

(No Model.)

2 Sheets—Sheet 1.

J. T. O. ORTLOFF.
METHOD OF SEWING BOOKS.

No. 529,079.

Patented Nov. 13, 1894.

Fig. 1.

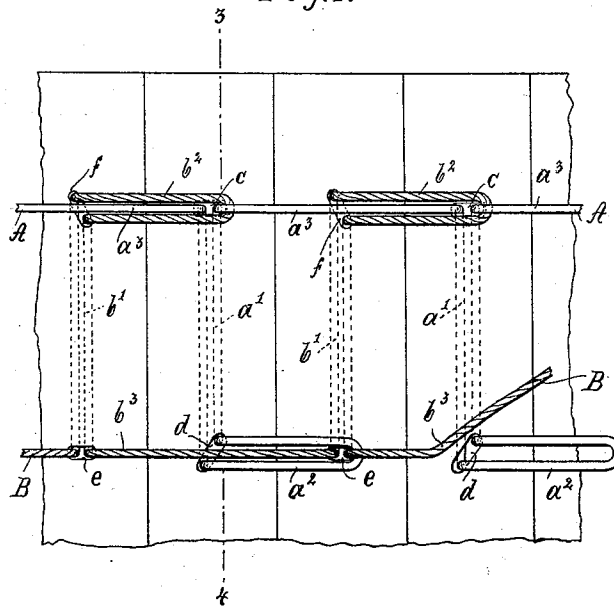
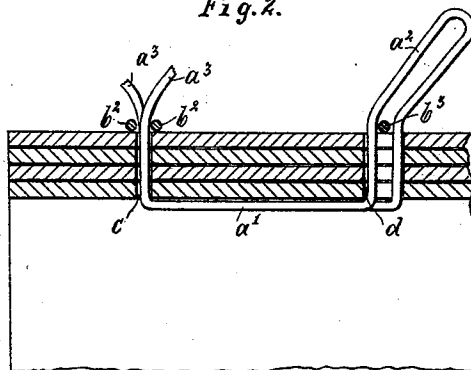


Fig. 2.



Witnesses:
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Emil Kaysen

Inventor:
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by
Robert M. Smith
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(No Model.)

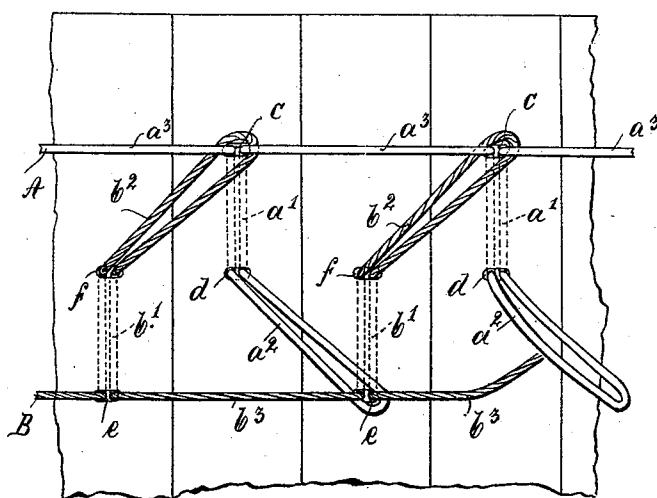
2 Sheets—Sheet 2.

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Fig. 3.



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UNITED STATES PATENT OFFICE.

JULIUS THEODOR OTTO ORTLOFF, OF HEIDELBERG, GERMANY.

METHOD OF SEWING BOOKS.

SPECIFICATION forming part of Letters Patent No. 529,079, dated November 13, 1894.

Application filed January 12, 1892. Serial No. 417,901. (No specimens.)

To all whom it may concern:

Be it known that I, JULIUS THEODOR OTTO ORTLOFF, a subject of the Grand Duke of Baden, and a resident of Heidelberg, in the Grand Duchy of Baden, Empire of Germany, have invented a new and useful Improved Method of Sewing Books, of which the following is a specification.

