No. 780,426. PATENTED JAN. 17, 1905.

G. A. HOLLOCHER.

FILE CASE DRAWER.

APPLICATION FILED MAY 5, 1904.

3 SHEETS—SHEET 1.

Fig. 1

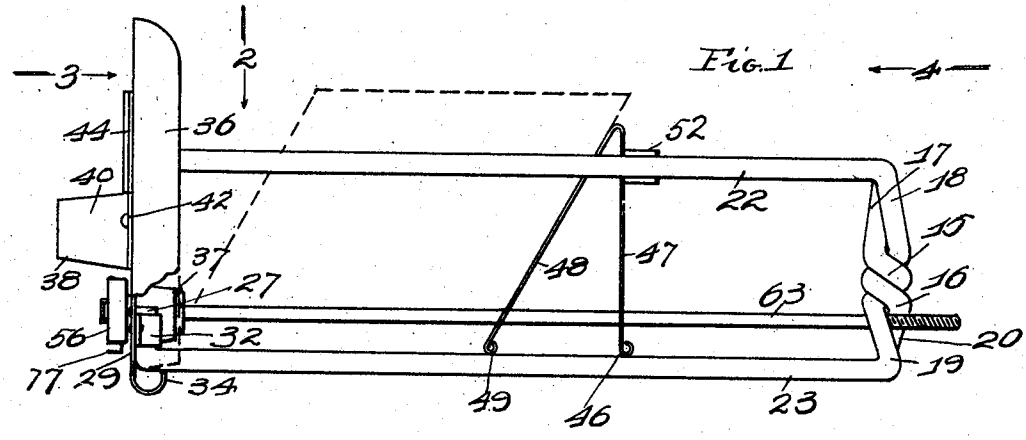


Fig. 2

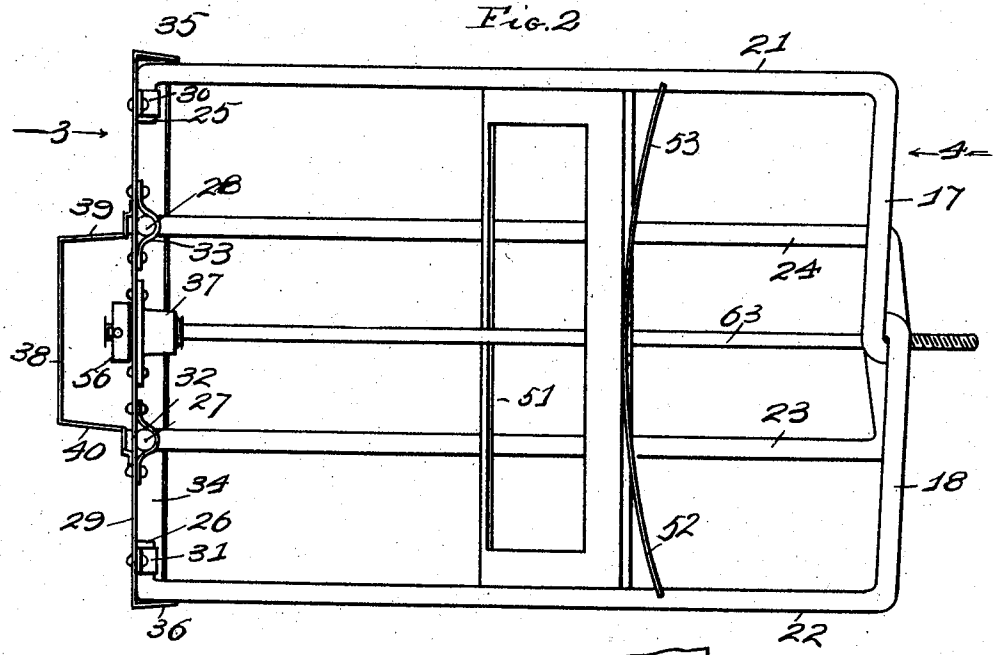
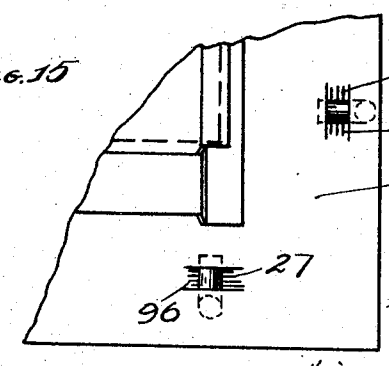


Fig. 15



Witnesses:
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Alfred A. Ellis

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3 SHEETS—SHEET 2.

