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FILING CABINET WITH TILTABLE DRAWER

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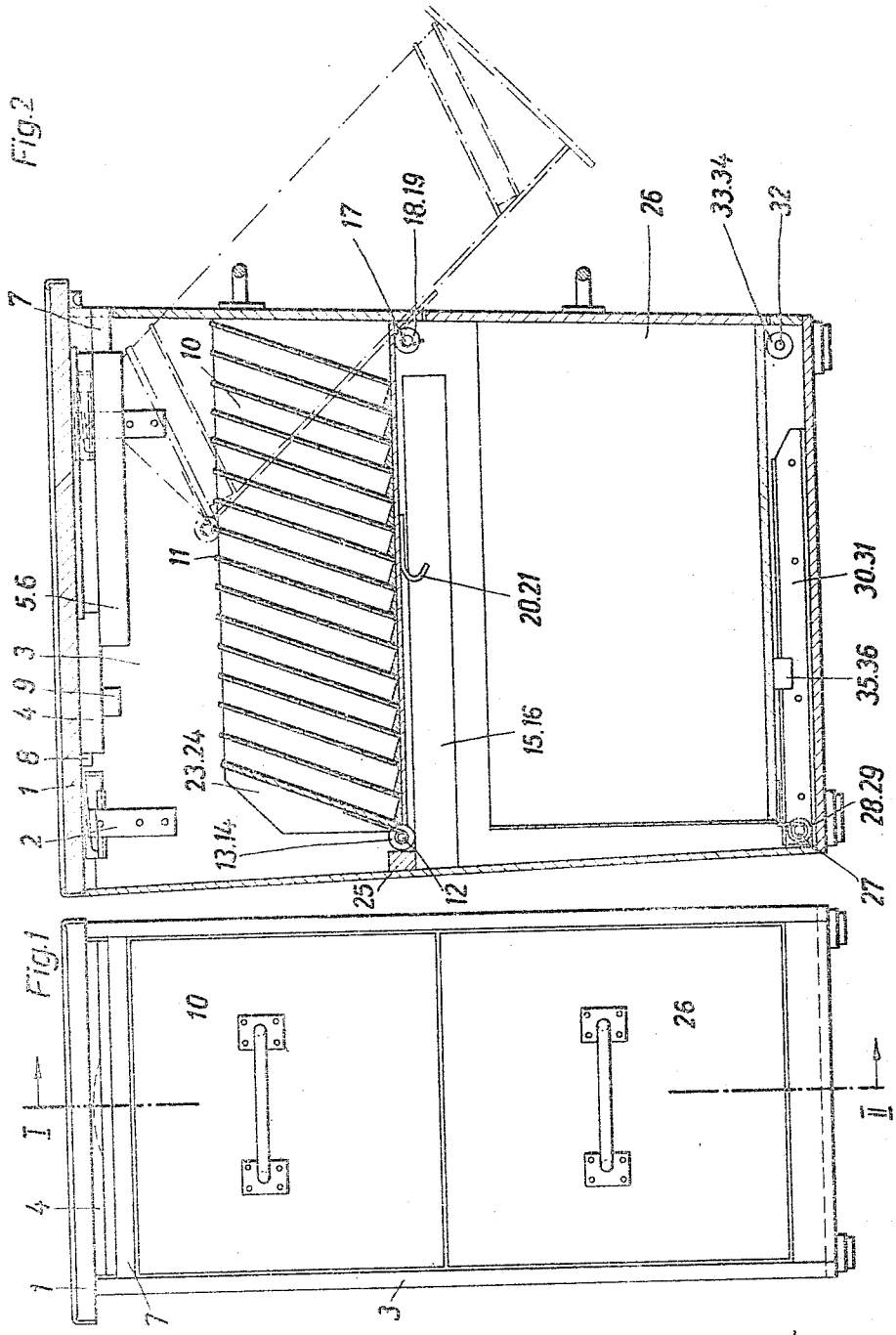

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FILING CABINET WITH TILTABLE DRAWER

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The present invention relates to a filing cabinet or a similar piece of office furniture for the storage of stationery, blank forms, letters or the like and including a compartment or casing provided with a plurality of spaced separating walls for dividing the casing in a plurality of subcompartments, in which the compartment is arranged movable parallel to the side walls of the cabinet between a rest position and an operating position in which the subcompartments are accessible so that papers stored therein may be withdrawn therefrom.

