

(No Model.)

H. GOLDMAN.
FILE FASTENING.

No. 507,899.

Patented Oct. 31, 1893.

Fig. 1.

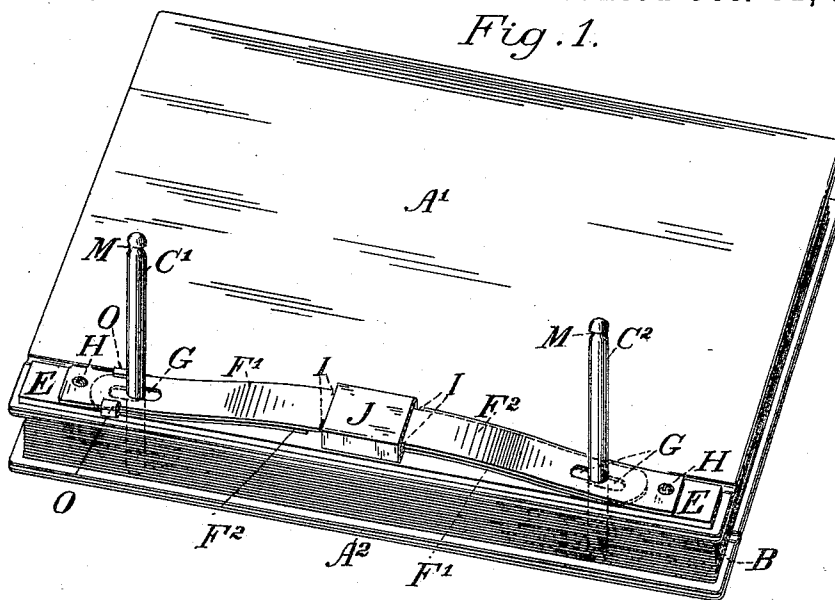


Fig. 2.

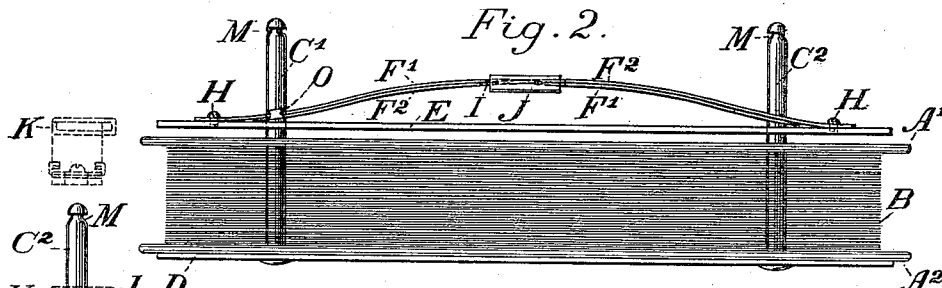


Fig. 3.

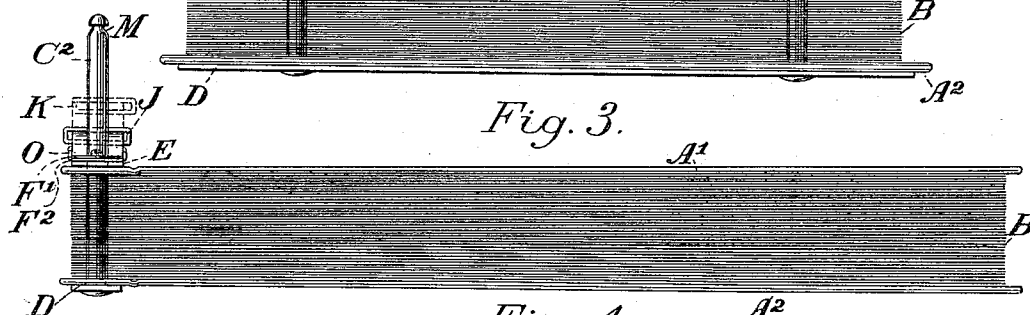
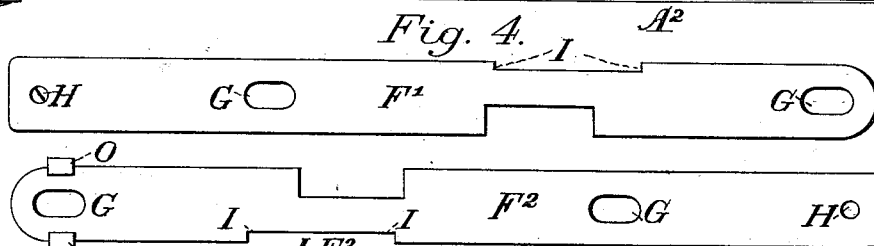


Fig. 4.

