H. FISCHER.

DOCUMENT CABINET.

APPLICATION FILED JAN. 21, 1918.

1,277,893.

Patented Sept. 3, 1918.

3 SHEETS—SHEET 1.

Fig. 1.

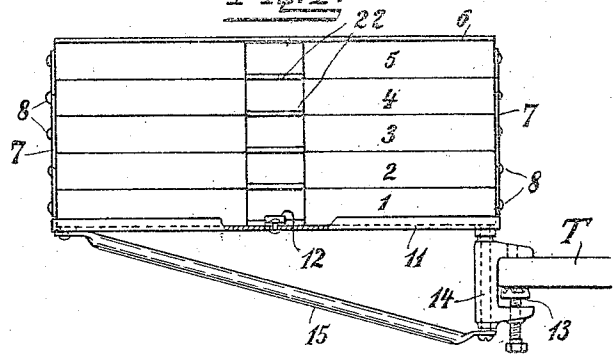


Fig. 2.

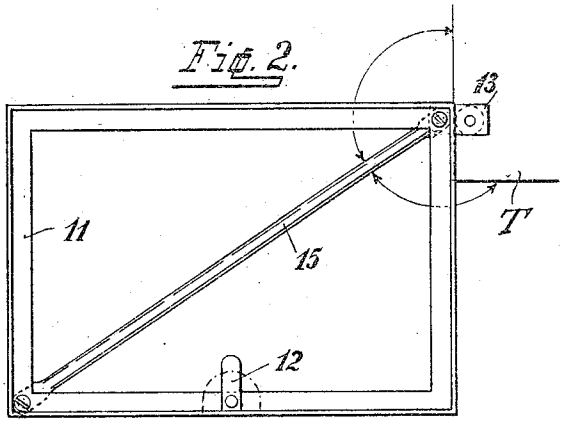
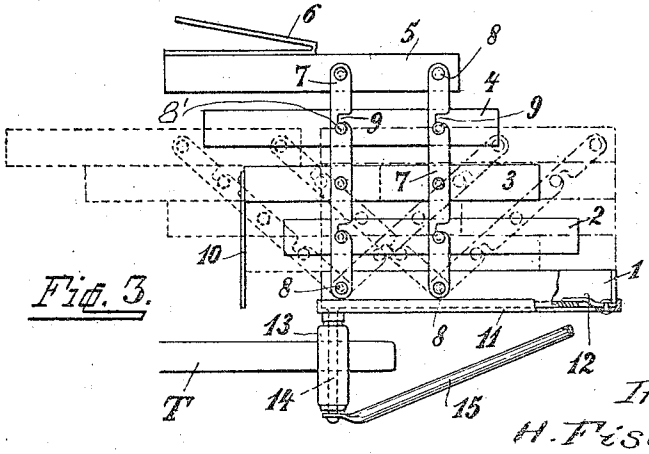


Fig. 3.



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3 SHEETS—SHEET 2.

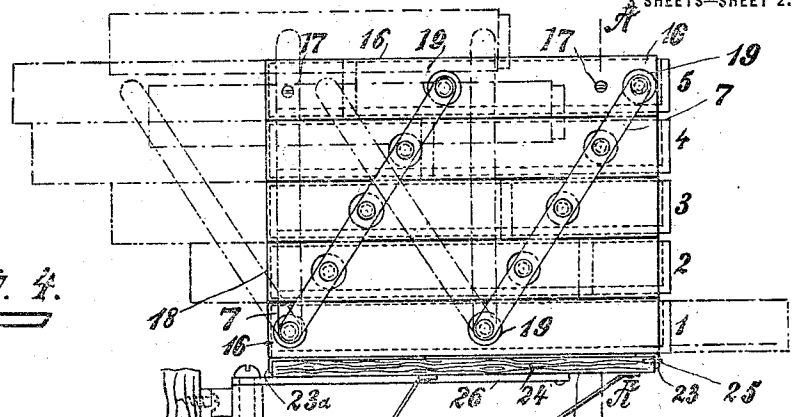


Fig. 4.

