

(No Model.)

2 Sheets—Sheet 1.

C. H. AHRENS & W. O. GOTTWALS.

BILL OR LETTER FILE.

No. 471,087.

Patented Mar. 22, 1892.

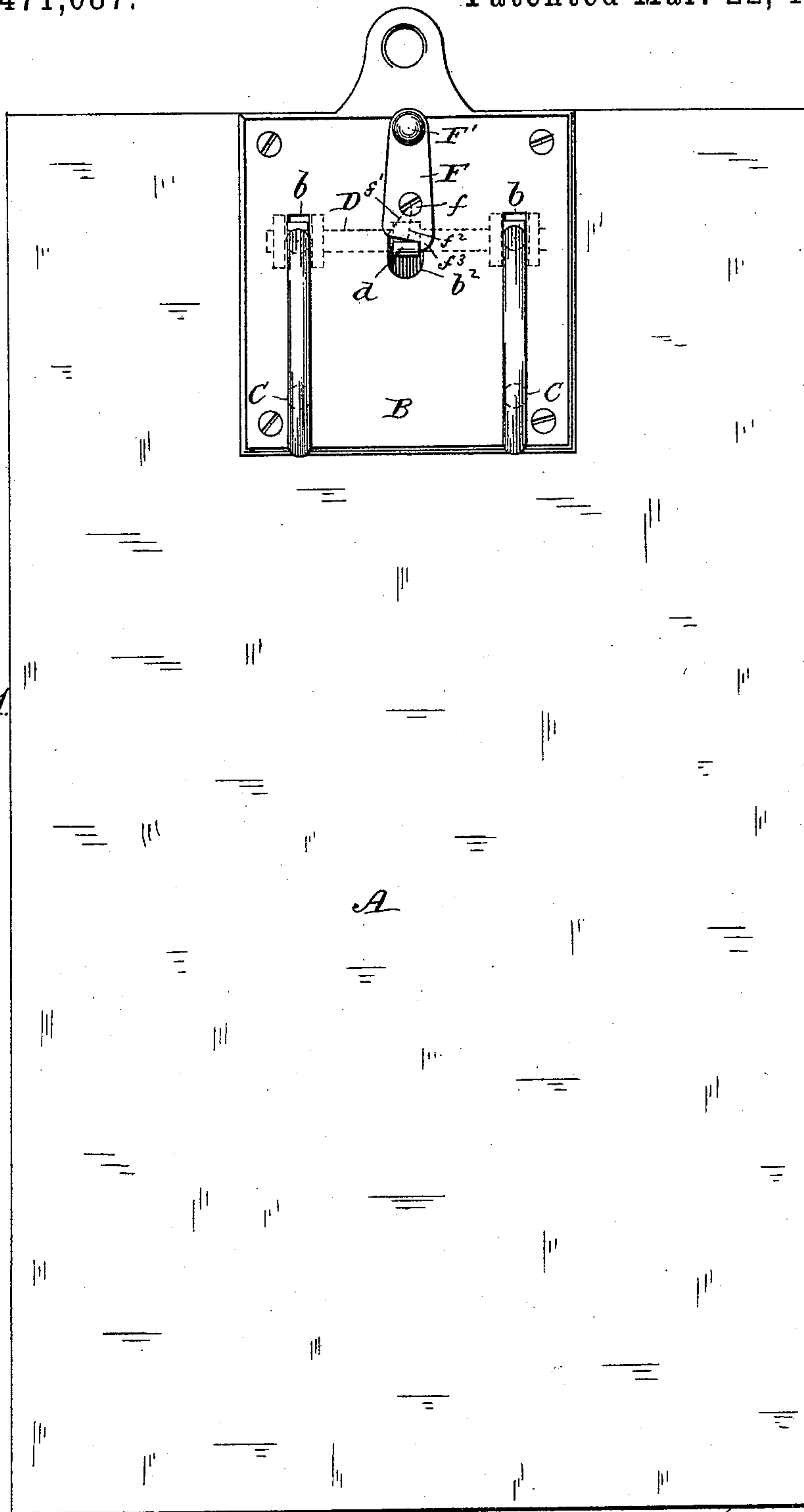


Fig. 1.

A

C. H. Ahrens

Witnesses.
Nelson G. Thompson.
E. Allen Frost.

Inventors: { W. O. Gottwals,
by H. N. Low attorney

(No Model.)

