

D. E. HUNTER.
EXPANSIBLE FILING SYSTEM.
APPLICATION FILED SEPT. 4, 1902.

NO MODEL.

3 SHEETS—SHEET 1.

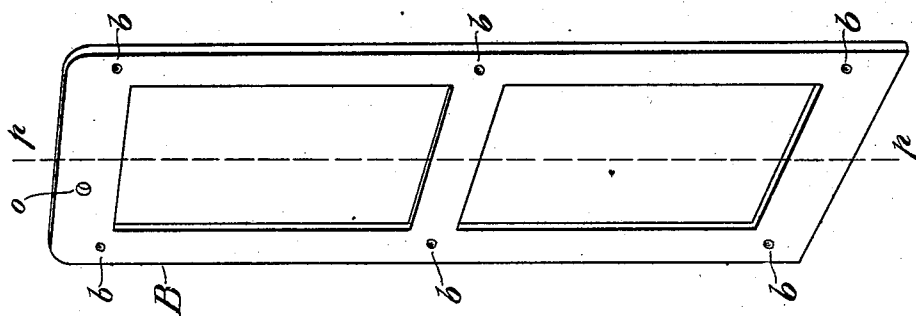


FIG. 3

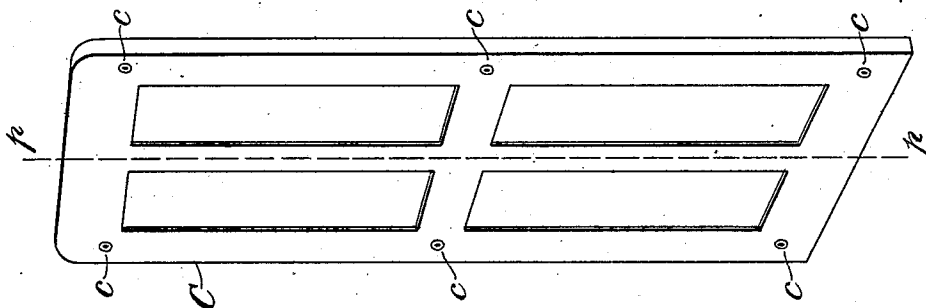


FIG. 2

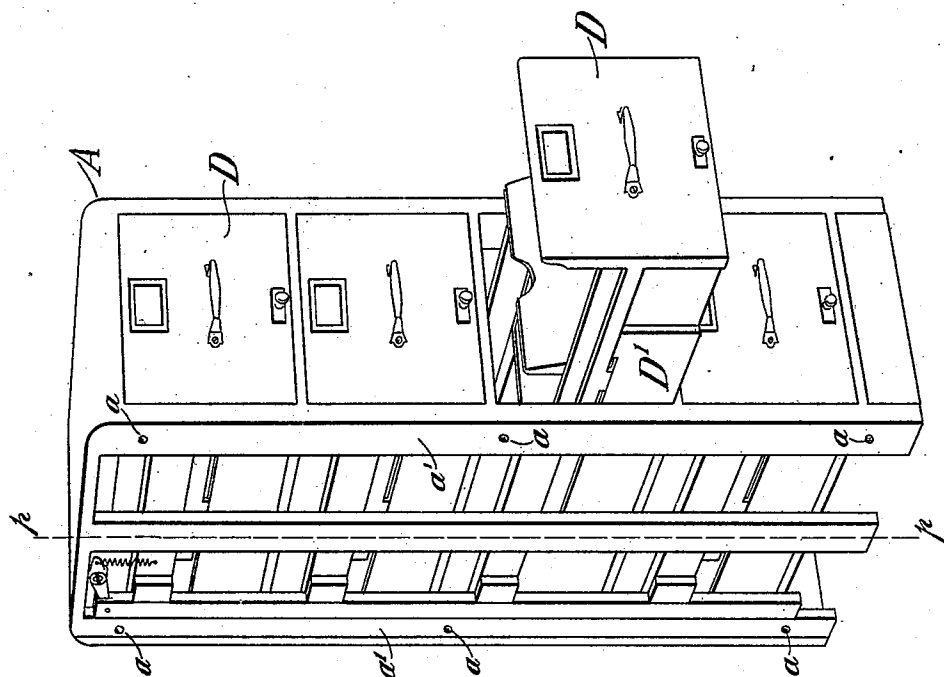


FIG. 1

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3 SHEETS—SHEET 2.

