Jan. 27, 1925. 1,524,348

J. H. FIELD

FILING DEVICE

Filed June 8, 1921

FIG. 1

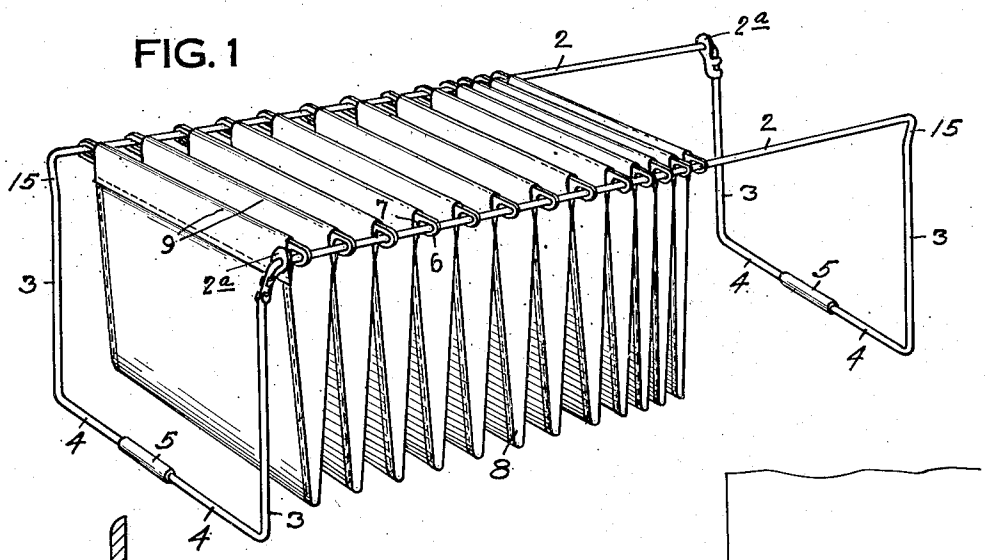


FIG. 2

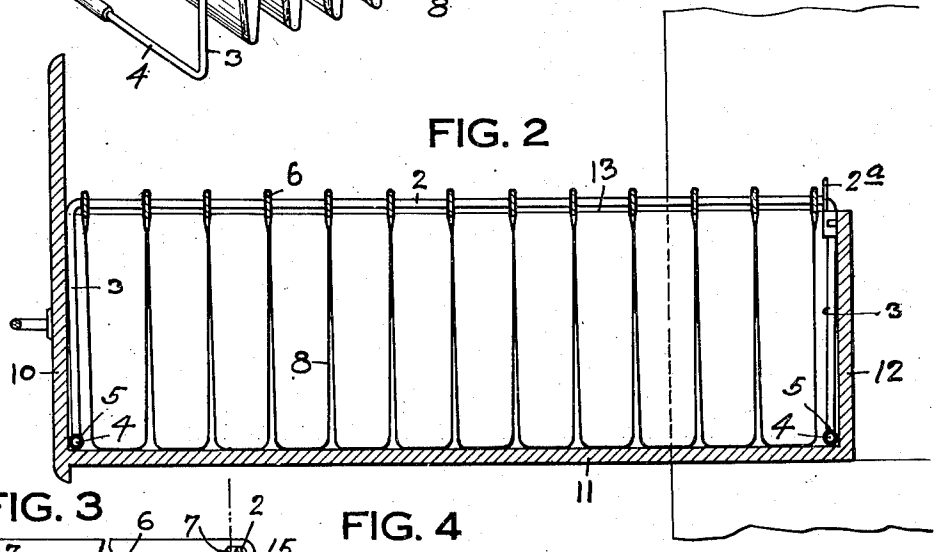


FIG. 3

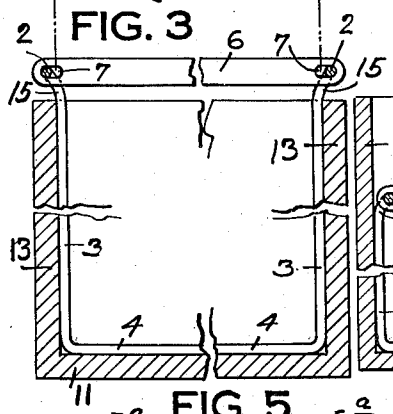


FIG. 4

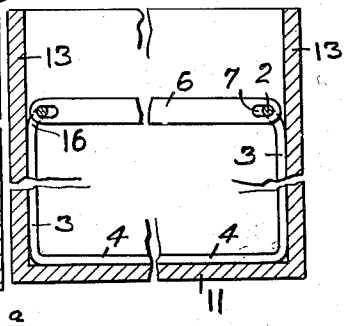


FIG. 5

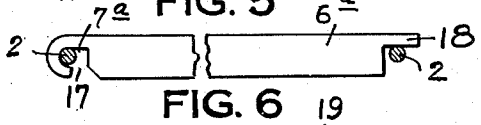
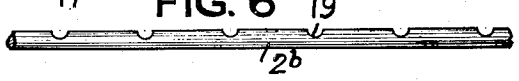


FIG. 6



INVENTOR

James H. Field,

By Kay, Totten & Brown,

Attorneys.