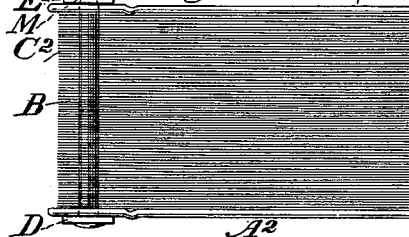


Witnesses:

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Fig. 5.



Inventor:

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UNITED STATES PATENT OFFICE.

HENRY GOLDMAN, OF CHICAGO, ILLINOIS.

FILE-FASTENING.

SPECIFICATION forming part of Letters Patent No. 507,899, dated October 31, 1893.

Application filed January 22, 1891. Renewed February 15, 1893. Serial No. 462,501. (No model.)

To all whom it may concern:

Be it known that I, HENRY GOLDMAN, residing at Chicago, in the county of Cook and State of Illinois, have invented certain Improvements in Devices for Filing and Fastening Letters or other Papers; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the drawings accompanying and forming a part of this specification, in which—

Figure 1 is a perspective elevation of a filing form, with one of my improved fastenings attached. Fig. 2 is an end view of the same form, and a side view of the fastening as attached. Fig. 3 is a side view of the same form, showing an end view of my improved fastening, with papers as filed by the device. Fig. 4 shows details of my improved fastening device. Fig. 5 shows the position of my fastening device when the forms are filled and locked.

My improvements relate to that class of inventions that compress and hold the ends of papers of various kinds that are assembled at intervals and require to be removed for reference and replaced in their regular order, and capable of holding few or many of such papers until a complement is reached, either in quantity, or covering a period of time.

My invention consists in the employment of posts or pins, and a clamping bar to slide up or down on these posts or pins, fastening itself automatically by the extension of deflecting springs that impinge upon and nip the posts or pins as the bar is raised, but move freely as the bar is depressed to clamp the papers contained on or in the file.

It consists also in so arranging the clamping springs that the same movement which raises the clamping bar releases them, so that only one hand and one motion are required in both operations.

It further consists in providing the clamping springs with a locking device, which at the same time with raising the clamping bar will lock the springs and hold them out of action, until they are again required, all these operations being performed with one hand quickly and conveniently.

It also consists in constructing the pins or posts with grooves or notches at the top, into which the holding springs may extend and

fasten themselves on the inner side and thus lock the file when it is completely filled with papers.

Referring to the drawings, like letters of reference indicate corresponding parts in the different figures.

The forms or covers A' and A^2 are of the usual kind, made stiff enough to preserve the contents B. The top one, A, can be dispensed with for convenience in any case required, the fastening device operating the same in so far as holding the file B. The posts or studs C' and C^2 are fastened in a strip of metal D, attached to the bottom form or cover A^2 , as shown, and extend high enough to form a file of the required thickness when complete. On these posts C' and C^2 , is placed the movable bar E, which is so fitted as to slide freely up and down on the posts; and on top of this bar E, are fastened the two springs F' and F^2 , shown in plan in Fig. 4. These springs are combined, as shown in Figs. 1 and 2, and when curved exert a force in their extension, so that the two embrace and clamp the posts or studs C' and C^2 firmly when the bar E is raised, or pushed upward by the contents B of the file. The springs F' and F^2 , are fastened at their ends to the bar E, by rivets or screws H, and cross each other in the center where they pass through the lock piece J, the ends beneath being free to slide or move as the curvature or deflection in their middle may determine. The holes G, where the posts or studs C' and C^2 , pass through the springs F' and F^2 , are elongated, or elliptical in form, as shown at G, so that when the springs are combined, as seen in Figs. 1, 2, 3 and 5, and the center is raised or sprung, as shown in Fig. 3, the lineal movement of the springs releases their grip on the studs C' and C^2 , thus permitting these springs F' and F^2 , with the bar E, to which they are attached, to be raised freely and be removed from the studs C' and C^2 . These springs F' and F^2 , when combined and in place, as shown in Figs. 1 and 2, are provided with a lock J, which serves a triple purpose, namely: locking the springs F' and F^2 , to hold them in their curved or loosened position, as shown in Figs. 2 and 3, and indicated by dotted lines at K, keeping the two springs together and parallel in the center; and also, providing suitable convenience in handling

