

No. 684,668.

Patented Oct. 15, 1901.

H. C. BLACKMER.
CARD FILE.

(Application filed May 22, 1901.)

(No Model.)

2 Sheets—Sheet 1.

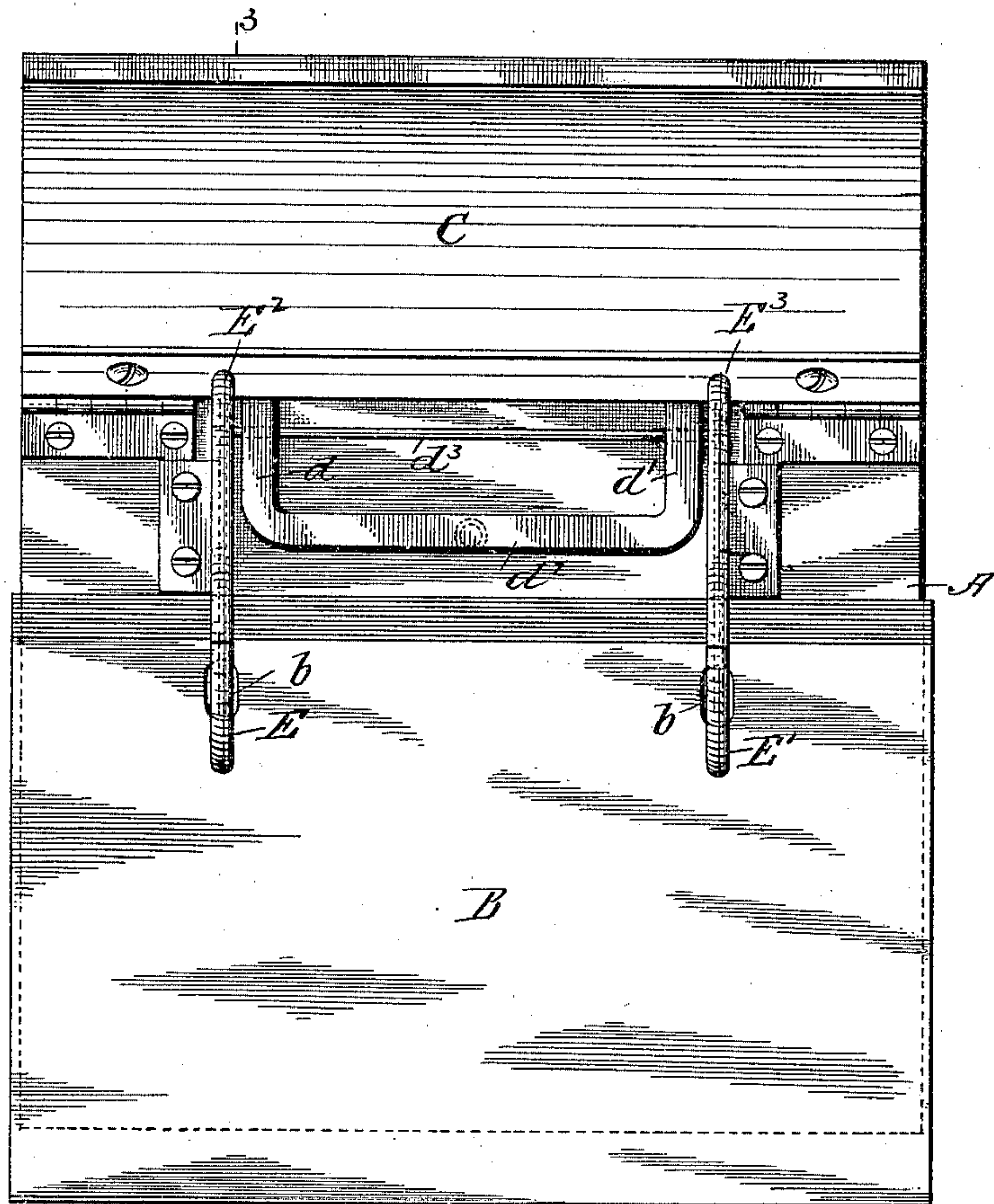


Fig. 1.

