

A. HUTTENBACH.
MEANS FOR FILING LETTERS.

No. 553,678

Patented Jan. 28, 1896.

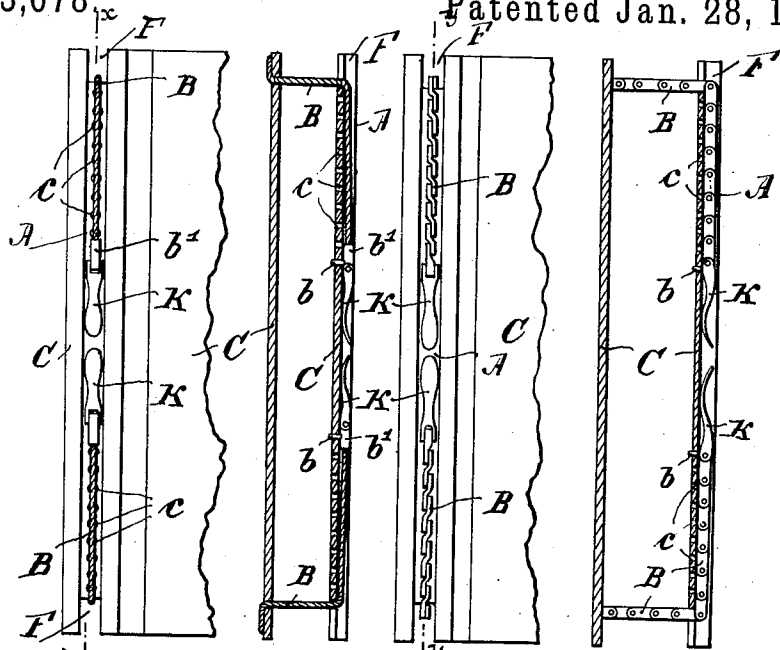


Fig. 1. Fig. 2. Fig. 3. Fig. 4.

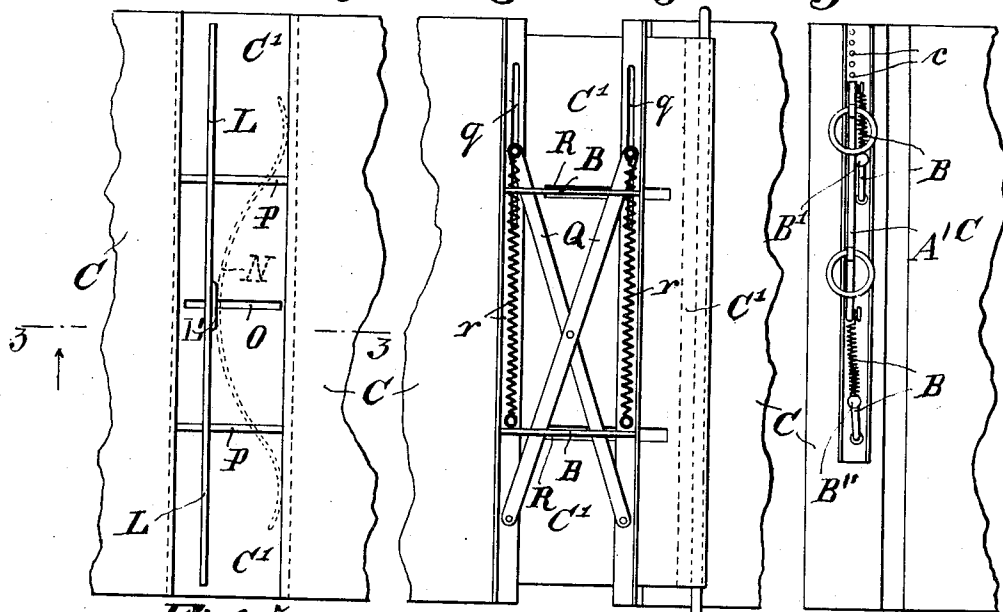


Fig. 5.