Fig. 3

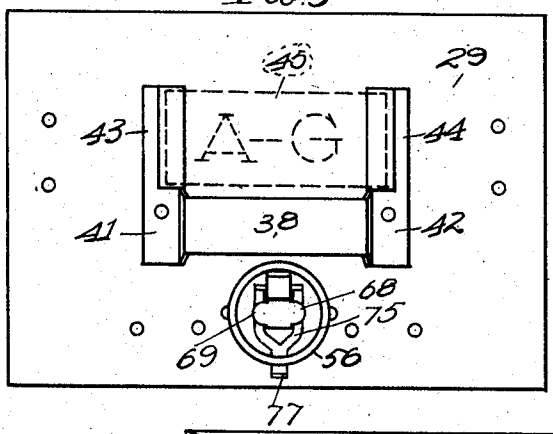


Fig. 4

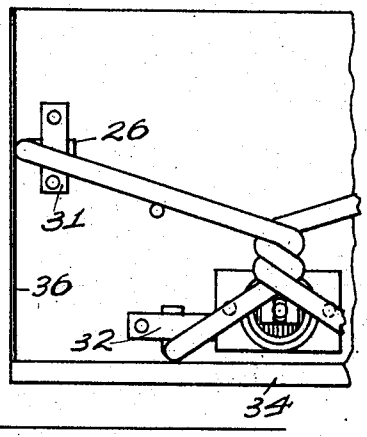


Fig. 5

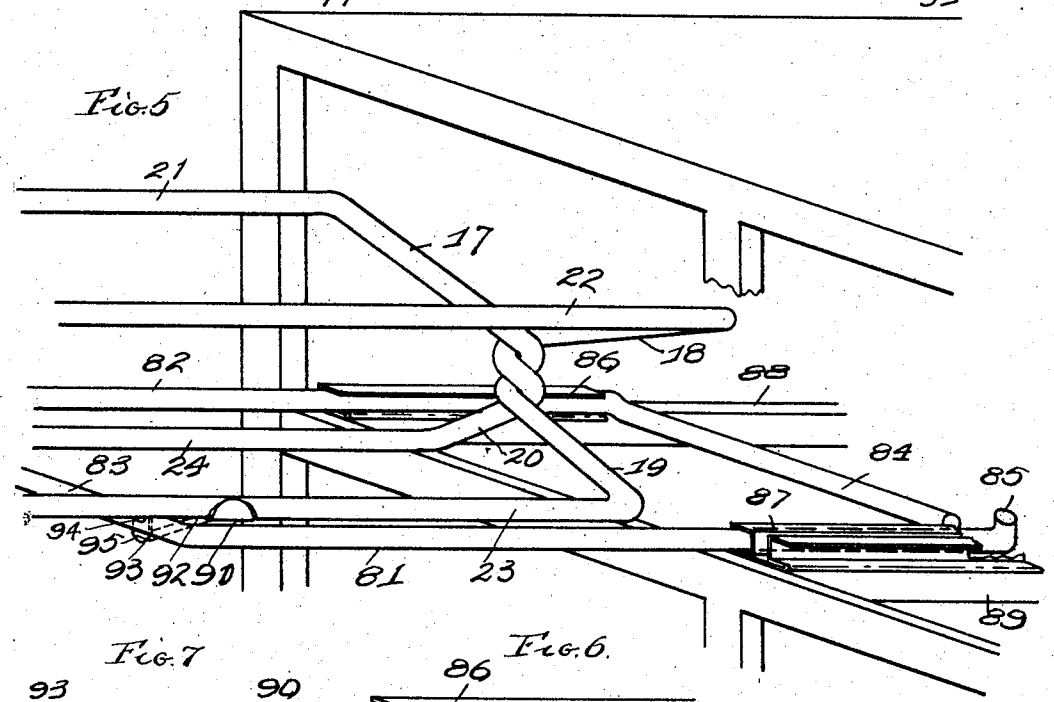


Fig. 7

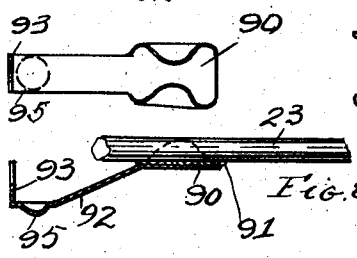


Fig. 8

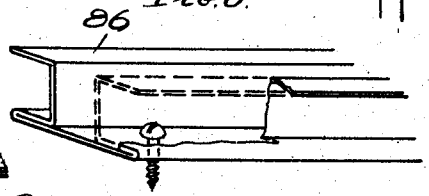


Fig. 6.

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G. A. HOLLOCHER.

FILE CASE DRAWER.

APPLICATION FILED MAY 5, 1904.

