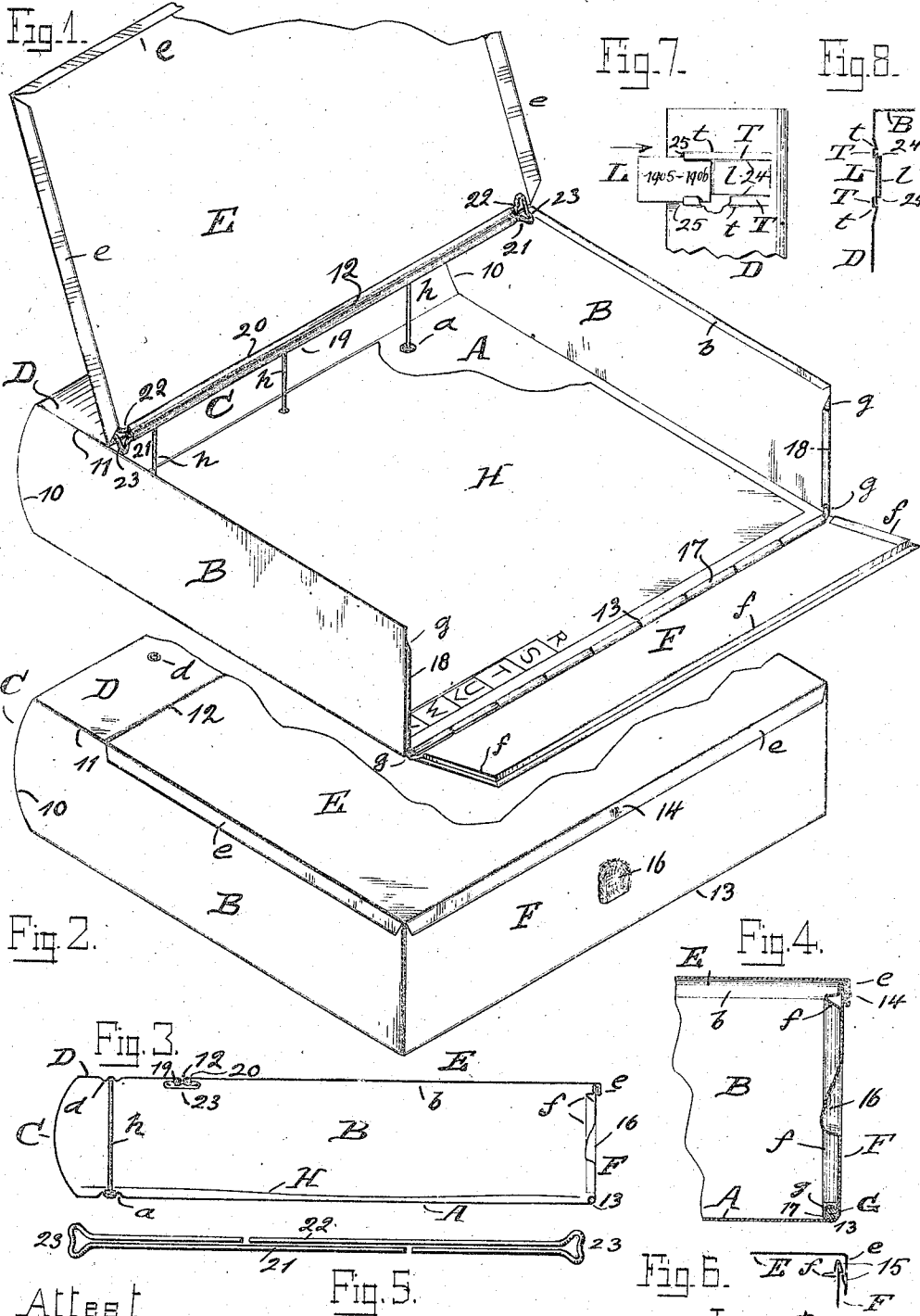


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FILE BOX.
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Patented Nov. 30, 1909.



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FILE-BOX.

941,681.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, CHRISTIAN KECK, of Crescent Springs, Kenton county, State of Kentucky, and ALEXANDER DOM, of Hartwell, Hamilton county, State of Ohio, both citizens of the United States, have invented certain new and useful Improvements in File-Boxes; and we do declare the following to be a clear, full, and exact description of the invention, attention being called to the accompanying drawing, with the reference characters marked thereon, which form also a part of this specification.

This invention relates to improvements in the manufacture and construction of cases, or boxes used as an office-utensil and serving to receive, for the purpose of filing, papers, documents, letters, bills etc.

Provision is usually made to permit alphabetical arrangement of the papers so filed to facilitate ready reference.

