

Feb. 7, 1928.

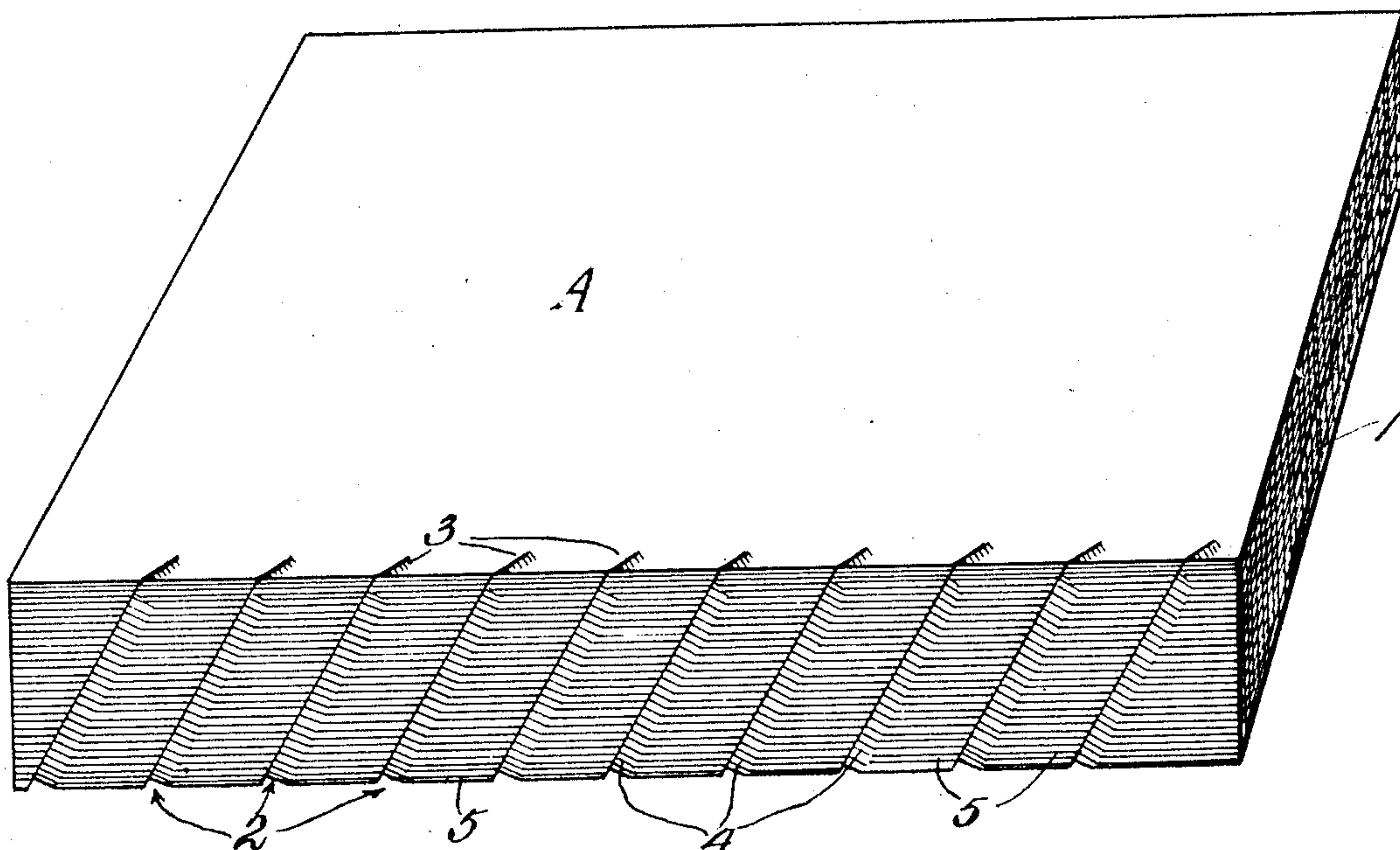
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J. A. DAVIS