Patented Jan. 27, 1925. 1,524,348

UNITED STATES PATENT OFFICE.

JAMES H. FIELD, OF PITTSBURGH, PENNSYLVANIA.

FILING DEVICE.

Application filed June 8, 1921. Serial No. 476,073.

To all whom it may concern:

Be it known that I, JAMES H. FIELD, a citizen of the United States, and resident of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Filing Devices; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to devices for filing correspondence, documents, paper books, phonograph records and the like.

The primary object of my invention is to provide means for equipping the drawers or boxes of filing cases with convenient and effective sectionalizing means, in the nature of partitions or containers, that can be used without change with different sizes of boxes and drawers within wide limits.

Another object of my invention is to provide a filing device including movable suspended partition members or containers, and constructed as an independent unit which may be used either in a filing drawer or box, or separately and without any receptacle.

A further object of my invention is to improve the construction of flexible filing devices with respect to the parallel rails that support the runners which suspend or support the partition means or containers, and in particular to construct these rails in such a way as to be very inexpensive, to occupy the smallest possible space, and at the same time to be sufficiently rigid.

More specifically, my invention aims to provide a filing device consisting of two substantially parallel rails supported at a uniform height at their ends by means of legs formed by bending down the rails at their ends and kept at a uniform distance apart by still further extensions of the same piece of material bent at the lower ends of the legs transversely to the rails and suitably jointed, thus forming a substantially continuous and integral construction, which is unattached to, and is therefore independent of, the height and distance apart of the sides of the box or other container, if any, in which it is used. This construction also makes it possible to construct the entire frame, including the rails, legs and connecting members, of material that is of the same cross-section throughout.

An example of my invention is shown in the accompanying drawing, in which Fig. 1 is a perspective view of the complete device; Fig. 2 is a longitudinal sectional view of the device of Fig. 1 as it appears when inserted in one of the drawers of a filing cabinet; Fig. 3 is a transverse vertical sectional view of the framework of my device, showing its relation to the sides of the drawer; Fig. 4 is a transverse vertical sectional view similar to Fig. 3, but showing a modified frame; Fig. 5 is a fragmentary side view of a runner showing two modified ways in which the ends of the runners may be constructed; and Fig. 6 is a fragmentary side view of a modified form of rail.

The device shown in Figs. 1, 2 and 3 of the drawing consists of two substantially horizontal rails 2, the ends of which are continued to form supporting legs 3 having their lower ends connected by bent extensions 4, the ends of which are united by means of connectors 5. The ends of the extensions 4 may be welded together, if desired, to form one continuous piece of material, or the entire frame, including the rails 2, the legs 3 and the extensions 4, may be made from a single length of material having its ends welded or otherwise joined together to form an endless structure.

A number of runners 6 are mounted slidably on the parallel rails 2, being provided at their ends for this purpose with openings 7. These runners are provided for the purpose of suspending sectionalizing means which may consist of partitions, containers or supports of any usual or desired nature. For the purpose of illustration, I have shown in Figs. 1 and 2 one well-known form of partition means consisting of a continuous strip of cloth, or other fabric, which is folded to form a series of pockets 8 and is provided with loops 9 at its upper folds through which the runners 6 extend. It is to be understood that my invention is not restricted to the use of partition or supporting means of this kind, but that other forms of partitions or containers may be employed, such as those made of plain sheets of cardboard, paper or wood having their upper ends attached to, or forming one piece with, the runners 6, and having their lower ends swinging freely or touching the bottom of the drawer or box.

Fig. 2 shows the manner in which the device of Fig. 1 is inserted in a filing drawer, the front of which is shown at 10, the bot-

tom at 11, and the rear wall at 12. It will be observed that the rails 2 extend the full distance between the front 10 and the back 12 of the drawer. The rails 2 are preferably stiffened by spreading the bottoms of the legs away from each other, thus making the total length of the frame, composed of the rails 2 and the supporting legs 3, a trifle longer at the bottom than the inside length of the drawer, so that when the frame is placed in the drawer the lower ends of the legs are drawn toward each other which gives to the horizontal portions of the rails an upward thrust that tends to make the rails slightly arched and springy, so as to carry loads and pressures from the contents of the file without permanently changing the shape of the rails. This upward thrust is very slight and may not substantially change the appearance of the rails but makes it possible to construct the rails of light resilient wire, while at the same time providing sufficient load-supporting strength.

