must be purchased. Even more perplexing is the appearance of hanging-type folders in the filing system. These require drawers with special hanging rods or hanging means and the drawers which were suitable for top-tab or side-tab folders are almost never suitable for hanging folders.

The appearance of legal and letter sized papers and folders in the system further complicates matters. Of course, legal papers can be filed lengthwise in a drawer while letter sized papers can be filed sideways. Unfortunately, it is almost always desirable that the drawer have partitions in order to keep the papers and folders from falling down flat in the drawer. Thus, drawers having partitions oriented sideways therein are unsuitable for filing legal size papers and folders while drawers having lengthwise partitions leave a good deal of wasted space when used for filing letter size papers and folders. Thus, present office furniture and equipment simply does not provide the filing versatility which is required in almost any office.

Storing files presents yet another perplexing problem. When filed material is no longer current but must still be retained, someone has to transfer all of the files from a drawer to a storage box. Such an operation is both time consuming and inconvenient.

Finally, another inconvenient and needlessly time-consuming operation is filing itself. In most operations, the secretary lets her filing stack up and finally carries it over to a filing cabinet where she generally either stands up or kneels down and files it in the drawer. Not infrequently, she spends too much of her day running back and forth between her desk and a filing cabinet.

The present invention includes a tray which can be placed in a file drawer and in which papers can be filed. It includes a bottom, an upstanding side, upstanding ends, an open top, and an open side. It includes means for grasping it and removing it from said drawer, and it includes a detachable cover which can be placed on it in order to facilitate its storage when the files it contains are no longer current.

Thus, with respect to letter size papers and folders, this invention facilitates the filing of either side-tab or top-tab folders in a standard-type drawer. Standing or kneeling at a filing cabinet with a stack full of filing is no longer necessary. The secretary can merely remove a tray from the drawer, place it on a cart and roll it over to her desk. Likewise, the secretary's travel between her desk and her filing is greatly reduced since she can easily roll a pertinent set of files over to her desk. Finally, a great deal of time and energy is saved in the storage operation since a tray of noncurrent files can be lifted out of its drawer securely covered and placed on a shelf in the storage room.



With modifications, a narrower aspect of this invention comprises a paper hopper which can be placed in a drawer or other receptacle and which has a bottom, an open side, and partitions. Its width corresponds generally to the inside width of the receptacle, and its length is somewhat greater than its width. It is removable from the receptacle and has a breakaway line such that a portion of it can be broken off leaving the hopper with a length dimension which is less than the width of said receptacle.

Thus, a filing drawer or other receptacle is given tremendous versatility in that even with partitions it can be either a letter or legal size filing receptacle. By using a combination of the two modifications of the invention, one can achieve the advantages of both modifications. Furthermore, even greater versatility is achieved in that the same drawer can be used for letter size hanging-type folders as well as top-tab or side-tab letter size folders.

These and other objects and advantages of this invention can be better understood by reference to the preferred embodiment and appended drawings wherein:

FIG. **1** is an exploded perspective view of the tray, paper hopper and cover;

FIG. **2** is an exploded perspective view of the tray and the drawer;

FIG. **3** is a side view of the tray;

FIG. **4** is a side view of the cover;

FIG. **5** is a cross-sectional closeup of the interaction between the cover and an end of the tray;

FIG. **6** is a side view of the paper hopper;

FIG. **7** is an end view of the paper hopper;

FIG. **8** is a perspective view of the hopper and tray with the hopper reversed to receive hanging files;

FIG. **9** is a perspective view of the drawer with the paper hopper oriented so as to receive legal size papers;

FIG. **10** is a perspective of the tray on a cart; and

FIG. **11** is a perspective of two trays in storage.

## PREFERRED EMBODIMENT

The basic components of the disclosure include tray **20**, cover **30** for enclosing tray **20**, paper hopper **40** which goes in tray **20** (FIG. **1**) in conjunction with a conventional file drawer **10** into which tray **20** is placed (FIG. **2**).

