

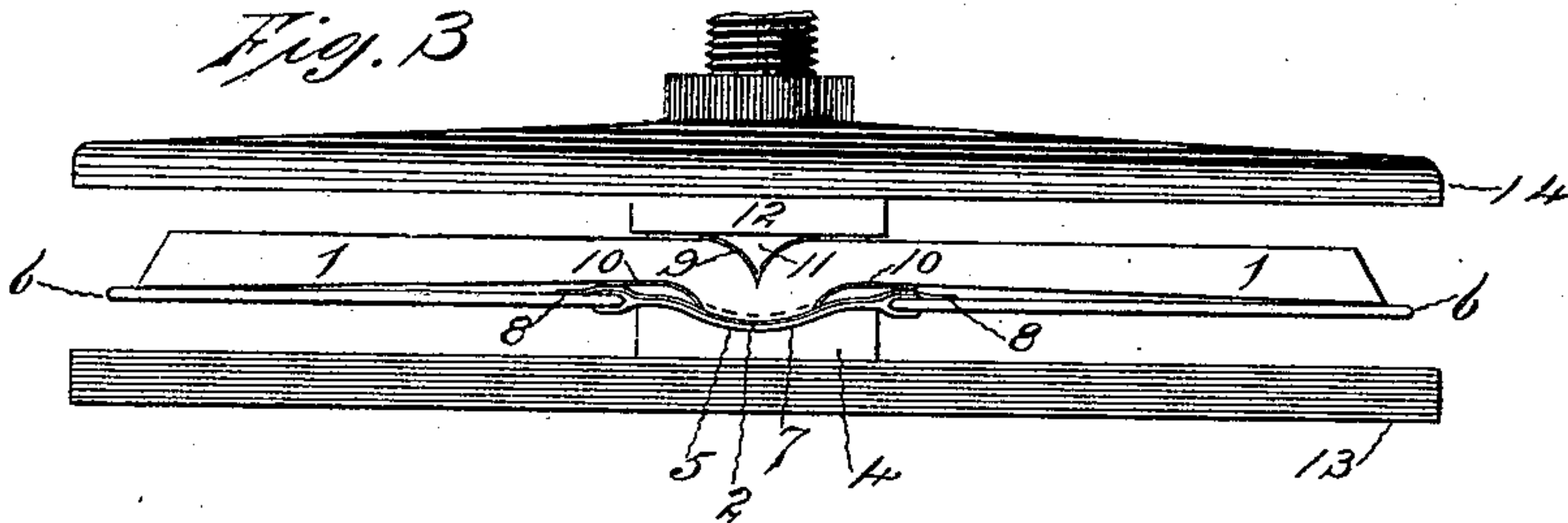
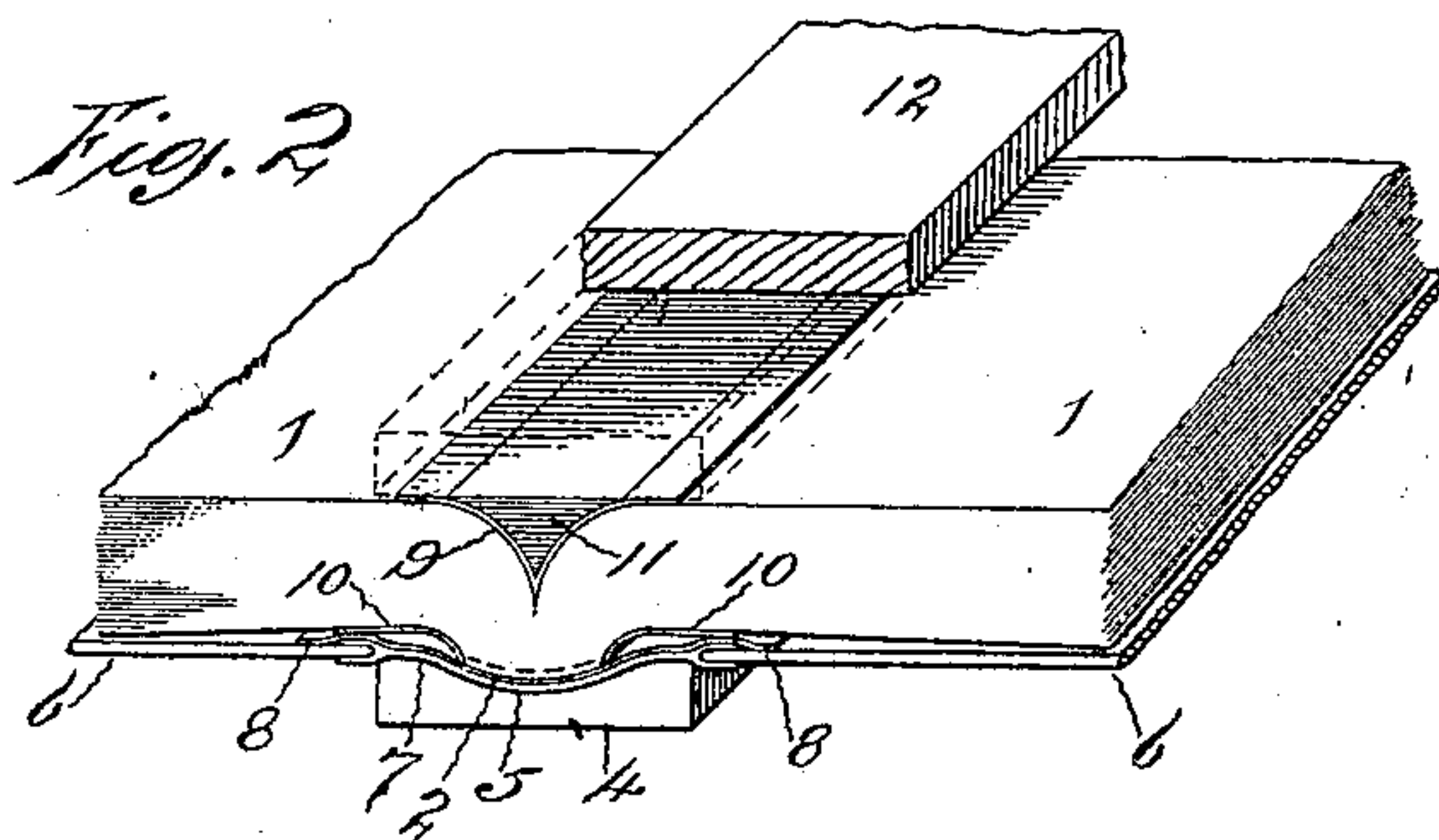
