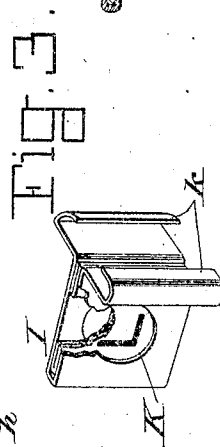
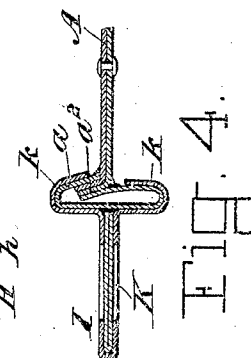
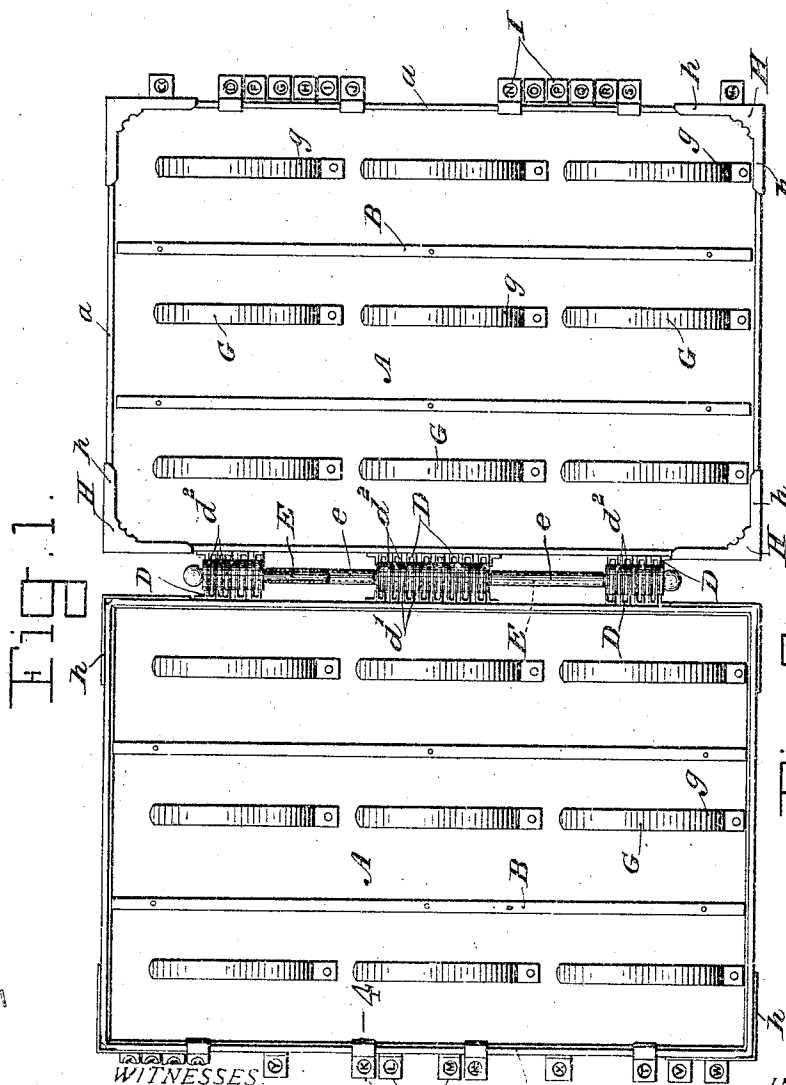
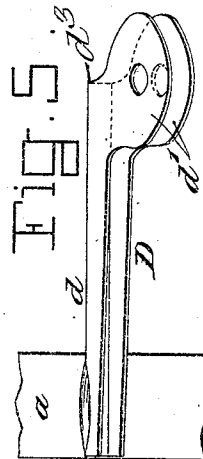


953,963.



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UNITED STATES PATENT OFFICE

COURTLAND EWING LEER, OF PARIS, KENTUCKY.

BOOKKEEPING-FILE.

953,963.

Specification of Letters Patent.

Patented Apr. 5, 1910.

Application filed March 11, 1909. Serial No. 482,785.

To all whom it may concern:

Be it known that I, COURTLAND EWING LEER, a citizen of the United States, residing at Paris, in the county of Bourbon and State of Kentucky, have invented certain new and useful Improvements in Bookkeeping-Files; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to files such as are used by merchants and others in connection with a system of keeping accounts, and more particularly to files of the character illustrated and described in Letters Patent No. 895,031, granted to me on August 4, 1908, for a bookkeeping file.

One object of the invention is to provide a file of the character referred to composed of sheet-metal and possessing the elements of strength and durability with lightness and adaptability for convenient handling and use and at the same time affording security against the mutilation of credit accounts kept therein and protection to such accounts in case of fire.

