

C. F. McBEE.
 LOOSE LEAF BINDER.
 APPLICATION FILED OCT. 19, 1910.

998,541.

Patented July 18, 1911.

2 SHEETS-SHEET 1.

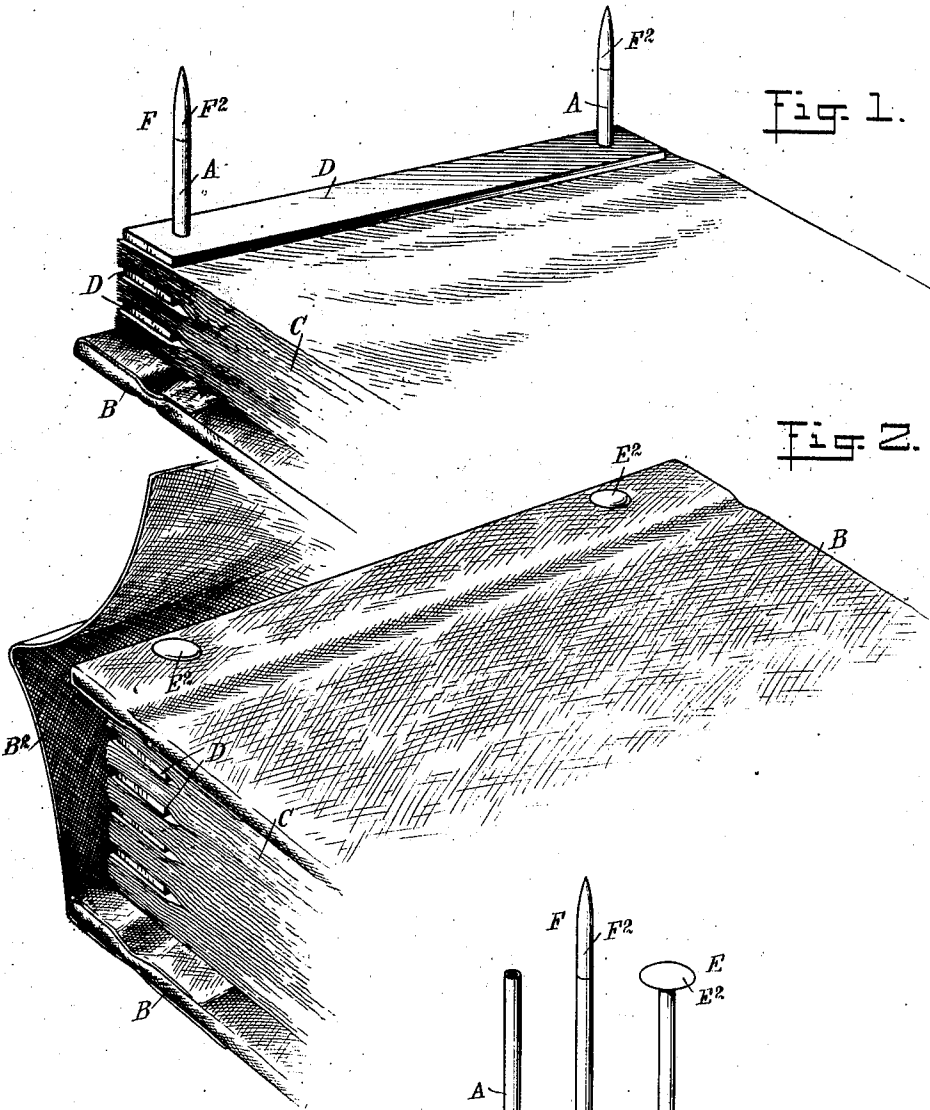
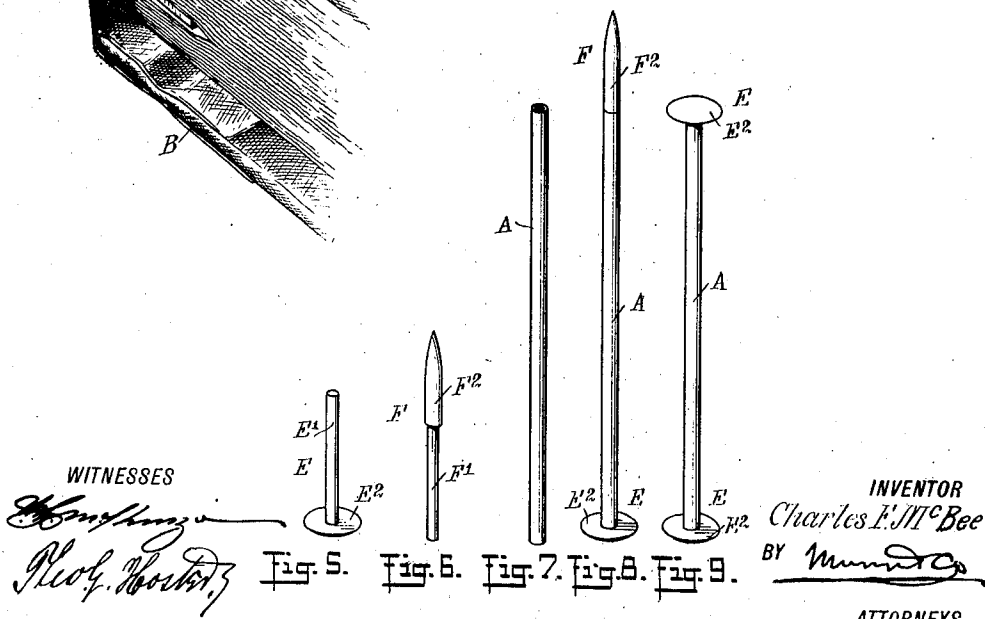


