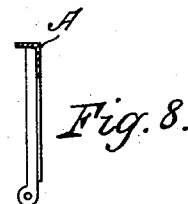
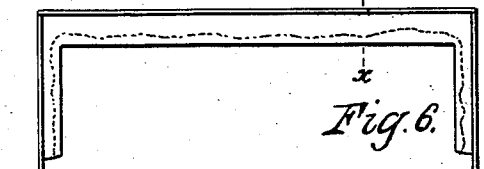
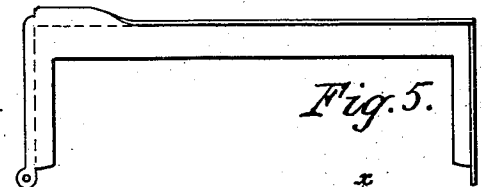
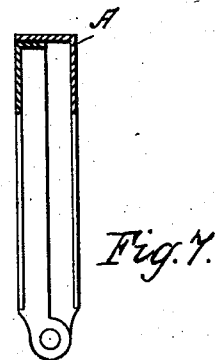
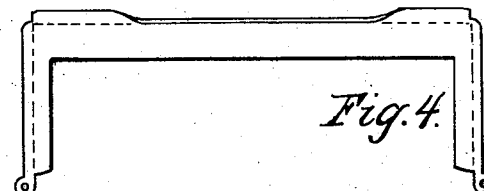
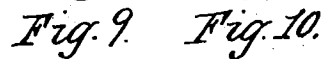
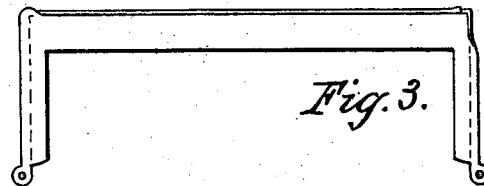
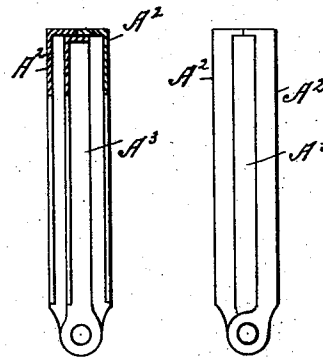
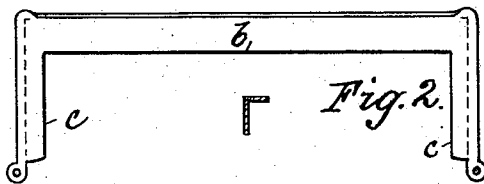
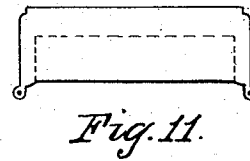
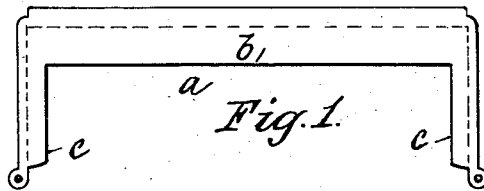


C. HIERING & A. FULLER.
BAG FRAME.
APPLICATION FILED AUG. 20, 1909.

1,024,895.

Patented Apr. 30, 1912.



WITNESSES:

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BAG-FRAME.

1,024,895.

Specification of Letters Patent.

Patented Apr. 30, 1912.

Original application filed April 22, 1909, Serial No. 491,565. Divided and this application filed August 20,
1909. Serial No. 513,747.

To all whom it may concern:

Be it known that we, CHRISTIAN HIERING and ALBERT FULLER, citizens of the United States, residing in the city of Newark, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Bag-Frames, being part of the original application, filed April 22d, 1909, Serial No. 491,565, for improvements in bag-frames; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

The primary object of this invention is the production of angular bag frames for bags and purses, and especially for traveling, chatelaines, and similar bags, which consist in first cutting a blank of the requisite form from sheet metal as illustrated in Figure 1, said blank comprising a main body member and angular pivot members, then by means of suitable punches and dies, angling the main body member and hinge members to form the completed member with sharp corners, having the main body member angled to a greater depth than the hinge members.

Hitherto, in the construction of bag frames of the type to which our invention relates, it has been customary to form at first, a solid blank as illustrated in full lines in Fig. 11, and thereafter by suitable drawing dies, simultaneously draw up the metal around three edges of the blank and thereafter cutting out the blank on the dotted lines indicated in said figure. This form of blank is objectionable for the reason that while it lends itself admirably to soft metal, it is not at all adapted when it is desired to use what is known in the trade, as quarter, half or hard metal, and for the further reason that the metal indicated by the dotted lines is waste material.

By cutting a blank such as illustrated in Fig. 1, we can dispense with the blank illustrated in Fig. 11, and which comprises a main body portion and the two hinge members. Furthermore, distinct and important advantages are gained with this form of blank and the steps necessary to form it with angular corners. We are enabled to discard the heretofore undesirable soft material, and substitute hard material, thereby producing a frame member possessing more

rigidity and stability than those heretofore made, and simultaneously reducing the amount of waste metal in the manufacture of bag frames of this type, to a minimum.