A further object is to provide simple and efficient means for holding the letters of the index to be used as a part of the system of keeping accounts with which the file is used; also to provide improved means for hinging together a series of leaf-like plates arranged in book form and to adapt the hinges which connect the outer plates or leaves to serve as abutments for intermediate leaves and prevent sliding or "crawling" of the leaves one upon another.

The invention will first be hereinafter more particularly described, with reference to the accompanying drawings, which are to be taken as a part of this specification, and in which—

Figure 1 represents a plan view of a file embodying my invention, showing the same open in position for placing beneath the clips on opposite sides of the leaves credit account slips, or for making entries on or removing credit account or other slips from beneath the clips; Fig. 2 is a rear view showing the file closed; Fig. 3 is a detail perspective view of one of the index holders detached, part thereof being broken away; Fig. 4 is a detail sectional view through one of the index holders attached to a leaf; the section being taken on the line 4—4 of Fig.

1; and Fig. 5 is a detail perspective view of one of the hinges or hinge members by which the sheet-metal plates forming the leaves of the file are connected in book form.

Referring to said drawings, in which the same reference letters are used to denote corresponding parts in different views, the letters A, A, denote the leaves of the file, each of which may consist of a sheet-metal plate or plates having marginal ribs *a* which project from opposite sides thereof so as to form shallow box-like receptacles within which may be placed slips of paper, cards, or the like on which entries may have been or may be made from time to time, as desired. The ribs *a* preferably extend entirely around the margin of each leaf and may each consist of an oblong strip of sheet-metal having its opposite edges bent over or folded upon itself so as to adapt it to clasp between the folds or return bends an upturned edge or marginal flange *a*² projecting at an angle from the margin of the leaf A, and the two parts may be secured together by solder or other fastening means. The leaves A, A, are placed one upon or beside another with their edges or margins in the same vertical or horizontal plane, and are hinged together at their edges in such manner as to adapt the series of leaves to be folded in the form of a book and to open out and lie in two groups on opposite sides of their hinged connections with the margins of each group in the same vertical plane. Strips B of wood or other suitable material may be secured upon opposite sides of the leaf, so as to divide the surface thereof into three, more or less, divisions in which suitable spring-clips or other means are provided for holding strips of paper, cards, or the like, against the face of the leaf.

The hinges D may consist of strips of sheet-metal each cut and bent so as to form an approximately L-shaped structure or hinge member which is U-shaped in cross-section and has perforated ears or flaps *d*¹ at one end forming the butt of the hinge, which extends substantially at right angles to the strap or longer arm *d* thereof. The several sheet-metal plates forming the leaves of the file are each secured to the free ends of two or more of said hinge members, the latter being of different lengths, increasing successively from those which connect the two innermost leaves to those which connect the two outermost leaves of

the series. The hinges are arranged in groups with their pivots or axes in the same plane at a point about midway of the series of leaves when folded in book form.

5 All of the hinges may have their butts fitted upon a common connecting rod E, though obviously a separate rod may be used for connecting each group of hinges. When a single rod is used, as shown, sleeves
10 c may be placed on the rod to separate the groups of hinges and prevent sidewise movement. Washers d² of leather or other suitable material may be used between the butts of adjoining hinges and between the
15 ears d¹ of the hinge members. It matters not in what position the book file is kept or what turning or twisting strains be exerted on the different leaves, the hinge members are so constructed and associated that all
20 possibility of crawling or sliding is obviated. As shown in Fig. 5, the ear of each hinge member is formed with an off-set or shoulder, d³, and when the respective hinge members are assembled, as shown in Fig. 2,
25 there are two opposing shoulders, d³, for each pair of hinge members. That is to say, referring to the two outer leaves or plates and their hinge members, the shoulder, d³, of one hinge member is in line with
30 the shoulder of the hinge member for the other leaf or plate, and the two shoulders are adapted to abut one against the other, so that no matter what turning or twisting strain is exerted one hinge member will offer
35 a stop for the opposite hinge member and prevent the hinge members from dropping down and thereby preventing the leaves themselves from slipping or crawling. In this way there are shown, in effect, two
40 stops for each hinge member, which tend to reinforce the hinge itself and assist the long arm of the hinge in its function of holding securely the leaves or plates, as heretofore explained.

45 The letters G, G, may denote spring-clips for holding strips of paper, cards, or the like against the faces of the leaves. The clips G consist of flat strips of spring-metal, each having one end riveted or otherwise secured to the face of the leaf while
50 its free end rests on said leaf, and it is bent or formed with a sort of ogee curve, as at g, to adapt its free end to press upon the leaf with sufficient force to hold fast any strips
55 of paper or the like placed beneath said end.

