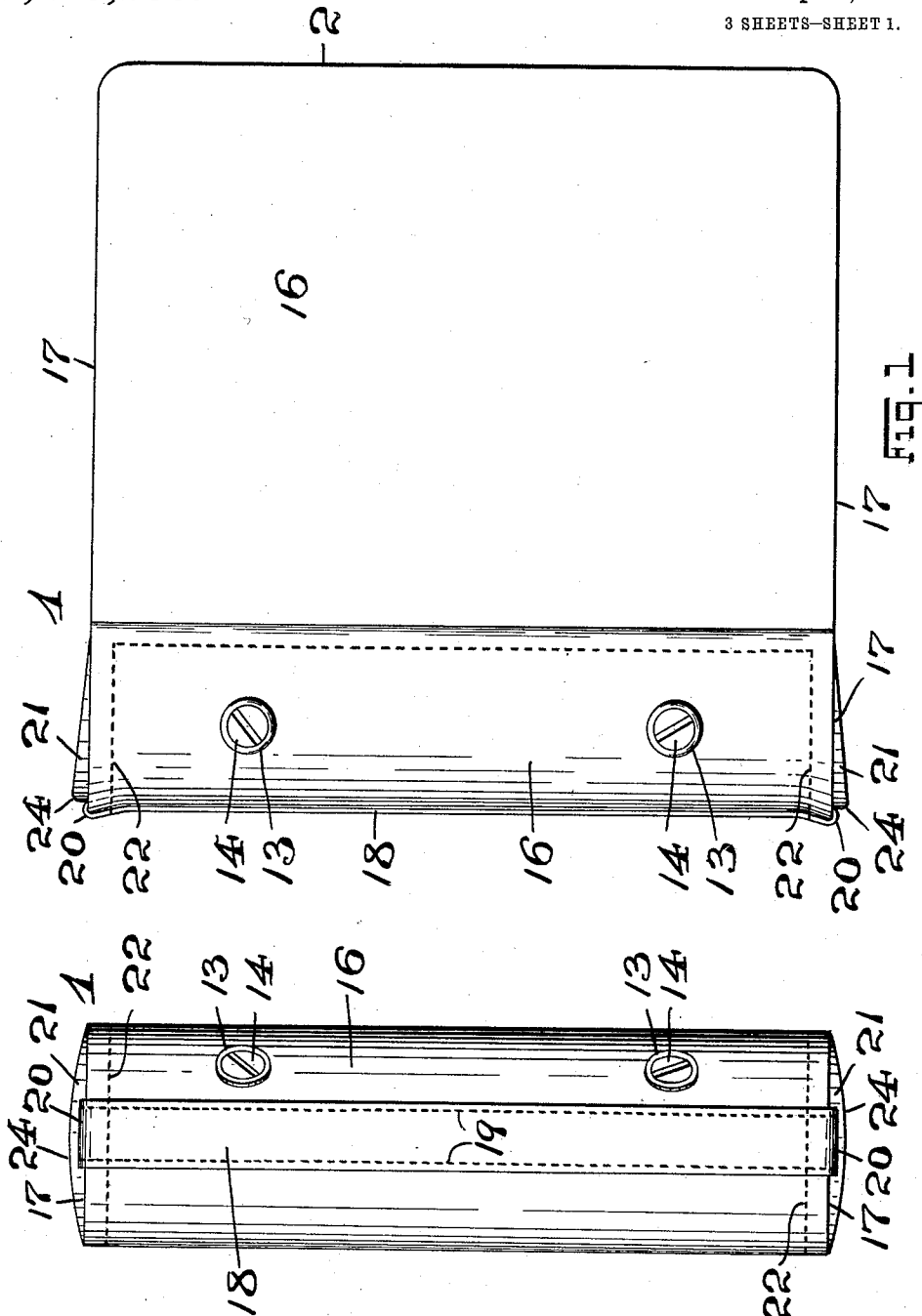


H. A. STANLEY.
 LOOSE LEAF BINDER.
 APPLICATION FILED FEB. 6, 1913.

1,109,260.