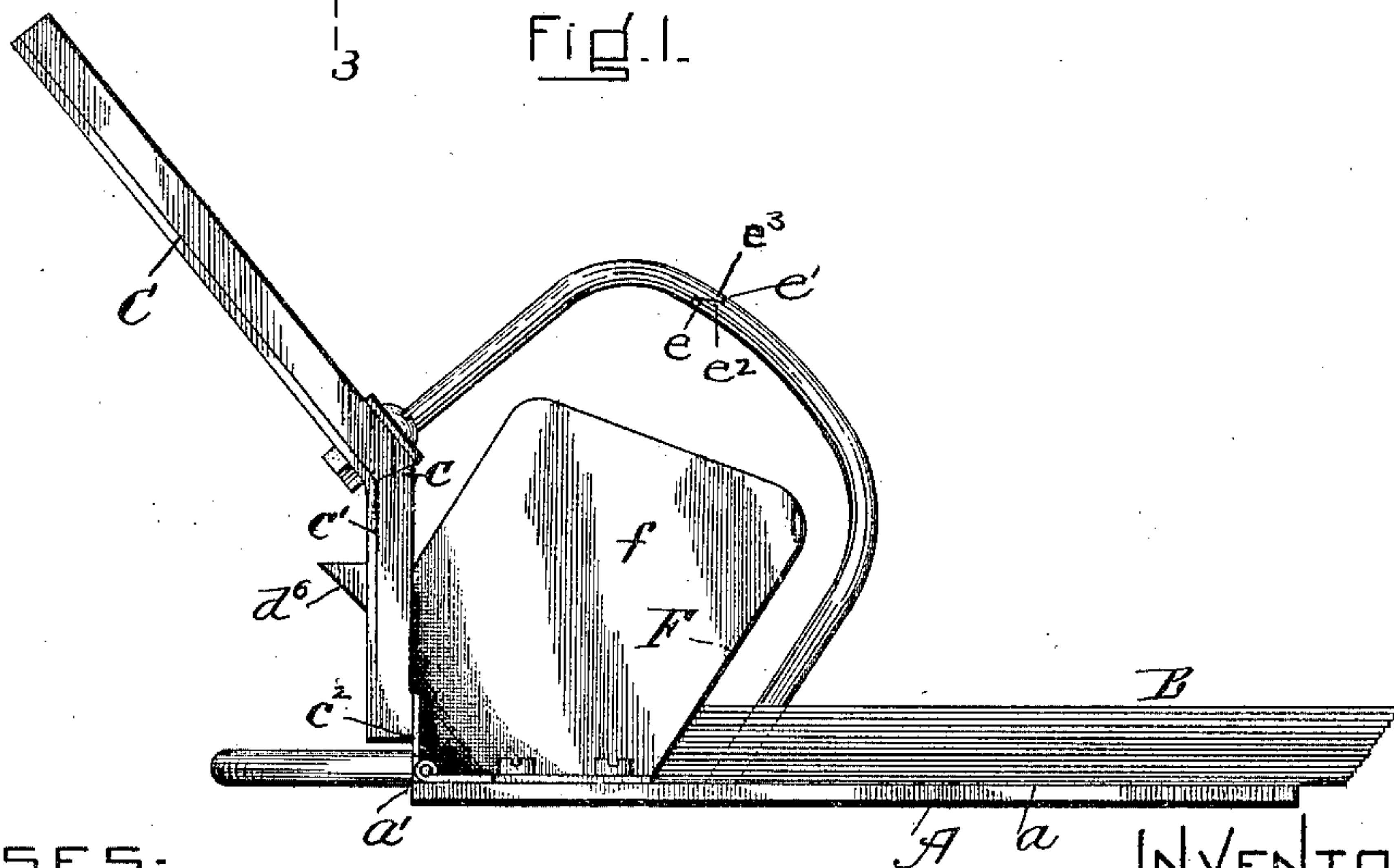


Fig. 2.