Fig. 7.

Fig. 8.

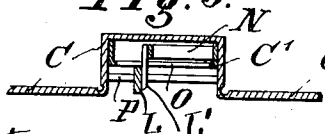


Fig. 6.

Witness:
C. W. Thomas
J. J. Mather

Inventor:

Adolf Huttenbach
by *W. H. H. H. H.*

(No Model.)

4 Sheets—Sheet 2.

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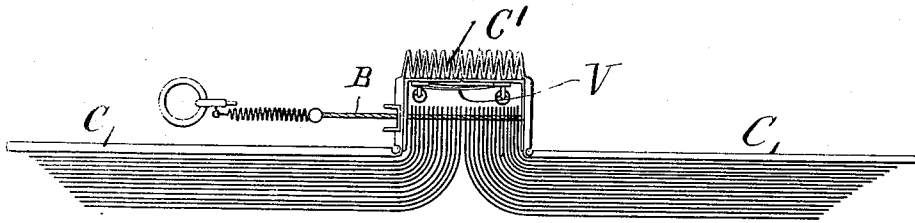


Fig. 9.

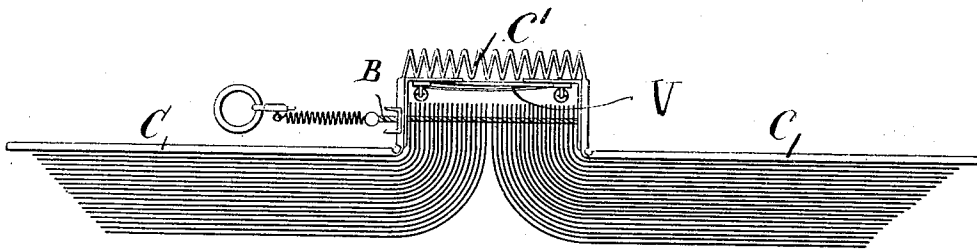


Fig. 10.

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4 Sheets—Sheet 3.

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Fig. 11.

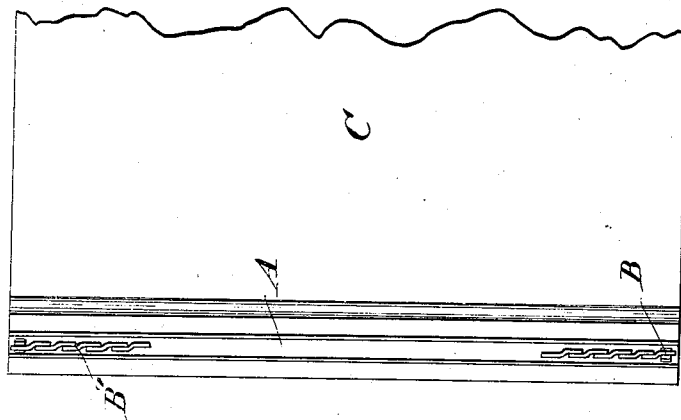


Fig. 12.

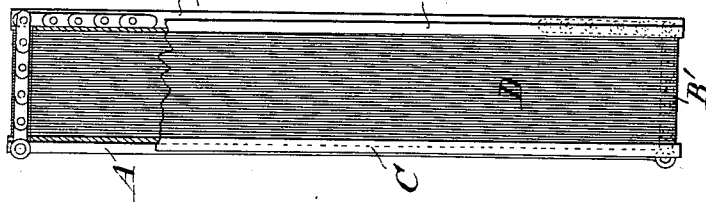


Fig. 13.

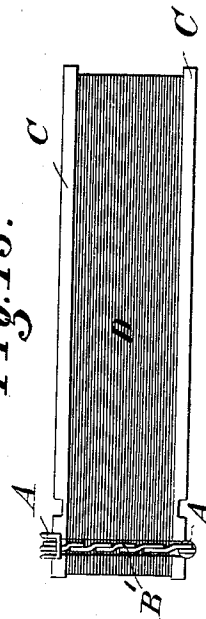


Fig. 14.

