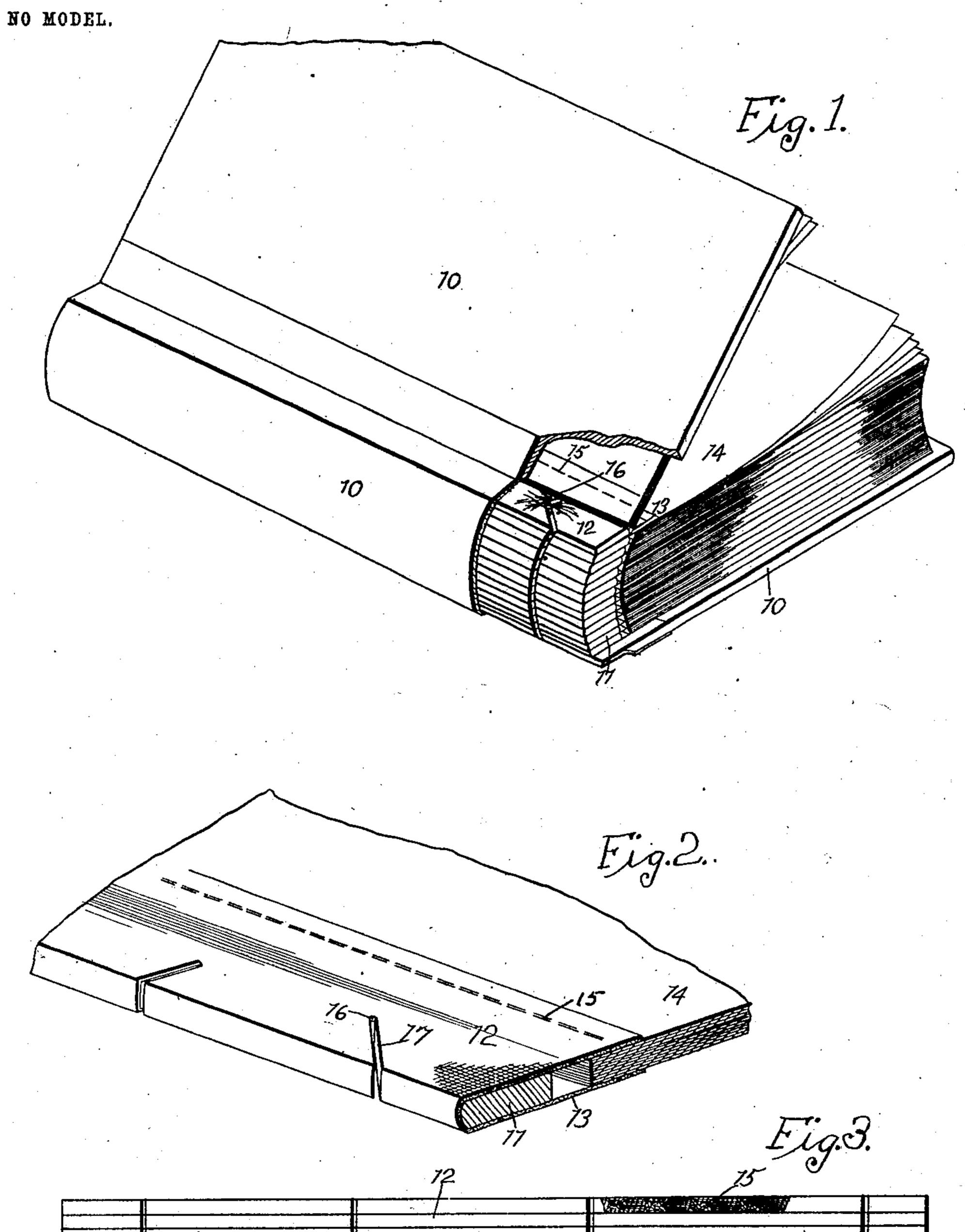
G. H. DAY.

BOOKBINDING.

APPLICATION FILED JUNE 1, 1903.



Wilmesses K.K. Keffer. Ci. S. Hague!

Inventor, Seo. V. Day.

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action

## United States Patent Office.

GEORGE H. DAY, OF DES MOINES, IOWA.

## BOOKBINDING.

SPECIFICATION forming part of Letters Patent No. 753,962, dated March 8, 1904.

Application filed June 1, 1903. Serial No. 159,428. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. DAY, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have 5 invented certain new and useful Improvements in Bookbinding, of which the following is a specification.

The objects of my invention are to provide means whereby the leaves comprising each 10 section of a book may be bound firmly together and at the same time allow the leaves in each section to be drawn away from each other when the book is opened at any given place.

A further object is to provide means for binding a book in such a way as to prevent the leaves from being easily detached from the book and in which the chance of having the leaves fall out from the section in which 20 they are placed reduced to a minimum.

A further object is to provide means whereby the sections of the book may be separated from each other and yet held firmly together at their rear portions, so that the book can be 25 opened at any desired place and will lie substantially flat upon the table and the leaves will lie substantially flat above the table when

in an open position.