In order to prevent the runners 6 from riding off the ends of the rail wires 2, suitable stops 2^a may be provided, as shown in Fig. 1.

Figs. 1 and 3 show the manner in which the frame of my device is arranged to support partition members of the full inside width of the filing drawer or box. For this purpose the upper ends of the vertical legs 3 are bent outwardly, as shown at 15, so that the rails 2 overhang the upper edges of the sides 13 of the drawer, as best shown in Fig. 3. Filing drawers are usually made with the front 10 and the opening in the cabinet considerably higher than the sides 13 and the back 12, so that, although the rails 2 and the runners 6 extend above the sides and back of the drawer, they are still a considerable distance below the top of the opening.

Fig. 2 shows clearly the reason for supporting the rails 2 at a definite height above their base, such as the drawer-bottom 11. If the pockets 8 are too loose, as they would be if the rails 2 were set too low in the drawer, the contents of the pockets will not stand up properly; while if the rails are too high, so as to lift the pockets entirely off the bottom 11, the contents of the pockets will be lifted and may strike against the top of the cabinet opening. It is also evident that when the partition members consist of single sheets, swinging from the runners 6, the rails 2 must be at just the right height to bring the lower edges of the partitions close to the bottom 11, without either leaving gaps below the partitions or causing them to buckle. This necessary height of the rail may be either above, below, or level with, the top of the side walls of the receptacle.

Fig. 4 shows the arrangement which I employ in cases where the rails 2 and the runners 6 are required to be below the upper edges of the side walls of the box or drawer in which the device is contained. In that case the upper portions of the vertical supporting legs 3 are bent inward, as shown at 16, thus spacing the rails 2 from the sides of the box and giving room for the ends of the runners 6 which project slightly beyond the rails.

The runners 6 shown in Figs. 1 to 3 have closed perforations 7 and are therefore not readily removable from the rails 2. When it is desired that the runners shall be made removable, the end constructions shown in Fig. 5 may be employed. The runner 6^a, as shown at the left of this figure, is provided with an opening 7^a to admit the rail wire 2, and with a slot 17 communicating with the opening 7^a, the slot 17 being sufficiently wide to admit the rail wire 2. The same result is obtained by the construction shown at the right of Fig. 5, where the end of the runner is simply notched to provide an overhanging portion 18 which rests upon the rail wire 2.

Fig. 6 shows a modified form of rail having transverse depressions 19 formed at intervals along its length. Such depressions may be provided when it is desired to space the runners at equal distances along the rails 2^b.

As stated above my device is capable of being used without change with different sizes of boxes and drawers within wide limits, such adaptability being produced by the inward and outward bending of the upright supports, and the capability of lengthwise adjustment by spreading the end members farther apart or bringing them closer together, and the provision of sectionalizing units of standard height which renders the operation of the device independent of the depth of the box or drawer in which it is placed. It is also to be noted that the resiliency of the side rails and legs permits these parts to spring back to their normal positions if they should be distorted, through twisting of the sectionalizing units or otherwise, as may frequently occur in the handling of the sectionalizing units.

The construction herein shown and described has numerous advantages. It has heretofore been necessary in devices for the same general purpose, to attach the side rails directly to the boxes, drawers or other receptacles. Since the receptacles which are used for this purpose are of great variety in dimensions, it has been necessary to make the structure comprising the rails, and the parts associated therewith, of substantially the internal dimensions of the receptacle to the nearest one-sixteenth of an inch, in order to obtain efficient operation. The manufacture of this class of filing apparatus

is therefore costly and liable to error. In employing my present construction it is necessary to consider only the length of the receptacle in which the device is to be placed, and to make the frame of my device of the proper length to fit snugly within such receptacle. The exact width of the frame is not of vital importance so long as the receptacle is wide enough to contain it, neither is the depth of the receptacle of importance, because the rails of my device are supported a definite and suitable distance above the bottom of the box, irrespective of the height of the box walls. This makes it possible to make my improved device in standard heights and widths, and the runners or other elements used to separate, carry or support the filed matter may be made to fit the standard frames and are not subject to small changes to accommodate small changes in the height or width of the receptacle in which the device is to be inserted.