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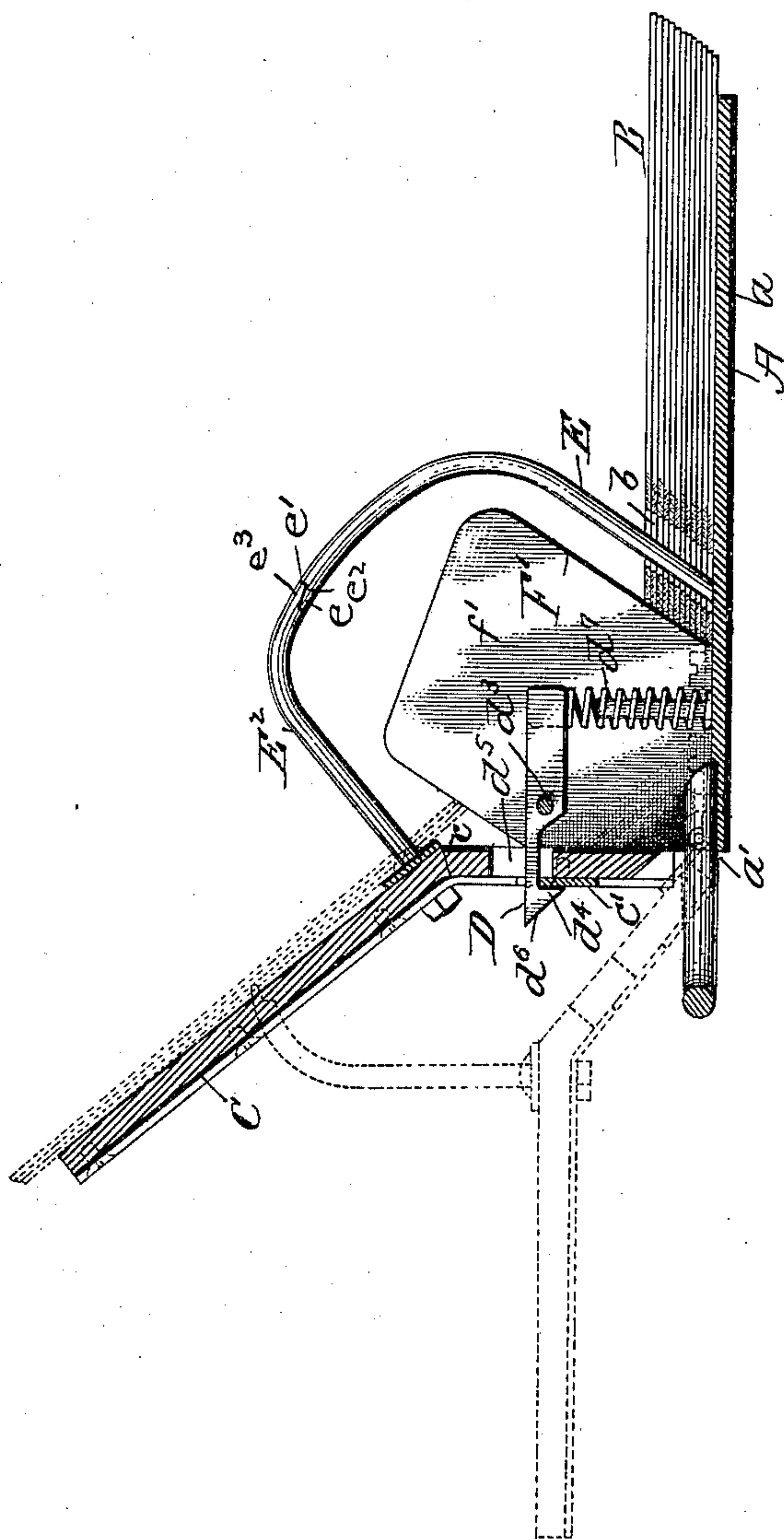
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CARD-FILE.

SPECIFICATION forming part of Letters Patent No. 684,668, dated October 15, 1901.

Application filed May 22, 1901. Serial No. 61,330. (No model.)

To all whom it may concern:

Be it known that I, HERBERT C. BLACKMER, a citizen of the United States, residing at Melrose, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Card-Files, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

The invention relates to an improvement in card-files.

The invention consists in the combination and arrangement of two supports for the cards, one of which is movable in relation to the other and each of which carries filing-rods of a peculiar inclination with respect to its support and each other and the ends of which are adapted to abut when the supports occupy one position with respect to each other and are separable from each other when one support is moved from the other. The rods are combined with a card-locating guide or guides, which coöperate with the rods and hold the cards upon either support, so that their edges are out of line sufficiently to permit the first or outer card to be readily lifted from the one beneath or beyond it, because its outer edge will extend slightly beyond the outer edge of the card immediately below or beyond it, and so on to the last card of the stack.