My invention refers to such methods of sewing books, in which, for each series of stitches, two threads are employed, the loops of which are interlocked with each other in such a way, that the loops of each thread are held by the loops of the other thread, and my improvement in such methods relates to a special arrangement of the threads proper as well as of the loops formed thereof, the object being to prevent the back of the book from becoming as thick as has been the case hitherto.

In order to make my invention more clear, I refer to the accompanying drawings, in which similar letters denote similar parts throughout the different views, and in which—

Figure 1 shows a part of the back of a book, in which the threads are arranged, and the loops are interlocked, according to my invention, and Fig. 2 is a section, taken on the line 3—4 of Fig. 1. Fig. 3 shows a modified mode of execution.

In carrying my invention into practice, I employ, for each series of stitches or connections, two threads A B, Fig. 1, as usual, both the threads, however lying partly on and partly within the signatures forming the book; and the loops formed out of the thread A extend in the direction of the thread B, while the loops formed out of the thread B extend in the direction of the thread A. The loops a' a^2 formed out of the thread A are passed through holes c to the inside and through holes d to the outside of the signatures, while the loops b' b^2 formed out of the thread B are passed through holes e to the inside, and through holes f to the outside of the signatures. The parts a' and b' are the inner connecting-parts between the outer loops proper a^2 and b^2 and the remaining straight outer parts a^3 and b^3 of the threads A and B.

The loops proper a^2 when leaving the holes d are laid over the holes e for the thread B, and the loops proper b^2 when leaving the

holes f are laid over the holes c for the thread A. The loops a^2 are, thus, held by the parts b^3 of thread B, and the loops b^2 are held by the parts a^3 of thread A. The parts a^2 and b^3 on one side, and the parts b^2 and a^3 on the other side run perfectly parallel, and the course of both the threads A and B is exactly the same.

As mentioned above, all the loops formed out of one thread extend into the direction of the other thread, and the connections between these loops are formed by parts of the said other thread. The loops of one thread alternate with those of the other thread, that is to say, the loops b^2 for instance, extend from the first signature to the second, from the third to the fourth, and so on, while the loops a^2 extend from the second signature to the third, from the fourth to the fifth, and so on.

It is not indispensably requisite, that the loops a^2 and b^2 extend exactly in the direction of the threads B and A respectively, or that the length of the inner connecting-parts a' and b' is like the distance between the threads A and B, but I may alter this slightly, as shown in Fig. 3. The holes d and f , through which the loops come to the outside of the signatures, have been displaced into the space between the threads A and B, and I have shown the said holes displaced in this instance as far as to come into the center-line between the threads A B, so that all those holes form a straight line.

There are, thus used, in my improved method of sewing books, no special threads for forming connecting-loops for the sheets, and special other threads for forming connecting-loops for the signatures, as has been the case in the older methods, but each of the threads is used for one purpose as well as for the other, and I attain, by the method described above, a very strong and reliable connection for the sheets as well as for the signatures, and the whole back of the book becomes considerably less thick than hitherto so that the appearance of the book is now a better one and its durability increased.

Having now described the nature of this invention, what I desire to secure by Letters Patent of the United States is—

The method of stitching together a series

of signatures with two threads which consists
in carrying a loop of one thread through the
back of one signature from the outside there-
of, and then passing it out through the same
5 back at another point, carrying said loop over
above the back of a second signature and
holding the same, passing a loop of a second
thread through the first mentioned loop and
through the back of the second signature
10 from the outside thereof at the point where
the first loop is held, and carrying said sec-
ond loop to the outside of the second signa-
ture at another point, drawing it over and

holding it above the back of a third signa-
ture, passing a second loop of the first thread 15
through the loop held above the last men-
tioned signature and through said signature
as before and so on, substantially as described.

In testimony whereof I have signed this
specification in the presence of two subscrib- 20
ing witnesses.

JULIUS THEODOR OTTO ORTLOFF.

Witnesses:

FERD. BOPP,
PET. OLBERT.