H. SCHWARTZ.
FILING MECHANISM FOR LETTER FILES.
APPLICATION FILED JULY 8, 1915.


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Fig. 1.

Fig. 2.

Inventor:
Hermann Schwartz

By Emile Reinhardt
Attorney

THE COLUMBIA PLAYOGRAPH CO., WASHINGTON, D. C.
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3 SHEETS—SHEET 2.

Inventor:
Hermann Schwartz

By O. M. D. Attorney.
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3 SHEETS—SHEET 3.

The inventor:
Herman Schwartz

By Louis Abelsky
Attorney
To all whom it may concern:

Be it known that I, HERMANN SCHWARTZ, merchant, subject of the Kingdom of Prussia, residing at No. 53 Pannierstrasse, Neukölln, near Berlin, Germany, have invented certain new and useful Improvements in Filing Mechanism for Letter-Files, of which the following is a specification.

The present invention relates to filing mechanisms for letter files and the like which are provided with a perforating attachment, operated by the lever of the said filing mechanism.

With the hitherto disclosed filing mechanisms of this kind the perforating attachment is disposed similar to the known perforators independently between the stems of the filing pins, and is operated by lifting the lever of the filing mechanism, wherein upon the letter, sheet of paper or the like may be introduced into the perforator; then the said lever is again depressed and thereby the paper is perforated. For removing the papers from the perforator and for filing them in the file it is necessary to each time throw the said lever up and down. Filing mechanisms which are constructed on this principle do not afford in their operation any advantages over the common filing mechanisms used together with the common perforators, that is to say, when the perforating and the filing are performed as two separate operations, as they require separate manipulations for each operation.

With the object of improving on filing mechanisms combined with perforators in this direction, the perforating attachment according to the present invention is attached in such a manner to the filing mechanisms and of such a design, that the perforation is performed simultaneously with the filing of the papers. For both operations, therefore, only one single manipulation of the lever of the filing mechanism by throwing it up and down is required, so that no separate operation is necessary for the perforation, as the perforation is performed by the work of filing.

For obtaining the object known perforating sleeves are displaceably arranged on the stems of the filing mechanism and said sleeves are operatively coupled in such a manner with the lever of the filing mechanism that when the latter is closed the said sleeves will perforate the papers placed on the said stems, so that they are immediately filed, without requiring any further operation.

For insuring an even filing of the papers a stop is provided between said stems on the level of the point at which the perforation is performed, so that the papers may be laid against said stop during the perforation.

The coupling between the perforating sleeves and the filing mechanism is effected by means of a lever which may by means of two dogs fitted to the lever of the filing mechanism be engaged with or disengaged from the perforating sleeve. The arrangement is such, that the dog operating said lever when the filing mechanism is being closed, can come into action only when the bridges of the filing mechanism have already reached the upper ends of the straight filing stems, so that the paper is steadily held during the perforating operation.

In another embodiment of the file the stop is movable, so that it may not obstruct the manipulations in filing and pressing down the papers; and it is coupled in such a manner with the closing and perforating mechanisms that when the mechanism is closed and the papers therein are perforated, it will be automatically moved away from its operative position, and when the mechanism is again operated, it is again automatically moved back into operative position.

In the accompanying drawings two embodiments of the present invention are exemplified.

Figure 1 is a front elevation of the closed mechanism. Fig. 2 is the same view of the open mechanism. Figs. 3 and 4 are similar side elevations and Fig. 5 is a plan view of the mechanism. Figs. 6–8 illustrate another embodiment, Fig. 6 being the front elevation of the file opened with the perforating attachment under tension, and Fig. 7 a similar view of the two mechanisms at the opposite terminal position. Fig. 8 is a front elevation of Fig. 7 showing the operative position of the stop in dotted lines.

The filing mechanism which is fitted in known manner in a letter file or the like, consists, as usual, of the base plate a, the straight filing stems b and the swiveling bridges c with the lever d. The bridges c are normally held out of alignment with the stems b by means of a spring 2, Figs. 3 and 4, which is mounted on the base plate a.

By means of lever d, the bridges are rocked to and fro in the known manner, for opening and closing the filing mechanism, respectively.
According to the present invention perforating sleeves \( o \) are slidably fitted on the filing stems \( b \). The said sleeves \( o \) are connected to each other at their lower end by means of a plate \( p \). Under this plate is disposed a flat spring \( t \) or the like, which tends to hold the said sleeves \( o \) in the raised position shown in Fig. 1. To a plate or the like attached to lever \( d \) is linked a dog \( e \) which has below a beveled pressing edge. At both sides of this dog \( e \) the pins \( f \) and \( g \) are fitted to the lever \( d \) in such a manner, that when the lever is lifted the pin \( g \) and when the lever is pressed down the pin \( f \) will strike against dog \( e \) and move the same in the one or the other direction, respectively.

Between the stems of the filing mechanism is disposed the stop or abutment frame \( h \), which allows of perforating papers at a constant distance from their rear edge.

The operation of the filing mechanism is as follows: When the lever \( d \) is lifted, that is to say, when the mechanism is opened the dog \( e \) is pressed forward by pin \( g \) and with its lower edge it rides on the plate \( p \) pressing same downwardly, and with it the perforating sleeves \( o \) against the action of spring \( t \). Thereby also the bridges \( c \) are swung back in the usual manner, so that the filing mechanism is opened (Figs. 2 and 4).