Patented Sept. 1, 1914.

3 SHEETS—SHEET 1.



WITNESSES:

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INVENTOR:

Howard A. Stanley,

BY

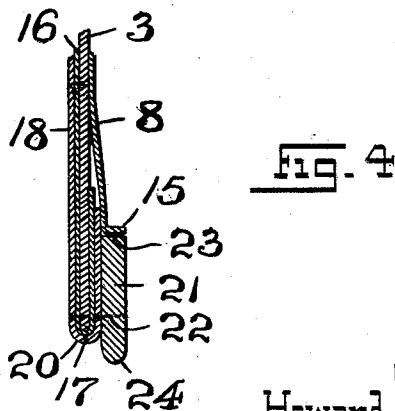
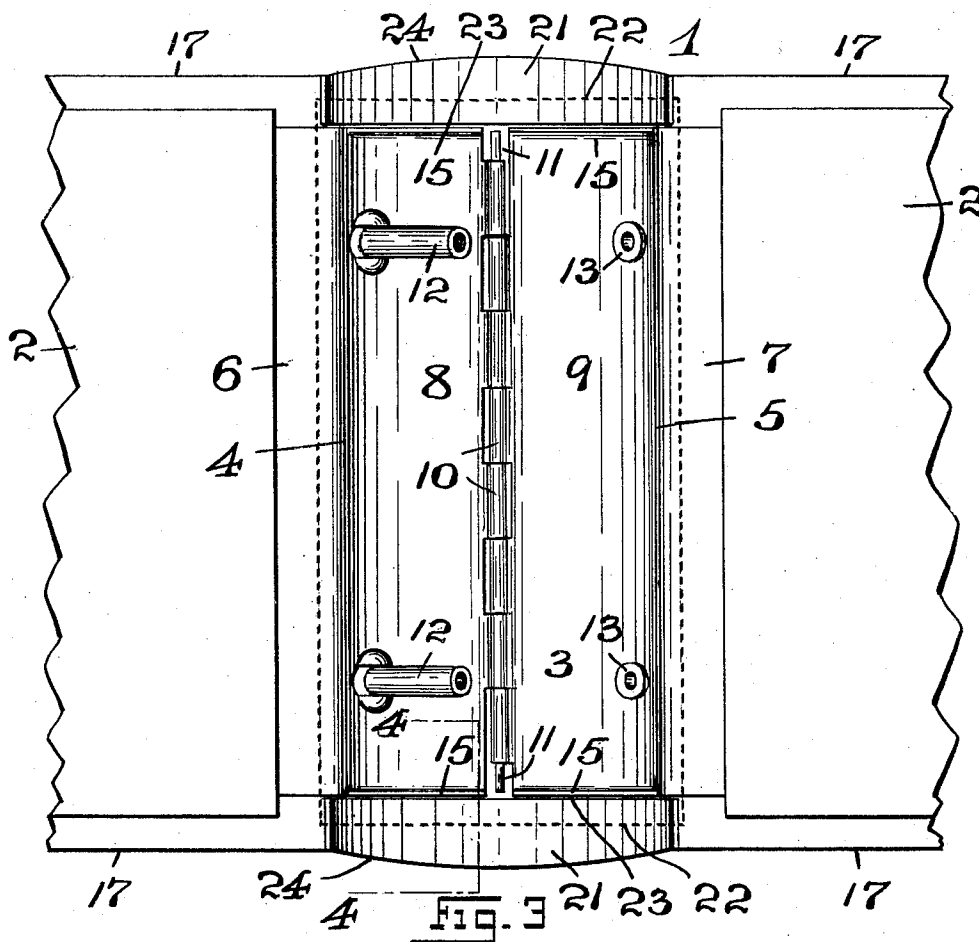
Fraentzel and Richards,
 ATTORNEYS

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3 SHEETS-SHEET 2.