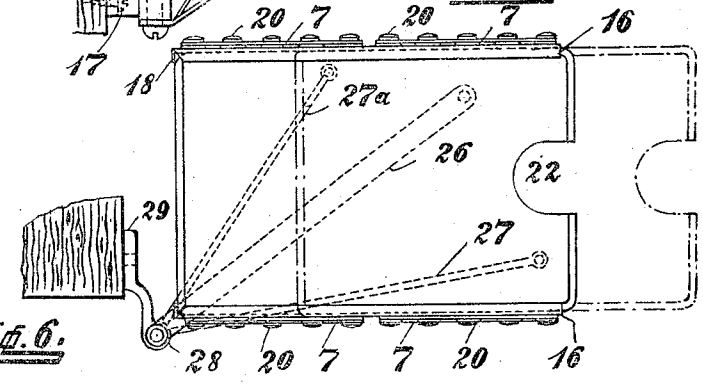
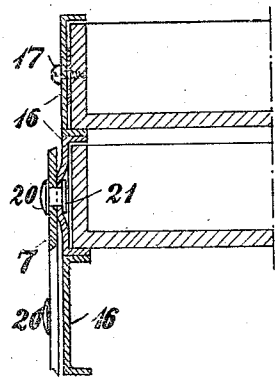


Fig. 5.

Fig. 6.



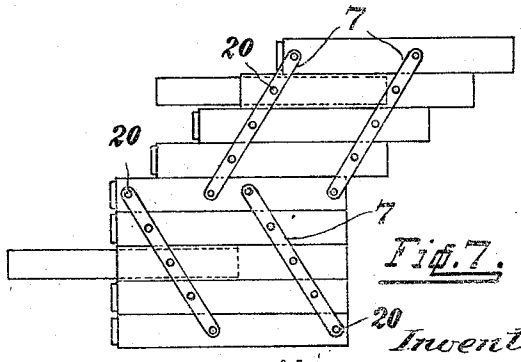


Fig. 7.

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3 SHEETS—SHEET 3.

Fig. 8

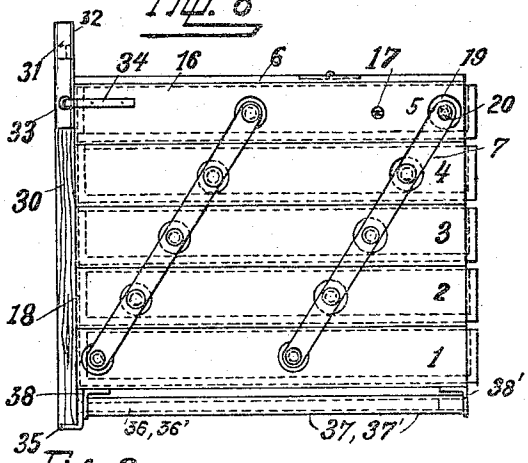


Fig. 9

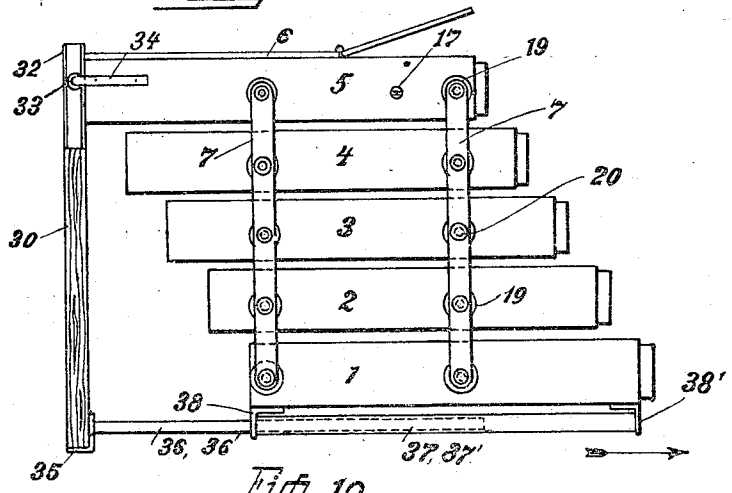
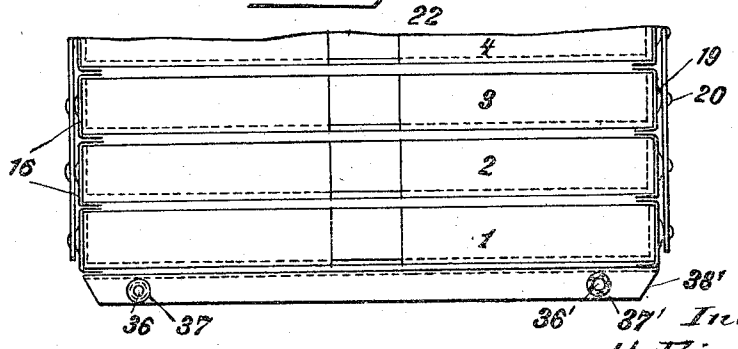


Fig. 10.