3 SHEETS—SHEET 3.

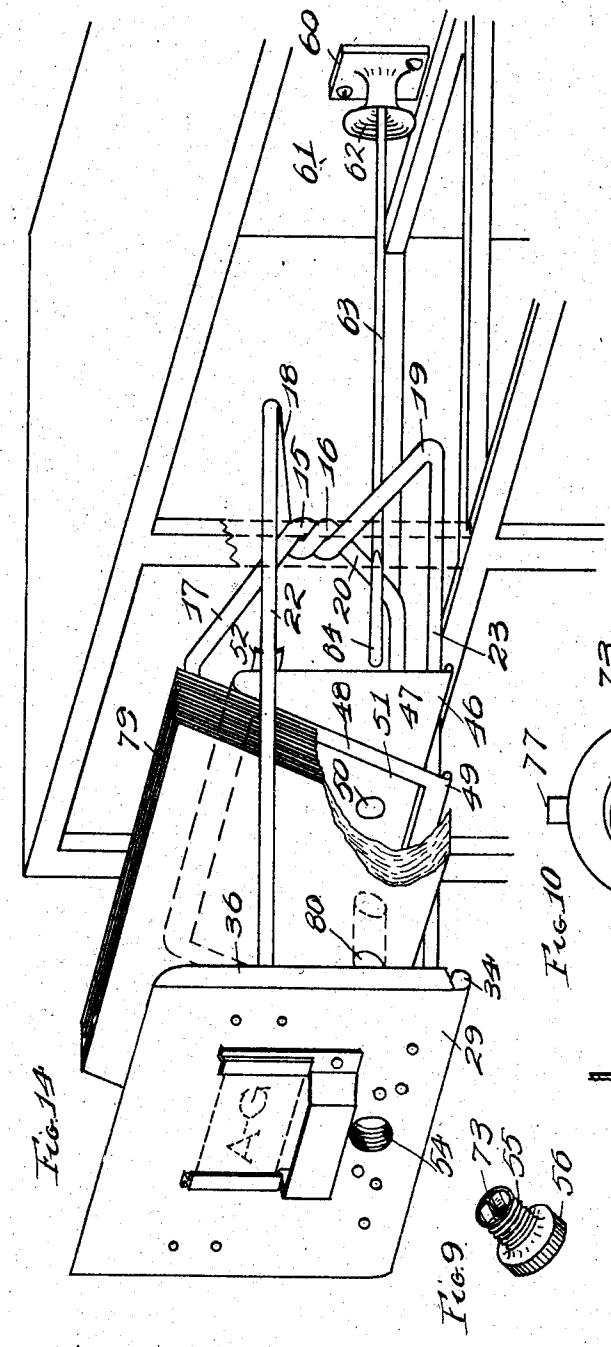


Fig. 14

Fig. 9

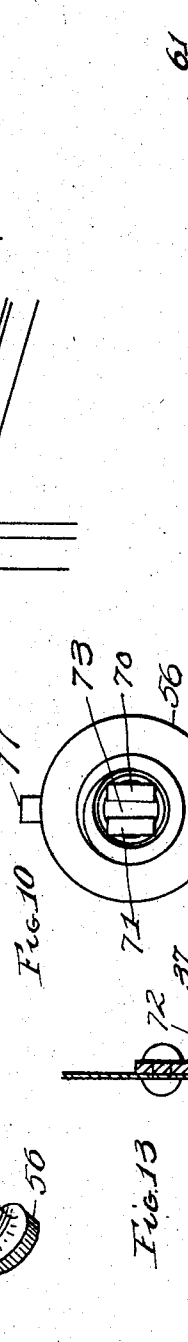


Fig. 10

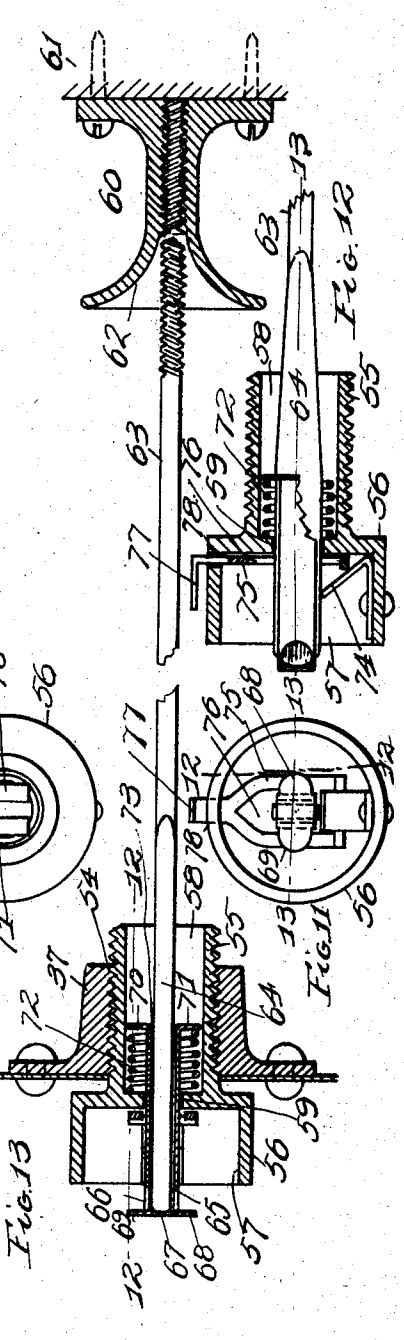


Fig. 13

Fig. 11

Fig. 12

Witnesses.
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No. 780,426. Patented January 17, 1905.

UNITED STATES PATENT OFFICE.

GABRIEL A. HOLLOCHER, OF ST. LOUIS, MISSOURI.

FILE-CASE DRAWER.

SPECIFICATION forming part of Letters Patent No. 780,426, dated January 17, 1905.

Application filed May 5, 1904. Serial No. 206,472.

To all whom it may concern:

Be it known that I, GABRIEL A. HOLLOCHER, a citizen of the United States, and a resident of St. Louis, Missouri, have invented certain new and useful Improvements in File-Case Drawers, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a file-case drawer; and it consists of the novel features herein shown, described, and claimed.

In the drawings, Figure 1 is a side elevation of a file-case drawer embodying the principles of my invention, parts being broken away to show the construction. Fig. 2 is a top plan view as seen looking in the direction indicated by the arrow 2 in Fig. 1. Fig. 3 is a front elevation as seen looking in the direction indicated by the arrows 3 in Figs. 1 and 2. Fig. 4 is a rear elevation as seen looking in the direction indicated by the arrows 4 in Figs. 1 and 2, parts being broken away to economize space. Fig. 5 is a detail perspective showing the connection between the drawer and the file-case. Fig. 6 is a detail perspective, upon an enlarged scale, of the channel-bars, in which the slide operates. Fig. 7 is a plan view of the stop carried by the drawer and engaging the slide. Fig. 8 is a sectional detail showing the stop applied to the drawer. Fig. 9 is a perspective of the operating thumb-screw. Fig. 10 is a rear elevation of the thumb-screw, upon an enlarged scale. Fig. 11 is a front elevation on the same scale as Fig. 10. Fig. 12 is a longitudinal section on the line 12 12 of Figs. 11 and 13 and looking in the direction indicated by the arrows. Fig. 13 is a sectional detail on the lines 13 13 of Figs. 11 and 12. Fig. 14 is a view analogous to Fig. 5 and showing the modified construction, the slide and channel-bars being omitted to make the modification. Fig. 15 shows a modified form of the sheet-metal front, parts being broken away to economize space.