the fastening when removing or placing it on the file B. To fasten the springs and hold them in their loose position, as shown in Fig. 2, this lock piece J, is moved slightly side-
 5 wise, either to the right or left, so the notches I may catch on the ends of the lock piece J, and thus keep the springs F' and F², deflected and out of contact with the studs C' and C². In this manner the form A can be lifted off
 10 the file when papers are to be added or removed, and when replaced the file is locked by simply pressing the lock J sidewise, toward the center so as to release the shoulders or notches I, and allow the springs F' and F²,
 15 to extend and nip the studs C' and C², holding the form A' firmly on the file B.

In addition to the lock J, there are provided on the spring F², lugs or hooks O, which embrace the sides of the spring F',
 20 keeping the two parallel and in their respective positions. A rivet or pin with an elongated hole in one plate may also be employed for this purpose. Such devices are not essential, but in working produce a better action
 25 of the device. It may be noticed that when the springs F' and F² are free and nip the studs C' and C² the latter are embraced around their whole circumference, so as to avoid the wear or roughening of the surfaces
 30 which would occur with less contact. When the file is full or completed, as shown in Fig. 5, the springs F' and F², embrace the studs C' and C², on the inner side, in the notches M, near the top, thus locking the bar E firmly
 35 and permitting a free extension endwise of the springs F' and F², and at the same time their contraction toward the bar E, so that the fastening as a whole is reduced to its smallest
 40 dimensions normal to the file B, and the whole is in a convenient form for placing in a case or pigeon holes, the same as a book. The grooves or notches M are not annular, but so
 45 formed on the outside of the parts C' and C², that tops or fixed ends of the springs F' and F² will not catch when the springs are released on the inside, and when the fastening
 is lifted off or transferred.

It will be understood that in the case of using transfer hooks, having either radial or
 50 rotary movement, the fastening, instead of being lifted off, is passed or transferred to the hooks or rods when brought coincident with the pins or studs C' and C², in the usual manner.

55 My improvements are shown here as applied to single or double forms or covers, but they are applicable alike to files of any kind where papers or documents are assembled,

with or without the forms A' or A², or with or without transfer hooks as before named. 60

Having thus explained the nature and objects of my invention and the method of applying the same, what I claim as new, and desire to secure by Letters Patent, is—

1. In a file fastening, the serrated springs 65 F' and F², provided with the lock piece J, fastened to a clamp bar E, and superimposed one upon the other, and capable of extension and adjustment, substantially as herein shown and specified. 70

2. In a file fastening, springs F' and F², provided with the lock piece J, and formed with elongated holes G, to embrace and nip the studs C' and C², both springs acting on each post and locking the bar E, substantially in 75 the manner and for the purposes herein specified and described.

3. In a file fastening, the lock piece J, in combination with notches I, in the springs F' and F², so arranged as to fasten and hold the 80 springs when not in use and removed from the file; substantially as, and in the manner specified and explained.

4. In a file fastening, the springs F' and F², studs C' and C², and a lock piece J, so ar- 85 ranged as to permit a free downward movement of the bar E, and locking it on its upward movement; substantially as herein shown and described.

5. The combination with the clamp bar and 90 the vertical rods or studs on which it slides, of a pair of overlapping springs which are secured at their outer ends to the clamp bar and are perforated to permit the passage of the rods through them, substantially as de- 95 scribed.

6. The combination with the vertical rods or studs, and a removable clamping bar adjustable thereon, of the overlapping springs, perforated to engage the rods and having a 100 lock piece connecting them.

7. The combination of the vertical studs or rods, a removable clamping bar thereon, the pair of overlapping perforated springs secured to the clamping bar and firmly engag- 105 ing the studs, a lock piece connecting said springs, all arranged so that the clamping bar may be locked positively to the rod at its uppermost position, substantially as described.

In testimony whereof I have hereunto af- 110 fixed my signature in the presence of two witnesses.

HENRY GOLDMAN.

Witnesses:

ALFRED A. ENQUIST,
 W. D. BENT, Jr.