WITNESSES:
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3 SHEETS—SHEET 3.

FIG. 5

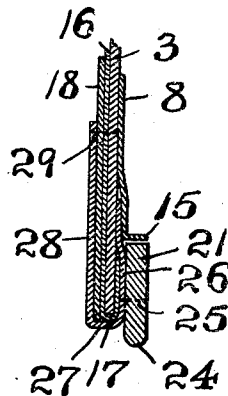
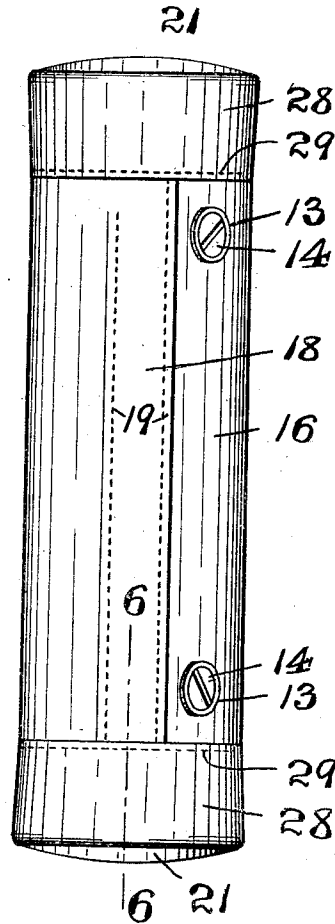


FIG. 6

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UNITED STATES PATENT OFFICE.

HOWARD A. STANLEY, OF NEWARK, NEW JERSEY.

LOOSE-LEAF BINDER.

1,109,260.

Specification of Letters Patent.

Patented Sept. 1, 1914.

Application filed February 6, 1913. Serial No. 746,480.

To all whom it may concern:

Be it known that I, HOWARD A. STANLEY, a subject of the King of Great Britain, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Loose-Leaf Binders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

This invention relates, generally, to improvements in loose-leaf binders, and, the present invention has reference, more particularly, to a novel and simply constructed means in the form of a heel-piece for considerably strengthening the ends of the back of the covers of the binder, with a view of providing large and heavy loose-leaf binders with reinforced ends, and such other means, which will prevent the end-portion of the binder from becoming damaged, when taken from the shelf and dropped upon its end upon the flat surface of a desk or table.

The invention has for its further object to strengthen or reinforce the end-portions of the back of the cover of the binder in such a manner, so that with constant use, the metal portions of the loose-leaf binder will not wear away and work through the leather or other fabric employed in producing the back of the cover of the binder, and thus completely obviating all danger of marring or scratching the polished surface of the desk or table.

Other objects of this invention not at this time more particularly enumerated will be clearly understood from the following detailed description of the present invention.

With the various objects of the present invention in view, the said invention consists, primarily, in the novel loose-leaf binder hereinafter set forth; and the invention consists, furthermore, in the novel arrangements and combinations of the various devices and parts, as well as in the details of the construction of the same, all of which will be more fully described in the following specification, and then finally embodied

in the clauses of the claim which is appended to and which forms an essential part of this specification.

The invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a side view of a loose-leaf binder made according to and embodying the principles of the present invention; and Fig. 2 is a back end view of the same. Fig. 3 is a detailed plan view of a portion of the loose-leaf binder, showing the members of the cover in their opened relation, and the parts of the metal loose-leaf holder being shown in their separated relation; and Fig. 4 is a detail vertical section, taken on line 4—4 in said Fig. 3. Fig. 5 is a back-end view of a modified form of the loose-leaf binder, still embodying the principles of the present invention; and Fig. 6 is a detail vertical section of the same, said section being taken on line 6—6 in said Fig. 5.

