

1,005,559.

H. W. KNAUTZ.
LOOSE LEAF BINDING.
APPLICATION FILED FEB. 6, 1911.

Patented Oct. 10, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

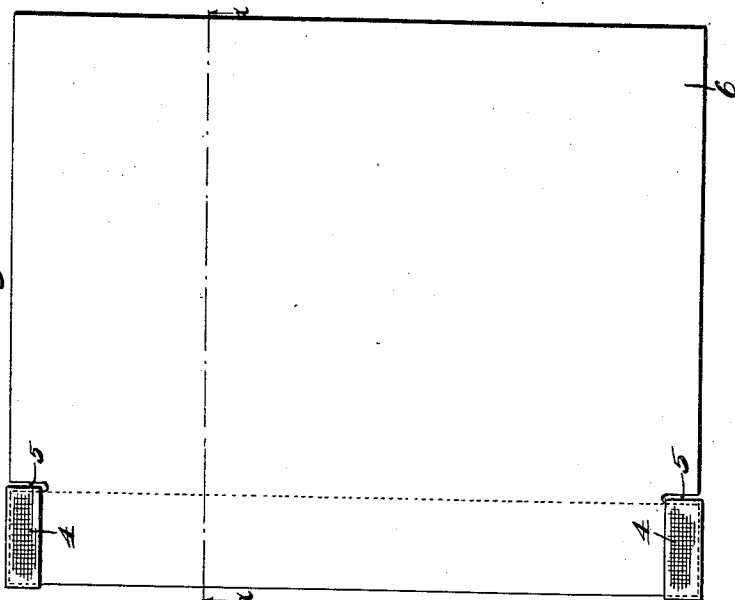


Fig. 3.

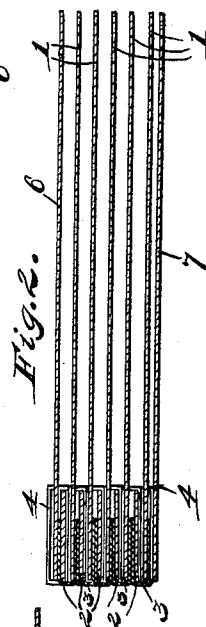
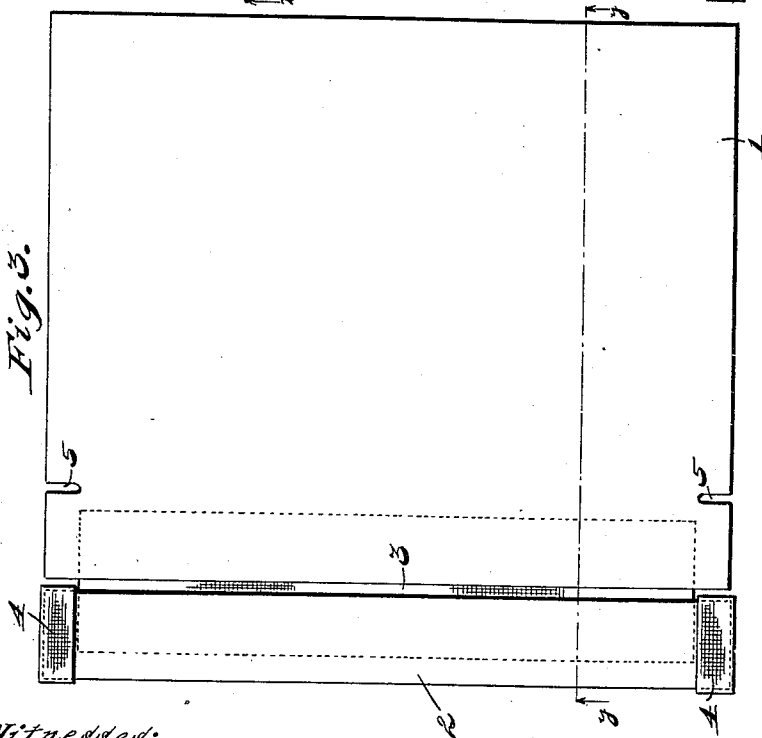
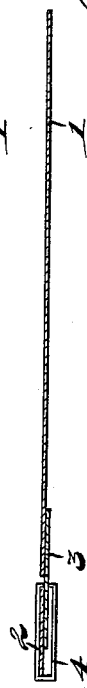


Fig. 4.