A further and very material object of the 30 invention is to provide means for rebinding an old book, it being my object to provide a mechanism whereby the leaves of the book can be cut off at their rear edges and the frayed portion of the leaves removed and the 35 portion of the leaves which is left and upon which there is no writing or printing can be held firmly in position, and thus obviate the difficulty which is so common at the present time in having the leaves of a newly-rebound to book fall out after the book has been opened a few times. This is especially true in books where the margins are narrow and where the paper is of a poor quality. By the use of the means which I have provided the binding can 15 be sewed very near to the printing without affecting in any way easy access to any portion of the book.

My invention consists in certain details in the construction, arrangement, and combinao tion of the various parts of the device where-

by the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompa-

nying drawings, in which—

Figure 1 shows in perspective a book in 55 which my binding is used, the outside of the rear lower portion of the cover being cut away to show the means of attaching the various sections to each other and the means whereby the leaves in each section are held 60 together. A portion of the upper corner of the book is broken away in this view. Fig. 2 is a detail view of a portion of one of the sections of the book bound with my binding and is designed to show the way in which the 65 leaves of the section are held together by sewing in a particular way the binding of the book to the leaves of this section, and Fig. 3 is a rear view of three sections of the book bound together with the cover removed and a 70 portion of one of the sections broken away to show the way in which the leaves are sewed together and maintained in position in the section.

Referring to the accompanying drawings, I 75 have used the reference-numeral 10 to indicate the covers and the back portion of the book. Placed on the inside of this cover 10 is a series of sections, each section comprising substantially the same number of pages as does the 80 sections of the ordinary book. Each section comprises the following parts: A piece of cardboard 11 extends longitudinally of the section and at the back portion of the book. This cardboard 11 is of thin material and is sub- 85 stantially wider than its thickness, and its rear edge is rounded slightly.

Mounted outside of the cardboard 11 and extending forwardly some distance from the forward edge of the cardboard is a cloth having 90 the upper portion 12 and the lower portion 13 therein. Placed between the three edges of the portions 12 and 13 of the cloth are the leaves 14 of the sections of the book. The cloth is pasted to the cardboard 11 and to the upper 95 leaf of the section and also to the lower leaf of the section of leaves 14. A row of stitches 15 is then made through the upper portion 12 of the cloth, through the lower portion 13 of the cloth, and through each leaf of the section 100

of leaves 14. These stitches are made to extend vertically through each section of the book and through each leaf in the section and through each portion of the binding. Thus by 5 sewing the leaves of the section together in this manner it will be seen that the leaves can be readily held firmly in position relative to each other even though each leaf is separate throughout the entire book. In ordinary ro binding this cannot be done, for separate leaves are seldom used in books, four pages being printed usually together and then each four pages being inserted inside of the four other pages nearest them, and so on until the 15 section is completed. Then when it is necessary to rebind the book the leaves of the sections are cut off and they are drawn firmly together and inserted into the back portion of the cover and pasted to it, and the result is 20 that in opening the book the margin on the inside, which is usually very narrow, is entirely utilized, and it becomes almost impossible to see all of the printing on the page on account of the person using the book not being able 25 to open it fully, the consequence being that the one using the book pries it open to have access to the reading matter and one or two leaves fall out and the back of the book is oftentimes broken. By the use of the means 30 which I have provided access can be easily had to any portion of the book without breaking the back of it or without the danger of having leaves drop out, and the person can easily see any portion of the reading matter even though 35 the binding which I have provided comes very close to the edge of the reading matter.

All of the sections of the book are firmly held together by means of the cords 16, which are placed in the slots 17, which are cut in 40 the pieces of cardboard and in the cloth which surrounds it. These cords 16 preferably have frayed ends, which are pasted or glued to the outer sections of the book. The cover 10 is then placed on the outside of the sections and 45 glued there, so that the book is then in con-

dition for use.

By sewing the binding and arranging it in the way which I have described it is a very easy matter to rebind books, the rear portions of the leaves of which have been consid- 50 erably frayed, and the margin is very narrow, for by using the binding shown herein the book will last a great deal longer than by the use of the ordinary binding, for the leaves will not be easily torn out.

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

of the United States therefor, is—

1. A book, comprising leaf-sections, strips at the back of each of said sections, cloth 60 pasted over said strips and on the outside of each section, binding-stitches passing through the cloth on each side of each leaf-section and through each leaf in said sections, means for holding the strips together in position rela- 65 tive to each other, and a cover, substantially as and for the purposes stated.

2. A book, comprising in combination leafsections, strips extending longitudinally of the leaf-sections and at the rear of each of them, 70 cloth or similar substance passed over each of said strips and outside of each of said leafsections, binding-stitches extending through that portion of the cloth which is outside of the leaf-sections and through each leaf in the 75 section, substantially as and for the purposes

stated.

3. In a device of the class described, the combination of a strip, a cloth extending around the strip, a section of a book in front of said 80 strip, comprising a number of leaves, a flexible material extending over said strip and binding-stitches extending through the flexible material and each leaf of the leaf-section. said stitches extending throughout the entire 85 length of the leaf-section, substantially as and for the purposes stated.

GEORGE H. DAY.

Witnesses: J. Ralph Orwig, W. R. LANE.