Similar characters of reference are employed in the said above described views, to indicate corresponding parts.

Referring now to the said drawings, the reference-character 1 indicates a loose-leaf binder made according to and embodying the principles of the present invention, the same comprising the usual covers 2 which are connected by the back 3.

Suitably connected in a hinge-like manner, as at 4 and 5, by means of the usual flexible fabric-members 6 and 7, which are suitably secured to and connected with the respective covers 2 are a pair of segmental metal sections or elements 8 and 9, the said sections or elements 8 and 9 being provided with tubular ears, as 10, in which is arranged a pintle-rod 11, as shown in Fig. 3, for connecting the said segmental metal sections or elements 8 and 9 in a hinge-like manner. One of the said sections or elements, as 8, is provided with hinged tubular and internally screw-threaded pins, as 12, the other section or element 9 being provided with correspondingly located eyelets, as 13, which are secured to said section and also extend through the back 3 and are secured thereto, as will be clearly understood from an inspection of Figs. 1 and 2 of the drawings. To receive the loose leaves, the parts of the loose-leaf binder are brought into the relative positions represented in Fig. 3 of the drawings, so as to

permit the perforated edge-portions of the loose leaves to be arranged upon the tubular pins 12. Screws 14 are then inserted from the outside into and through the eyelets 13, the screw-threaded shanks of the screws 14 being screwed into the internally screw-threaded socket-like portions of the pins 12, whereby the loose-leaf binder, with the leaves thus mounted between the cover-sections 2 can be handled in the manner of a book.

As shown in Figs. 3 and 4 of the drawings, the end-portion of the metal sections or members 8 and 9 are flanged, as at 15, said flanges providing suitable stops for the purposes to be presently more fully stated. The usual outer covering or facing of the cover-sections 2 and the back 3 is indicated by the reference-character 16, said covering or facing being made of leather, buckram, or other suitable fabric, and having its marginal edge-portion 17 extending around the marginal edge-portion of the cover-sections 2 and the back 3, and suitably secured upon the inner surface-portion of the said cover-sections 2 and the back 3. If desired a strengthening strip 18 of leather or other suitable material, may be secured upon said outer facing 16, at the back of the loose-leaf binder, as shown in Figs. 1 and 2 of the drawings, the said strengthening strip 18 being suitably secured in place by stitching, as at 19, see Fig. 2, and having its end-portion 20 extending around the edge-portion of the facing 16, where said end-portion extend around the marginal edge-portion of the back 3, the said end-portion 20 of the strip 18 being suitably secured upon said bent-around and inwardly extending edge-portion of the facing 16, in the manner indicated in Fig. 4 of the drawings.

The previously-mentioned heel-pieces of which there are two, one at the lower and one on the upper edge-portion of the back 3 are indicated by the reference-character 21. Each heel-piece, which extends laterally across the inner surface of the back 3 is suitably secured in place by means of glue or paste, and the stitching 22 which is passed through the several parts, substantially as indicated in the several figures of the drawings. The said heel-pieces 21 are usually made of pieces of heavy sole-leather, or other suitable material, having resiliency and shock-resisting qualities, the marginal edge-portion 23 of the respective heel-pieces bearing directly against the previously mentioned flanges 15 of the said metal sections or members 8 and 9, while the opposite marginal edge-portion 24 extend beyond the said lower and upper edge-portion of the back 3 and the parts which are bent around said edge-portion, the said edge-portion 24 being preferably of a convex curvature, substantially as shown.

In the construction represented in said Figs. 5 and 6 of the drawings, the strengthening strip 18 extends at its ends to the portions 17 of covering or facing 16, the heel-piece 21, as will be seen from said Fig. 6, being stitched, as at 25, to a leather or other suitable member or piece 26, having flexibility, which is turned around the portion 17 of the covering or facing 16, as at 27, extending over the facing 16 and over the end-portion of the strip, in the form of a reinforcing cover-portion 28, which is secured to the several parts, as the strip 18, the covering or facing 16, and the back 3, by the stitching 29, whereby the end-portion of the back of the loose-leaf cover are doubly strengthened.