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Inventor:

Henry W. Knautz,
By Joshua H. Potts
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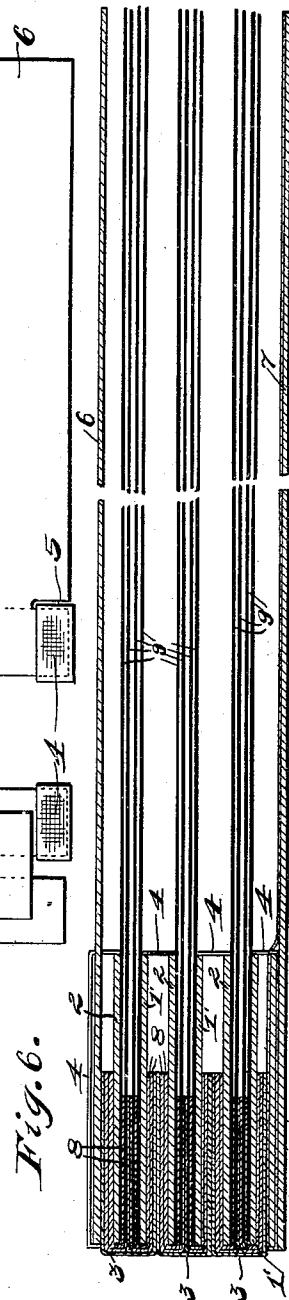
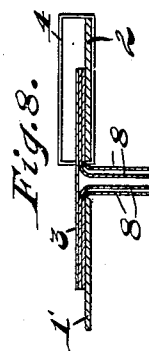
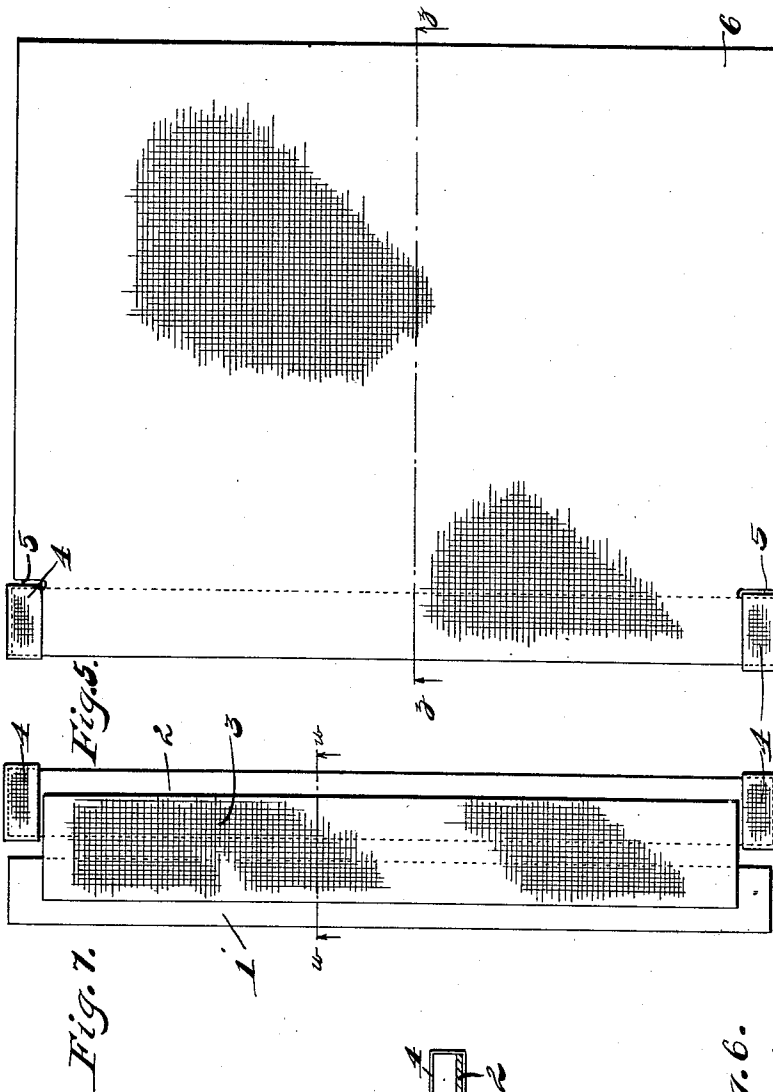
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Patented Oct. 10, 1911.

