No. 773,659. PATENTED NOV. 1, 1904.

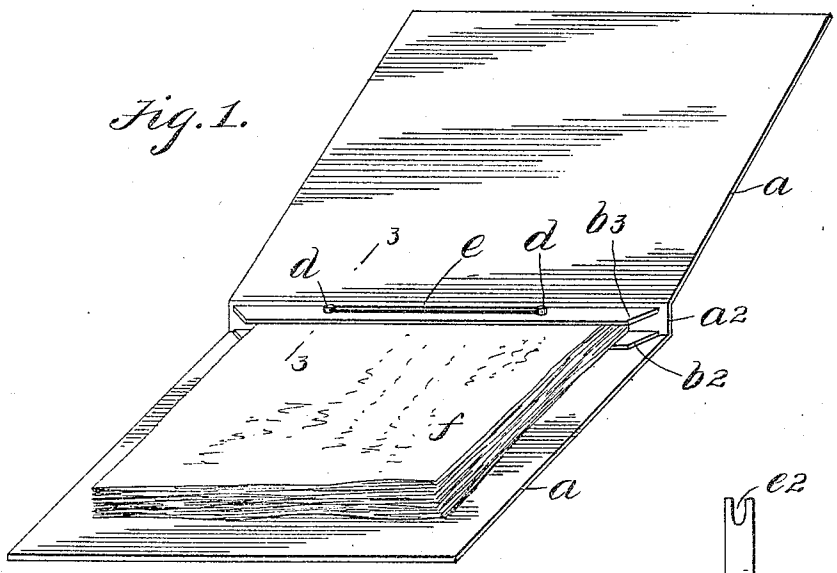
T. A. LOTTRIDGE.

BINDER.

APPLICATION FILED SEPT. 19, 1903.

NO MODEL.

Fig. 1.



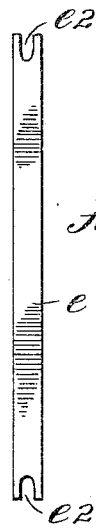
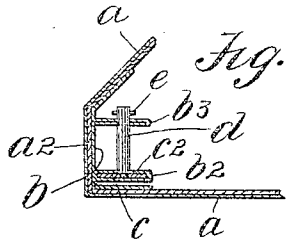


Fig. 2.

Fig. 3.



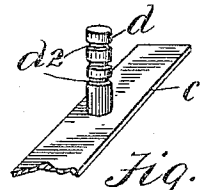


Fig. 4.

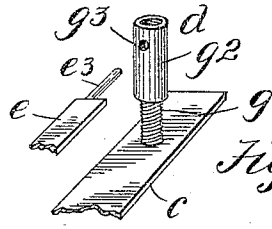


Fig. 5.

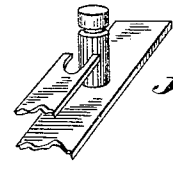


Fig. 6.

WITNESSES

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No. 773,659. Patented November 1, 1904.

UNITED STATES PATENT OFFICE.

THOMAS ARTHUR LOTTRIDGE, OF ROCHESTER, NEW YORK.

BINDER.

SPECIFICATION forming part of Letters Patent No. 773,659, dated November 1, 1904.

Application filed September 19, 1903. Serial No. 173,760. (No model.)

To all whom it may concern:

Be it known that I, THOMAS ARTHUR LOTTRIDGE, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Binders, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide an improved binder for loose sheets—such as record-sheets, portfolios, music, and files of various kinds and classes—a further object being to provide a binder of the class specified adapted for temporary binding of loose sheets in such a manner that new sheets may be adapted for the old ones whenever desired and any of the sheets removed when necessary; and with these and other objects in view the invention consists in a binder of the class specified constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a perspective view of my improved binder and showing the method of its operation; Fig. 2, a plan view of a spring which I employ; Fig. 3, a transverse section on the line 3 3 of Fig. 1; Fig. 4, a perspective view of a detail of the binder; and Fig. 5, a view similar to Fig. 4, showing a modification.

In the drawings forming part of this specification I have shown an ordinary flexible back or cover for loosely-bound sheets of various kinds and classes, and this back or cover consists of two side portions a and a central back portion a^2, and, as shown in the drawings, it consists of two thicknesses of any suitable material. The central back portion a^2 is provided with a reinforced sheet or strip b, which is pasted through or otherwise secured thereto in the usual manner and with which is connected an inwardly or forwardly directed member b^2 and another inwardly or forwardly directed member, b^3, between which the sheets of material in practice are placed. The inwardly or forwardly directed member b^2 is preferably composed of an inner strip c of sheet metal provided with a flexible covering c^2, of leather, canvas, or other suitable material, and the inwardly or forwardly directed member b^3 is preferably composed of the same material as the reinforcing-strip b and in connection therewith is connected with the central back portion a^2 of the cover.

Secured to the inwardly or forwardly directed member b^2 are two pins d, which are provided in their adjacent and side parts with transverse recesses d^2, three of which are shown in Fig. 4, and I also provide a plate-spring e, which is preferably provided with a recess e^2 in its opposite ends, whereby side fingers are formed, which are adapted to engage the pins d, as shown in Fig. 1.

In practice the sheets f which are to be bound together are placed on the pins d in any desired way, and the members b^3 and b^2 are pressed together. The spring-plate e is then sprung into position between the pins d, and by pressing the members b^2 and b^3 together the binding may be made as tight as desired.

It will be understood that the back portion of the cover is flexible and the members b^2 and b^3 may be pressed together. The sheets f may be connected with the pins d by forming openings adjacent to the edges thereof, and slits communicate with said openings, or the member b^3 may be removed from the pins d and the sheets f may pass down over said pins.

In the form of construction shown in Fig. 5 the pins d consist of two parts, one part being a screw-threaded member g and the other a sleeve g^2, which is mounted thereon, and by means of this construction the lengths of these parts may be regulated as desired. In this form of construction I form a hole or opening g^3 in each of the parts g^2, and I provide the plate-spring e with tenons e^3 at each end, which tenons are adapted to enter said slots or openings, and by adjusting the sleeves g^2 the pins d may be shortened, and this will serve to bind the sheets closely together; but in the form of construction shown in Figs. 1 to 4 the sheets f are bound tightly together by moving the plate-spring e downwardly.

It will be understood, of course, that in the form of construction shown in Figs. 1 to 4, inclusive, the holes g^3 may be formed in the pins d instead of the transverse recesses d^2, and the plate-spring e may be correspondingly formed, and said spring is the part which forms the binder proper in both forms of construction.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A binder of the class described, comprising two parallel members flexibly connected, two pins connected with one of said members and passing loosely through the other and provided with recesses, said pins being composed of telescopic and adjustable parts, and a plate-spring slightly longer than the distance between said pins and the ends of which are adapted to engage said recesses, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 17th day of September, 1903.

THOMAS ARTHUR LOTTRIDGE.

Witnesses:
M. H. STERNBERGH,
JOSEPH A. ENGLERT.