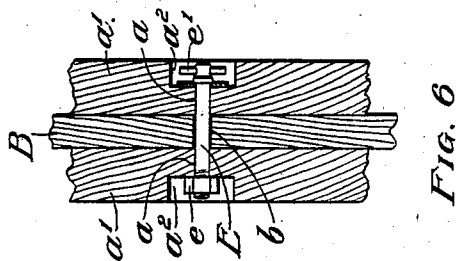


Fig. 6

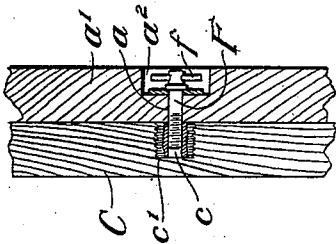


Fig. 7

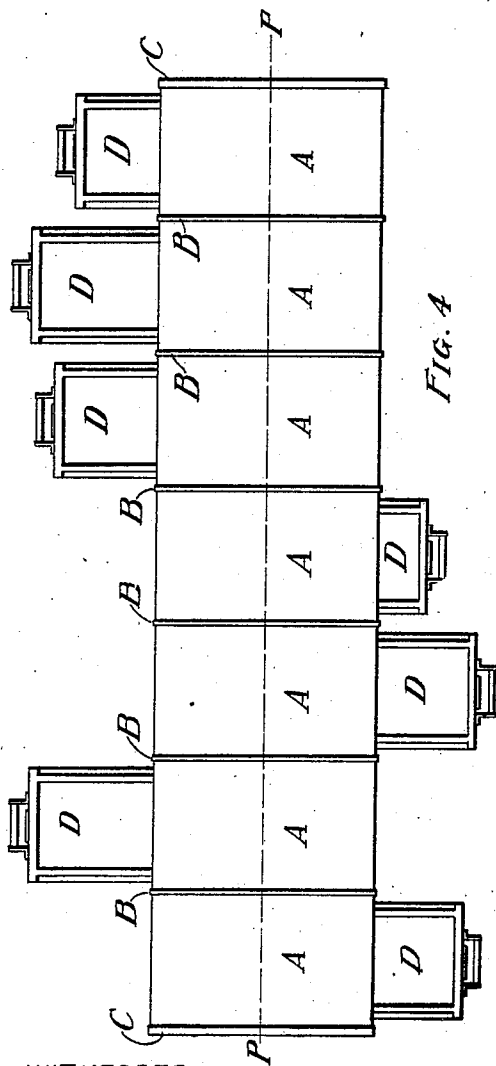


Fig. 4

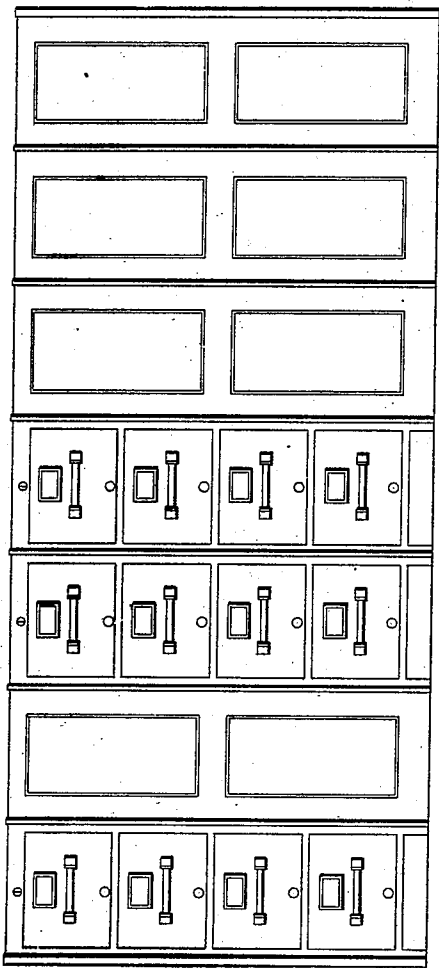


Fig. 5

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3 SHEETS—SHEET 3.

NO MODEL.

