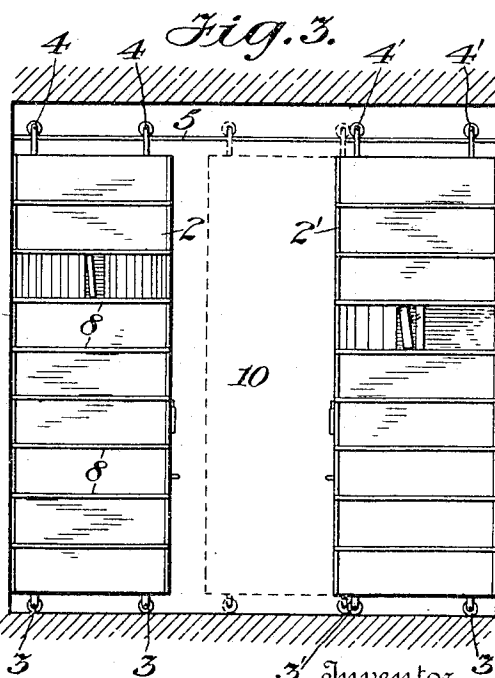
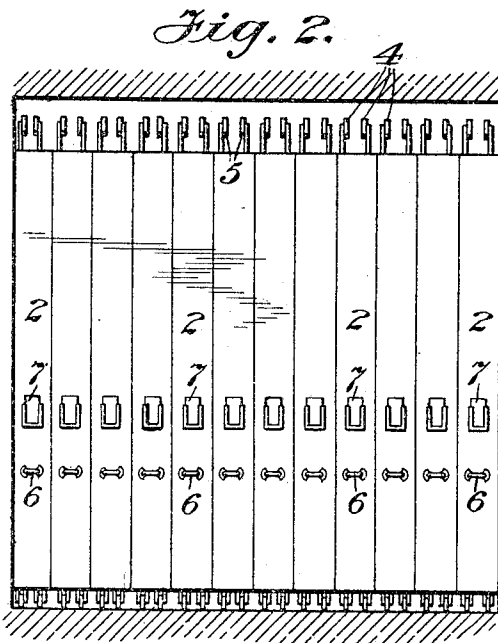
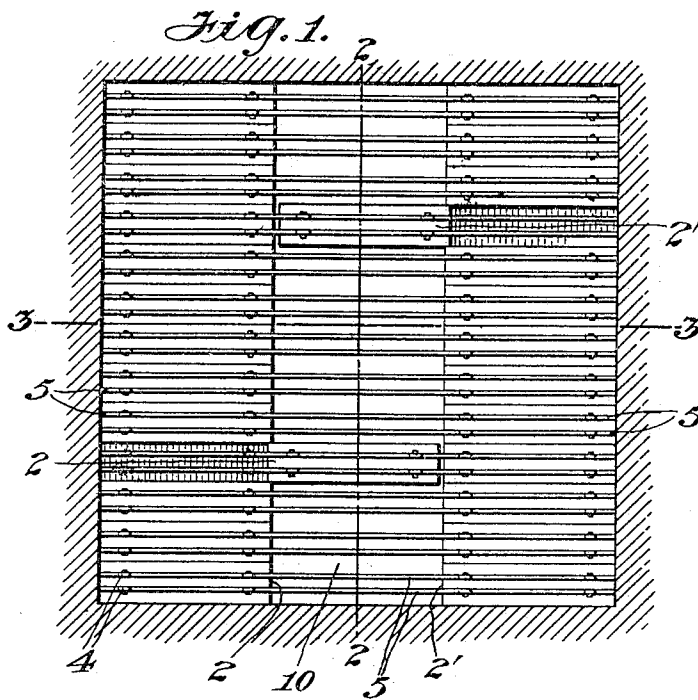


W. J. H. BOHANNAN.
STORAGE SYSTEM.

APPLICATION FILED JAN. 5, 1903.

NO MODEL.



Witnesses
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STORAGE SYSTEM.

SPECIFICATION forming part of Letters Patent No. 766,660, dated August 2, 1904.

Application filed January 5, 1903. Serial No. 137,773. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. H. BOHANNAN, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, (whose post-office address is care of Charles F. Dane, 261 Broadway, New York, N. Y.,) have invented certain new and useful Improvements in Storage Systems, of which the following is a specification.

10 This invention relates to storage systems, and particularly to a system of filing cases or sections for storing or filing books, papers, and articles of merchandise, &c.; and its main object is to provide an improved storage system of this class in which the storage-space is utilized in the most advantageous manner by storage or filing cases or sections adapted to occupy the greatest possible amount of space in a storage chamber or cabinet of given dimensions, while permitting easy access to the separate cases or sections of the system and enabling the same to be properly lighted.