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DOCUMENT-CABINET.

1,277,893. Specification of Letters Patent. Patented Sept. 3, 1918.

Application filed January 21, 1918. Serial No. 213,030.

To all whom it may concern:

Be it known that I, HERMANN FISCHER, a citizen of the Swiss Confederation, and residing at Schaffhausen, Switzerland, have invented certain new and useful Improvements in Document-Cabinets, of which the following is a specification.

The present invention has general reference to improvements in cabinets, made up of a series of trays, for holding documents or other objects, and it has for its special object the provision of means for readily bringing the individual trays into a position which allows of convenient access to their contents; a further object is to provide means whereby some of the trays may at will be readily detached and removed entirely from the cabinet as such; and lastly means are provided for so arranging the cabinet that it can be hung up from a fixed support or may be swung into or out of the position for use in connection with a desk, table or other piece of furniture.

In order to make my invention readily understood, I will now describe it in detail in connection with the accompanying drawings, in which Figure 1 represents a front elevation of my improved cabinet with its swinging support, parts being shown in section. Fig. 2 shows a plan view of the swing support. Fig. 3 is a side elevation of Fig. 1, with the full-line trays in an intermediate position, and the broken-line trays in the respective end positions. Fig. 4 is a side view of a modification in closed position and the broken lines showing the trays in pulled-out position. Fig. 5 is a plan of Fig. 4 with a partially extended tray in broken outline. Fig. 6 is a fragmental vertical section on line A—A of Fig. 4 on an enlarged scale. Fig. 7 represents a side elevation of a further modification, with the trays partly in closed and partly in extended position. Figs. 8 and 9 represent side views of still another modification with a vertically positioned support, in respectively closed and partly opened position, and Fig. 10 finally shows a fragmental front elevation of Fig. 8.

The cabinet according to Figs. 1—3 is made up of five normally superimposed trays 1—5, each one of which is provided in the front and bottom with a cut-out 22 for conveniently grasping the trap contents. The uppermost tray 5 is provided with a raisable flap or lid 6. On the opposite sides the trays are operatively interconnected by means of pairs of parallel motion links or levers 7, one pair at each side of the trays, and each pair comprising a front and a rear member fulcrumed to the side of the lowermost and the uppermost trays as shown at 8, and pivotally connected to the corresponding side of the other trays by headed bolts 8′, extending from the tray sides, operatively engaging in angular recesses 9 (Fig. 3) provided in the links. This arrangement of outwardly opening recesses 9 allows of the intermediate trays readily being removed when the parts assume the position illustrated in Fig. 3, which facilitates access to the contents of the several trays. In most cases, however, it will suffice to partly open the trays by displacing them relative to one another in stepped formation, which is effected by a swing-movement of the parallel motion system, which causes the links 7 to turn about their lowermost head pins 8 as illustrated in Fig. 3. In order to prevent the appliance from tipping over in the open position, when positioned on a flat surface as a table or the like, there is provided a support member 10 extending downwardly from the tray 3, as shown in Fig. 3.

In order to improve the usefulness and operation of the described cabinet I arrange it on a frame-like support 11 (Figs. 1—2) whose clip spring 12 is designed to extend into the recess 22 of the lowermost tray 1 to clamp the latter to the frame. At the one corner of the latter is provided the clamp 13 for securing the appliance to a table or other piece of office furniture. The clamp yoke journals the pivot pin or pintle 14, the upper end of which is secured to the frame 11 and to whose lower end is secured the one end of a diagonal brace rod 15. The cabinet with its support bracket can be swung in a horizontal plane about the pivot 14.