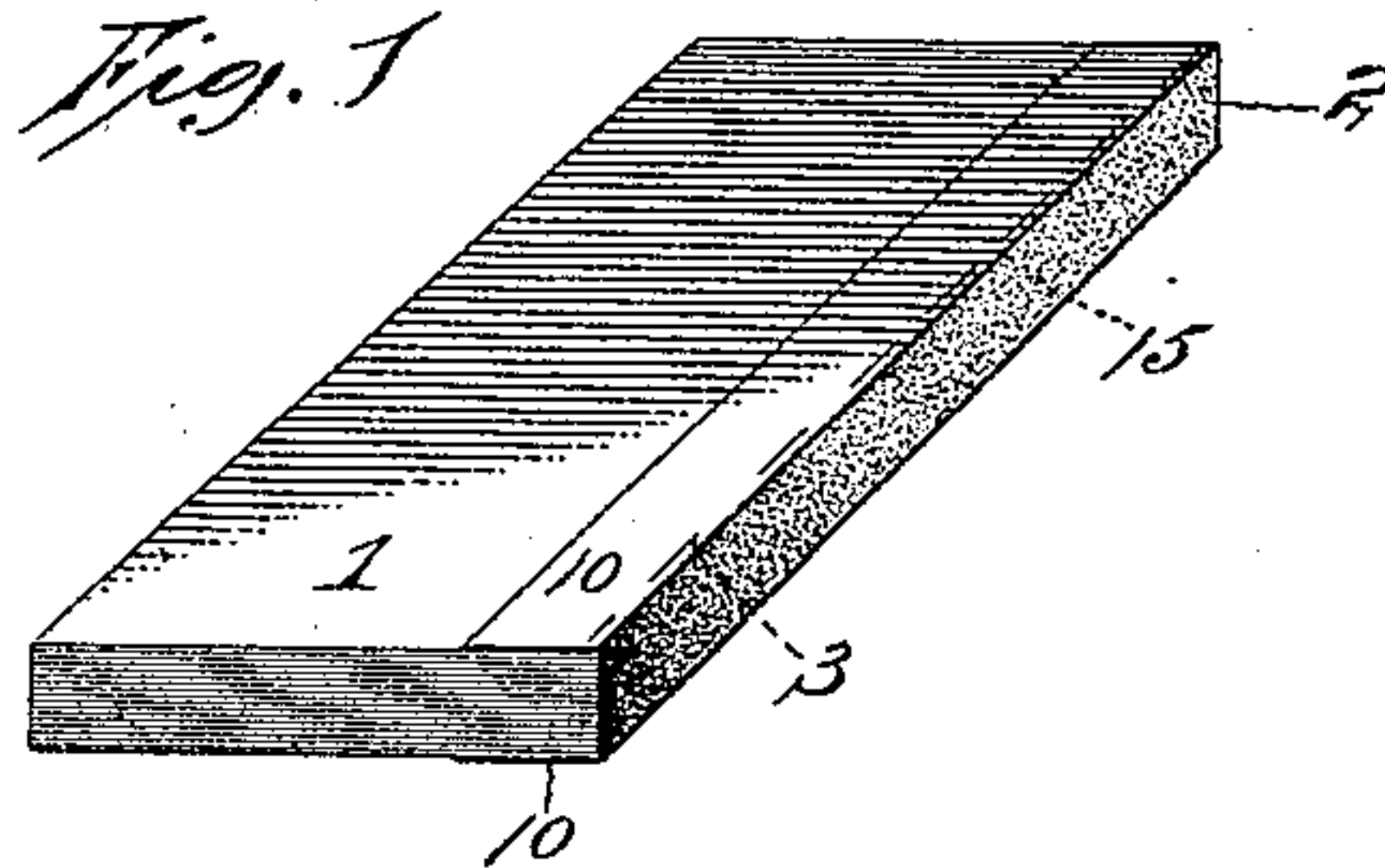
No. 658,563.