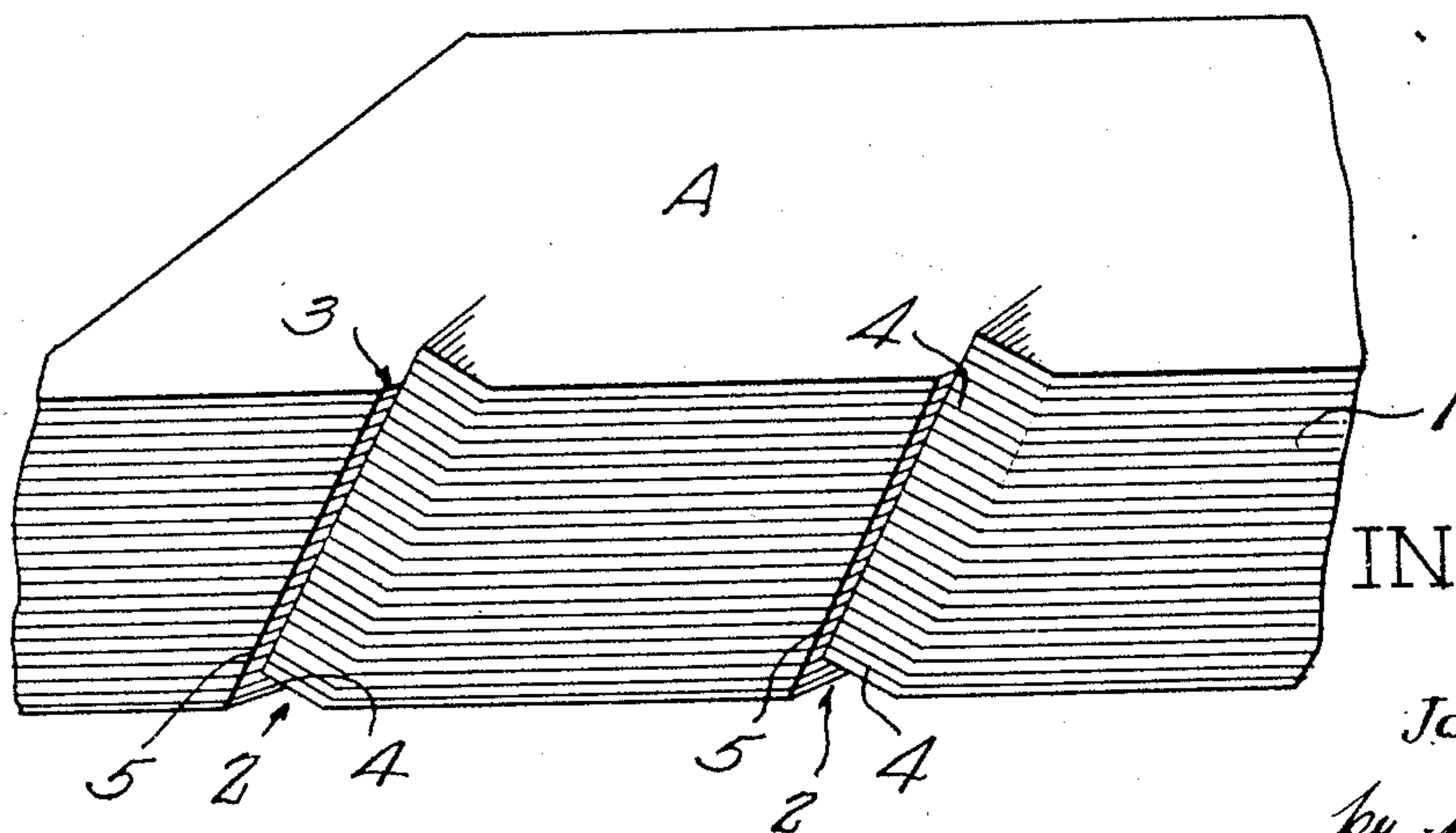
METHOD OF BINDING BOOKS

Filed Jan. 19, 1927

*Fig. 1*



*Fig. 2*



INVENTOR,

*John A. Davis*

*by [Signature]*

ATTORNEY



## UNITED STATES PATENT OFFICE.

JOHN A. DAVIS, OF LOS ANGELES, CALIFORNIA, ASSIGNOR TO OVERSEWING MACHINE COMPANY, A CORPORATION OF CALIFORNIA.