In the preferred embodiment, the invention is designed for use in lateral-type files wherein each drawer **10** of the file is sufficiently large to accommodate two trays **20** (FIG. **2**). Tray **20** is preferably made of plastic and includes an upstanding side or backside **21**, upstanding ends **22**, and a bottom **26** (FIG. **1**). It has a length and width, its width being sufficient to accommodate letter size folders and its length being sufficient to accommodate legal size folders. Rear handle or handling projection **23** and front handle or handling projection **24** provide a means for grasping and lifting tray **20** and drawer engaging projection **25** helps secure tray **20** in drawer **10** as described hereinafter.

As can be seen in FIG. **3**, side **21** extends upwardly perpendicular to bottom **26** and rear handling projection **23** extends outwardly from side **21**, then upwardly and then outwardly again. It should be noted that handling projection **23** is not secured directly to the top of side **21** but rather is disposed downwardly from the top thereof about one-quarter of an inch. As will be shown later, this facilitates the use of tray **20** for hanging-type folders.

Front handling projection **24** extends upwardly from bottom **26** a short distance and then curls outwardly and downwardly. In effect, it is a second side of tray **20** but it must not be as high as side **21**. It must be open, or at least open part of the way down from the top in order that tray **20** can be used for side-tab folders. Also, the top of tray **20** is open in order that it can be used for top-tab folders.

Drawer engaging projection **25** extends outwardly and downwardly from front handling projection **24** at a short distance up from the bottom **26**. In the preferred embodiment, drawer **10** (FIG. **2**) includes a ridge or lip **11** running across its

front over which drawer engaging projection 25 is fitted when tray 20 is placed in drawer 10. Finally, upstanding ends 22, which are secured to the aforementioned elements and close in the ends of tray 20, are generally rectangular in shape except that they jut outwardly at their top right side as seen in FIG. 3 in order to accommodate the shape defined by rear handling projection 23 and they are cut away slightly at their lower left-hand corner as seen in FIG. 3 in order to conform to the shape defined by drawer engaging projection 25 and thereby accommodate lip 11 of drawer 10.

Cover 30 is also preferably made of plastic and includes top 34, side 35, and grooved ribs 33 running along each end of the top thereof. In addition, there is a rear handle engaging projection 31 which curls downwardly and inwardly from the back of top 34 and a front handle engaging projection 32 which curls inwardly and upwardly from near the bottom of side 35 (FIGS. 1 and 4). Cover 30 is slightly flexible such that projections 31 and 32 can be made to cooperate with rear handle 23 and front handle 24 respectively to secure cover 30 to tray 20 (FIG. 11). In addition, each grooved rib 33 on the left side and on the right side of top 34 accommodates the top edge of an end 22 in order to further secure cover 30 to tray 20 (FIG. 5). As can be seen in FIG. 11, the open top and open side of tray 20 are completely sealed when cover 30 is secured thereto.

Paper hopper 40 is in effect a modification of tray 20 which can be used in conjunction therewith or separately. It is preferably made of plastic and includes bottom 42, upstanding side or back side 41, and upstanding partitions 43 (FIGS. 1, 6, and 7). Side 41 extends vertically upwardly from the back edge of bottom 42. Partitions 43 are panels which extend upwardly from bottom 42 and frontwardly from back side 41. Each partition 43 is somewhat shorter in height than back side 41 and somewhat shorter in width than bottom 42. They are spaced about three to four inches apart and act to support folders or papers and keep them from falling down. Like tray 20, paper hopper 40 has an open top and an open side such that it can accommodate either side-tab or top-tab folders. Furthermore, side 41 has dimensions comparable to those of side 21 of tray 20 such that hopper 40 can be oriented in tray 20 to accommodate hanging-type folders. Bottom 42 of paper hopper 40 has length and width dimensions comparable to those of bottom 26 of tray 20.