Of course it will be understood, that some changes may be made in the general arrangements and combinations of the various devices and parts, without departing from the scope of the present invention as set forth in the foregoing specification, and as defined in the clauses of the claim which is appended to the said specification. Hence, I do not limit my present invention to the exact arrangements and combinations of the devices and parts as described in the said specification, nor do I confine myself to the exact details of the construction of the said parts, as illustrated in the accompanying drawings.

I claim:—

1. In a loose-leaf binder, the combination with the cover-sections and the back of the binder, of a heel-piece secured to the inner surface of said back, said heel-piece being made of a material having resilient qualities, and said heel-piece having one of its marginal edge-portion projecting beyond the marginal edge-portion of said back.

2. In a loose-leaf binder, the combination with the cover-sections and the back of the binder, of a facing mounted upon the outer surfaces of said cover-sections and said back, said facing having its marginal edge-portion extending around the marginal edge-portion of said cover-sections and said back, and secured to the inner surface-portion of said cover-sections and said back, and a heel-piece secured to the inner surface of said back, said heel-piece being made of a material having resilient qualities.

3. In a loose-leaf binder, the combination with the cover-sections and the back of the binder, of a facing mounted upon the outer surfaces of said cover-sections and said back, said facing having its marginal edge-portion extending around the marginal edge-portion of said cover-sections and said back, and secured to the inner surface-portion of said cover-sections and said back, and a heel-piece secured to the inner surface of said back, said heel-piece being made of a material having resilient qualities, and said

heel-piece having one of its marginal edge-
portions projecting beyond the marginal
edge-portion of said back.

4. In a loose-leaf binder, the combination
5 with the cover-sections and the back of the
binder, of a facing mounted upon the outer
surfaces of said cover-sections and said
back, said facing having its marginal edge-
portions extending around the marginal
10 edge-portion of said cover-sections and
said back, and secured to the inner surface-
portions of said cover-sections and said
back, a strengthening strip mounted upon
the facing of said back, said strip having
15 its end-portions extending also around the
marginal edge-portion of the facing upon
said back, and a heel-piece secured to the
inner surface of said back, said heel-piece
being made of a material having resilient
20 qualities.

5. In a loose-leaf binder, the combination
with the cover-sections and the back of the
binder, of a facing mounted upon the outer
surfaces of the said cover-sections and said
25 back, said facing having its marginal edge-
portions extending around the marginal
edge-portion of said cover-sections and said
back, and secured to the inner surface-
portions of said cover-sections and said back,
30 a strengthening strip mounted upon the fac-
ing of said back, said strip having its end-
portions extending also around the mar-
ginal edge-portion of the facing upon said
back, and a heel-piece secured to the inner
35 surface of said back, said heel-piece being
made of a material having resilient qual-
ities, and said heel-piece having one of its
marginal edge-portion projecting beyond
the marginal edge-portion of said back.

6. In a loose-leaf binder, the combination
40 with the cover-sections and the back of the
binder, of a pair of metal hinged sections
arranged upon the inner surface of said
back and connected with said cover-sections,
45 said metal sections being provided at their
ends with flanges forming stops, and heel-
pieces secured to the inner surface of said
back and abutting against said stops, said
heel-pieces being made of a material hav-
50 ing resilient qualities.

7. In a loose-leaf binder, the combination
with the cover-sections and the back of the
binder, of a pair of metal hinged sections
arranged upon the inner surface of said
55 back and connected with said cover-sections,
said metal sections being provided at their
ends with flanges forming stops, and heel-
pieces secured to the inner surface of said
back and abutting against said stops, said
60 heel-pieces being made of a material hav-
ing resilient qualities, and each heel-piece
having one of its marginal edge-portion
projecting beyond the corresponding mar-
ginal edge-portion of said back.