In the modification illustrated by the Figs. 4, 5 and 6 the five superposed trays are each supported between U-shaped side bars 16, one on each side. The U-bars supporting the topmost tray 5 are secured to the latter by screws 17, while the rest of the trays can freely slide as drawers in these U-bars, angle pieces 18 (Fig. 5) preventing the trays from being pushed out rearwardly. The superposed U-bars are operatively interconnected on the two opposite sides by pairs of parallelly disposed links 7, adapted to

operate in unison. At the point of pivotal connection the web of the U-bars is annually raised (Fig. 6), the pivot pin 20 passing through this raised portion and its inner head 21 lying within the cup thus formed, so as not to interfere with the smooth operation of the tray. Each tray is preferably provided with a front recess 22, as above described.

By swinging over the pairs of parallel links 7 the appliance is moved from the closed position (full lines in Fig. 4) into the open position (– . . – . . lines, extreme left position), when the contents of the several trays can readily be handled; or the cabinet may only be opened half way into an intermediate position, as also shown in Fig. 4 by the – . – . lines. In any chosen position the trays, with exception of the upper one, may individually be pulled out completely and removed.

The U-bars 16 supporting tray 1 are respectively provided at their longitudinal sides with angle bars 23, 23ª (Fig. 4) in order to place the cabinet on a board or shelf 24, and the angle bar 23 is provided with a bore into which engages a pin 25 extending from the shelf. The latter is secured to the bracket arm 26 and the diagonally extending braces 27, 27ª, which are respectively secured to the upper and the lower end of a pivot pin 28 of a wall plate 29 adapted to be fixed to the room wall or a piece of furniture W by screws 17.

In the modification according to Figs. 8, 9 and 10 there is provided in back of the trays a vertical support 30 provided with bores 31 for conveniently hanging up the appliance on a wall. At the upper portion of this support 30 there is provided at each side thereof a U-guide 32 adapted to receive rollers 33, which latter are rotatably secured in short arms 34 extending from the respective side faces of the uppermost tray-supporting U-bars 16. To the lower end of the support 30 is secured an angle bar 35 from which extend at either side the guide rods 36, 36′, and tubes 37, 37′ are respectively secured to angle bars 38, 38′ secured to the lower front and rear edges of the lowermost U-bar 16, the rods and the tubes adapted to coact telescopically.

If the appliance is to be shifted from the closed position (Fig. 8) into the intermediate position (Fig. 9) or into the wholly open position, not specially shown here, this is easily accomplished by exerting a pull in the direction of the arrow on the cross bar 38′, when the tubes will slide outwardly on their rods and the trays move forwardly and upwardly, while the uppermost tray 5 travels solely in an upward direction. For closing up the cabinet inward pressure is brought to bear against the cross bar 38′.

The last described construction is specially desirable where cramped quarters forbid the use of a swinging bracket. The use of U-bars for supporting the individual trays allows of adjusting the latter to any intermediate position without danger of the cabinet toppling over.

The modification according to Fig. 7 shows that two or more groups of such cabinet units may be interconnected by means of the described parallel swing links. Each such unit can then be operated independently of the others, and, obviously, each unit may be made up of any desired number of trays and not necessarily of five, as shown and described by way of example.

What I claim is:—

1. A cabinet of the character described, comprising upper, lower, and intermediate substantially horizontal U-bars, trays disposed within the U-bars; links arranged upon the opposite sides of the U-bars and pivotally connected therewith; a post arranged near corresponding ends of the U-bars; means connecting the uppermost U-bar with the post so that said uppermost U-bar is capable of moving vertically and incapable of partaking of substantial horizontal movement; and means connecting the lower U-bar with the post so that said lower U-bar is adapted to move horizontally and incapable of partaking of substantial vertical movement.

2. A cabinet of the character described, comprising upper, lower, and intermediate substantially horizontal U-bars; trays disposed within the U-bars; links arranged upon the opposite sides of the U-bars and pivotally connected therewith; a post arranged near corresponding ends of the U-bars; a roller connected with the upper U-bar; a guide element being substantially vertically arranged and receiving the roller and secured to the post; a substantially horizontal guide rod secured to the post and extending longitudinally of the lower U-bar; and a co-acting guide element slidable upon the rod and connected with the lower U-bar.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."