Referring to the drawings in detail, the drawer-frame comprises the sheet-metal front and a wire body. The wire body comprises two wires having interlocking twisted portions 15 and 16, the rear end portions 17 and 18, extending upwardly and outwardly from the portions 15 and 16, the rear end portions 19 and 20, extending downwardly and outwardly from the portions 15 and 16, the side portions 21 and 22, extending forwardly in parallel planes from the upper ends of the portions 17 and 18, the bottom portions 23 and 24, extending forwardly in parallel planes from the lower ends of the portions 19 and 20, the attaching portions 25 and 26, extending horizontally inwardly from the forward ends of the sides 21 and 22, and the attaching portions 27 and 28, extending upwardly from the forward ends of the bottom portions 23 and 24.

The sheet-metal front comprises the rectangular plate 29, the loops 30 and 31, attached by rivets to the rear faces of the plate 29 to receive the attaching portions 25 and 26 of the body, the loops 32 and 33, secured to the rear face of the plate 29 by rivets to receive the attaching portions 27 and 28 of the body, the lower flange 34, bent backwardly and upwardly in the form of a semicircle to hold the attaching portions 27 and 28 in position, the side flanges 35 and 36, bent backwardly from the sides of the plate 29 to hold the attaching portions 25 and 26 of the body in position, the nut 37, secured to the rear face of the plate 29 at its transverse center and near its lower side, there being an opening through the plate in alinement with the opening through the nut, the handle 38, having arms 39 and 40, extending backwardly and having wings 41 and 42, extending outwardly from the rear ends of the arms and secured to the plate 29 by rivets, and the tag-holding brackets 43 and 44, extending upwardly from the wings 41 and 42, said brackets being **Z**-shaped in plan and adapted to hold the cards or tags 45.

The index-follower comprises a sheet-metal plate bent to form the rear tubular follower-base 46, slidingly mounted upon the bottom portions 23 and 24 of the body, the rear vertical supporting-plate 47, extending upwardly from the base 46 and fitting between the side portions 21 and 22, the inclined front supporting-plate 48, extending from the upper part of the plate 47 downwardly and forwardly,

the front tubular follower-base 49 at the lower edge of the plate 48 and sliding upon the bottom portions 23 and 24, there being an opening 50 through the plate 47 and there being a cut-away portion 51 in the center of plate 48, so as to reduce said plate to a skeleton, and the spring-clamp secured to the upper part and rear face of the plate 47 and comprising the spring-arms 52 and 53 to engage the sides 21 and 22, said arms being longer than the distance between the sides and the tension of the springs being exerted to straighten out, so that when the follower is moved forwardly the ends of the arms 52 and 53 will slide along the sides 21 and 22 and so that when it is desired to move the follower backwardly the ends of the arms will engage the sides 21 and 22 and clamp the follower in position and prevent its being moved backwardly until the ends of the arms are manually engaged and pushed backwardly.