Now the paper, letter or the like, to be filed is inserted until it bears with its rear edge against or enters into the upper part of the abutment frame \( b \). When, now, the lever \( d \) is pressed down, the bridges \( c \) are again swung forward in the known manner and meet the stems \( b \), whereupon the pin \( f \) bears against the dog \( e \) moving the same backwardly so that the plate \( p \) is released and is forcibly pressed upward together with the perforating sleeves \( o \) by the action of spring \( t \). The sleeves \( o \) perforate the paper so that the latter may simply be slipped down and filed.

In the embodiment shown in the drawing the dog \( e \) is provided with a cut-away portion or a slot, in which the pin \( f \) engages during the downward throw of the lever \( d \) until the filing mechanism has been closed, that is to say, until the bridges \( c \) have met the stems \( b \). The same object might also be obtained by suitably arranging a pin \( f \) or by other means.

In the embodiment shown in Figs. 6–8 the stop or abutment frame consists of a straight grooved bar \( j \) which is attached to two supports \( w \). These supports are pivotally fitted to the baseplate of the mechanism and provided with arms \( x \), which are hinged to the connecting plate \( p \) of the two perforating sleeves \( o \). A plurality of springs \( 3 \) are interposed between the plate \( p \), and base plate \( a \) for normally forcing the sleeves upwardly on the stems \( c \).

When the mechanism is opened, and the plate \( p \) is in its lowest position, the springs are thus under tension (Fig. 7), and the stop has the operative position shown by dotted lines in Fig. 8. When the mechanism is closed, the plate \( p \) is released and moved upward by the action of the springs, so that the arms \( x \) of the supports \( w \) linked thereto are carried upward and the stop is moved back into the position indicated by full lines in Fig. 8. The stop is again automatically moved back into its operative position when the mechanism is opened, as will be clearly evident from the drawing.

I claim:

1. A filing mechanism, comprising a base having stems and bridges mounted thereon, perforating sleeves mounted on the stems, said bridges being adapted to be in alignment with the stems during the perforating operation so that the sheets may be filed on the bridges, and means for actuating the sleeves for causing the sheets to be perforated.

2. A filing mechanism, comprising a base having stems and bridges mounted thereon, perforating sleeves mounted on the stems, said bridges being adapted to be in alignment with the stems during the perforating operation so that the sheets may be filed thereon, a lever for actuating the sleeves for moving them to a position for the perforating operation, and means for operating the sleeves upon the releasing of the sleeves by the lever.

3. A filing mechanism, comprising a base having stems and bridges mounted thereon, perforating sleeves mounted on the stems, said bridges being adapted to be in alignment with the stems during the perforating operation so that the sheets may be filed thereon, and a lever for actuating the bridges, to permit the bridges to be brought into alignment with the stems, and means for operating the sleeves so that the perforating operation may be performed.

4. A filing mechanism, comprising a base having stems and bridges mounted thereon, perforating sleeves mounted on the stems, said bridges being adapted to be in alignment with the stems during the perforating operation so that the sheets may be filed thereon, a lever for actuating the bridges and sleeves, to permit the bridges to be brought into alignment with the stems, and when the stems and bridges are in alignment releasing the sleeves so that the perforating operation may be performed and means for moving the sleeves along the stems to perforate the sheets.

5. A filing mechanism, comprising a base having stems and bridges mounted thereon, perforating sleeves mounted on the stems, said bridges being adapted to be in alignment with the stems during the perforating operation so that the sheets may be filed.
A filing mechanism, comprising a base having stems thereon, perforating sleeves mounted on the stems, a lever pivotally mounted on the base, and a dog connected to the lever for actuating the sleeves, for bringing them into alignment with the stems and pivoted bridges mounted thereon, sleeves mounted on the stems for perforating the paper, a pivoted stop mounted on the base, and means for operating the bridges, sleeves and stop.

11. A filing mechanism, comprising a base having stems thereon, perforating sleeves mounted on the stems, a plate connecting the sleeves, bridges pivotally mounted on the base, a stop pivotally mounted on the base and connected to the plate, a lever for operating said plates, and bridges, for causing the sleeves to be moved to a position prior to the perforating operation and the stop to a position for insuring a uniform perforating of the sheets, said bridges being adapted upon the reverse movement of the lever to be moved into alignment with the stems for the perforating and filing operation, and the plate being thereupon released, means for actuating the plate when released for performing the perforation of the sheets, said stops being adapted to be moved out of engagement with the sheets upon the operation of the plate and sleeves.

12. A filing mechanism, comprising a base, having stems thereon, perforating means mounted on the stems, a plate connecting said means, pivoted bridges mounted on the base, a lever for operating the bridges, a dog pivotally connected to the lever engaging the plate for moving the perforating means in one direction upon the operation of the lever, said lever being adapted to operate the bridges prior to the perforating operation of the perforating means, and the dog being adapted to remain in engagement with the plate of the perforating means during the actuation of the bridges and to be operated for causing the release of the plate upon the completion of the operation of the bridges.

13. A filing mechanism, comprising a base having stems and movable bridges mounted thereon, perforating means on the stems for perforating the paper and means for operating the bridges and perforating means.

14. A filing mechanism, comprising a base having stems, perforating means on the stems, means for moving the perforating means to a position prior to the perforating operation, and means for actuating the perforating means for producing the perforating operation upon the release of said perforating means by the said first mentioned operating means.

In testimony whereof I have affixed my signature in presence of two witnesses.

HERMANN SCHWARTZ.

Witnesses:
ROBERT MICHALSKI,
HENRY HASPER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D.C."