Fig. 1.

Fig. 2.



WITNESSES

Wm. H. H. H.
Wm. H. H. H.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

Fig. 9.

INVENTOR

Charles F. McBee

BY *Wm. H. H. H.*

ATTORNEYS

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Fig. 3.

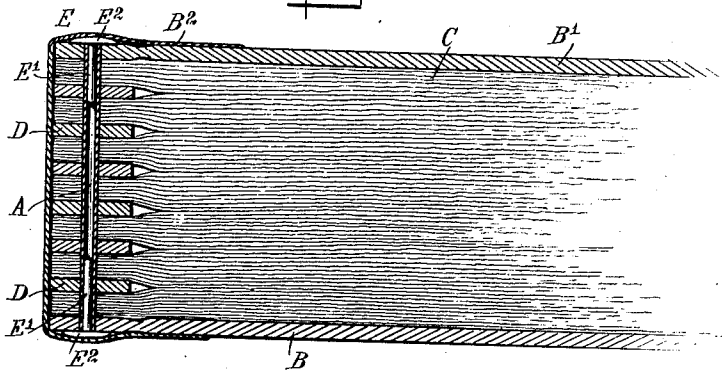
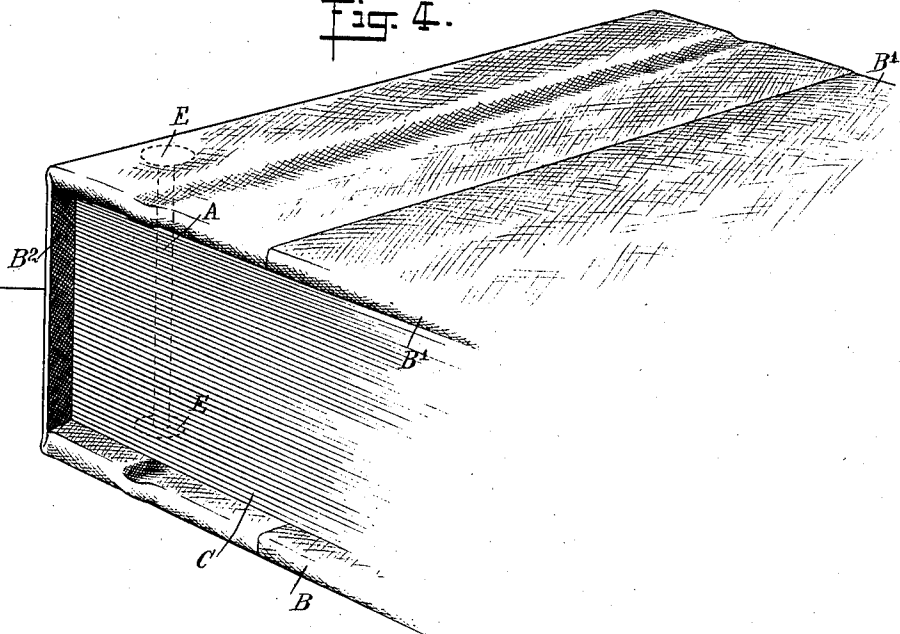


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES FORREST MCBEE, OF ATHENS, OHIO.

LOOSE-LEAF BINDER.

998,541.

Specification of Letters Patent.

Patented July 18, 1911.

Application filed October 19, 1910. Serial No. 587,832.

To all whom it may concern:

Be it known that I, CHARLES F. MCBEE, a citizen of the United States, and a resident of Athens, in the county of Athens and State of Ohio, have invented a new and Improved Loose-Leaf Binder, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved loose-leaf binder, more especially designed for use in railroad offices, manufacturing and commercial establishments and the like, and arranged for filing and subsequently binding loose leaves of tissue paper between two covers in a very simple and comparatively inexpensive manner, without it being necessary to have holes previously punched in the papers.