2 SHEETS—SHEET 2.



Witnessed:
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UNITED STATES PATENT OFFICE.

HENRY W. KNAUTZ, OF CHICAGO, ILLINOIS.

LOOSE-LEAF BINDING.

1,005,559.

Specification of Letters Patent.

Patented Oct. 10, 1911.

Application filed February 6, 1911. Serial No. 606,817.

To all whom it may concern:

Be it known that I, HENRY W. KNAUTZ, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Loose-Leaf Binding, of which the following is a specification.

My invention relates to improvements in loose leaf binding and more specifically to display devices characterized by the employment of loose leaves or cards.

The object of my invention is the provision of means for binding together sheets or display cards in such a manner that the same may be readily and easily disconnected or interchanged.

Other objects will appear hereinafter.

With these objects in view my invention consists in the combinations and arrangements of parts hereinafter described and claimed.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification and in which—

Figure 1 is a plan view of a device embodying one form of my invention, Fig. 2 is a transverse section taken on line $x-x$ of Fig. 1, Fig. 3 is a plan view of one of the sections of the device disconnected, Fig. 4 is a transverse section taken on line $y-y$ of Fig. 3, Fig. 5 is a plan view of a device embodying another form of my invention, Fig. 6 is an enlarged transverse section taken on line $z-z$ of Fig. 5, Fig. 7 is a plan view of one of the sheet connecting sections shown in Figs 5 and 6 detached, and Fig. 8 is a section taken on line $w-w$ of Fig. 7.

Referring now to the drawings particularly to Figs. from 1 to 4 inclusive, 1 indicates the display cards that is, cards upon which cloth samples for instance or other similar articles may be arranged or mounted for display. Said cards are preferably formed of card board or other material possessing equal rigidity, the same being of rectangular form and all of equal dimensions. Arranged adjacent corresponding edges of the cards 1 are narrow elongated

strips 2, the same being hingedly secured to said cards by means of hinges 3 which are preferably formed of fabric. Said strips 2 are of a length equal substantially to that of the adjacent edges of the cards 1, the same being formed also of a material possessing rigidity, card board being preferably used. Provided at the extremities of the cards 2 are inwardly opening pockets 4 formed preferably of fabric, said pockets being adapted to engage the end portions of the inner edge of the adjacent card 1, the cards 1 being notched as at 5 in order to permit of such engagement. In order to effect the engagement of the cards 1 with the pockets 4 it is evidently necessary to buckle said cards in order to reduce the width thereof so as to permit of the insertion of the ends of the edge thereof into said pockets. With this arrangement it will be seen that any number of cards 1 bearing attaching or binding strips 2 of the form described may be connected together in book form, as shown in Fig. 2, the arrangement being such that ready connection or disconnection of said cards may be expeditiously effected. When the desired number of cards 1 have been bound together a book is completed by the provision of a cover card 6 which is notched as at 5 in the manner the same as the cards 1 for engagement of the pockets 4 of the outermost strip 2. A bottom cover member 7 is also provided, said member being however, provided at the extremities of one of its edges with pockets 4 similar to those provided at the extremities of the cards 2, the pockets provided upon said member 7 being adapted to engage the extremities of the inner edge portion of the lowermost of the cards 1 in a manner which will be readily understood.

In the form just described it will be noted that it is essential that the cards 1 possess a considerable degree of rigidity, because without this, the extremities of the engaging edges thereof would not be held in positive engagement with the pockets 4, the same being liable to accidentally buckle and thus become disengaged.