The nut 37 has a screw-threaded opening 54, and the operating thumb-screw 55 is adapted to be screw-seated in said opening, there being a knurled head 56 for manually operating the thumb-screw and there being a recess 57 extending inwardly from the outer face of said head, and there being a bore 58 extended from the inner end of the screw 55, and there being a bearing-opening 59 connecting the recess 57 to the bore 58, said bearing being centrally located. The nut 60 is rigidly secured to the back wall 61 of the file-case, the entrance 62 of the screw-threaded opening of said nut being funnel shaped. The card-index rod 63 has its rear end screw-threaded for insertion into the nut 60, and the forward end of said rod is flattened to form the head 64, and said rod is slidingly mounted in the opening 50 of the follower. A spring-socket is mounted to slide backwardly and forwardly in the bearing 59 and held against rotation, said socket being formed of sheet metal and comprising the parallel sides 65 and 66, the central portion 67, connecting the forward ends of the sides 65 and 66, the stops 68 and 69, punched out of the sides 65 and 66, and the spring-seats 70 and 71, extending outwardly from the inner ends of the sides 65 and 66, said sides 65 and 66 being slidingly mounted in the bearing 59 either before the stops 68 and 69 are bent outwardly or before the spring-seats 70 and 71 are bent outwardly and the expansive coil-spring 72 being placed in the bore 58 around the socket, one end of the spring engaging the bottom of the bore and the other end of the spring engaging the spring-seats 70 and 71, the tension of said spring being exerted to throw the socket inwardly against the stops 68 and 69 and there being an angular opening 73 between the sides 65 and 66 to form a wrench-socket to receive the flattened head 64. The threads of the screw 55 are cut in the opposite direction to the threads of the screw upon the rod 63, so that when the thumb-screw 55 is operated to be removed from the nut 37 the rod 63 will be screwed into the nut 60, and vice versa. A spring-clamp 74 is mounted in the recess 57, with its free end edge in position to engage and press against the head 64, so as to grip the head of the thumb-screw 55 to the extent of the strength and tension of the spring.

The clamp-releasing frame comprises a plate 75, having an opening 76 to receive the socket, the opening being large enough to allow the plate 75 to reciprocate, said plate being mounted at the inner end of the recess 57, a handle 77 extending from the plate through a bearing 78 in the shell of the head 56. The lower edge of the frame engages the spring-clamp 74, so that when the handle 77 is pressed inwardly the clamp is pressed outwardly to release the head 64.

The cards 79 are placed in the drawer in an inclined position against the plate 48, said cards having openings 80 in alinement with the opening 50 in the follower. The rod 63 is passed through the opening 50 and through the openings 80 from either end. The head 64 of the rod is inserted into the opening 73 and the drawer placed in the file-case, with the screw-threaded rear end of the rod 63 in the funnel-shaped entrance 62 of the nut 60. As the drawer is slid back and forth in the file-case, the rod 63 remains in position and is carried with the drawer. When it is desired to insert more cards or remove a card, the drawer is pressed into the file-case, the handle 77 is depressed, releasing the clamp 74, and the tension of the spring 72 presses the rod 63 into the nut 60. Then as the thumb-screw 55 is rotated in a direction to remove the thumb-screw from the nut 37 the rod 63 will be screwed into the nut 60. As soon as the rod 63 catches in the nut 60 the drawer is pulled out of the case, thus pulling the rod 63 out of the cards, as shown in Fig. 14, and leaving the cards free for manipulation. Then the drawer is shoved back into the file-case, threading the head 64 through the openings in the cards and into the socket 73, the thumb-screw 55 is again manipulated to restore it to its normal position, thereby screwing the rod 63 out of the nut 60, the drawer is pressed firmly into the file-case, thereby pressing the head 64 into the socket and compressing the spring 72, and the clamp 74 will hold the head 64 firmly in position.

The drawer-supporting extension-slide is formed of a single piece of wire and comprises the side pieces 81 and 82, the front-piece 83, connecting the forward ends of the side pieces 81 and 82, the back piece 84, extending from the rear end of the side piece 82 to the rear end of the side piece 81, and the stop 85, ex-

tending upwardly from the rear end of the side piece 81. The free end of the back piece 84 may be soldered or brazed or otherwise attached to the rear end of the side piece 81, or it may be left unattached, as shown.

The channel-bar guides 86 and 87 for the extension-slide are secured to the sills 88 and 89 of the file-case. The guide 86 is a strip of sheet metal bent to form a single channel-bar. The guide 87 is a strip of sheet metal bent to form a double channel-bar and adapted to be used between two drawers, so as to form supports for the adjacent sides of the two drawers.

The drawer-stop is formed of sheet metal and comprises the base 90, bent around one of the bottom portions of the drawer and secured to said portion by solder or brazing 91, the spring-arm 92, extending forwardly and downwardly from the base 90, and the stop-arm 93, extending upwardly from the forward end of the spring-arm 92 and having a circular notch 94 in its upper edge to receive the body member, there being a substantially hemispherical foot 95 pressed out of the forward end of the spring-arm 92 to present a smooth rounded surface to a table when the drawer is removed and placed upon the table, so as to avoid scratching the table by the stop. The stop is located in position to engage the front piece 83 of the slide when the drawer is pulled out of the file-case so as to bring the slide out, said slide forming a support for the drawer while in its outer position.