8. In a loose-leaf binder, the combination

with the cover sections and the back of the
binder, of a facing mounted upon the outer
surfaces of said cover-sections and said back,
said facing having its marginal edge-
portions extending around the marginal edge-
70 portions of said cover-sections and said
back, and secured to the inner surface-
portions of said cover-sections and said back,
a pair of metal hinged sections arranged
upon the inner surface of said back and
75 connected with said cover-sections, said
metal sections being provided at their ends
with flanges forming stops, and heel-pieces
secured to the inner surface of said back
and abutting against said stops, said heel-
80 pieces being made of a material having re-
siliant qualities.

9. In a loose-leaf binder, the combination
with the cover-sections and the back of the
binder, of a facing mounted upon the outer
85 surfaces of said cover-sections and said
back, said facing having its marginal edge-
portions extending around the marginal
edge-portion of said cover-sections and
said back, and secured to the inner surface-
90 portions of said cover-sections and said
back, a pair of metal hinged sections ar-
ranged upon the inner surface of said back
and connected with said cover-sections, said
metal sections being provided at their ends
95 with flanges forming stops, and heel-pieces
secured to the inner surface of said back
and abutting against said stops, said heel-
pieces being made of a material having re-
siliant qualities, and each heel-piece having
100 one of its marginal edge-portion project-
ing beyond the corresponding marginal
edge-portion of said back.

10. In a loose-leaf binder, the combina-
105 tion with the cover-sections and the back of
the binder, of a facing mounted upon the
outer surface of said cover-sections and said
back, said facing having its marginal edge-
portions extending around the marginal
edge-portion of said cover-sections and said
110 back, and secured to the inner surface-
portions of said cover-sections and said back,
a pair of metal hinged sections arranged upon
the inner surface of said back and connect-
115 ed with said cover-sections, said metal sec-
tions being provided at their ends with
flanges forming stops, a strengthening strip
mounted upon the facing of said back, said
strip having its end-portions extending also
120 around the marginal edge-portion of the
facing upon said back, and heel-pieces se-
cured to the inner surface of said back and
abutting against said stops, said heel-pieces
being made of a material having resilient
125 qualities.

11. In a loose-leaf binder, the combina-
tion with the cover-sections and the back of
the binder, of a facing mounted upon the
outer surfaces of said cover-sections and
said back, said facing having its marginal
130

edge-portions extending around the marginal edge-portions of said cover-sections and said back, and secured to the inner surface-portions of said cover-sections and said back, a pair of metal hinged sections arranged upon the inner surface of said back and connected with said cover-sections, said metal sections being provided at their ends with flanges forming stops, a strengthening strip mounted upon the facing of said back, said strip having its end-portions extending also around the marginal edge-portions of the facing upon said back, and heel-pieces secured to the inner surface of said back and abutting against said stops, said heel-pieces being made of a material having resilient qualities, and each heel-piece having one of its marginal edge-portions projecting beyond the corresponding marginal edge-portion of said back.

12. In a loose-leaf binder, the combination with the cover-sections and the back of the binder, of flexible reinforcing mem-

bers extending around the ends of said back, and heel-pieces secured to said members, said heel-pieces being made of a material having resilient qualities.

13. In a loose-leaf binder, the combination with the cover-sections and the back of the binder, of a pair of metal hinged sections arranged upon the inner surface of said back and connected with said cover-sections, said metal sections being provided at their ends with flanges forming stops, flexible members extending around the ends of said back, and heel-pieces secured to said members and abutting against said stops, said heel-pieces being made of a material having resilient qualities.

In testimony, that I claim the invention set forth above I have hereunto set my hand this 28th day of January, 1913.

HOWARD A. STANLEY.

Witnesses:

FREDK. C. FRAENTZEL,

FREDK. H. W. FRAENTZEL.

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