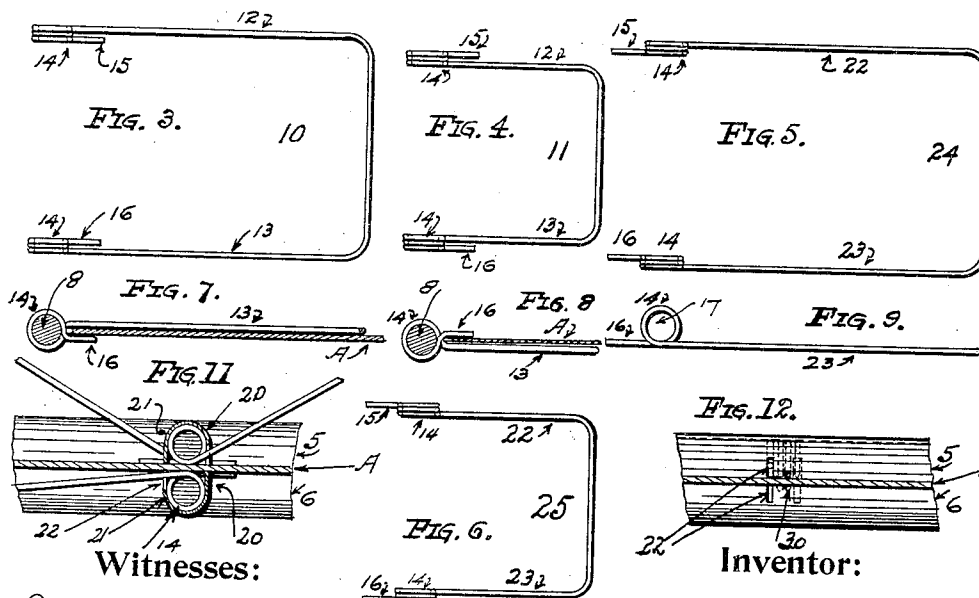
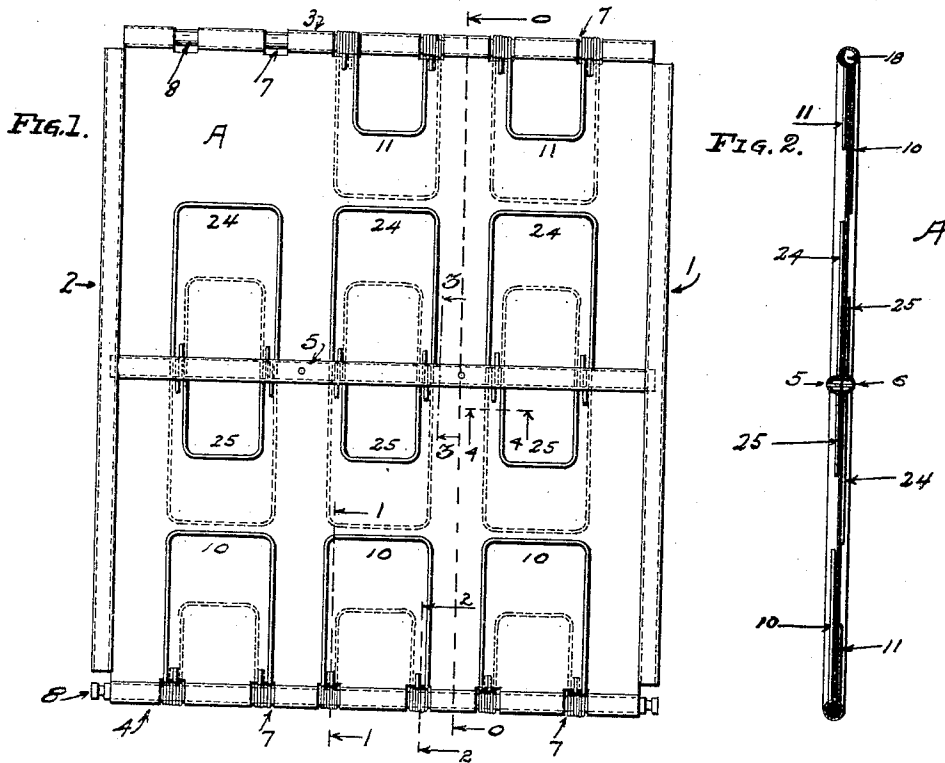


E. C. WARD.
LEAF FOR FILING BOOKS OR FILE CASES.
APPLICATION FILED JULY 5, 1912.

1,056,135.

Patented Mar. 18, 1913.



Witnesses:
Jno. M. Ince
Am. Cooper

FIG. 10.
23

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UNITED STATES PATENT OFFICE.

EDWARD CHARLES WARD, OF SIOUX FALLS, SOUTH DAKOTA.

LEAF FOR FILING-BOOKS OR FILE-CASES.

1,056,135.

Specification of Letters Patent.

Patented Mar. 18, 1913.