For the purpose mentioned use is made of a back and front cover, one or more tubes adapted to pass through the covers, receiving pins for removable insertion in one end of the tubes, and capping pins adapted to be driven into the ends of the tubes to abut with their heads against the outer faces of the covers.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the loose-leaf binder, showing the parts in position for receiving the loose leaves; Fig. 2 is a like view of the loose-leaf binder, showing the parts assembled and the leaves bound in position between the back and front covers; Fig. 3 is a sectional side elevation of the same; Fig. 4 is a perspective view of a modified form of the loose-leaf binder; Fig. 5 is a perspective view of one of the capping pins; Fig. 6 is a like view of one of the receiving pins; Fig. 7 is a similar view of one of the tubes; Fig. 8 is a similar view of one of the tubes with a capping pin in position at one end and a receiving pin in position at the other end of the tube; and Fig. 9 is a like view of one of the tubes with the two capping pins in position thereon.

In the general construction of the loose-leaf binder, use is made of tubes A, preferably two in number and of the same size, the tubes being adapted to pass through apertures in the back cover B to rise from the inner face thereof for the reception of the loose leaves C and the compensating and spacing bars D, as hereinafter more fully

described. Into the lower end of each of the tubes A held on the back cover B is driven the shank E' of a capping pin E having a head E² abutting against the outer face or under side of the back cover B, it being understood that the shank E' is driven into the end of the tube A with a driving fit to permanently attach the capping pin E to the lower end of the tube A.

The upper end of each of the tubes A held on the cover B are provided with removable receiving pins F each having a shank F' and a pointed head F², of which the shank F' fits loosely and removably into the upper end of the tube A while the head F² is of a diameter corresponding approximately to the diameter of the tube A, so that the loose leaves C can be readily passed over the receiving pins F and slipped down the same and onto the tubes A to accumulate one on top of the other.

When binding the loose leaves C of tissue paper, it is desirable to place compensating and spacing bars D in position on the tubes A, after a number of such leaves C have accumulated, as will be readily understood by reference to Figs. 1, 2 and 3, to insure even binding of the leaves, especially as the forward or body portions of such leaves are usually swelled during the process of copying from original manuscripts. After a sufficient number of loose leaves C have accumulated on the tubes A to approximately the upper ends thereof, then the receiving pins F are removed from the tubes A and the front cover B' is placed onto the upper ends of the said tubes and pressed downward for the terminals of the tubes to reach to the upper face of the front cover B'. A second set of capping pins E is now driven in place on the upper ends of the tubes A, so that the shanks E' of this second set of capping pins engage the tubes A with a driving fit, while the heads E² of the said capping pins abut against the outer face of the front cover B', as plainly indicated in Figs. 2 and 3. A back B² of suitable fabric material and forming part, say, of the back cover B, is extended over the back of the loose leaves C and onto the top of the front cover B' to which the terminal of the said back is pasted or otherwise secured to complete the binding.

It is understood that I do not limit myself to binding loose leaves of tissue paper only, and, if desired, the compensating and

spacing bars D may be omitted and the loose leaves bound in place between the covers B and B' without such compensating bars as shown in Fig. 4.

5 - It is understood that after the loose leaves are bound in place between the covers B and B', as described and shown in Figs. 2, 3 and 4, then the receiving pins F can be re-used in another set of tubes for binding
10 loose leaves between another set of covers in the manner above described.

In practice, a number of tubes A, of the same or of different length, are furnished in an outfit together with capping pins E
15 of double the number of tubes A, and a single set of receiving pins F, as the latter can be re-used with each set of tubes used for forming a binder.

From the foregoing it will be seen that by
20 the arrangement described the several parts can be readily assembled for filing the loose leaves and for subsequently binding the leaves permanently in place between the covers.

25 It will be noticed that the parts A are tubular from end to end, having an unobstructed bore which permits the use of shanks E' and F' of any desired length and

also facilitates the cutting off of the tubes A to suit any desired thickness of book without interfering with the proper application of the shanks of the capping and receiving pins.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

A loose leaf binder comprising covers apertured for the passage of connecting tubes, tubes passing freely through the said covers and having no positive engagement
40 therewith as against end-wise movement of the tubes whereby any set of tubes may be applied to any set of covers, capping pins driven into the lower ends of the tubes and having heads overlapping the adjacent cover
45 and pointed receiving pins having shanks fitting removably into the other ends of the said tubes, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of
50 two subscribing witnesses.

CHARLES FORREST McBEE.

Witnesses:

T. F. MORGAN,
J. M. FOSTER.