In the modification shown in Fig. 14 the slide and channel-bars are omitted, and the members of the drawer-body engage directly upon the members of the file-case. This construction is satisfactory in small work.

In the modification shown in Fig. 15 the loops 30, 31, 32, and 33 are omitted, the portions 96 of the sheet-metal front 29^a being punched backwardly to form loops integral with the front.

It is obvious that either form of my file-case drawer may be used with any ordinary cabinet or file-case and that they may be used as card-index drawers or as files for drawings, catalogues, documents, letters, bills, and the like.

In constructing a file-case drawer it is important that there shall be the least possible chance for the accumulation of dirt, and this feature is secured by using the wire body. By bending the lower flange 34 of the front to a semicircle I secure a rounded surface to support the forward end of the drawer upon a table, and I also secure stiffness and rigidity even with the use of very thin material. Bending the flanges 35 and 36 backwardly also stiffens the front and prevents buckling.

It is obvious that the drawer contains no inflammable material. The slide may be readily removed from the guides 86 and 87 when the ends of the wire are left unattached.

It is obvious that light will penetrate the file-case having my skeleton drawers to a greater extent than it would the file-case having the ordinary box-drawers.

I claim—

1. In a file-case drawer: two wires twisted together at their centers to form the rear end of the body; two ends of said wires extending downwardly and forwardly to form the bottom, and the other two ends of said wires extending upwardly and forwardly to form the sides; and a sheet-metal front connected to the four ends of the wires; substantially as specified.

2. In a file-case drawer: a body comprising two wires twisted together at their centers to form the rear end; two ends of said wires extending downwardly and forwardly to form the bottom; and the other two ends of said wires extending upwardly and forwardly to form the sides; hooks at the ends of said wires; and a sheet-metal front having loops to receive said hooks; substantially as specified.

3. In a file-case drawer: a suitable drawer having a screw-threaded opening in its front; a thumb-screw adapted to operate in said opening; a nut adapted to be secured to the file-case, and having a funnel-shaped opening; a rod slidingly mounted in the thumb-screw and held against rotation relative to the thumb-screw; the rear end of said rod being screw-threaded for insertion into said nut; and the screw-thread upon the rod being cut in an opposite direction to the screw-thread upon the thumb-screw; substantially as specified.

4. In a file-case drawer: a rod screw-threaded at its rear end and flattened at its forward end; a nut to engage the screw-thread having a flaring opening and adapted to be secured rigidly to the file-case; a suitable drawer; a thumb-screw mounted in the drawer; the thread upon the thumb-screw being in an opposite direction to the thread upon the rod; and a releasable clamp for holding the rod in the thumb-screw; substantially as specified.

5. In a file-case drawer: a rod screw-threaded at its rear end and flattened at its forward end; a nut adapted to be rigidly mounted upon the file-case and adapted to receive the screw-threaded end of the rod; a thumb-screw screw-seated in the drawer; the thread upon the thumb-screw being in an opposite direction to the thread upon the rod; a socket slidingly mounted through the thumb-screw and adapted to receive the flattened end of the rod; and a spring for pressing the socket backwardly; substantially as specified.

6. In a file-case drawer: a rod screw-threaded at its rear end and flattened at its forward end; a nut adapted to be rigidly mounted upon the file-case and adapted to receive the screw-threaded end of the rod; a thumb-screw screw-seated in the drawer; the thread upon the thumb-screw being in an opposite direction to the thread upon the rod; a socket slidingly

mounted through the thumb-screw and adapted to receive the flattened end of the rod; a spring for pressing the socket backwardly; and a yielding clamp located in the thumb-screw to engage the rod and resist the spring; substantially as specified.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

GABRIEL A. HOLLOCHER.

Witnesses:
EDW. M. HARRINGTON,
JOHN C. HIGDON.