Application filed July 5, 1912. Serial No. 707,770.

To all whom it may concern:

Be it known that I, EDWARD CHARLES WARD, a citizen of the United States, and a resident of the city of Sioux Falls, in the county of Minnehaha and State of South Dakota, have invented certain new and useful Improvements in Leaves for Filing-Books or File-Cases; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable other skilled in the art to which it appertains to make and use the same.

This invention has general reference to improvements in leaves for filing books or file cases, and it consists, essentially, in the novel and peculiar combination of parts and details of construction, as hereinafter first fully set forth and described, and then pointed out in the claims.

In the drawings already referred to, which serve to illustrate my said invention more fully, Figure 1 is a plan of my newly invented filing leaf and Fig. 2, a longitudinal section thereof in line 0 0 of Fig. 1. Figs. 3, 4, 5, and 6 are plans, respectively, of the various spring clips or holders used in connection with my device. Fig. 7 is a section of a fragment of the leaf, taken in line 1 1 of Fig. 1, looking in the direction of the arrow pointers. Fig. 8 is a similar section in line 2 2 of Fig. 1. Fig. 9 is a side elevation of the spring shown in plan in Fig. 5. Fig. 10 is a side elevation of the spring illustrated in Fig. 6. Fig. 11 is a section of a fragment of the leaf, taken in the direction of the arrow pointers, in line 3 3 of Fig. 1. Fig. 12 is a like section in line 4 4 of Fig. 1.

Like parts are designated by corresponding characters or symbols of reference in all the figures.

My present invention relates generally to leaves for that class of filing books or file cases for the reception of sales slips, invoices, memoranda, or other papers, in which it is desired that said papers may be removably retained in place against said leaves. Its particular object is the production of a simple, cheap, and efficient leaf to be used in connection with a certain filing case, described and claimed in an application for Letters Patent, filed July 5, 1912, Serial No. 707,771.

The letter A, in the drawings, represents

my filing leaf, which is provided with side, marginal, strengthening beads 1 2, top and bottom hinge forming beads 3 4, and central, transverse stiffening beads 5 6, said last named beads being located on opposite sides of the said leaf A, as clearly seen in Fig. 2. The hinge forming beads 3 and 4 are adapted to receive hinge pintles 8, and are cut away in a plurality of places to form notches 7 for the reception of holding or spring clips 10 11. Clip 10 comprises a single wire formed with a U-shaped loop and having legs 12 13. At the free ends of these legs, said wire is wrapped into a series of helical convolutions 14, the diameter of the interior of which is such as to freely receive the hinge pintle 8. These convolutions are wrapped toward each other, as clearly seen in Fig. 3, and the free ends 15 16 are offset downwardly, and then led back a short distance parallel to the legs 12 13, the space separating the legs and the free ends being equal to the thickness of the web of the leaf A. The clip 11 is formed precisely like clip 10, except that it is smaller and that the convolutions 14 are wrapped in a direction away from each other, Fig. 4. The extreme width of this clip is such as to fit with its convolutions between and adjacent to the convolutions on clip 10. It will now be observed that two notches 7 are required to receive one each of the clips 10 11, and it is my usual practice to provide each of the hinge forming beads with six notches, as seen in Fig. 1, though I may employ a greater or lesser even number if desired.

In assembling my filing leaf, I first slip one of the clips 10 into adjacent notches 7 and over the edge of the web of the leaf, with the loop thereof in contact with said leaf, and with the apertures 17 in the convolutions 14, registering with the aperture in the hinge forming bead. The free ends 15 16 of the convolutions 14 are also slipped over the edge of the leaf, but on the side opposite that to the loop. Clip 11 is then slipped into place between the convolutions 14 of the clip 10, but with its loop on the opposite side of the leaf and the free edges 15 16 of its convolutions 14, on the same side of said leaf as occupied by the loop of said clip 10. Pintle 8 is then passed through aperture 18 of the hinge forming bead and also through apertures 17 in the various convolutions, thereby securely holding the clips 10 and 11 in their proper position. This

process is repeated until all the notches in both hinge forming beads are occupied. These clips are so wound that when they are in place on the leaf A, with the free ends of the convolutions engaging the opposite side of the leaf, the loops thereof will exert considerable pressure against the face of the leaf and securely hold in position any papers placed therebetween.

10 The central stiffening beads 5 and 6, herebefore mentioned, are arranged medially of the greater length of the leaf A, in a line parallel to the hinge forming beads 3 and 4, and are of inverted U-shape formed with side walls 20 21, which side walls are provided with oblong slots 22, said slots being directly in line with, and corresponding in number to, the legs 12 13 of the clips 10 11, when the latter are in position upon the leaf. These slots are adapted to embrace legs 22 23 of spring clips 24 25.