Cabinets of this type are known in which the compartment is arranged between the side walls of the cabinet turnably about a fixed pivot axis extending substantially normal to the side walls of the cabinet. The front wall of the turnable compartment forms in this case, when the compartment is in its rest position, part of the top plate of the cabinet. This arrangement has, however, the disadvantage that, when the compartment is in its operating position, an opening is formed in the top plate of the cabinet so that this top plate can be used only to a limited extent as a working surface.

Cabinets are also known in which the front wall of the tiltable compartment is arranged rearwardly inclined to permit thereby turning of the compartment about a fixed pivot axis between a rest and a working position without providing an opening in the top plate of the cabinet, since the rearwardly inclined front wall of the compartment may be swung beneath the top plate of the cabinet during movement of the compartment to its rest position. This arrangement, however, has the disadvantage that due to the rearward inclination of the front wall of the compartment the storage capacity of the latter will be considerably reduced.

The above mentioned arrangements have also the disadvantage that during the movement of the compartment between the rest and working positions thereof, the compartment has to be turned through an angle of about 120° so that papers stored therein may possibly be tossed about and be crumpled or damaged.

Cabinets of the aforementioned type are also known in which the storage compartment is in the form of a drawer guided between the side walls of the cabinet and arranged in such a manner that the drawer in its outermost drawn out position may be tilted downwardly to provide more easy access to the papers stored therein. This last mentioned arrangement has, however, the disadvantage that when the drawer is moved back to its rest position within the cabinet, the complete weight of the drawer and the papers stored therein has to be lifted during tilting of the same back to its horizontal position.

It is an object of the present invention to overcome the disadvantage of filing cabinets of the aforementioned type.

It is an additional object of the present invention to provide for a filing cabinet in which the storage compartment or drawer is movable between a horizontal rest position within the side walls of the cabinet and a working position at least partly drawn out of the cabinet and tilted relative to said rest position and in which movement of the drawer between the positions thereof can be carried out with the greatest ease.

It is a further object of the present invention to provide for a filing cabinet of the aforementioned type which is constructed of relatively few and simple parts so that the cabinet may be manufactured at reasonable cost and will stand up trouble-free under extended use.

With these objects in view, the filing cabinet according to the present invention mainly comprises an elongated drawer mounted between side walls of the cabinet movable between a substantially horizontal rest position located completely between the side walls and an operative position projecting in part beyond front edges of the side walls and tilted relative to the horizontal rest position, guide means between the side walls and cooperating with the drawer for guiding the latter along a substantially horizontal path, abutment means fixed to the drawer intermediate the ends thereof for movement therewith along the path, and fixed pivot means extending transversely to the side walls in the region of the front edges thereof and in the path of the abutment means to be engaged thereby when the drawer is moved from the rest to said operative position, in which the abutment means are constructed to limit outward movement of the drawer from the rest to the operative position to a position in which the drawer projects partly beyond front edges of the cabinet and to hold the drawer on the pivot means during tilting movement thereof to the working position about the axis of the pivot means.

The cabinet is constructed in such a manner to leave beneath the bottom surface of its top plate and the bottom plate of the drawer a distance greater than the height of the drawer and cooperating engagement means are respectively fixed to the cabinet and the rear end of the drawer which engage each other in the working position of the latter for limiting the tilting movement of the drawer.

The aforementioned guide means preferably comprise a pair of guide rails respectively fixed to the side walls of the cabinet, first roller means mounted in the region of the bottom wall of the drawer adjacent to the rear end thereof and rollingly engaging the guide rails, and second roller means mounted on the side walls adjacent the front edges thereof and rollingly engaging the bottom wall of the drawer. The front wall of the drawer forms in the rest position thereof part of the front wall of the cabinet.

The aforementioned arrangement permits to tilt the drawer upwardly about the first roller means to an extent raising the abutment means above the pivot means so that the drawer may be completely drawn out from the cabinet if such is desired.

Preferably, the cabinet includes also a second drawer arranged beneath the first mentioned drawer and movable only in horizontal direction between a rest position located completely between the side walls of the cabinet and an operative position projecting in part beyond front edges of the side walls and this arrangement includes preferably cooperating abutment means on the second drawer and the cabinet for limiting outward movement of the second drawer.

Preferably, the top plate of the cabinet is arranged removable from the side walls and this arrangement may also include means for releasably fixing the top plate of the cabinet to the side walls thereof.