In the accompanying drawings forming a part of this specification, Fig. 1 represents a sheet metal blank which subsequently forms the angled bag frame member with sharp corners. Fig. 2 represents the major portion of the main body member of said blank angled. Fig. 3 represents the result of the next operation of angling one corner of said blank. Fig. 4 represents a part of the main body member of said blank angled. Fig. 5 represents the result of the next operation of angling one corner and the hinge member of said blank. Fig. 6 represents the result of the subsequent operation of angling the other corner and hinge member. Fig. 7 represents a sectional view of two bag frame members secured together. Fig. 8 represents a sectional view taken on line $x-x$ of Fig. 6. Fig. 9 represents a sectional view of another form of three bag frame members secured together. Fig. 10 represents an end view of the same; and Fig. 11 represents a plan view of a reduced blank hitherto used, indicating in dotted lines, the waste of said blank.

Similar letters of reference refer to like parts throughout the specification and drawings.

In the description of the product of our invention, we will simultaneously describe the process of making the same, so that those skilled in the art to which it pertains may gain a full knowledge of the process as well as the product.

In Fig. 1, we have shown the sheet metal blank a as it is punched out. Since the blank forms three sides of a hollow rectangle, the resulting waste is reduced to a minimum, and may be further reduced by alternating the blanks. The blank a comprises a main body portion b and the two hinge portions c at right-angles thereto. To complete the frame member with sharp corners, the outer edge portion of the blank is bent up or angled along the dotted lines in Fig. 1, so that a cross-section is as shown in Fig. 8, where A represents an angled frame made from the blank a .

As shown, the sheet metal blank a is blanked out in such a way as to nearly resemble the finished frame member, which as

previously stated, comprises the main body member *b* and the two angular hinge members *c* as distinguished from the blank illustrated in full lines in Fig. 11, in which it was necessary to cut out a blank as shown, and then by means of a simple drawing die, angle or draw up at one operation, the main body member and the rectangular hinge members, and thereafter cutting out the blank on the dotted lines indicated in said figure, said portion indicated by the dotted lines representing the waste material.

The process just described in connection with the blank illustrated in Fig. 11 of the drawings, did lend itself admirably to the heretofore soft material used, but is absolutely impractical when applied to what is known in the trade as hard material, for the reason that in the subsequent operation of drawing up or angling the sides of said blank, the metal at the angled portion of the blank would break, owing to the hardness of the same. We have also found it to be impractical to take a blank as illustrated in Fig. 1 of the drawings, of either soft or hard material, and subject it to the operation of simultaneously angling or drawing up by means of a drawing die, the main body member and hinge member of said blank, for the reason that the metal of the main body member and the hinge members constituting the inner edge of the blank, would be drawn out of shape, thereby producing a very much distorted frame member having a shape similar to the one indicated in dotted lines in Fig. 6. In order to overcome the aforesaid difficulties, we have found it advantageous to construct a blank as indicated in Fig. 1, and then by means of suitable and simple punches and dies, angling the major portion or the entirety of the main body member, as indicated in Fig. 2, and finally angling the hinge members and corners of said blank to form the completed member with sharp corners as illustrated in Figs. 3, 5 and 6. Sometimes, we find it convenient to first angle the major portion of the main body member, thereafter angling the corner of a blank and finally angling the hinge members to form a completed member with sharp corners.

By the process described, we are enabled to produce a bag frame member, the main body portion *b* of which has formed thereon an angular flange of greater depth than those of the hinge members *c* as illustrated in Figs. 7, 8, 9 and 10, in which the angle portion extends over and overlaps the angled portion of the other frame member, see Fig. 7, thereby producing when assembled, a bag frame of extremely neat appear-

ance and novel construction. The novel product is further illustrated in Figs. 9 and 10, in which three members constitute the completed bag frame, two of which, namely, the outer ones A^2 , A^2 are provided at the main body portion with an angle or flange of greater depth than those of the hinge members, the space between the hinge members permitting the interposition of an auxiliary member A^3 . The wider angled portions of the frame members A^2 cover the top of the auxiliary frame and the hinge members of said auxiliary frame filling in the space between the two outer frame members, which when so assembled, produce an even surface extending nearly around the frame sections.

By the operations described, and the use of the very simple punches and dies employed, we are enabled without inconvenience to use metal, the standard gage of which sometimes materially varies without effecting the tools and the product, inasmuch as this process of independently angling the sides of the blank as distinguished from angling or drawing up the side of the blank simultaneously as heretofore done, enables us to dispense with an accurately fitting punch and die, the dimensions of which have to be kept up to a size to accommodate material of a given thickness and substitute therefor a punch and die of very simple construction, which can be set up with relation to each other to accommodate the material of varying thicknesses.

We claim:

In a device of the character described, a pair of U-shaped bag frame members having sharp angular corners, means for hinging said bag frame members together, each of said frame members comprising a main body portion and hinge members extending at an angle therefrom, said body portion and hinge members being formed from an unbroken flat piece of sheet metal, and a continuous flange extending around the outer edges of said main body frame member and the hinge members, the flange extending along the edge of the main body portion of one of said frame members being of greater width than the flange extending from the hinge members of said frame member, thereby forming a lip or flange to overlie the other frame member.

This specification signed and witnessed this 18th day of August, 1909.

CHRISTIAN HIERING.
ALBERT FULLER.

Witnesses:

FRED'K C. FISCHER,
C. A. ALLISTON.