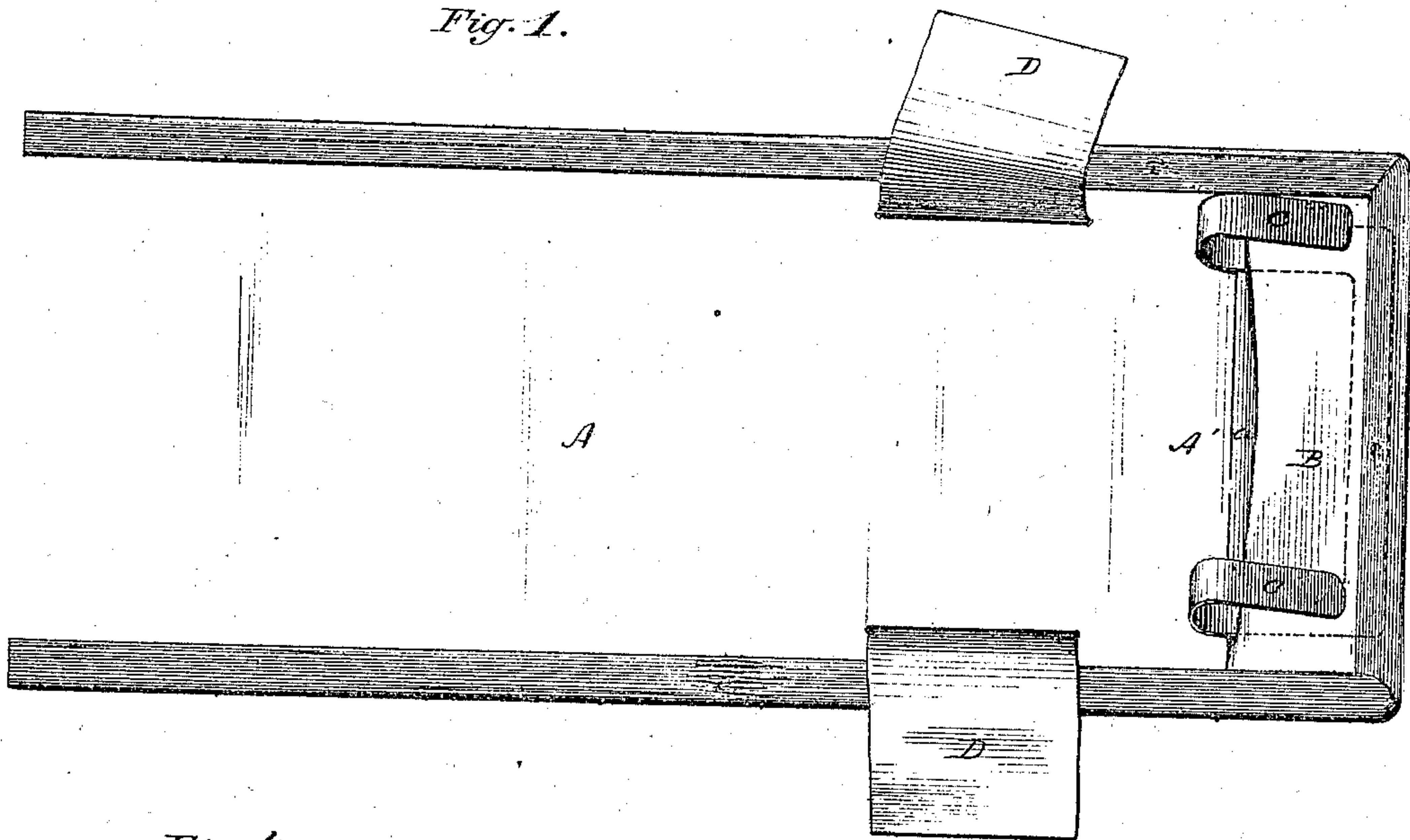
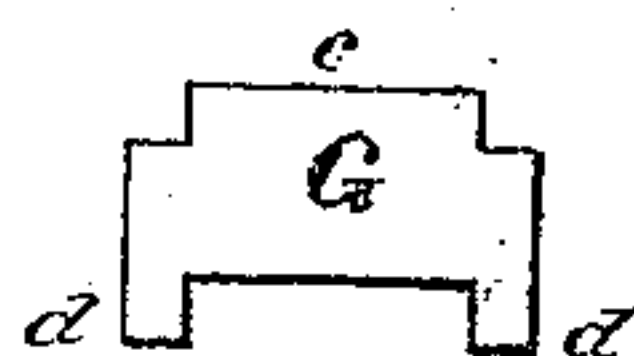