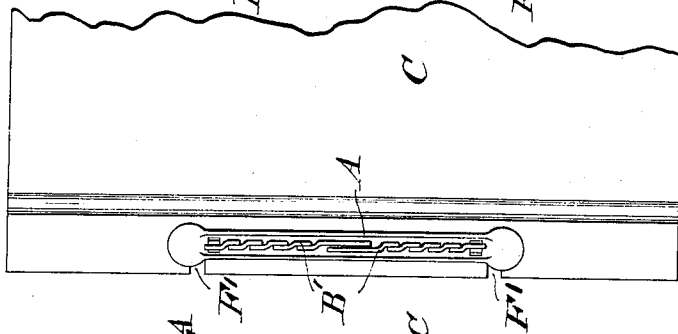


Fig. 15.

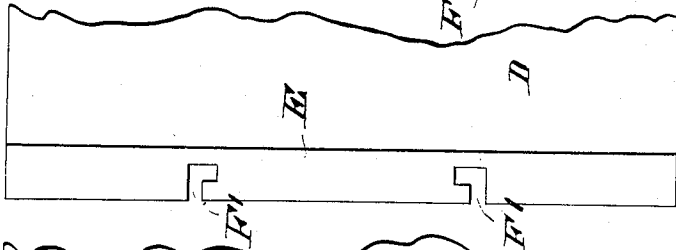
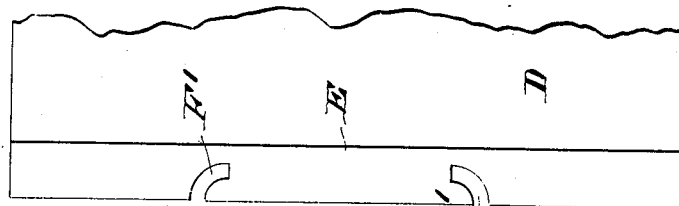


Fig. 16.



Witnesses
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4 Sheets—Sheet 4.

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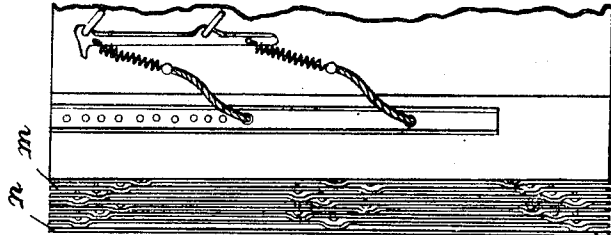


Fig. 20.

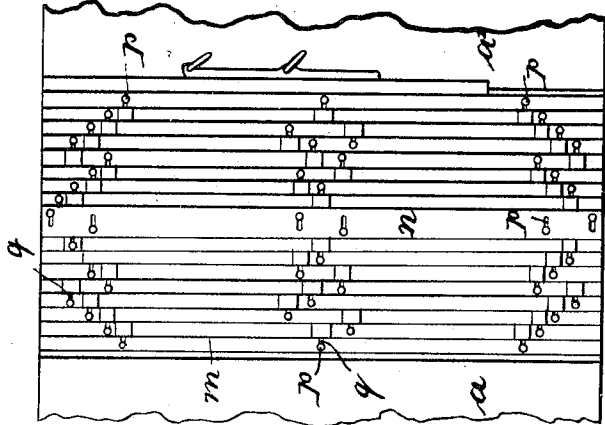


Fig. 21.

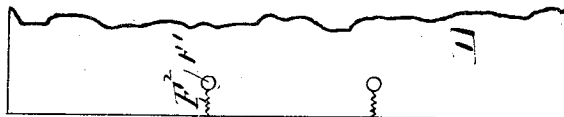


Fig. 22.

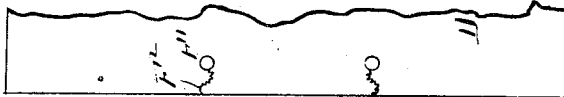


Fig. 23.