For greater strength and security in holding the leaves and attached marginal ribs together, corner-pieces or brackets H, H, may be employed, the same being
60 struck up or stamped out of sheet-metal in such manner as to form two arms h, h, of U-shaped form in cross-section and arranged at right angles to each other to adapt the arms to fit over the adjoining
65 ends of the ribs at the corner of the leaf

and secure them together. The corner-pieces may be attached to the ribs by bolts, rivets, or solder, as desired, and the leaf thus formed will serve for all practical purposes as if made of a single piece of metal. 70

To provide a suitable index upon the margins or free edges of the leaves, and to expose to view the same index character or number on both sides of the leaf, I provide a series of index holders I, I, which may be
75 formed by bending an oblong strip of spring-metal upon itself and then bending its free ends outwardly or otherwise shaping the strip so as to form a substantially T-shaped structure whose lateral arms (corresponding
80 with the head of the T) have return bends $\frac{1}{2}$ adapting it to be sprung over the edges of the marginal ribs a and clamped thereon by the resiliency of the metal. An opening K is formed through the shank of the T-shaped
85 clamp or holder, so that any letter or number written or printed on a card held between the folds of the plate forming the holder will be exposed to view through said opening, and by writing or printing the
90 same letter or number on both sides of the card the same index character may be exposed on both sides of the holder. These index holders may be easily adjusted lengthwise of the marginal ribs and retained at
95 any desired point thereon, and any one or more of the holders may be shifted from place to place, or from rib to rib, for the purpose of changing the letters or numbers of the index as occasion may require, so that
100 in the event of making or desiring to make more entries under a certain letter of the index than at first contemplated, the index letters may be shifted or re-arranged so as to give to any letter of the index certain
105 space previously apportioned to another letter.

It will be observed that the file is composed almost entirely of sheet-metal, but any other suitable material might be employed in making any of its parts, and I do not desire to limit my invention to the use of sheet-metal. It will also be understood that other means might be substituted for the spring-clips shown, for holding slips of
115 paper or the like against the faces of the leaves of the file, and various other changes might be made in details of construction and arrangement of parts without departing from the spirit and scope of my invention. 120

The outer sides of both outer leaves may be faced or covered with leather or other suitable material, such as used for the covers of books, which may be secured thereto at the corners by angular brackets or corner-pieces similar to the corner-pieces H, except that the arms thereof are angular instead of U-shaped in cross-section, which gives a finished book-like appearance to the file.

Having thus described my invention, what 130

I claim as new and desire to secure by Letters Patent of the United States is:—

1. A file of the character described having hinge-members of approximately L-shaped form connecting the leaves thereof in the form of a book, said hinge-members being constructed of sheet metal folded or bent upon itself into substantially U-shaped form in cross-section and having at one end perforated ears or flaps, which form the butt of the hinge, and a strap or longer limb extending substantially at right angles to said butt and having its free end secured to one edge of a leaf which extends substantially at right angles to said longer limb and substantially parallel with said butt.

2. In a device of the character referred to, a leaf composed of a sheet-metal plate or plates having upturned edges or flanges and marginal ribs projecting from opposite sides thereof, said ribs consisting of oblong strips of sheet-metal having their edges bent over or folded so as to clasp between them and conceal said upturned edges or flanges, and angular corner-pieces fitted upon adjoining ends of said marginal ribs and securing them and the plate together.

3. The combination with a book-form file consisting of a plurality of leaves hinged together at one edge and having marginal ribs, of an index holder consisting of a spring-metal plate bent or folded upon itself into substantially the form of the letter T, the head thereof having return bends adapt-

ed to clasp a marginal rib on said leaf over which it may be sprung, and the shank of the T having an opening therethrough and a space between the folds of the metal for holding a card or slip of paper having an index character thereon exposed through said opening.

4. A book file comprising a series of leaf-like plates having hinges of different lengths each with a long and a short arm, and means for securing one of said plates to one of the longer arms of each hinge, said hinges having shoulders or stops formed on the opposing shorter arms thereof, and means connecting the shorter arms of said hinges, the shoulders of one hinge adapted to abut against the opposing shoulder of an associated hinge, for the purpose specified.

5. In a device of the character described, a leaf composed of a sheet metal plate or plates having upturned edges or flanges and marginal ribs projecting from opposite sides thereof and secured upon said flanges, said ribs consisting of oblong strips of suitable material having their edges bent over or folded so as to clasp between them and conceal said flanges.

In testimony whereof I affix my signature, in presence of two witnesses.

COURTLAND EWING LEER.

Witnesses:

T. E. MOORE, Jr.,
DENIS DURDON.