*J. C. Arms,*  
*Packet Book.*  
*No. 100,450.* *Patented Aug. 16. 1870.*

*Fig. 1.*



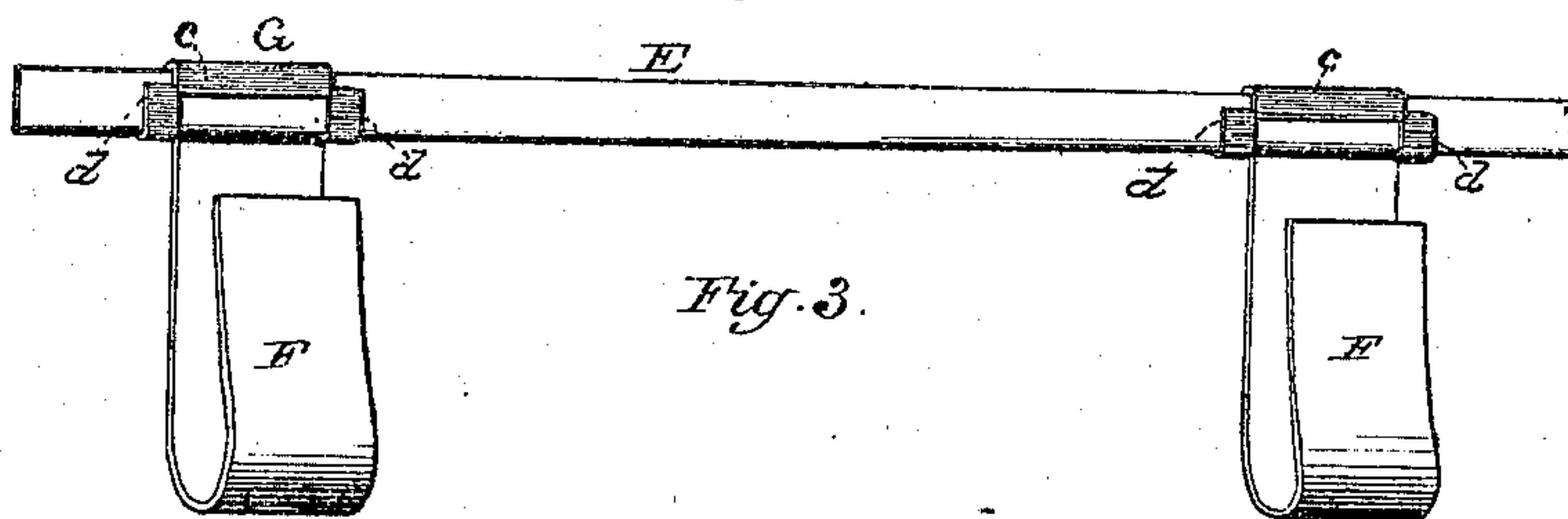
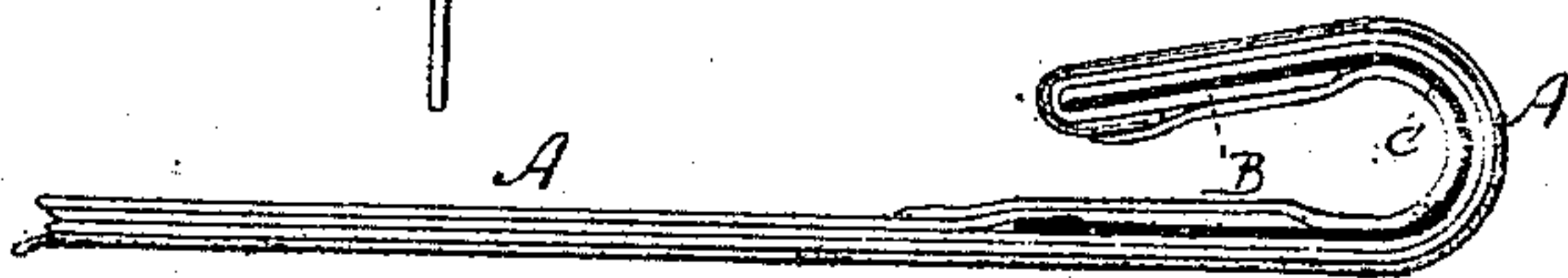
*Fig. 4.*



*Fig. 5.*



*Fig. 2.*



*Fig. 3.*

*Witnesses,*  
*L. Hailer,*  
*Phil. T. Dodge,*

*Inventor,*  
*J. C. Arms,*  
*by Dodge & Munn,*  
*his Atty.*



# United States Patent Office.

JAMES C. ARMS, OF NORTHAMPTON, MASSACHUSETTS.