In addition, paper hopper 40 includes a breakaway line 44 which extends down side 41 and across bottom 42 (FIGS. 1 and 6). Side 41 and bottom 42 are weaker along breakaway line 44 than elsewhere such that a portion of paper hopper 40 can be broken off at breakaway line 44. In the preferred embodiment, breakaway line 44 is a perforated line, but it could be a weakening groove cut into hopper 40 or some other comparable weakening line. It must be sufficiently strong that paper hopper 40 will not break in two during routine operation. However, when force is intentionally applied, hopper 40 must readily divide into two portions along breakaway line 44.

## OPERATION

It can be seen that the invention offers tremendous versatility in accommodating different types of folders. In FIG. 1, side 41 of hopper 40 abuts side 21 of tray 20 and the open side of hopper 40 corresponds to the open side of tray 20. The length axis of hopper 40 is generally parallel to the length axis of tray 20. When arranged in combination in this fashion, tray 20 can be placed in drawer 10, hooking drawer engaging projection 25 over lip 11, and drawer 10 becomes suitable for either top-tab or side-tab letter size file folders. In FIG. 8 the length axis of hopper 40 is still parallel the length axis of drawer 10, but side 41 is opposite side 21 such that the open side of tray 20 is now closed by side 41 and the open side of hopper 40 is now closed by side 21. Now when tray 20 is placed in drawer 10, drawer 10 becomes suitable for filing hanging-type letter size folders. It should be noted that because rear handle or handling projection 23 is disposed downwardly slightly from the top of side 21, there is room for the hook projections on hanging folders to hook over side 21.

FIG. 9 illustrates the even greater versatility of combining hopper 40 in tray 20. The right end portion of hopper 40, looking at it as in FIG. 6, has been broken off at breakaway line 44, thus leaving it with a length which is less than the width of tray 20 and hopper 40 is now placed in tray 20 with its length axis generally parallel to the width axis of said tray 20. The remaining portion of side 41 abuts one end 22. Now when tray 20 is placed in drawer 10, drawer 10 is suitable for filing legal size folders.

Tremendous convenience and savings in time can be achieved by a secretary merely removing tray 20 from drawer 10 and placing it on a cart, as shown in FIG. 10, and then rolling the entire tray 20 and all of its files over to her desk. In this fashion, she could keep pertinent files right by her desk the entire time she was working. Or, she could allow her filing to build up on her desk and then roll the appropriate tray 20 of files over to her desk and do her filing while sitting down in a comfortable position. Thus, the invention offers tremendous potential for providing convenience and for saving time.

When the files in a tray 20 are no longer current, tray 20 can simply be removed from drawer 10 and prepared for storage. Rear handle engaging projection 31 on covers 30 can be hooked over the edge of rear handling projection 23 and then the cover can be lowered onto tray 20 and the grooved ribs 33 can be guided over the top edges of ends 22. Finally, because of the slight flexibility of covers 30, front handle engaging projection 32 can be hooked over front handling projection 24 and cover 30 can be securely snapped in place. The completely covered and dust proof set of files can now be placed in the storage room on shelves as shown in FIG. 11.

It is apparent that many of the above advantages can be achieved merely by using tray 20 alone in drawer 10 or some other type of filing drawer. The handles 23 and 24 make it easy to lift an entire set of files out of a drawer and place them on a cart for movements to another part of the office. In a similar fashion, a tray 20 can be lifted out of a drawer and prepared for storage by covering it with cover 30. Because the tray 20 has an open top and an open side, it is adaptable for use with either side-tab or top-tab letter size folders.

On the other hand, many of the above advantages can be achieved by using hopper 40 alone in drawer 10 or some other receptacle. As above, its open top and open side make it adaptable for either top-tab or side-tab letter size folders. In addition, its partitions 43 act to support files and folders in drawer 10. Furthermore, the ability to break a portion of hopper 40 off at breakaway line 44 renders it useful for creating a drawer or receptacle for filing either legal size or letter size folders and papers.