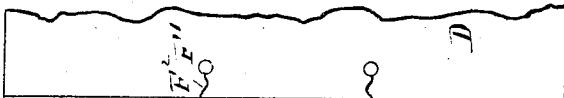


Fig. 24.

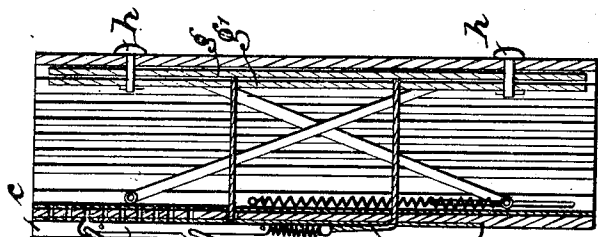


Fig. 17.

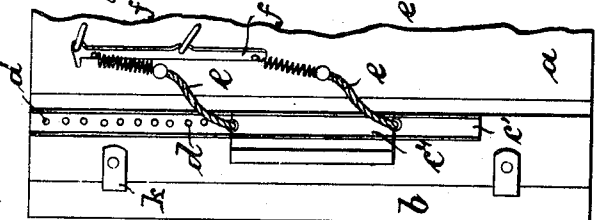
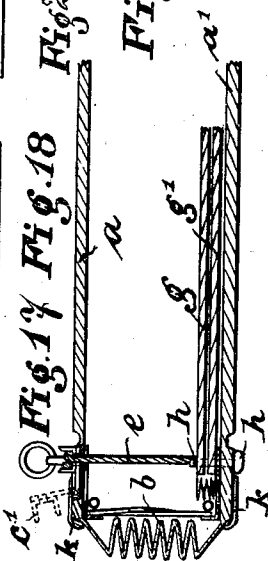


Fig. 18.

Fig. 19.



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UNITED STATES PATENT OFFICE.

ADOLF HUTTENBACH, OF FRANKFORT-ON-THE-MAIN, GERMANY.

MEANS FOR FILING LETTERS.

SPECIFICATION forming part of Letters Patent No. 553,678, dated January 28, 1896.

Application filed August 14, 1893. Serial No. 483,070. (No model.) Patented in Germany October 17, 1892, No. 69,801; in Switzerland October 17, 1892, No. 6,003; in England October 19, 1892, No. 18,737; in France October 21, 1892, No. 225,085; in Belgium October 26, 1892, No. 101,908, and in Italy November 5, 1892, XXVII, 32,941 and 64,433.

To all whom it may concern:

Be it known that I, ADOLF HUTTENBACH, merchant, a subject of the Emperor of Germany, and a resident of Frankfort-on-the-Main, Germany, have invented new and useful Improvements in Means for Filing Letters, Sample Sheets, &c., (for which I have obtained Letters Patent in Germany, No. 69,801, dated October 17, 1892; in France, No. 225,085, dated October 21, 1892; in Great Britain, No. 18,737, dated October 19, 1892; in Belgium, No. 101,908, dated October 26, 1892; in Switzerland, No. 6,003, dated October 17, 1892, and in Italy, XXVII, 32,941 and 64,433, dated November 5, 1892,) of which the following is a specification.

My invention relates to a file for sample sheets, loose papers, fabrics, and the like.

The advantages possessed by my improved file, as compared with the devices heretofore employed for similar purposes, consist in that this file enables the removal of single sheets to be effected from any part of the same without first taking off the sheets lying above those to be removed, and in that in the use of the file the sheets arranged therein are not injured in any way. By reason of these properties my improved file is particularly adapted for travelers' samples, as in such cases it is necessary to remove from the collection quickly any samples which a customer may wish to inspect and to insert them in their proper place again after use.