Letters Patent No. 106,450, dated August 16, 1870.

## IMPROVEMENT IN THE MANUFACTURE OF POCKET-BOOKS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JAMES C. ARMS, of Northampton, in the county of Hampshire and State of Massachusetts, have invented certain Improvements in Springs for Book-Flaps, of which the following is a specification, reference being had to the accompanying drawing.

My invention relates to certain improvements in the spring fastening for pocket-books, for which Letters Patent were granted to J. F. Dubber, January 10, 1865, No. 45,819; and

It consists—

First, in the manner of attaching the spring to pocket-books and other small articles; and

Second, in the manner of constructing and applying a sectional spring to diaries and other long articles.

Figure 1 is an inside view of the covering and flap of a pocket-book, extended, showing the manner of attaching the spring;

Figure 2 is a cross-section, when completed, and the spring secured in place;

Figure 3 is a view of the spring as constructed for long books, in several sections or pieces; and

Figures 4 and 5, views illustrating the manner of securing together the different parts of the spring shown in fig. 3.

In constructing the springs for book-flaps, it has been customary heretofore to make them of a U-shape, in a single piece, with their end of the full width and size of the flap of the book.

The springs thus made were then placed against the inside of the flap, when the latter was in an unfinished condition, and secured by turning the edge of the leather inward, tightly, over the spring, and pasting the leather down.

This method is, however, open to two serious objections: first, that the leather being drawn tightly over the thin edge of the metal, is soon worn through, and the spring left exposed and loose; and second, that the cover and flap must be finished by hand, and is therefore quite expensive to make.

My improvement consists in forming the flap with a pocket on its inside, to receive the spring, which latter is inserted after the flap and cover are finished, so that the cover can be made and finished by machinery, at a much less cost; and so, also, that the spring is not required to extend out to the corners of the flap, and consequently is not liable to wear through at the corners.

My improved method of applying the spring is clearly shown in fig. 1, in which—

A is the outside or cover;

A', the flap; and

B, a strip of paper or cloth, pasted to the inside of the flap, in such manner as to form a pocket, *a*, into

which the end of the spring C can be inserted, as shown.

By this method of construction, it will be seen that the edge of the spring, instead of being covered by the leather only, is covered by the lining also, which is folded over with the leather in forming the pocket; and, if desired, an extra piece may also be pasted in and folded over the edge of the spring.

It will also be observed that the spring does not reach to the corners of the flaps, where the most wear is, and thus it is rendered far more durable, as well as cheaper.

The cover A has attached to its inside two cloth or other ears or flaps, D, which, after the end or body of the spring is inserted into the pocket, are pasted down over its arms, to hold it in place, and keep the flap A' doubled over.

When thus arranged it will be seen that the only hand work necessary, in applying the spring, is to paste down the flaps or ears D.

Thus I am enabled to apply the spring in a better manner and at a less cost than formerly, and also to use a smaller and consequently cheaper spring.

For books, diaries, &c., having long flaps, it has been found impracticable to apply the springs, formed in a single piece, as described in Dubber's patent, as it requires such large sheets of metal from which to cut the springs, the greater portion of which is waste, that the springs are rendered too expensive for common use.

This difficulty I avoid by making the spring in parts or sections, as shown in fig. 3, in which E is a narrow flat strip of ordinary sheet metal, to extend along the outer portion of the flap, and F are two flat springs, properly bent and secured to strip E by clips G.

The clips G consist merely of a piece of sheet metal, cut to the form shown in fig. 4, and applied to the opposite side of the strip from the spring, and then bent so as to embrace the strip and spring, as shown in figs. 3 and 5.

The compound spring, thus constructed, I apply to the book by means of a pocket and loose ears, in the same manner as those made of a single piece and above described.

The compound spring thus produced answers the same purpose, at a much less cost, than a large continuous spring.

By these improvements I am enabled to make a much better and more durable article; and by this means also, I am enabled to crease, stamp, and finish up complete the outside of the cover before applying the spring thereto, and thus to make a neater and more uniform finish.

Having thus described my invention,

What I claim is—

1. The herein-described method of applying and securing the spring C to pocket-books or diaries; that is to say, by means of a pocket formed in the flap, to receive it, substantially as described.
2. The improved spring for pocket-books or diaries, consisting of the strip E, having the bent spring F

secured thereto by means of the clips G, substantially as described.

JAMES C. ARMS.

Witnesses:

W. P. DERBY,  
L. D. THAYER.