The improvements consist of certain features of construction and arrangement of such receptacles, as hereinafter described and claimed and as illustrated in the accompanying drawing, in which:—

Figure 1, shows in perspective view our file-box in open condition. Fig. 2, in part of a perspective view shows the same closed. Fig. 3, is a cross-section through the same in closed condition. Fig. 4, shows a portion of this figure at its right end on enlarged scale. Fig. 5, shows parts involved in the hinge-construction. Fig. 6, is an enlarged sectional detail-view of the preferred form of our lock. Fig. 7, shows a view of the back near its upper end and illustrates means for holding a label. Fig. 8, is a vertical section of this figure.

As a material for the body of our boxes, we use sheet-metal and the construction is devised accordingly, the body consisting of the bottom A, the ends B, B, the back C, and a narrow top D, permanent as to position. These parts we make out of one piece of sheet-metal, patterned to proper shape and folded and seamed together. This method of construction and connection as shown, requires only two short seams at each end, one seam 10, connecting the short ends of back C, to one of the short sides of each of the ends B, B, and another seam 11, which connects the ends of the permanent top D, to a part of the upper edge of each

of the ends B, B. These seams may be formed according to any of the approved methods used in sheet-metal working, a lock-seam being preferred.

The balance of the top is closed by a lid or top E, connected by means of a hinge 12, to the free edge of permanent top D. The side opposite back C, is constituted by a flap F, connected by means of a hinge 13, to the free edge of bottom A.

The free edges of lid E, are bent over to form flanges e, which serve to stiffen said lid and also hold the box to its proper shape when closed as shown in Fig. 2, said flanges lapping then over the upper edges of ends B, B, and engage also the free edge of flap F, this latter being closed first against the free, short edges of ends B, B, after which lid E, is turned down over it.

A positive lock is provided as shown in Fig. 6, to hold lid and flap in closing engagement, the same being formed by forcing portions of the metal of the over-lapping parts out in opposite directions to produce abruptly projecting hook-shaped lugs 15, so located that the lug on the inner side of the flange of the lid snaps over the lug on flap F, when the free edges of these parts come properly together. For unlocking, a slight pressure on flap F, is sufficient to disengage the lugs. A depression 16, in the flap, adapted to receive the end of thumb or finger of one hand, forms a hand-hold which affords a hold to facilitate opening, particularly in the cases where frictional engagement is relied upon for locking, the other hand taking hold of the edge of the lid.

The free edges of flap F, are stiffened by an inwardly projecting ridge f, formed as best shown in Fig. 4, that is the metal of these edges is first turned over and folded down against the metal of the flap, then turned away from the flap and back again against the metal thereat, forming ridge f, of double thickness of metal.

Hinge 13, which connects this flap is formed in the usual manner, spaced-barrel or sleeve-sections 17, being formed on the opposite edges of bottom A, and of flap F, to be connected, the barrel-sections, on one edge occupying the spaces between the barrel-sections on the other edge, after which a wire hinge-pin G, is passed through all the aligned barrel-sections. The ends of

this hinge-pin project beyond the hinge at each of its ends and are turned up at an angle and against the free front-edges of ends B, B, which edges are connected to these up-turned wire-ends by curling the metal thereat around them as shown at 18-18. These edges are thus rendered stiff and serve to firmly hold ends B, B, in proper shape, particularly when the box is open as shown in Fig. 1. When closed they are held to shape by the ridges at the short sides of flap F, which ridges at that time pass in behind these edges and back them. The upper edges of ends B, B, are stiffened by turning them over and doubling the metal thereat as shown at b-b.

For the purpose of constructing hinge 12, a barrel is formed on each one of the edges to be connected, 19 being the barrel on top D, and 20 being the one on lid E. A pin occupies each barrel, the ends of which pins are connected at their ends by making the wire continuous thereat. This arrangement permits the lid, when opened, to be turned completely back so as to rest flat upon top D, thus preventing straining of the hinge and when turned the other way for closing, said lid comes down flush with top D, so that at that time top D, and lid E, form a continuous smooth surface. This leaves the boxes when closed entirely smooth on their outside and without any projections, which is very important, because it permits them, when stored away, to be placed flatly against each other without any waste of space. Fig. 5, shows the pins for this hinge, 21 indicating the one within one barrel, and 22 indicates the one occupying the other barrel. In the practical construction these hinge-pins are arranged in two sections, each containing a part of each pin as best shown in Fig. 5, which sections are introduced into the positioned barrels of hinge 12, one from each end. It is not necessary that these pins should fill the barrels through their entire length, but by doing so, the hinged edges are greatly stiffened. When so applied, the inner, terminal points of the hinge-pin-sections are arranged as shown in Fig. 5, so that the brakes are not both at the same point of the hinge. At the outer ends of these hinge pin-sections, where they are bent to form the turn, the wire is shaped to form also a transverse brace 23, at each end, which braces are so shaped that their ends are in a line which is parallel to top D, and to lid E, and bear directly against the underside of both of them when the box is closed as shown in Fig. 3. The effect of the presence of these braces is that when the lid is manipulated, they compel the hinge-barrel on the latter to swing around the barrel on top D, and prevent the independent turning of the lid on one of the hinge-pins only, which would prevent the lid, when open, from

coming down flat upon top D, and also from dropping into proper closing position.