FIG. 1 is a front view of the cabinet according to the present invention; and

FIG. 2 is a sectional view taken along the lines II—II of FIG. 1 and viewed in the direction of the arrows.

Referring now to the drawings, it will be seen that the filing cabinet of the present invention includes a top plate 1 releasably connected by locking means 2 to the side walls 3 of the cabinet. The specific construction of the locking means 2 does not form part of the present invention and the locking means may include, as schematically shown in FIG. 2 wedge shaped members engaged between

correspondingly shaped members respectively fixed to the top plate **1** and the side walls of the cabinet. Of course, any other well known locking means may also be used for releasably locking the top plate **1** to the side walls of the cabinet. A plate **4** is arranged beneath the top plate **1** of the cabinet to be partly withdrawable therefrom towards the right, as viewed in FIG. 2, that is, towards the front side of the cabinet to extend with a portion thereof beyond the front edge of the top plate **1**. The plate **4** engages with its top surface the bottom surface of the top plate **1**, whereas guide strips **5** and **6** respectively fixed to the side walls of the cabinet and a transverse cross bar **7** fixed at opposite ends of the side wall **3** engage the bottom surface of plate **4** for guiding the latter during its movement. The front portion of the plate **4** may include a cavity, not shown in the drawing, for storage of writing utensils or similar articles therein which will become accessible when the plate **4** is partly drawn out from the cabinet. An abutment **8** fixed to the bottom surface of the top plate **1** engages the rear face of the plate **4** in the position thereof as shown in FIG. 2, whereas an abutment **9** fixed to the bottom surface of the plate **4** is adapted to engage with the rear faces of the guide strips **5** and **6** to limit outward movement of the plate **4**.

A drawer **10** is arranged in the upper portion of the cabinet and is subdivided by a plurality of spaced parallel plates **11** in a plurality of adjacent compartments extending between the side walls **23**, **24** of the drawer for the storage of papers therein. A pair of rollers **13**, **14** are turnably mounted on an axle **12** fixed in any convenient manner to the rear bottom end of the drawer **10**. The rollers **13** and **14** respectively rollingly engage a pair of guide rails **15** and **16** respectively fixed to the opposite side walls of the cabinet. Pivot means **17** in form of an elongated rod extending transversely between the side walls of the cabinet adjacent to the front edges thereof and the rod **17** is fixedly connected at opposite ends thereof in any convenient, well known manner to the respective side walls. The rod **17** carries a pair of rollers **18** and **19** constituting second roller means and the bottom wall of the drawer rollingly engages the second roller means. The rails **15** and **16** together with the roller means **13** and **14** and the roller means **18** and **19** constitute therefore guide means for guiding the drawer **10** along a substantially horizontal path. A pair of hook shaped abutment means **20**, **21** are fixed transversely spaced from each other to the bottom wall of the drawer **10**, substantially midway between the ends thereof. As can be seen from FIG. 2 the hook shaped abutment means are arranged to engage the rod **17** during movement of the drawer **10** from the rest position, shown in FIG. 2 in full lines, in which the drawer **10** is located completely between the side walls of the cabinet to limit outward movement of the drawer in a position in which about half of the drawer projects forwardly beyond the front edges of the side walls **3**. In this position the drawer **10** may be swung about the axis of the pivot means or rod **17** to the position as shown in dash-dotted lines in FIG. 2 in which the upper obliquely inclined rear positions of the side walls **23** and **24** of the drawer will engage the bottom faces of the strips **5** and **6** fixed to the side walls of the cabinet to limit thereby the tilting movement of the drawer. The obliquely inclined portions of the side walls **23** and **24** of the drawer and the strips **5** and **6** form cooperating engagement means for limiting the tilting movement of the drawer **10** in its working position. The hook shaped abutment means **20** and **21** engaging the rod **17** in the working position in the manner as shown will hold the drawer **10** in the tilted working position.

The drawer may however be completely withdrawn from the cabinet **3** by tilting the same about the axis of the rollers **13**, **14** in an upward direction so as to lift the hook shaped abutment means **20**, **21** above the level of the rod **17**, before the hook shaped abutment means are engaging the rod, whereupon the drawer **10** may be completely drawn out from the cabinet if such is desired. A transverse bar **25** is fixed to the rear ends of the guide rails **15**, **16** in a position to engage the rollers **13**, **14** when the drawer **10** is in the rest position, as shown in FIG. 2, to limit thereby rearward movement of the drawer. The front wall of the drawer **10** extends upwardly beyond the side walls thereof up to the cross bar **7** and also slightly downwardly beyond the bottom wall of the drawer so as to form in the rest position of the drawer part of the front wall of the cabinet.