The nature of my said invention will be best understood when described in connection with the accompanying drawings, in which—

Figure 1 is an elevation of a file constructed according to my invention, part being broken away. Fig. 2 is a sectional side view in plane xx , Fig. 1. Fig. 3 is an elevation of a modified form; Fig. 4, a section in the plane yy , Fig. 3. Fig. 5 is an elevation of a modified form. Fig. 6 is a section in the plane zz , Fig. 5. Figs. 7 to 14 and 17 to 21 are other modified forms; and Figs. 15, 16 and 22 to 24 show different forms of slits or incisions in the sheets.

Similar letters indicate corresponding parts

throughout the several views of the drawings.

In the drawings, referring at present to Figs. 1 and 2, the letters CC designate the covers of a file, to one of which, preferably the back, are secured at opposite sides the cords B , which pass through recesses in the edges of the sheets to the front cover, which latter is recessed at F . From these recesses the cords are led into a longitudinal groove A formed parallel with and near the back edge of said cover. The cords B serve to compress the sheets in the file by drawing the two covers together. These cords are at their free ends attached to sockets b' provided with pins b , which pins fit into holes c distributed in the groove A . To the sockets are pivoted handles K , which are used in tightening the cords B . When the cords have been drawn up to sufficiently compress the sheets the pins b are inserted into the nearest holes and the handles turned down, as shown. When a sheet is to be removed from the file it is only necessary to pull out the pins, thereby releasing the cords and loosening the file.

Instead of cords, chains B' may be used. Such a construction I have shown in Figs. 3 and 4. The only difference is that the pins b instead of being attached to a socket are secured to or form part of the last link of the chain or are attached directly to the lever K .

In Figs. 11 to 14, inclusive, I have shown means for securing the chain without using handles and pins. The links of the chains B' are in this instance pivoted or connected to each other some distance from their ends, so that when two links are brought at right angles to each other the end of one projects a little past the edge of the other. The top cover is provided near the ends of groove A with small rectangular openings which just allow the chain when straightened to pass therethrough. The file is arranged as before and the chains pulled through the openings to compress the same. The chains are then turned down into the groove and the last link passed through the opening. Being turned at right angles to the one just passing through prevents, by virtue of its pivoting, the chain

from slipping back. In these forms the sheets of the file are provided with recesses for the cord or chain at the ends of the sheets only.

In the following forms the recesses are placed laterally close to the back edges of the sheets to enable sheets of different sizes to be placed in the file.

In Figs. 5 and 6 I have shown a file in which instead of cords or chains for holding and compressing the file stationary rods P are used. On these rods slides a flat bar L provided at its middle with a piece L', sliding on a rod O and acted upon by a spring N. When using the file, the bar L is pressed back against the spring N, the sheet or sheets are inserted and the strip released, whereupon the spring compresses the file.

In Figs. 7 and 8 I have shown means for automatically opening the file when the compressing cords or chains are loosened. Two levers Q, pivoted to each other at their centers, have each one end pivoted to the back of the covers C of the file, while the other end is provided with a stud fitting into slots g g, also located in the backs of the covers. To the free ends of the levers L is connected one end of the spiral springs r r, the other ends being secured to the back of the covers C. By the action of the spiral springs on the levers the covers of the file are pushed apart as soon as the compressing-cords are released. To facilitate the operation of the compressing-cords they are attached by means of spiral springs to a bar A', which at one end is provided with a pin adapted to fit into the holes c and retain the bar in the groove A. The back C' of the file, which is attached to one cover and sliding through a slot in the other, is provided with two slots R R, through which pass the compressing-cords B. The cords B are provided near their ends with heads B'', which cannot pass through the holes in the cover and are pressed against the latter by the springs r r, so that the parts of the cords B B are drawn taut and the papers can be conveniently inserted.

To compensate for varying thicknesses in the pile of papers, an adjustable back C' is used, which is secured to one cover and carried into the other through a suitable slot. The free end can be secured in any desired place. To the ends of the cords B B small spiral springs are attached for the purpose of retaining the cords taut in every instance.