My device consists, therefore, of a frame of any suitable material, preferably having a uniform cross section. At present I prefer to make it from round steel rod in one or two pieces, connected by sleeves or permanently welded into a solid piece. It is to be understood, however, that I do not wish to limit my invention to the use of any particular material or cross-section. I consider that my invention comprises broadly the supporting of the side rails of a filing device at a definite height by means of legs formed by bending the rail material at each end. My invention further comprises keeping the rails a definite distance apart, and the legs upright, by cross bars formed by bending the same material transversely to the legs and rails, the whole forming a continuous frame, preferably of the same cross section throughout, the raised center forming two parallel rails supported at a definite height independent of the height and internal width of any container and, if desired, a self-contained unit, without the use of a container. Numerous variations may doubtless be devised by persons skilled in the art without departing from the principles of my invention. I therefore desire no limitations to be imposed on my invention, except such as are indicated in the appended claims.

I claim as my invention:

1. A filing device comprising sectionalizing units and side rails for supporting the said sectionalizing units, each of the said rails comprising a single rod of resilient material of uniform cross-section throughout having its ends bent down to form supporting legs, and means for engaging said legs and for imparting an upward thrust to the portions of said rails that extend between said supporting legs.

2. A filing device comprising a frame composed of a pair of substantially parallel rails, each of said rails having its ends bent down to form supporting legs, transverse spacing members connecting the lower ends of said legs at the ends of said frame, and sectionalizing units slidably supported on said rails.

3. A filing device comprising a frame composed of resilient wire and comprising a pair of substantially parallel rails, each of the said rails being bent down at its ends to form supporting legs, and the said legs being bent at their lower ends transversely to the said rails, means for joining the said bent lower ends of the said legs, and sectionalizing units slidably supported on said rails.

4. A filing device comprising an independent frame composed of resilient material, the said frame comprising a pair of substantially parallel rails, each of said rails consisting of a single length of material of uniform cross-section throughout, having its ends bent down to form supporting legs, and having the lower ends of said legs bent transversely to said rails and legs, means for connecting the said bent lower ends of the said legs, and sectionalizing units slidably supported on said rails.

5. A filing device comprising a receptacle and a frame removably contained within the said receptacle, the said frame comprising a pair of substantially parallel rails and each of said rails being composed of a single length of resilient material, having its ends bent down to form supporting legs, means for connecting the said legs to form an integral structure, and sectionalizing units slidably supported on said rails.

6. A filing device comprising a pair of substantially parallel rails, and legs at the ends of said rails for supporting the said rails within a receptacle, the upper ends of said legs being bent to space the said rails with relation to the inner walls of the said receptacle.

7. A filing device comprising a pair of substantially parallel rails, and legs for supporting the said rails within a receptacle having side walls higher than the said rails, the said supporting legs being bent inwardly to space the said rails inwardly from the said receptacle side walls.

8. A filing device comprising a pair of substantially parallel side rails, means for supporting the said side rails at a definite height, and means for suspending sectionalizing units therefrom, the said rails, supports and suspending means forming a complete filing unit independent of the height and width of any receptacle.

9. A filing device comprising a pair of substantially parallel side rails, each consisting of a single length of resilient material, resilient legs for supporting the ends of said side rails, means below said rails for connecting the said legs in pairs, and trans-

verse members having their ends attached to the said rails for suspending sectionalizing units, the said transverse members also serving to hold the said rails substantially equidistant, the resilience of said rails and said legs enabling said parts to return to their original positions if distorted by twisting said transverse members or otherwise.

10. A filing device comprising a pair of substantially parallel side rails, resilient legs for supporting the ends of said side rails at a definite height, means below said rails for connecting the said legs in pairs, and transverse members having their ends attached to the said rails for suspending sectionalizing units, the said transverse members also serving to hold the said rails substantially equidistant, the resilience of said rails and said legs enabling said parts to return to their original positions if distorted by twisting said transverse members or otherwise.

11. A filing device comprising a pair of substantially parallel side rails, each consisting of a single length of resilient material, resilient legs for supporting the ends of said side rails, means below said rails for connecting the said legs in pairs, and transverse members having their ends slidably mounted to the said rails for suspending sectionalizing units, the said transverse members also serving to hold the said rails substantially equidistant, the resilience of said rails and said legs enabling said parts to return to their original positions if distorted by twisting said transverse members or otherwise.

12. A filing device comprising an independent frame composed of one substantially continuous length of resilient material of uniform cross-section, the said frame comprising a pair of substantially parallel side rails, each rail having its ends turned down to form supporting legs, and the lower ends of each of said legs being bent transversely to said rails and being connected to the adjacent bent lower ends of the opposite legs, and transverse members having their ends slidably mounted on the said side rails for suspending sectionalizing units, the said transverse members also serving to hold the said rails substantially equidistant.

In testimony whereof, I, the said James H. Field, have hereunto set my hand.

JAMES H. FIELD.

Witnesses:

R. D. Brown,

John F. Will.