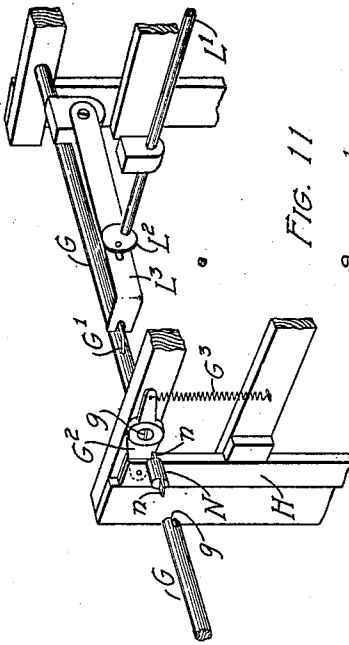


FIG. 11

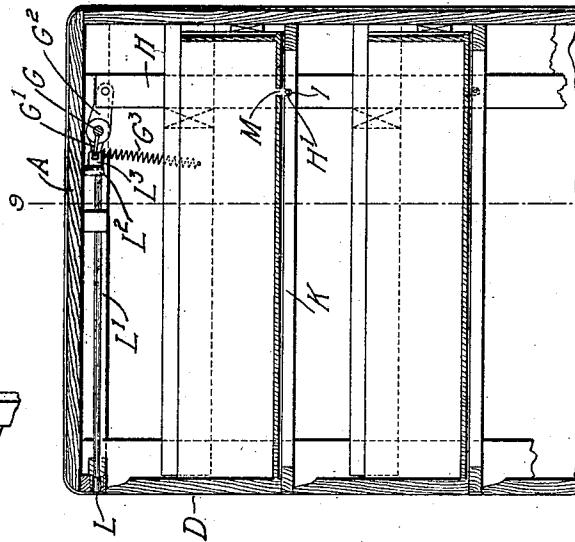


FIG. 10

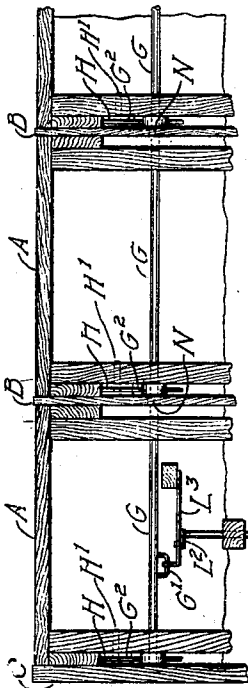


FIG. 8

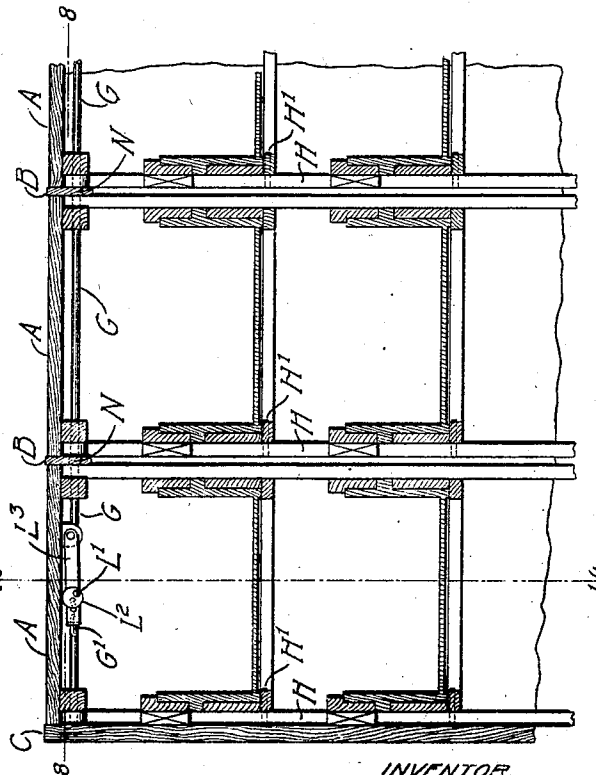


FIG. 9

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UNITED STATES PATENT OFFICE.

DAVID E. HUNTER, OF CAMBRIDGE, MASSACHUSETTS, ASSIGNOR TO
LIBRARY BUREAU, OF BOSTON, MASSACHUSETTS, A CORPORATION OF NEW JERSEY.

EXPANSIBLE FILING SYSTEM.

SPECIFICATION forming part of Letters Patent No. 722,709, dated March 17, 1903.

Application filed September 4, 1902. Serial No. 122,055. (No model.)

To all whom it may concern:

Be it known that I, DAVID E. HUNTER, a citizen of the United States, and a resident of Cambridge, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Expansible Filing Systems, of which the following is a specification.