I will now describe the invention in conjunction with the drawings, wherein—

Figure 1 is a view of the card-file in plan. Fig. 2 is a view in end elevation thereof. Fig. 3 is a view in vertical section upon the dotted line 3 3 of Fig. 1.

Referring to the drawings, A is a base. Its upper surface a forms one of the supports for the stack of cards B. This base may be of metal in order to provide the file with sufficient weight to prevent it from being easily moved upon a table or support and also to prevent its being tipped when the cards or a portion of them are upon the support C. This support in its principal operative position is inclined away or outward from the base A and from the upper edge c of the back c' , which is hinged at c^2 to the back edge a' of the base A and so that the support C may be moved from the position represented in full

lines in Fig. 3 to the horizontal position represented in dotted lines in said figure, for reasons to be given. The support C is held in its operative position by a latch D, which preferably is arranged to be disengaged from it by hand to permit the support C to fall back and to engage it automatically upon the return of the support to its highest or operative position. Any type of latch for accomplishing this may be employed. The one which I have shown has two arms d and d' , connected in front of the support C by the cross-bar d^2 , pivoted to the base A by the pivot d^3 and having the hook ends d^4 , which pass through slots d^5 in the back c' to engage the back, the hooks having the inclined surfaces d^6 , with which the portions of the back forming the lower end of the slots come into contact as the support C is closed, lifting the ends of the hooks until the back has passed them, when they close downward to lock the back and the support C firmly in upright position and to the base c' , then bearing against the back edges of the plate which supports the pivot d^3 . A spring d^7 serves to hold the latching device in engaging position and to automatically return it to engaging position after it has been moved either by hand or by the closing of the back c' .

There are attached to the base A the file-rods E E'. These rods extend from the base outward and upward for a distance and then are curved to extend upward and backward upon an easy curve. Their ends e are provided with a shoulder e' and the short extension e^2 from the base of the shoulder, which is inclined on its upper surface without changing the gage of the wire of which the rod is made. The support C also carries two file-rods E² E³. These file-rods when the support is in operative position extend forward and upward from near the lower edge of the support and are then curved forward and slightly downward. Their ends e^3 are shaped to match the ends e of the file-rods E E', having shoulders, reduced portions, and inclines reversely arranged to those of the ends e and so that when the ends are together the uniform diameter of both sections of the rods is continued over their meeting-points. It will be understood, of course, that these file-rods E E' and E² E³ are so arranged as to be in line

and to have their ends abut when the support C is closed, the closing and latching of the support C also serving to move the file-rods $E^2 E^3$ toward the file-rods $E E'$ and to bring their ends into contact. There are thus formed as a means for holding, moving, and removing the cards in the manner hereinafter explained two card-supports and file-rods, which are adapted to be separated at nearly the center of their length and which when together have the appearance of two staples having an inclined position, both legs of which extend downward and backward and the curved portion of which is facing the front of the file and which when separated by the backward movement of the support C occupy such a relation to each other that their abutting ends are then removed from each other by a space very nearly equal to that which separates their lower ends, thus providing an ample unobstructed space for the placing and removal of stacks of cards or individual cards and upon either set of file-rods, or both, and the file-rods when thus removed have their ends most conveniently located and shaped to permit the placing of the cards upon them or their removal, the ends of the file-rods $E E'$ being curved backward and upward and the ends of the file-rods $E^2 E^3$ being then curved upward and forward.

The file-rods when closed occupy such a position to their supports that a stack of cards mounted upon them and resting upon either support will be caused to assume a position enough out of line to cause the outer edge of the upper or outermost card to extend slightly beyond the edge of the next card in order, and so on to the bottom of the stack, the object being to permit the top card to be readily separated by the finger or thumb from the next one in order without fumbling or moving more than one card at a time, and this whether the cards are being turned from the support A to the support C, or vice versa.

There may be used for assisting the file-rods in holding the cards in these slightly-staggered positions the guides $F F'$, formed upon the outer edges of the supports $f f'$, attached to the base and which may also act to support the pivot d^3 . These guides may act in conjunction with the file-rods $E E'$ alone or in conjunction with the file-rods $E^2 E^3$, or with both. In the drawings I have represented them as used with each set of file-rods. Their purpose is to bear against the inner edges of the cards, act as rests or abutments for them, and to hold them when pressed or resting against them in a slightly-staggered or out-of-line position, so that the upper one, whichever support may be used, shall always have its outer edge slightly out of line with the one immediately below, and thus be easily separated from the one below without moving or disturbing it. The guides when used are preferably so arranged that the cards do not bear against the file-rods, the cards hav-

ing slots b , through which the file-rods extend and which permit the lateral movement of the cards with respect to the rods. I prefer for ease of placement and removal that the said slots be relatively long and considerably wider than the diameter of the file-rods.