In Figs. 9 and 10 I have shown the back C' laid in folds that open readily. The opening may be facilitated if small springs V are placed on each side of the back.

In Figs. 17, 18, and 19 I have shown a file to which is connected a portfolio consisting of two covers g g' slitted like the sheets, which may be removed, together with part of the fastening device, when the file is filled. For this purpose, instead of forming the groove A in the cover, a plate c' bent up to receive the bar c'' provided with holes d for

securing the said bar is used. The free ends of the cords are united by a bar f. Between the two holes through which the compressing-cords pass the plate is cut away and a pivoted piece c' is fitted, part of the holes passing through its ends. When the file is filled and the portfolio placed around the sheets, the piece c is swung back and bar f' passed through the opening. Then the other ends of the cords attached to the bar are disengaged from the back cover of the file and the collected sheets, with the fastening part, will be free from the file. The portfolio g g' is fixed in the file before the sheets are put in. It is perforated like the file, and when rearwardly folded is removably attached by buttons h, and the cords e e are passed through the same. After disengaging the cords e e the portfolio is put around the sheets and the ends of the cords are stretched in any suitable manner. The adjustable back C' used in this file consists of leather or other suitable material, which may be laid in folds and adjusts itself to the varying thickness of the file. This back is held in place by the clamp k fastened to the covers of the file. Instead of the pivoted piece c' any other arrangement which will let the bar A' pass through may be used.

In Figs. 20 and 21 is shown another form of adjustable back consisting of small flat strips m of suitable material. These strips are at several points n bent out so as to allow the heads of the small bolts p sliding in the slots g to enter the same when the file is not filled.

When the recesses for the compressing-cords are located on the same side of the sheets it is necessary to have them of such form as to prevent the sheets from falling out when placed in the file. Such constructions I have shown in Figs. 15, 16, 22, 23 and 24, in which D designates the sheets, E its reinforced back, F' F' the recesses or slits for the cords; while in Figs. 22 to 24 F² are tortuous passages leading to the recesses.

What I claim as new, and desire to secure by Letters Patent, is—

1. A file consisting of two covers, one of which is provided with opposed recesses or openings, a groove connecting said recesses or openings, and a series of holes in said groove arranged at intervals apart; bands secured to one cover and passing through the recesses in the other cover, and pins at the outer ends of said bands adapted to be inserted into the holes in the groove for the purpose of securing said band, substantially as described.

2. A file consisting of two covers C C, one of them provided with recesses F at its ends, a groove A connecting said recesses, sheets D provided with corresponding recesses, cords, provided at their free ends with pins b, and handles K, said pins being adapted to be inserted into holes c in the groove, substantially as and for the purpose set forth.

3. In a file of the character specified, the

combination of means for automatically spreading the covers, and bands attached to the covers and adapted to compress and hold the same tightly, substantially as described.

5 4. In a file of the character specified, the combination of crossed levers pivoted to the covers, springs operating on and spreading the levers and bands attached to the covers and adapted to compress and hold the same
10 tightly against the action of the springs, substantially as described.

15 5. In a file of the character specified, the combination of means for compressing and securing the covers when compressed and means, substantially as described, for auto-
20 matically spreading the covers when the means for compression are released, substantially as described.

6. In a file of the character specified, the combination of means for compressing and
25 securing the covers when compressed and a spring arranged to spread open the back of

the file on the release of the means for compression, substantially as described.

7. In a file of the character specified, the combination of the compressing bands, means
25 for securing the same and a spring device for opening the file on the release of the bands and for drawing the bands taut, substantially
30 as described.

8. In a file of the character specified, the combination of the covers C C provided with a back laid in folds, means for compressing
35 and securing the covers when compressed and springs assisting the unfolding of the back when the means for compression are released, substantially as described.

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

ADOLF HUTTENBACH.

Witnesses:

ALVESTO S. HOGUE,
JEAN GRUND.