My invention and improvements relate to expansible filing systems, known to the trade as "unit systems," of which the chief characteristic is their expansibility to meet increasing needs of the user. This expansibility is derived from the use of units which being similar in some essential external respect can be added to each other, forming gradual accretions upon the previously-installed system. These units have been variously equipped with devices for filing documents or wares, these special equipments, however, being made to fit within the unit itself, which can generally be described as a "cabinet unit." My improvements are addressed especially to combinations of units which are vertically disposed and will be found adapted to instances where the units, whether vertically or otherwise disposed, are of considerable size and weight.

In the drawings hereto annexed, which illustrate an embodiment of my invention and improvements, Figure 1 is a perspective view of a cabinet unit detached. Fig. 2 is a perspective view of an end panel or cover for the cabinet of Fig. 1, likewise detached; Fig. 3 is a perspective view of a separator or filler, also applicable to the cabinet unit of Fig. 1 and likewise detached. Fig. 4 is a top plan view of a system of cabinet units. Fig. 5 is a vertical elevation of the system shown in plan in Fig. 4; Fig. 6, a detail, on an enlarged scale, showing the mode of fastening adjacent cabinet units over a separator. Fig. 7 is a detail, on an enlarged scale, showing a mode of fastening an end cover or panel to a cabinet unit. Fig. 8 is a horizontal section of a system of units, taken at the line 8 8 in Fig. 9. Fig. 9 is a vertical section of a system of units, taken at the line 9 9, Fig. 10. Fig. 10 is a vertical cross-section of a cabinet unit,

taken at the line 10 10 of Fig. 9; and Fig. 11 is a detail in perspective, on an enlarged scale, showing the mode of operation of the improved locking devices which constitute a part of my invention and improvements.

Referring to the first sheet of drawings, whereon are depicted the three most characteristic portions or elements which enter into my invention, A, Fig. 1, is a vertical cabinet, shown as equipped with sliding drawers D, which slide upon extension-slides D' in the manner described in United States Letters Patent Nos. 573,978 and 696,049. These drawers D are shown chiefly for the purposes of illustration, and any other desirable filing device or equipment may be substituted for the drawer without affecting the principal features of construction and mode of operation of my invention. The unit A is a vertical framework whereof the solid contour is symmetrical with reference to a vertical median plane which intersects the side of the unit at the line *pp*. Fastening devices, such as the holes *a a*, are provided in the uprights *a'* of the unit, and these fastening devices are likewise grouped symmetrically with reference to the said median plane. The sides of the unit A are unfinished, and where in a system made up of such units a side of an end unit A, which is consequently the end of the system of which the unit is a part, requires a proper cover or finish for this purpose I provide the end cover C, (shown in Fig. 2,) which, like the unit A, is symmetrical in contour with reference to the line *pp*, which represents the intersection with the end cover A of the median plane aforesaid. On the end cover C, I provide fastening devices *c*, which, like the fastening devices *a* of the cabinet unit A, are symmetrically disposed or grouped with reference to the line *pp* and register with the fastening devices *a a* when the end cover C is placed in position. In order to give a suitable finish to a system of units, such as A, and for other purposes presently described in detail, I provide also separators, such as B, Fig. 3. These separators are skeleton frames made as light as is consistent with proper strength, have a symmetrical contour

with reference to the line pp like the end cover C, and are provided with fastening means $b\ b$, also symmetrically grouped, as aforesaid, and so disposed as to register correctly with the fastening means $a\ a$, which are provided in either side of each of the units A. A hole or bearing o is also provided in the separator B and performs a function which will be presently described.

Figs. 4 and 5 illustrate the manner in which the units of my improved expansible system may be assembled to form an operative combination. As the units A, separators B, and end covers C all possess a superficial contour symmetrical with reference to the median plane pp and have fastening devices arranged symmetrically also, I am enabled to place the units A indifferently in either of two positions, so that the front of one unit may be beside the back of the next or so that all or part of the units of a system shall present their fronts in alinement on one side. As the end covers C and separators B are symmetrical in outline, they may be applied to the system no matter what may be the arrangement or facing of the units themselves. The advantage of this capacity for reversal of position will be evident when one considers that filing-cabinets of the character indicated are made for purposes of consultation and reference and in a large system are used constantly by many persons. If three or more cabinets, such as A, are placed facing the same way and adjacent to each other, as on the right-hand end of Fig. 4, and three persons have occasion simultaneously to consult drawers in these three units, crowding and inconvenience will ensue and possibly one or more of these persons will be obliged to wait until another has finished his business at the cabinet, thus involving a sacrifice of the facility and celerity of action which is the main object of filing systems; but if the cabinet units A of my system are arranged as indicated on the left-hand end of Fig. 4, where the front and backs of the cabinet units alternate with each other, every cabinet unit in the system may be consulted at the same time without involving crowding or inconvenience, and yet no valuable space need be sacrificed to accomplish this result.