Patented Sept. 25, 1900.

L. BAILEY.
BOOKBINDING.

(Application filed June 11, 1900.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

LEONARD BAILEY, OF WETHERSFIELD, CONNECTICUT.

BOOKBINDING.

SPECIFICATION forming part of Letters Patent No. 658,563, dated September 25, 1900.

Application filed June 11, 1900. Serial No. 19,833. (No model.)

To all whom it may concern:

Be it known that I, LEONARD BAILEY, of Wethersfield, in the county of Hartford and State of Connecticut, have invented certain
5 new and useful Improvements in the Art of Bookbinding, which improvements are described in the following specification and are illustrated by the accompanying drawings.

My invention relates particularly to the
10 process of binding books of that class which are in general use for copying letters and other documents by the application of moisture and pressure.

It is the object of the invention to render
15 the manufacture of such books more easy and simple and not only to make the books themselves elastic in opening and able to bear hard usage, but also to prevent the spreading of moisture from the work into the back of the
20 book. To accomplish these results, I place a strip of rubber cloth in contact with the leaves of the book at their back edge and with adjacent parts of the back and cover of the book and cause the same to adhere to such leaves
25 and adjacent parts by the simultaneous application of heat and pressure in the manner now to be described.

The drawings will aid the description and at the same time will indicate the best man-
30 ner in which I have contemplated applying the principles of my invention.

Figure 1 is a perspective view of an indefinite number of leaves of paper fastened together in the form of a pad which has been
35 trimmed and made ready to be inserted into a cover for the purpose of forming a bound copying-book. Fig. 2 is an enlarged perspective view of a part of the same pad, together with such cover and with certain appliances
40 that are used in the operation of binding. Fig. 3 is an edge view of the said leaves and cover of the book and said binding appliances all in position in a press, as in the process of binding the book after the manner
45 of my invention.

In the drawings the numeral 1 denotes said pad of the leaves of the book which is to be bound. Along near the back edge 2 of pad
50 1 these leaves are fastened together either by stitches 3 and by a sizing of glue 15, as shown in Fig. 1, or by any other usual or convenient means, and in like manner two strips

of cloth or paper 10 and 10 are stitched to opposite sides, respectively, of pad 1 and flush with edge 2.