In carrying my invention into effect I prefer to employ a series or row of cases or sections preferably constructed on the unit principle, so that they will be interchangeable, these cases or sections usually extending approximately from the top to the bottom of the chamber or room in which books or other articles are to be stored and also extending along the entire length of one side of the room in order to occupy as much of the space in the room as possible. These sections of the case are placed side by side and should be fitted closely, so as to keep out the dust. They will also usually be of considerable depth, this dimension of the storage-sections depending upon the width of the room or cabinet in which the cases are placed. In all cases, however, the storage-sections will be disposed side by side and will preferably be supported by rollers in order that each individual section or case may be run in or out at will to a closed position or to permit inspection of the books or other contents of the section. These storage-sections may be divided into compartments in any suitable manner; but one of the most important features of my invention is the subdivision of the space occupied by a

storage-section, so as to permit access to the same from the wide side of the case instead of from the narrow front portion thereof. When this is done, these sections are particularly adapted to form sectional bookcases, as they may be divided depthwise by a large number of parallel shelves extending substantially from the top to the bottom of the storage chamber or cabinet and be capable of holding a large number of books, which will be inclosed by a dust-proof case when the section is pushed back out of the way and which may be inspected at will when the section is drawn away from the wall of the room or cabinet and the other cases of the series.

In order that the entire space in any given storage chamber or cabinet may be utilized to the best advantage, I prefer to place two series or rows of storage sections or cases at opposite sides of the room or cabinet, so that the sections of the two rows will face each other, these two rows occupying approximately two-thirds of the entire space, while the other third of the space is unoccupied and forms a clear passage-way or light-space between the two rows of cases. By disposing two rows of cases opposite each other in this manner the greatest possible amount of space is occupied by storage-sections and space is left for drawing out the individual sections of each row and inspecting the contents from the sides of the cases in a light-space.

In the drawings accompanying this specification and forming a part of the present application, Figure 1 is a sectional plan of a storage chamber or cabinet with my filing cases or sections disposed therein, the section being taken immediately below the ceiling of the room or cabinet. Fig. 2 is a transverse section of the same, the section being taken in the line 2 2, Fig. 1. Fig. 3 is an opposite transverse section of the same, the section being taken in the line 3 3, Fig. 1, and illustrates the manner in which the sections of opposite rows may be drawn out into the common light-space between such rows.

According to my improved system of filing books, letters, merchandise, &c., large cases or storage-sections, preferably of the unit

type, are supported by rollers side by side along one wall of the storage chamber or cabinet; these sections being preferably mounted on rollers 3 and guided and to some extent supported by trolleys 4, running on guides or guide-rods 5, extending across the storage-chamber near the ceiling. These cases or sections, which are designated generally by 2, are placed side by side and so close together that in their normal positions they form a closed dust-proof storage system. Each of the sections may, however, be run out or in at will independently of the others, the withdrawal or replacing of any section being easily accomplished because of the roller-bearings by which the individual sections are supported and guided. Each of these sections may have at the forward narrow end thereof the usual drawer pull or handle 6 and also an index or card 7 for indicating the contents of the particular section or case. Each storage-section 2 is entirely closed at the front end thereof and of course at its rear end and in the preferred construction extends approximately from the floor to the ceiling of the room in which articles are to be stored. Because of their great height and slight width these cases or storage-sections are especially adapted to be divided into compartments facing toward and accessible from the wide side or sides of each section instead of from the narrow front end of that section. Hence each such section is especially adapted to form a bookcase or storage-section divided in a manner similar to a bookcase by parallel shelves, as shown at 8 in Fig. 3, all of which shelves may be filled with books or other articles, which will be entirely inclosed and protected when the cases are in their normal positions and yet will permit perfect access to the books and other articles stored therein when any section is drawn out into the open space in front of the row of cases.

My improved storage system therefore constitutes not only an improved means for storing articles in such a manner as to utilize to the best advantage the space available for storage, but also forms an entirely new system of bookcases, as it is made up of a series of bookcase-sections which when assembled entirely inclose the books and exclude light and dust therefrom and when made of fireproof or other suitable material will reduce to a minimum the danger of large collections being destroyed by fire. It will be noticed that a much larger number of books may be stored in cases occupying a given wall-space but opening at the side and accessible only when the sections are drawn out than in corresponding cases or shelves extending along the same wall-space but opening in the ordinary manner toward the front.

My improved storage system may be used to the best advantage in large commercial

houses and libraries where space is limited and it is necessary to store or file the greatest quantity of merchandise or largest number of books in a given space and at the same time protect such merchandise or books from strong light, dust, and destruction by fire. In the preferred construction the cases or sections will be so arranged as to extend along opposite walls of the storage chamber or cabinet and occupy approximately two-thirds of its floor-space, leaving between the two rows of storage or filing cases a space 10 common to both of the two rows of cases, into which space the individual storage-sections or bookcases may be drawn to permit access to the shelves or compartments from one or both sides of the sections. As the two rows of cases (designated by 2 and 2') occupy the whole space along each side wall of the room or cabinet, it will be evident that when any section of either row is pulled out for inspection the opposite section of the other row cannot be drawn out at the same time, as the space between the rows is not sufficient for this purpose when the whole space inclosed by the walls of the room is utilized to the best advantage in the manner just described. No inconvenience will result from this, however, as it will seldom be necessary to withdraw corresponding sections in opposite rows at the same time. When the two rows of cases are arranged in this manner, it will be evident that the rods 5 may constitute guide-rods common to the cases or sections of the two rows and that the cases 2' may be guided by the trolleys or rollers 4' on the rods 5 in the same manner that the cases 2 are guided by the rollers 4. The cases 2' will also, usually, be supported on rollers 3' in the same manner as the cases 2.