Above referred to clips 24 are of the same size as and of similar contour to clips 10, and clips 25 bear the same relation to clips 11. 25 In said clips 24 25, however, the free ends 15 16 of the convolutions 14, instead of being bent back parallel to legs of clips 10 11, extend beyond the convolutions 14, tangent thereto, and in the same plane with the legs 22 23, so that when the clips 24 25 are placed upon the face of the leaf A, the loops and their free ends will lie perfectly flat against and in contact with said leaf throughout their entire length. The convolutions 14 of the clips 24 25 rest in and are embraced by the U-shaped interiors of the stiffening beads 5 and 6, with their legs 22 23 projecting through the oblong slots 22, before mentioned, and with their free ends 15 16 extending through circular apertures 30, Fig. 12, located in the opposite wall of the stiffening beads. Clips 24 and 25 have their convolutions so wound that they, when in position on the leaf A, and embraced by the stiffening beads, with their free ends engaging the apertures 30, will cause the loops of said clips to exert a considerable pressure against the face of the leaf.

I will now proceed to explain the location for the various clips on the leaf A and the reasons therefor, first taking up the arrangement of the top face of the leaf and then that of the reverse side thereof. It is to be assumed that the lower hinge forming bead 4 and the pintle 8 is to be employed as the hinge for the leaf, and that portion, therefore, will be termed the lower and the opposite the top edge of the said leaf.

I first locate the proper quota of long clips 10 along the lower edge of the leaf, and then I arrange in the stiffening bead a similar number of short clips 25, the latter in alignment with the former, and pointing downward toward said clips 10. Then, pointed upward, toward the top of the leaf, from

said stiffening band, I provide an equal number of long clips 24, and, finally, complete the face of the leaf with a requisite quantity of short clips 11, held by the upper pintle 8 and depending toward said long clips 24. This, it will be observed, gives me two horizontal rows of long and short clips facing each other. On the reverse or opposite side of the leaf, I reverse the arrangement of the long and short clips, as seen in dotted lines in Fig. 1, so that when the leaf is turned upon the pintle 8 and the reverse side of the leaf is brought uppermost, the top edge of said leaf becomes the bottom edge of the opposite face, and I again have the desired arrangement of clips. This leaf is particularly designed for use in charge account registers for retail merchants, wherein all customers' sales slips are made in duplicate, one of which is handed to the customer and the other retained by the merchant. The slips so retained are filed away by being inserted under the long clips, it being now understood that each of the long clips is intended to represent one customer, and all sales slips, the originals of which are issued to that customer, are filed under that particular clip. The clerk issuing these sales slips is intended to insert the same under the long clip only, allowing the slips to project over and cover part of the short clip opposite. It often occurs that clerks make errors in computation in these sales slips, and in order to prevent possible losses to the merchant, one person in the establishment is designated to check over all of the slips. After he has done this, he inserts the upper end of said slips under the smaller clips, which of itself is a notification that such slips have been audited.

In the leaf I have illustrated, there are six sets of clips on each side of the leaf, or, in other words, twelve accounts to each leaf. A number of these leaves are combined together in a case, so that they are arranged in a compact manner, occupying but little space.

In the above specification I have described the preferred mode of construction, but I wish it distinctly understood that I may make certain variations therein without departing from spirit or scope of my invention. For instance, I may increase or decrease the number of clips on each leaf, or I may change the relation thereof. I may form the clips 10 and 11 from a single piece of wire, and the clips 24 25 may also be integrally formed.

Having thus fully described my invention, I claim as new and desire to secure to me by Letters Patent of the United States:—

1. In a filing leaf, a hinge forming bead at one edge thereof, notches in said bead, a pintle passing through said bead, spring clips comprising parallel legs connected together

at one end contacting with the face of said leaf, helical coils formed near the free ends of said legs fitting said notches and embracing said pintle, the free ends of said legs
5 engaging the back of said leaf, a second set of similar clips on the back of said leaf of lesser width and shorter length than first named clips, with their helical coils located between the coils of first named clips and
10 embracing said pintles, the free ends of said clips engaging the face of said leaf.

2. In a filing leaf, hinge forming beads at the upper and lower edges thereof, pintles in said beads, a plurality of spring clips embracing said pintles and contacting with the
15 face of said leaf, the spring clips on one of said pintles being of lesser width and shorter length than those on the other pintle, a plurality of similar clips on the back of said
20 leaf, said clips being so arranged that the smaller clips on the back will be opposite

larger clips on the face thereof, whereby either of the said hinge forming beads may be employed as the upper edge of the leaf.

3. In a filing leaf, hinge forming beads at
25 opposite edges of said leaf, pintles in said beads, spring clips embracing said pintles, a U-shaped bead on said leaf intermediate of and parallel to said hinge forming beads, a series of spring clips having their free ends
30 embraced by said U-shaped bead, and means at the free ends of said spring clips to cause said clips to exert a pressure against the face of said leaf.

In testimony whereof I have hereunto set
35 my hand in the presence of two subscribing witnesses.

EDWARD CHARLES WARD.

In the presence of—

ROBERT HALL,
REED MCKAY.

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