The cabinet preferably includes an additional drawer **26** arranged in the space beneath the drawer **10** between the side walls of the cabinet movable between a rest position as shown in FIG. 2 and an operating position in which the drawer **26** is partly withdrawn from the cabinet in horizontal direction. A pair of rollers **28**, **29** is turnably mounted on a rod **27** fixed at opposite ends thereof by means of brackets to the rear end of the bottom wall of the drawer **26**, and the rollers **28** and **29** are respectively guided on guide rails **30**, **31** respectively fixed to the opposite side walls of the cabinet adjacent to the bottom edges of the side walls. An additional pair of rollers **33**, **34** are turnably mounted on a rod **32** fixed at opposite ends thereof in any convenient manner to the opposite side walls of the cabinet adjacent to the front edges of the side walls. Rollers **33** and **34** rollingly engage the bottom wall of the cabinet **26** so that the cabinet **26** is movable in horizontal direction between the rest position shown in FIG. 2 and an operating position partly withdrawn from the cabinet. Abutment means **35**, **36** fixed transversely spaced from each other to the bottom wall of the cabinet **26** are adapted to engage the rollers **33** and **34** to limit movement of the drawer **26** in outward direction, whereas the rear ends of the guide rails **30** and **31** are constructed to provide abutment means for the rollers **28** and **29** to limit movement of the drawer **26** in rearward direction.

It will be understood that each of the elements described above, or two or more together, may also find a useful application in other types of filling cabinets differing from the types described above.

While the invention has been illustrated and described as embodied in filing cabinet with tiltable drawer, it is not intended to be limited to the details shown, since various modifications and structural changes may be made without departing in any way from the spirit of the present invention.

Without further analysis, the foregoing will also fully reveal the gist of the present invention that others can by applying current knowledge readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention and, therefore, such adaptations should and are intended to be comprehended within the meaning and range of equivalence of the following claims.

What is claimed as new and desired to be secured by Letters Patent is:

1. In a filing cabinet having a pair of side walls and top wall means, in combination, an elongated drawer mounted between said side walls movable between a substantially horizontal rest position located between said side walls of said filing cabinet and an operative position projecting in part beyond front edges of said side walls and tilted relative to said horizontal rest position, said drawer having a bottom wall, a pair of side walls of a length substantially equal to that of said bottom wall and projecting upwardly from the latter, and a plurality of transverse walls projecting between said side walls of the drawer upwardly from said bottom wall and forwardly inclined with respect to the latter, said transverse walls defining in said drawer a plurality of adjacent compartments; guide means between said side walls of said cabinet for guiding said drawer along a substantially

horizontal path; abutment means fixed to said bottom wall of the drawer substantially midway between opposite ends thereof for movement therewith along said path; fixed pivot means extending transversely between said side walls of said cabinet in the region of said front edges thereof and located in the path of said abutment means to be engaged thereby when said drawer is moved to said operative position, said abutment means being constructed to limit in said operative position of said drawer further outward movement thereof and to hold said drawer on said pivot means; and cooperating engagement means formed by rear faces of said side walls of said drawer and bottom face of said top wall means engaging each other in said working position of said drawer for limiting tilting movement of the latter and to hold the same in a position in which all of said compartments are accessible while some of said compartments are located rearwardly of said pivot means.

2. In a filing cabinet as defined in claim 1, wherein said guide means are downwardly spaced from said top wall means to space, when said drawer is in said inactive position, the top edges of said side walls of the drawer from the bottom of said top wall means a distance about half of the height of said side walls of said drawer.

3. In a filing cabinet as defined in claim 1, wherein the rearmost of said transverse walls projects upwardly from the rear edge of said bottom walls.

4. In a filing cabinet as defined in claim 1, wherein said guide means comprise a pair of guide rails respectively fixed to said side walls of said cabinet and each

having a top face, first roller means mounted on the region of the rear edge of said bottom wall and rollingly engaging said top faces, and second roller means mounted in the region of the front edges of the side walls of said cabinet and rollingly engaging said bottom wall of said drawer.

5. In a filing cabinet as defined in claim 4, wherein said pivot means comprise a rod extending transversely between said side walls of said cabinet in the region of the front edges of the latter, said second roller means are arranged coaxially with said rod, and said abutment means are hook-shaped.

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