The numeral 4 in Figs. 2 and 3 denotes a block of brass or of other metal having a shallow groove 5 along its upper side and constituting a recessed form of uniform cross-section, upon which the back of the book may
55 rest in the press. In the practice of my invention this block of metal is heated by brief immersion in boiling water or otherwise to such a temperature as is sufficient to soften raw rubber in the manner that is hereinafter
60 described, but not sufficient to scorch the book. As shown in Figs. 2 and 3, the book-cover 6 is then opened out, with its middle portion or back 7 resting upon block 4, heated
65 as described. Upon back 7 and overlapping upon covers 6, as shown in Figs. 2 and 3, is then spread out a strip of rubber cloth 8 as long as the back edge 2 of pad 1 and wider than the thickness of that pad. As to the com-
70 position of strip 8 it is sufficient at this point to observe that such material is known in commerce as "rubber cloth," being a fabric which is both filled and covered on each side with raw rubber. Upon the back 7 and the
75 intermediate strip of rubber cloth 8 so spread out upon the heated block 4 the pad 1 is next opened out, one-half to each side, with edge 2 of the pad directly in or over the recess 5 of that block, as shown in the drawings.

Preparatory to placing the described parts
85 of the book under pressure it is convenient to place upon its open pages a metallic shield 9, having a V-shaped groove, which is filled by a flat-topped strip of metal or other rigid material 11, and to set a thick strip of india-
90 rubber 12 upon the book and rigid shield so filled. All the described parts and appliances are next placed between bed 13 and platen 14 of a press in the position shown in Fig. 3 and are there subjected for a few mo-
95 ments both to the compression that is caused by the press and to the action of heat from the heated form 4, whereby the rubber strip 8 is simultaneously softened and pressed into adhesive and intimate contact with the back
100 edges of the leaves 1 above and with the book-cover 6, including the back 7, below. After removal from the press the book grows cool and the rubber of strip 8 hardens, whereby

the leaves and the back of the book being upon opposite sides of rubber 8 are thereby held together in a flexible, waterproof, and lasting union. This union, furthermore, is
5 supplemented and the binding of the book is finished by the adhesion of strips 10 to rubber strip 8, which is effected in the operation already described by the action of the press in squeezing the strips 10 down upon the
10 rubber 8 while the latter is soft and sticky from heat.

Though the described strip 8 is preferably composed of cloth coated with raw rubber, as described, yet cloth so covered with gutta-
15 percha may be used instead of rubber cloth and without departure from the spirit of my invention, and even a sheet of raw rubber containing no fabric at all may be used as a substitute or equivalent for such rubber cloth,
20 especially in the binding of books that have flexible backs.

Such being the method of practicing my invention, I claim—

1. That improvement in the art of binding
25 books which consists in forming a pad of leaves, fastened together along the back edge of the pad; in laying open the pad upon a book-cover, with a strip of rubber cloth between them; in placing such open pad and
30 cover, with such intermediate strip of rubber cloth, upon a heated form, and in subjecting the same to pressure while so placed, substantially as and for the purpose specified.

2. That improvement in the art of binding
35 books which consists in forming a pad of

leaves, held together at the back edge, and a cover, fit to be bound upon such pad; in placing such pad upon such cover, both wide open, with a strip of rubber cloth between them; in heating such rubber cloth to the
40 point of softening; and in pressing such opened pad, cover and intermediate heated rubber strip together; substantially as and for the purpose specified.

3. That improvement in the art of book-
45 binding which consists in placing a pad, which is held together and ready for binding, and a cover, which is fit to be bound upon such pad, in juxtaposition with each other, and with an intermediate strip of rubber cloth;
50 in heating such intermediate rubber cloth to the point of softness; and in pressing such heated cloth between such pad and cover; substantially as and for the purpose specified.

4. That improvement in the art of binding
55 books which consists in placing a strip of rubber cloth in contact both with the leaves of the book, at their back edge, and also with adjacent portions of the back or cover of the book, and in simultaneously heating and
60 pressing together such rubber cloth and contiguous parts of the book; substantially as and for the purpose specified.

In testimony whereof I hereunto set my name in the presence of two witnesses.

LEONARD BAILEY.

Witnesses:

WILLARD EDDY,
THOMAS L. HEALY.