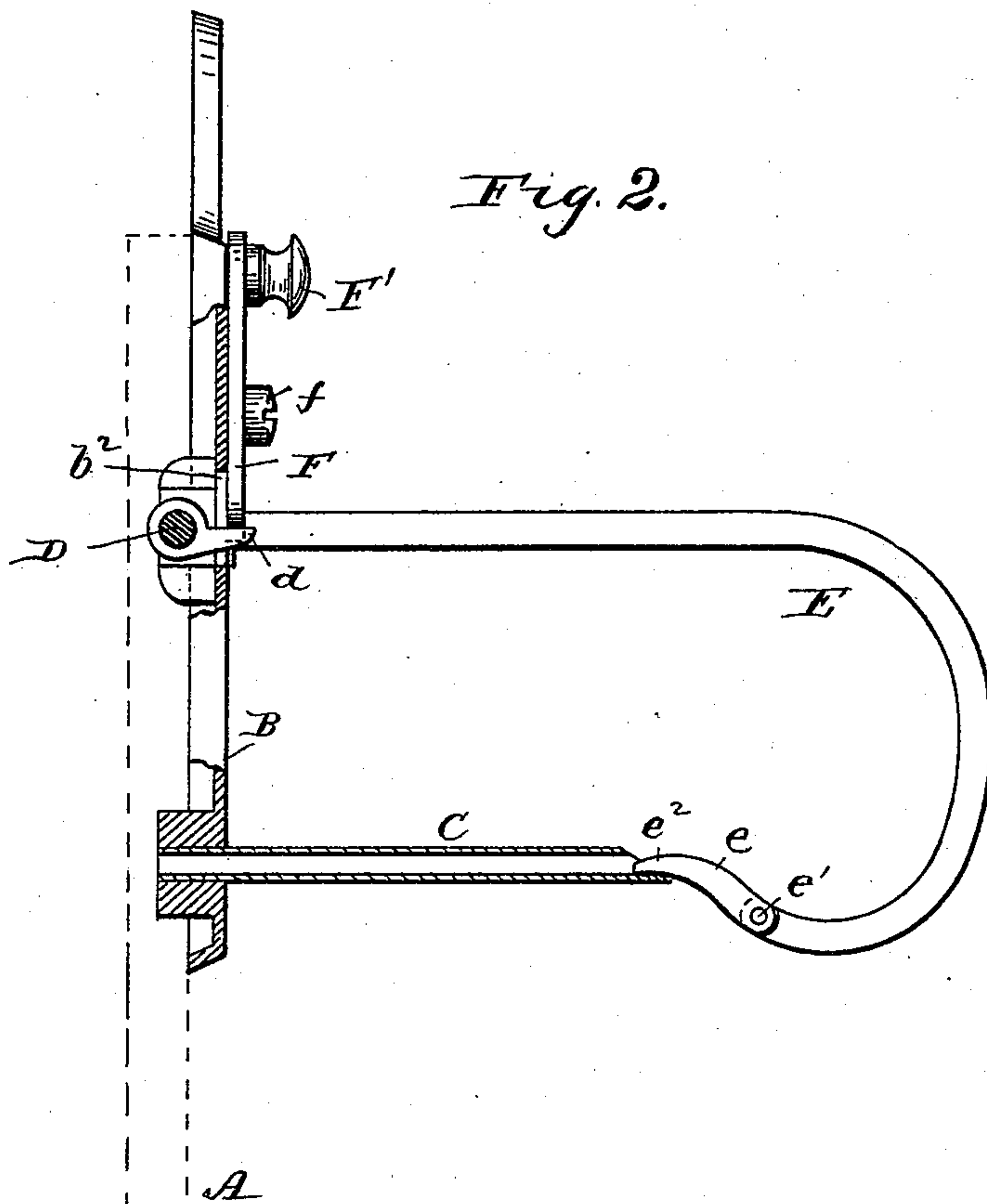
2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

CHARLES HENRY AHRENS, OF TORONTO, AND WILLIAM OTTERBEIN
GOTTWALS, OF OTTAWA, CANADA.

BILL OR LETTER FILE.

SPECIFICATION forming part of Letters Patent No. 471,087, dated March 22, 1892.

Application filed June 2, 1891. Serial No. 394,813. (No model.)

To all whom it may concern:

Be it known that we, CHARLES HENRY AHRENS, of Toronto, and WILLIAM OTTERBEIN GOTTWALS, of Ottawa, in the Province of Ontario, Dominion of Canada, subjects of the Queen of Great Britain, have invented certain new and useful Improvements in Bill or Letter Files; and we do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to that class of bill-files on which the papers to be filed are perforated and suspended upon pins, preferably two in number, combined with arches, upon which the papers can be thrown back for inspection.

Our present improvements in this class of bill-file relate to the means for connecting the pins and arches so that the individual papers may readily be put in place and removed, and to means whereby the arches may be thrown back entirely away from the pins to permit of the removal of a number of papers at once or of the whole contents of the file.

Our invention consists in those parts and combinations thereof hereinafter more particularly described and claimed, without, however, being confined in its application to the particular construction which, for the sake of illustration, we have set forth.

In order to make our invention more clearly understood, we have shown in the accompanying drawings means for carrying the same into practical effect.

In said drawings, Figure 1 is a front view of a bill or letter file embodying our improvements. Fig. 2 is a sectional view of the same.