In use the cards are mounted upon one or the other of the supports when the file is open and the rods separated from each other, as represented in Fig. 3. The file-rod supports are then closed, bringing the two card-supports into the relation to each other shown in Fig. 2, and the cards are then moved from one support to the other, as may be desired, and are always held in stack upon one or the other, so that each one as it is moved shall have its edge extending slightly beyond the one immediately next it. To remove the cards or any of them, the supports are unlatched, so that one may be moved from the other and the file-rods separated. When this is done, a portion of the cards may be carried by one support and a portion upon the other, so that the card to be removed may be next in order upon one or the other of the two stacks, and upon the removal of the card the card-supports are returned to their original or operative position, restoring the operative relation of the file-rods to each other, and without disturbing either of the stacks the cards may be fed or moved from the lower support to the upper or from the upper to the lower, as may be desired, and the operation of moving in either direction also insures their peculiar arrangement with relation to each other, by which their easy separation becomes possible.

While I have described the employing of two filing-rods, of course one pair or more than two pairs may be employed.

While I have shown the card-edge guides as located behind or below the file-rods, they may be arranged out of line with said rods, either inside or outside them, and their number may not be the same as the number of rods.

It will be seen that the back edges of the supports for the latch-bar also act as stops for restricting the inward movement of the inclined support and cooperate with the latches in holding the support in its locked position.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. A card-file having two card-supports, one of which is a horizontal support, and the other of which is an inclined support above and back of the horizontal support and which is movable toward and from the same upon an arc and a file rod or rods carried by each of the said supports, the ends of which are arranged to abut when the supports are in one position and to be disengaged and removed from each other when the supports are in another position.

2. A card-file having two supports for a

stack of cards, one of which is a horizontal support and the other of which is an inclined support above and back of the horizontal support, file-rods mounted upon each of said supports, those mounted upon the horizontal support extending forward from said support and then curving backward, those mounted upon the inclined support extending upward and forward from the support and curving downward, the ends of said file-rods having operative relation to each other in one position of the inclined support and having a separated relation to each other when the inclined support is moved with respect to the horizontal, and means connecting the inclined support with the horizontal to permit of its movement toward and from the same and for holding it in its highest position.

3. The combination in a file for cards of two supports for holding the cards in stack, one of which is movable with relation to the other and a separable card-guiding device for directing the movement of the cards from one support to the other and having provision for the engagement of cards therewith and means for holding the card-stack slightly staggered upon one or both of said supports so that the outer edge of the upper or outermost card extends slightly beyond the next in order, and so on throughout the pack.

4. In a card-file the combination of a support for a stack of cards, and card holding and directing devices for holding the cards in staggered relation upon said support so that the outer edge of the upper or outermost card extends slightly beyond the edge of the next in order throughout the pack and for guiding their movements from and toward said support.

5. In a card-file, the combination of a card-support, card-filing rods and means bearing

against the inner edge of the cards for holding them staggered upon their filing-rods.

6. In a portable card-file, a weighted base, the upper surface of which forms a support and the weight of which prevents an easy displacement of the file, with a movable inclined support attached to the base and extending upward and backward therefrom to be moved toward and from the base-support and abutting file-rods carried by said base and movable supports adapted to act as transferring means by which the cards may be moved from one support to the other and separable upon the movement of the removable support away from the stationary support to permit the placing and removal of cards from either support.

7. The combination in a card-file of a horizontal support, an inclined support extending upward and outward from a back piece which is hinged to the rear of the horizontal support, file-rods extending from the horizontal support and from the lower edge of the inclined support, a stop and an automatic latching device for locking the two supports.

8. The combination in a card-file of two supports, one of which is horizontal and the other of which is inclined and is located above and back of the horizontal, file-rods carried by each support and separable about the center of their length, standards attached to one support, the edges of which form guides, the back of which forms stops and which support a latch, with said latch adapted to make engagement with one support and to hold it locked, and a spring for moving the latch in one direction and holding it closed.

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Witnesses:

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