The space between the two rows of cases may be lighted in any suitable manner, either by natural or artificial light, it being desirable when possible to have large windows at opposite ends of the aisle or passage between two rows of cases. When this is not practicable, the space may be lighted by artificial lights from above, from the ends of the aisle, or in any other suitable manner.

Many of the details of construction may of course be varied at will without departing from my invention, the sections, for example, being run in or out either by hand or by power, as may be desired.

In all cases a storage system constructed and organized in the manner described has many advantages over all others with which I am familiar, as it permits the storage of a larger number of articles in a given space, protects these articles from strong light and from dust by completely inclosing them, obviates unnecessary handling of the articles, and when made of fireproof material reduces the liability of total loss or great damage to a minimum.

What I claim is—

1. A storage system for the purpose specified comprising a series of filing-cases disposed adjacent one wall of a storage-chamber, a similar series of filing-cases disposed adjacent an opposite wall of said chamber so as to leave a space between said series of cases equal to approximately one-third the distance between said walls, whereby the entire space of the storage-chamber is utilized to the best advantage and at the same time any desired case is readily withdrawable into said space for the purpose of inspection, substantially as described.

2. A storage system for the purpose specified comprising a series of filing-cases along one wall of a storage-chamber, a similar series of cases along an opposite wall a sufficient distance away from said first series so that any desired case may be drawn out from the wall on either side and into said space for the purpose of inspection, and antifriction-rollers on which said cases run, substantially as described.

3. In a storage system for the purpose specified comprising a series of filing-cases disposed adjacent one another along one of the walls of the storage-chamber so that their sides are in contact, said series having the end filing-cases thereof in closed contact with two other of said storage-chamber walls whereby a dust-proof surface is obtained from wall to wall and the interior of the filing-cases tightly inclosed and the space within said chamber utilized to the best advantage, substantially as described.

4. In a storage system for the purpose specified comprising a series of filing-cases disposed adjacent one another along one of the walls of the storage-chamber so that their sides are in contact, said series having the end filing-cases thereof in closed contact with two other of said storage-chamber walls whereby a dust-proof surface is obtained from wall to wall and the interior of the filing-cases tightly inclosed and the space within said chamber utilized to the best advantage, and means for readily withdrawing any desired case from its dust-proof position for the purpose of inspection, substantially as described.

5. A storage system for the purpose specified comprising a series of filing-cases in intimate contact with each other along one wall of a storage-chamber and closely inclosed at its ends between two other of said storage-chamber walls by having the filing-case at each end in closed contact with the adjacent end wall whereby the interior of said series of cases is rendered dust-proof, a similar series of filing-cases, similarly arranged relative to an opposite storage-chamber wall and a sufficient distance away from said first se-

ries so that any desired case may be drawn out from the wall on either side and into the central space for the purpose of inspection, substantially as described.

6. In a storage system for the purpose specified a series of filing-cases disposed in closed contact with one another and to the adjacent end walls of the storage-chamber so as to be rendered dust-proof, a second similar series of cases oppositely disposed relative to said first series and a sufficient distance away so that any desired case may be drawn out from said wall on either side and into the central space for the purpose of inspection, and trolleys attached to each of said cases running on guide-rods whereby said cases may be readily moved, substantially as described.

7. In a storage system for the purpose specified, a plurality of parallel guide-rods near the top of a storage-chamber and extending between opposite walls thereof, oppositely-disposed rows of filing-cases extending along opposite walls of the storage-chamber, each row comprising a plurality of filing-cases closely inclosed at its ends between two other of said storage-chamber walls so as to be rendered dust-proof and each case guided by trolleys running on said guide-rods so that the cases may be drawn out from the wall for the purpose of inspection, corresponding cases being guided by the same guide-rod, substantially as described.

8. In a storage system for the purpose specified, a plurality of storage-sections opening at one side disposed with their ends along one of the walls of the storage-chamber and in closed contact with two others of said walls whereby the interior of the cases is rendered dust-proof by surrounding, tightly-fitting walls, and means for readily withdrawing any desired section from its dust-proof position for the purpose of inspection, substantially as described.

9. In a storage system of the class specified, oppositely-disposed rows of storage-sections extending along the opposite walls of the storage-chamber with a space between the same of substantially the same dimensions as that of one of the said rows, each of said rows of storage-sections presenting a closed exterior wall, and each of the sections of said rows being movable in and out of said space between the rows, for the purpose set forth.

Signed at New York, in the county of New York and State of New York, this 2d day of January, A. D. 1903.

WILLIAM J. H. BOHANNAN.

Witnesses:

CHAS. F. DANE,
HERBERT E. DANE.