## METHOD OF BINDING BOOKS.

Application filed January 19, 1927. Serial No. 162,061.

My invention relates to a method of binding together the signatures, sections or leaves forming a book, and it has especial reference to a method of simplifying the book binding art, reducing the cost of same and at the same time producing bound books which will withstand reasonably hard usage.

The object of the present invention is to provide a simplified method by which the signatures, sections or leaves composing a book may be securely bound together en masse and in which such media as cords, threads, or other supplemental bonding instrumentalities may be wholly eliminated without impairing reasonable security of the bond.

The invention consists in effecting an interlock of the various signatures, sections or leaves whereby no additional bonding medium is required to hold together the sections, signatures or leaves in their bound relation; and in its broader aspect the invention consists in bending, flexing or displacing portions of the signatures, sections or leaves assembled and alined to form a book, from their normal plane in a plurality of spaced zones, along the longitudinal edge of the assembled signatures, sections or leaves, so that the bent or deflected portions of leaves, sections or signatures interlock and, when glued or cemented, provide a secure bond therefor without any tie or other bonding supplement.

In a specific sense, the invention consists of assembled and alined signatures, sections or leaves having a plurality of spaced incisions extending inwardly from the back thereof; the loose edges, ends, tongues, or the free leaf portions of the sections, signatures or leaves at one side of the incisions being deflected from the plane of the signatures, sections or leaves and then glued to provide a secure interlock whereby the finished book may be easily opened without disturbing the bond.

A book made in accordance with my invention is illustrated in the accompanying drawing in which Figure 1 is a perspective view, and Figure 2 is an enlarged fragmentary perspective view showing my invention.

Referring in detail to the form of the invention disclosed in the preferred embodiment thereof in the drawing, A indicates generally a book bound in accordance with

the practices of my improved method. The book is composed of a plurality of sections, signatures or leaves 1 assembled or superposed to form a book, and in carrying out my improved method all of the assembled sections, signatures or leaves are operated upon as a unit instead of singly.

In the practice of my invention the leaves, sections or signatures are assembled in the proper sequence and the back edges thereof alined. A plurality of incisions 2 are then made across the back of the alined signatures and inwardly from the edges thereof, as shown in Figure 2, the incisions being made at spaced intervals. These incisions are made preferably in an oblique or a diagonal direction across, and preferably extend inwardly at an angle to, the back of the assembled book signatures, as shown at 3, and produce free or loose ends or tongues of paper 4. As seen in Figure 2, these free or loose ends 4 at one side of each of the plurality of incisions 2 are deflected or bent from the plane of the signatures, sections or leaves, and out of alinement with the ends of the signatures, sections or leaves on the opposite sides of the incisions. The free or loose ends 4, which are deflected are then bound and held together by glue or cement which is applied to the back of the book and also into the incisions 2, the glue, paste or other binder firmly uniting the free and loose ends 4 and maintaining them in their deflected condition and position. In this wise the glue or other binding fluid which is worked into the incisions not only unites the back edges of the signatures or sections, but also the deflected free ends, or loose tongues of the same adjoining the several incisions, thereby causing the deflected ends to be firmly interlocked, and distributing the strains, incident to handling and opening of the book, over a wide area and obviating the need of any supplemental tie as cords or threads.

What I claim is:

1. The method of binding together book signatures, which consists in alining the signatures to form a book unit, in making diagonal incisions in the back of the book and deflecting the tongues adjoining the several incisions from the plane of the signatures, and in gluing the back of the book and the adjacent ends of the incisions.

2. The method of binding together signa-



tures which consists in alining the signatures, in making incisions in and at an angle to the back of the book, in bending at an angle to the plane of the signatures the  
5 free ends of the signatures at one side of the incisions, and in gluing the back of the book and the adjacent ends of the incisions.

3. A book having diagonal incisions across the back thereof, the loose ends of the signatures at one side of the incisions being bent from the plane of the signatures and  
10 glued together.

In testimony whereof I have set my hand.  
JOHN A. DAVIS.