A mode of fastening the units of my system is shown in Figs. 6 and 7. In Fig. 6 the upright members a' of adjacent units A are placed over the separator B and the holes a made to register with the holes b . The holes a are countersunk at a^2 , so as to receive the ends of the bolts E. These bolts pass through the holes a and b and are provided with nuts e at one end and thumb-screws e' at the other, by which means the three parts a' and B are securely bound together. In Fig. 7, which shows a mode of fastening the end cover C to the side of the end unit of such a system, the holes c are provided with threaded bushings c' , which take the bolts F, which are provided with thumb-screws f . The bolts F pass

through the holes a and into the bushings c' and are set up tight in the countersunk portions a^2 of the holes a .

From the above description it is obvious without further description how to assemble or separate the component parts of my improved expansible unit system.

Part of my invention and improvements relate to a locking mechanism whereby several units of a system such as the one above described may have their contents securely locked or unlocked by means of a single key or equivalent controlling device. The form of lock for the drawers D which may be used can of course be varied to suit different ideas or purposes. I show in the drawings hereto annexed a form of lock substantially like that set forth and described in detail in United States Letters Patent No. 591,552, to which I refer. In one of the cabinet units A (see Figs. 9 and 10) I provide a locking mechanism such as that described in the patent aforesaid, wherein the keyhole and lock-controller L L' operate the crank-plate L², whereof the pin actuates the lever L³, which in turn, by embracing and acting upon the bail G' of the shaft or rod G, raises or lowers the bolt-slides H, and consequently the bolt-pins H', which in turn, by moving from the notches I into notches M, lock or unlock all the drawers D of the tier. In each of the adjacent units A of the system a similar locking mechanism is provided, with the exception of any individual controlling devices such as briefly described above. Instead the locking mechanism of each adjacent unit is controlled from the above-described locking mechanism of the first unit. I accomplish this by means shown in detail in Fig. 11. The shafts or rods G of adjacent cabinet units are so placed that when the units are assembled in system the rods G are in alinement with each other. In the ends of the rods G which stand flush with the sides of the cabinet units I provide notches or slits g and insert in the holes o , Fig. 3, which are provided in the separators B and register with the rods G, the couplings N, which in this instance are cylindrical blocks provided with projecting tongues n , which register with and fit into the notches g in the rods G. By this means the locking devices of adjacent units may be coupled or uncoupled at will and the drawers of several units be placed within the control of a single key.

What I claim is—

1. In an expansible unit system, the combination of a plurality of duplicate cabinet units, separators, and means for binding adjacent units together over an intervening separator.

2. In an expansible unit system the combination of a plurality of duplicate cabinet units, separators, means for binding adjacent units together over an intervening separator, end covers, and means for blind-fastening the end covers to the units.

3. In an expansible unit system, the com-

combination of a plurality of duplicate cabinet units, separators, fastening devices for binding adjacent units together over an intervening separator, said fastening devices being
5 symmetrically arranged with reference to the median plane of the system, and end covers interchangeable with the separators and having fastening means which register with the separator-fasteners.

10 4. In an expansible unit system, the combination of duplicate vertical cabinet units, having each a solid contour symmetrical with reference to a median plane, separators, and end covers both similarly symmetrical, and
15 fastening means symmetrically disposed with reference to the said plane, the separators and end covers being mutually interchange-

able and the fastening means indifferently applicable to both.

5. In an expansible unit system, the com- 20
bination of a plurality of duplicate vertical cabinet units, a separator between each two adjacent units, a drawer-lock in each of said units, a lock-controller and key-entrance
therefor in one of said units, and a connect- 25
ing-piece, mounted in the separator and joining the drawer-lock mechanisms of the adjacent units.

Signed by me at Boston, Massachusetts,
this 31st day of July, 1902.

DAVID E. HUNTER.

Witnesses:

ROBERT CUSHMAN,
FRANK S. HARTNETT.