Finally, through the use of hopper 40 in combination with tray 20, all of the versatility and advantages suggested previously are available; and in addition, the orientation of hopper 40 in tray 20 with their respective sides 41 and 21 opposite each other rather than abutting, renders a drawer which can be used to file hanging-type folders.

The above is merely a preferred embodiment of this invention and many alterations can be made thereof without departing from the spirit and broader aspects of the invention.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows.

1. A combination filing tray and paper hopper comprising: a tray; a paper hopper removably positioned in said tray, said hopper having a bottom, an open side and partitions; said hopper having a width corresponding generally to the inside width of said tray and a length greater than said tray width but less than said tray length such that said hopper can be placed in said tray with its length axis generally parallel to the length axis of said tray; said hopper having a breakaway line extending transversely of said length axis such that a portion thereof can be broken off on said breakaway line to leave a length dimension of said hopper which is less than said tray width such that said hopper can be placed in said tray with its length axis oriented generally parallel to the width axis of said tray.

2. The combination of claim 1 further comprising: a detachable lid on said tray to facilitate the storage thereof.

3. The combination of claim 2 in which said tray has a width sufficient to accommodate letter size papers and a length sufficient to accommodate legal size papers.

4. The combination of claim 1 in which said tray has a width sufficient to accommodate letter size papers and a length sufficient to accommodate legal size papers.

5. A combination filing tray and paper hopper comprising: a tray having a bottom, and upstanding side panel generally perpendicular to said tray bottom, an open top, and an open side; a hopper removably positioned in said tray, said hopper including a bottom, an upstanding side panel, generally perpendicular to said hopper bottom, an open top and an open side; said upstanding side panels of said tray and paper hopper being of comparable dimensions; said hopper being removably positioned in said tray with its said side panel blocking said open side of said tray whereby hanging folders can be suspended between said upstanding side panel of said tray and said upstanding side panel of said hopper; said hopper being removable from said tray for reorientation with its said side panel abutting said side panel of said tray.

6. The combination of claim 5 further comprising: said hopper having partitions generally perpendicular to said side thereof; and said tray having upstanding ends.

7. The combination of claim 6 further comprising: said hopper having length and width dimensions corresponding generally to those of said tray; said hopper including a breakaway line such that a portion thereof can be broken off leaving said hopper with a length dimension less than the width of said tray such that said hopper can be placed in said tray with its length axis generally parallel to the width axis of said tray.



8. The combination of claim 7 which further comprises: a detachable cover on said tray to facilitate the storage thereof.

9. The combination as set forth in claim 7, wherein said tray has a width sufficient to accommodate letter size papers and a length sufficient to accommodate legal size papers.

10. The combination of claim 5 further comprising: a detachable cover on said tray to facilitate the storage thereof.

11. The combination as set forth in claim 5 which also comprises a file drawer into which said tray is removably placed; said drawer having a back, end walls and an open front with a lip running along said open front; said tray having a lip engaging projection along the edge of said open side for engaging said lip.

12. The combination as set forth in claim 5 in which said tray includes a handle extending along the edge of its open side; said tray including the rear handle projection from said upstanding side and extending generally the length of said tray; said projecting handle being spaced below the top edge of said upstanding side whereby objects can be hung over said top edge of said upstanding side.

13. The combination as set forth in claim 5 which also comprises a file drawer into which said tray is removably placed; said drawer having a back, end walls and an open front with a lip running along said open front; said tray having a lip engaging projection along the edge of said open side for engaging said lip; said tray including a handle extending along said edge, above said lip engaging projection; said tray including a rear handle projecting from said upstanding side of said tray and extending generally the length thereof; said projecting handle being spaced below the top edge of said upstanding side of said tray whereby objects can be hung over said top edge of said upstanding side.