Referring to the drawings, A indicates the file-board or back upon which the various instrumentalities for perforating and holding the papers are supported.

B is a plate, preferably of metal, which is rigidly secured to the board A and upon which are rigidly mounted the paper-holding pins C. These latter are of the usual character and require no further description.

In suitable bearing-lugs on the plate B is mounted a transverse rock-shaft D, preferably upon the under side of the plate, and rigidly secured to or formed with said shaft are arches E, which pass up through apertures *b* and curve over to a point above the upper ends of the pins C. The ends of the arches do not, however, encounter the pins, but are provided with hinged extensions or points *e*, of the shape clearly shown in Fig. 2, which are pivoted at their upper ends to the arches by means of pins *e'* and whose slightly curved and tapered points *e''* rest within the beveled hollow ends of the pins C. The points *e*, which are thus adapted to form a continuation not only of the arches but of the pins C, are held in their normal position with their extremities resting within the hollow points of said pins either by their own weight, as shown, or by any suitable spring, such as a wire arranged within or attached to the end of the arch and extending for a short distance into the hinged point.

When it is desired to apply a paper to the pins C, the upper edge of the paper is pressed against the points *e*, forcing them backward and permitting the paper to pass over the points of the pins C, whereupon the paper is pressed down over the pins and the hinged points will fall back to their former position. The paper thus applied may either be perforated by the pins C or may be preliminarily perforated by any suitable perforator. When it is desired to examine a paper other than the top paper of those upon the file, all of the papers above the one which it is desired to examine are raised upon the pins C, passed up over the hinged pins *e* and over the extremes of the arches, and are thrown back in the usual way upon the vertical portions, thus leaving exposed the paper which it is desired to read or remove from the file. It will thus be seen that except when it is desired to remove a paper the arches and the pins C are perfectly continuous one with the other.

To remove the paper from the file, it is lifted until it is passed up to a point just above the upper ends of the pins C, whereupon it is pressed slightly in a direction toward the arches, thus causing the hinged points *e* to turn slightly on their pivots and permit-

ting the sheet to be shoved back until the hinged points rest upon the top surface of the sheet. The sheet is then given a slight movement sidewise to carry its perforations out of line with the hinged points, and it may then be withdrawn from between the said points and the pins.

In order to permit the removal at once of all the contents of the file or to permit of a convenient manipulation of the papers where a number of them are to be removed or changed in place, we provide for throwing the arches simultaneously back, so as to carry the points *e* away from the pins *C*, and, on the other hand, have provided a simple and convenient locking device for maintaining the arches in their normal position.

d is a projection or arm rigidly fixed to the rock-shaft *D* and projecting through an aperture *b*² in the plate *B*, where its upper end is engaged by a cam-latch *F*, which is pivoted at *f* and is provided with an operating-handle *F'*. The radial distance indicated by the dotted line *f'* of the cam is slightly greater than the radial distance indicated by the line *f*², so that when the latch is in its normal or closed position the engagement or pressure of the arm *d* will tend to keep it in such position.

*f*³ is a projecting finger adapted to engage the side of the projection *d* and to prevent the disengagement of the latch in the other direction.

When the latch *F* is turned in an obvious manner so as to be disengaged from the projection *d*, the shaft *D* may be rocked and both arches may be carried back away from the pins *C* into the position shown by dotted lines in Fig. 2.

Having thus described our invention, what we claim is—

1. In a bill-file, the combination, with the

paper-holding pins and the arches, of hinged points connected with the arches and adapted to rest against the ends of the pins, substantially as set forth. 45

2. In a bill-file, the combination, with the paper-holding pins, of a rock-shaft, arches mounted thereon, hinged points connected with the ends of said arches, and means for holding the rock-shaft in position, substantially as set forth. 50

3. In a bill-file, the combination, with the paper-holding pins, of a rock-shaft carrying arches adapted to co-operate with said pins, a projection *d* on said rock-shaft and extending radially therefrom, and a pivoted cam-latch adapted to engage said projection to hold the arches in proper relation to the pins, substantially as set forth. 55

4. The combination of the board *A*, a rock-shaft carrying the arches and having a radially-projecting arm, stationary pins *C*, and a latch *F*, lying parallel with said board and mounted on a pivot *f*, substantially as set forth. 60

5. The combination of the board *A*, having stationary pins *C* and an opening, a rock-shaft mounted below the board and having a radial arm extending through the said opening, a latch mounted on the upper face of the board and adapted to engage said arm, and arches carried by the shaft. 65

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

CHARLES HENRY AHRENS. [L. S.]

WILLIAM OTTERBEIN GOTTWALS. [L. S.]

Witnesses as to signature of C. H. Ahrens:

H. T. TILLEY,

R. W. HYND.

Witnesses as to signature of William Otterbein Gottwals:

D. D. McLEAN,

J. G. TAYLOR.