

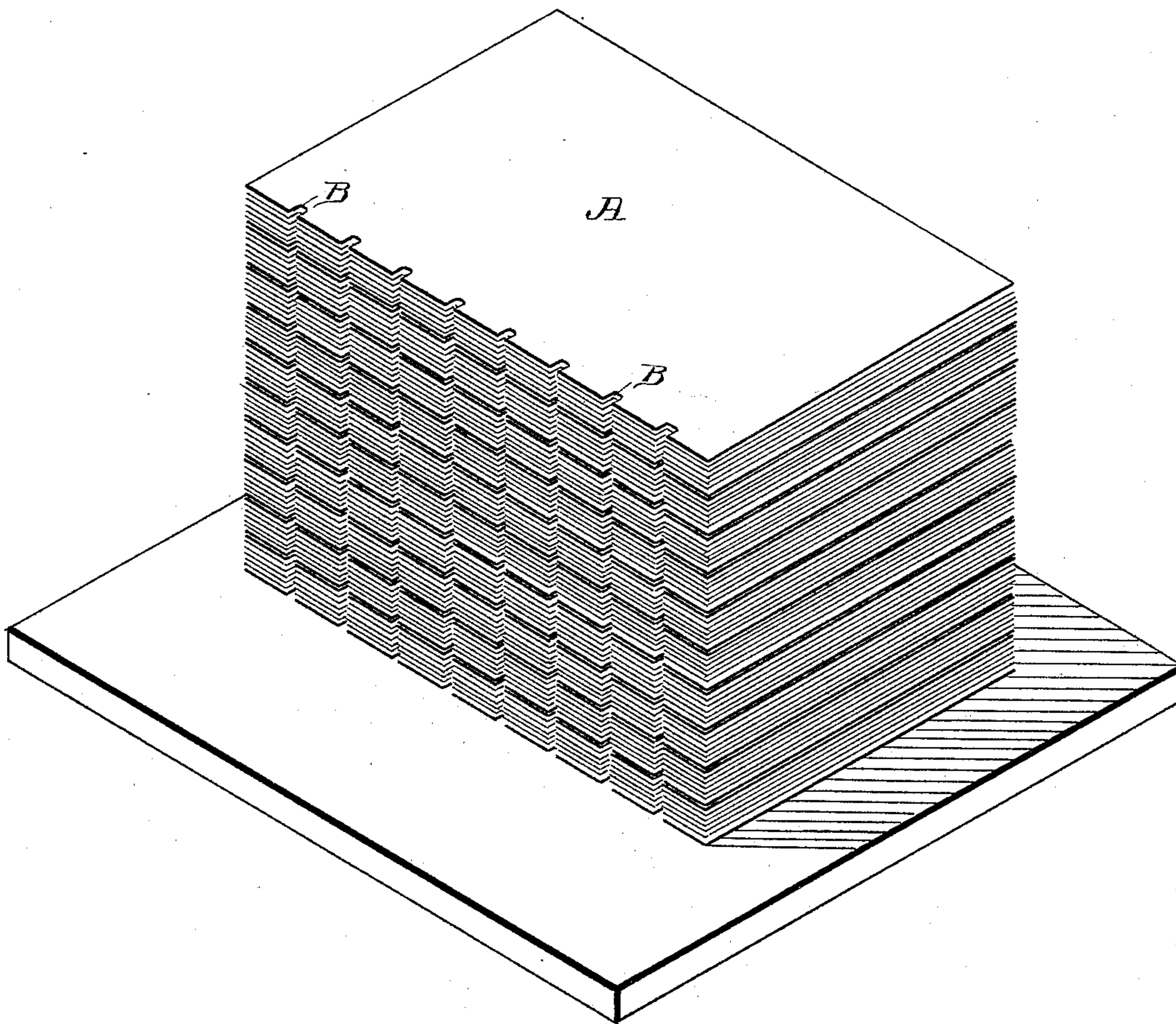
(No Model.)

J. J. SULLIVAN.

BOOK BINDING.

No. 395,408.

Patented Jan. 1, 1889.



Attest.  
Robert Owens.  
Albert Speiden.

Inventor.  
John J. Sullivan  
By Anderson & Myers, Attys



# UNITED STATES PATENT OFFICE.

JOHN J. SULLIVAN, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO  
THOMAS W. GRAYDON, OF SAME PLACE.

## BOOK-BINDING.

SPECIFICATION forming part of Letters Patent No. 395,408, dated January 1, 1889.

Application filed June 25, 1887. Serial No. 242,435. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN J. SULLIVAN, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Book-Binding, of which the following is a full, clear, and exact description.

My invention relates to an improvement in the method or process of binding together the leaves or signatures of a book and attaching the back to the same.

My improvement is more especially adapted for binding pamphlets and light books, but may also be used with large and heavy ones.

It consists, primarily, in cutting in the back edges of the leaves or signatures, at the point where they are to be attached to one another, grooves extending across them all and filling these grooves with glue or some adhesive substance, which attaches them all together and serves as a substitute for stitching. I prefer to cut these grooves with saws as producing grooves better adapted to catch the glue and offering better surface for attachment. The glue inserted in the grooves also serves to fasten the back of the book to the leaves, although when a large heavy book is thus bound some additional glue or fastening may be required which may be applied to the entire back of the book.

In the accompanying drawing, forming part of this specification, I have illustrated a convenient manner of carrying out my process.

The drawing is a perspective view of a pile of pamphlets or books with grooves cut to receive the glue.

A is a book consisting of any number of signatures or leaves which are to be bound together. These books may be laid in a pile, one on another, as shown, and the grooves B cut by means of saws or in any convenient way. The number of grooves will usually depend upon the size and weight of the book, small books requiring, of course, less strong

binding or fewer grooves than heavy ones. The grooves being cut, the glue or cement is applied in any convenient way to fill them. As it cools or solidifies, it forms a solid mass and adheres to the edges of the leaves on all sides of the grooves and constitutes a solid strip or peg, united to each leaf of the book, and consequently uniting them all together. If the cover is applied at once before the glue in the grooves becomes solid, the glue in the grooves will serve to fasten the cover on, or additional glue may be applied to the backs for fastening the cover.

By my process the simple application of the glue and filling the grooves completes the binding. No stitching is required and no special preparations of the grooves or insertion of binding-strips of any kind, as the glue itself forms the binding strip or cord.

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

1. The above-described improvement in the art of book-binding, which consists in cutting a series of transverse grooves in the back edges of the leaves or signatures at about the same relative distances apart as the binding-cords usually employed and filling said grooves with liquid glue or other liquid cement, whereby when the adhesive substance solidifies the leaves or signatures will be united.

2. The above-described improvement in the art of book-binding, which consists in cutting a series of transverse grooves in the back edges of the leaves or signatures at about the same relative distances apart as the binding-cords usually employed, filling said grooves with liquid glue or other liquid cement, and applying the cover before the adhesive substance solidifies, for the purposes set forth.

JOHN J. SULLIVAN.

Witnesses:

M. J. SULLIVAN,  
ALFRED M. ALLEN.