In Figs. from 5 to 8 inclusive I have illus-

trated a form of my invention which is especially adapted for employment in binding together more flexible or thinner sheets than the cards 1 such for example as sheets of music. In this form narrow rigid strips 1' are secured to the hinges 3 in lieu of the cards 1 as above described, the opposite edges of the hinges 3 being secured as in the above described form to the rigid strips 2 which are provided at their extremities with the pockets 4. The binding sections thus formed may evidently be connected together in a manner similar to that employed in connecting the cards, the strip 1' of each section being adapted to engage the pocket 4 of the strip 2 of the adjacent section. In addition each of said sections is provided with a plurality of gummed strips 8 corresponding edges of which are secured thereto between hinged member 3 and the strips 1' and 2, as clearly shown in Fig. 8. The opposite or free edges of said strips 8 project centrally from the sections between the adjacent edges of the strips 1' and 2 for connection with the rearward edges of the music or other sheets 9. Any number of attaching strips 8 may be employed or carried by each of the binding sections this depending upon the number of sheets which it is desired to bind together, each section being adapted to carry any number of such sheets desired. In use all of the sheets of music comprising one composition will be secured to a single section.

With the arrangement disclosed then it will be seen that the separate sheets comprising a single composition may be permanently connected, and any number of compositions the sheets of which are so connected may be bound together in the same manner as the cards 1 above described, the strips 1' of each section, in the course of binding the latter together engaging the pockets 4 of the strip 2 of the adjacent section, as above described. A book is thus formed which may be completed by a top cover 6 and a bottom cover 7 which are of construction similar to those of the covers 6 and 7 employed in the form first described.

While I have shown what I deem to be the preferable forms of my invention I do not wish to be limited thereto as there might be various changes made in the details of construction and the arrangements of parts described without departing from the spirit of the invention as comprehended within the scope of the appended claims.

Having described my invention what I deem as new and desire to secure by Letters Patent is:

1. A device of the class described, comprising a plurality of similar cards or leaves; and sectional means for detachably binding said cards or leaves together, each of the sections of said binding means comprising a

rigid elongated strip having engaging means at its extremities; and a second strip of substantially equal dimensions hingedly connected with said first mentioned strip, the second mentioned strip of each section being adapted to releasably engage the engaging means of the first mentioned strip of the adjacent section, each of said cards or leaves being permanently connected to one of said binding sections, substantially as described.

2. A device of the class described, comprising a plurality of similar cards or leaves; and sectional means for detachably binding said cards or leaves together, each of the sections of said binding means comprising a rigid elongated strip; pockets at the extremities of said strip; and a second strip of dimensions equal substantially to those of said first mentioned strip hingedly connected with said first mentioned strip, the second mentioned strip of each of said sections being adapted to releasably engage the pockets of the first mentioned strip of the adjacent section, each of said cards or leaves being permanently connected to one of said binding sections, substantially as described.

3. A device of the class described, comprising a plurality of similar cards or leaves; and sectional means for detachably binding said cards or leaves together, each of the sections of said binding means comprising a rigid elongated strip; inwardly opening pockets at the extremities of said strip; and a second rigid strip of dimensions equal substantially to those of said first mentioned strip hingedly connected with the latter, the second mentioned strip of each of said sections being adapted to releasably engage at its extremities the pockets of the first mentioned strip of the adjacent section, each of said cards or leaves being permanently connected to one of said binding sections, substantially as described.

4. A device of the class described, comprising a plurality of similar leaves; and sectional means for detachably binding said leaves together, each of the sections of said binding means comprising a rigid elongated strip; inwardly opening pockets at the extremities of said strip; a second rigid strip of dimensions equal substantially to those of said first mentioned strip hingedly connected with the latter, the second mentioned strip of each section being adapted to releasably engage at its extremities the pockets of the first mentioned strip of the adjacent section; and gummed strips carried by each of said binding sections having free outer edge portions for permanent attachment to corresponding edges of said leaves, substantially as described.

5. A device of the class described, comprising a plurality of similar cards; and means for detachably binding said cards together, said means comprising narrow elongated

gated strips hingedly secured to corresponding edges of said cards; and inwardly opening pockets at the extremities of said strips adapted to releasably engage the ends of said
5 edge portions of the adjacent cards, the ends of said edges being provided with notches to permit of this, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY W. KNAUTZ.

Witnesses:

HELEN F. LILLIS,
JOSHUA R. H. POTTS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