These boxes are usually fitted out with so-called index-sheets, a number of which are shown in Fig. 1, one being also shown in Fig. 3, all indicated at H. These sheets receive between them the documents to be filed and by the reference letter at their edges indicate the position of any particular document. They are held in position by pins h, which occupy perforations in these sheets. The number of these pins is optional. In some cases, one only is used in the center, in other cases two are provided, one near each end. In this present case we have shown three. They are secured in position between bottom A, and permanent top D, by being held at their ends. We provide sockets for such purpose which we produce by forming annular ridges opposite each other in top and bottom respectively, which project inwardly and surround the ends of the pins. d, indicates this ridge on the underside of top D, and a indicates the ridge on the upper side of the bottom. It is preferable that the lower end of the pin or pins is provided with a head, to facilitate in assembling, the placing of the sheets and to prevent them from slipping off from the pins before these latter are inserted. It will be noted that the provision of these sockets and their formation in this manner, does not produce any projections above the metal on the outside of the box.

Means to hold a label L, containing directions as to the contents of the file for instance, are provided on the back by cutting the metal thereat transversely on two parallel lines as shown at 24, 24, in Figs. 7, and 8, and by shaping the metal so that the edges of the metal at the cuts above and below the portion L, of the back between them, project outside of this portion to form flanges T, T, which are adapted to engage the edges of the label and behind which the same is held in position flat-wise against the back. Short angular cuts 25, 25, are provided in these flanges at one of their ends to permit end-wise insertion of the label as shown in Fig. 7. While pressing the metal apart at the cuts to produce these flanges T, shoulders t, t, are formed at the same time which positively hold the edges of the label and prevent its displacement edge-wise.

Having described our invention, we claim as new:

1. In a sheet-metal file-box, the combination of a body-portion, a lid and a flap, both hingedly attached to the former, the flap being flat and stiffened at its free edges by having the metal doubled thereat and by being provided with an inwardly projecting ridge arranged parallel to these edges and spaced therefrom.

2. A sheet metal file-box comprising a bot-

tom, top, three sides and a flap which constitutes the fourth side, spaced hinge-barrel-sections provided on the free edge of the bottom and on one of the longitudinal edges of the flap, all of which barrel-sections are adapted to aline when both edges are placed in position against each other, and a hinge-pin adapted to pass through all these barrel-sections when alined, and extending beyond them at each end of the hinge, where its projecting ends are bent up on the free edges of the adjacent sides of the box and connected to them.

3. A file-box consisting of a sheet-metal inclosure partly open, and a sheet-metal lid for this open part, hinge-barrels provided, one on one edge of the lid and one on a corresponding edge of the inclosure and a hinge-pin in each barrel, said pins being continuous at the ends of the barrels, extending from one into the other and are provided with braces at the ends of the barrels where said pins are turned from one barrel into the other arranged transversely to them and adapted to bear against adjacent surfaces of the hinged parts.

4. A sheet-metal file-box comprising a bottom, a top, three sides and a flap which is hingedly connected to the free edge of the bottom and forms the fourth side, the flap being provided with inwardly projecting ridges parallel to its ends and spaced there-

from so that, when closed, said ridges on the flap pass in behind the edges of the adjacent sides of the box and brace them.

5. A file-box of sheet-metal adapted to receive matter for filing and provided on the outside of its back with label-holding means consisting of parallel parts of the metal of the back, which, this latter having been cut accordingly and at the cut-edges shaped and bent for the purpose constitute these label-holding means which are adapted to engage the label at parallel edges, the label being held, when in position, between these means and between the back of the box.

6. A file-box consisting of a sheet-metal inclosure provided with means for access, and having continuous ridges formed opposite each other in the inclosure from which they project inwardly in a manner to form within the space surrounded by them, sockets which are adapted to support between them pins for holding index-sheets, said pins being held in position by the ridges which surround their ends.

In testimony whereof, we hereunto affix our signatures in the presence of two witnesses.

CHRISTIAN KECK.
ALEXANDER DOM.

Witnesses:

C. SPENGLER,
B. T. ARCHER.