(No Model.)

M. F. BERRY.

FILE BINDER.

No. 421,041. Patented Feb. 11, 1890.

Fig. 1.

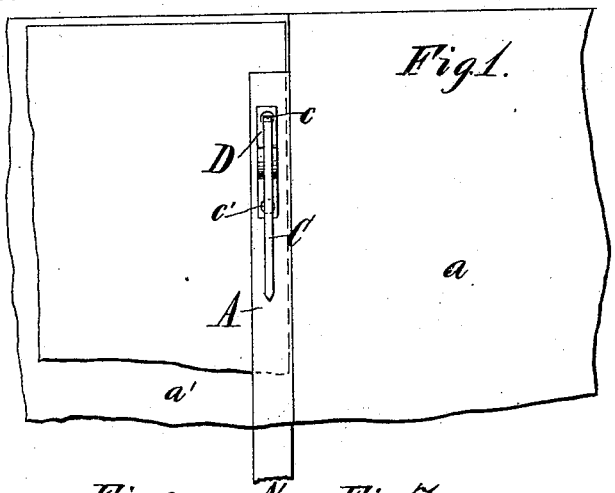


Fig. 6.

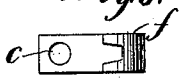


Fig. 7.

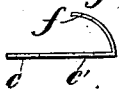


Fig. 4.

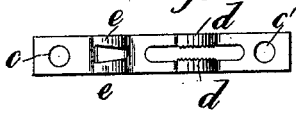


Fig. 5.

Fig. 2.

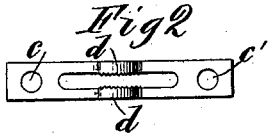


Fig. 3.

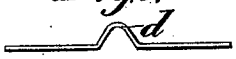
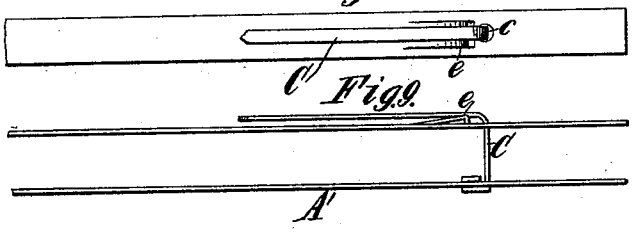


Fig. 8.



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UNITED STATES PATENT OFFICE.

MARCELLUS F. BERRY, OF BROOKLYN, NEW YORK.

FILE-BINDER.

SPECIFICATION forming part of Letters Patent No. 421,041, dated February 11, 1890.

Application filed September 14, 1889. Serial No. 324,319. (No model.)

To all whom it may concern:

Be it known that I, MARCELLUS F. BERRY, of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in File-Binders, of which the following is a specification.

I will describe my improvement in detail, and then point out the novel features in claims.

In the accompanying drawings, Figure 1 is a view of a portion of a file-binder embodying my improvement, the same being shown as applied to covers between which the papers to be filed are received. Fig. 2 is a detail face view of certain jaws which are secured to the point-clamp bar and are similar to that shown in Fig. 1. Fig. 3 is an edge view of the same. Fig. 4 is a face view of a modified form of means for securing the needle. Fig. 5 is an edge view of the same. Fig. 6 is a face view of still another modification. Fig. 7 is an edge view of the same. Fig. 8 is a view of still another modification. Fig. 9 is an edge view of the same.

Similar letters of reference designate corresponding parts in all the figures.

Referring first to the example of my improvement shown in Figs. 1, 2, and 3, A designates a point-clamp bar, with which co-operates a head-clamp bar A′. I have shown a head-clamp bar in Fig. 9. As shown in Fig. 1, the head and point clamp bars are secured to covers *a a′*, between which covers the papers to be filed are received. Secured to the head-clamp bar in any suitable manner is a needle, or it may be needles C. These needles are metallic and pliant. They are intended to be forced upwardly through the papers to be filed, then pass through the point-clamp bar, and there secured, so as to maintain the papers in proper position.

In Fig. 1 I have shown the needle C as passing upwardly through an eyelet *c*, by which a securing device D for the needle is secured near one end to the point-clamp bar. The other end of the securing device D is secured to the point-clamp bar by means of an eyelet *c′*.

Upon the securing device D are formed raised jaws *d*. (Shown more clearly in Figs. 2 and 3.) These jaws I have illustrated as serrated upon their inner edges. When the needle has been passed upwardly through the opening or eyelet *d*, it is bent over, as shown in Fig. 1, and is passed downwardly between the jaws *d*, by which it is gripped and held against accidental displacement. By this means the papers in the file will be securely bound together.

In order to raise the needle and thus bring it into position to receive additional papers upon the file, it is moved out from between the jaws *d*, and the point-clamp bar is then moved off from over the needle.

Of course any desired number of these devices may be employed upon a file, and I wish it understood that it is not essential that the head and point clamp bars should be combined with covers, as they may be used separate from said covers—as, for instance, in the manner shown in Figs. 8 and 9. In such instance the papers to be filed are merely placed between the head and point clamp bars and secured by the needle, as previously described.

In Figs. 8 and 9, however, I have shown that the jaws *d* may be struck up directly from the metal from which the point-clamp bar is composed. In fact any of the forms of my improvement illustrated might thus be struck up from the point-clamp bar.

In Figs. 4 and 5 I have shown that two sets of jaws may be used, the jaws *d d* and jaws *e e*. In such case the needle is passed upwardly between the jaws *e e*, and is then bent over and passed downwardly between the jaws *d d*.

In Figs. 6 and 7 the jaws *d d* are omitted and the needle merely passes between the jaws *e e*. The jaws *e e* have a portion *f*, over which the needle is bent, and which constitutes, in effect, a bridge or bearing-piece for the needle.

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

1. In a file-binder, the combination, with a head-clamp bar and a point-clamp bar, of a pliant metallic needle secured near one end to the head-clamp bar and adapted to be passed through a file of papers and the point-clamp bar, and a raised bridge upon the exterior of the point-clamp bar, over which the needle may be bent and by which it will be retained, substantially as specified.

2. In a file-binder, the combination, with a head-clamp bar and a point-clamp bar, a pliant

metallic needle secured near one end to the head-clamp bar and adapted to be passed through a file of papers and the point-clamp bar, and raised jaws upon the exterior of the point-clamp bar, between which the needle may be passed downwardly to secure it, substantially as specified.

3. In a file-binder, the combination, with a head-clamp bar and a point-clamp bar, of a pliant metallic needle secured near one end to the head-clamp bar and adapted to be passed through a file of papers and the point-clamp bar, and raised jaws upon the exterior of the point-clamp bar having serrated inner edges, and between which the needle may be passed downwardly to secure it, substantially as specified.

4. In a file-binder, the combination, with a head-clamp bar and a point-clamp bar, of a pliant metallic needle secured near one end to the head-clamp bar and adapted to be passed through a file of papers and the point-clamp bar, a raised bridge upon the exterior of the point-clamp bar over which the needle may be bent, and raised jaws, also upon exterior of the point-clamp bar, between which the needle may be passed downwardly to secure it, substantially as specified.

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