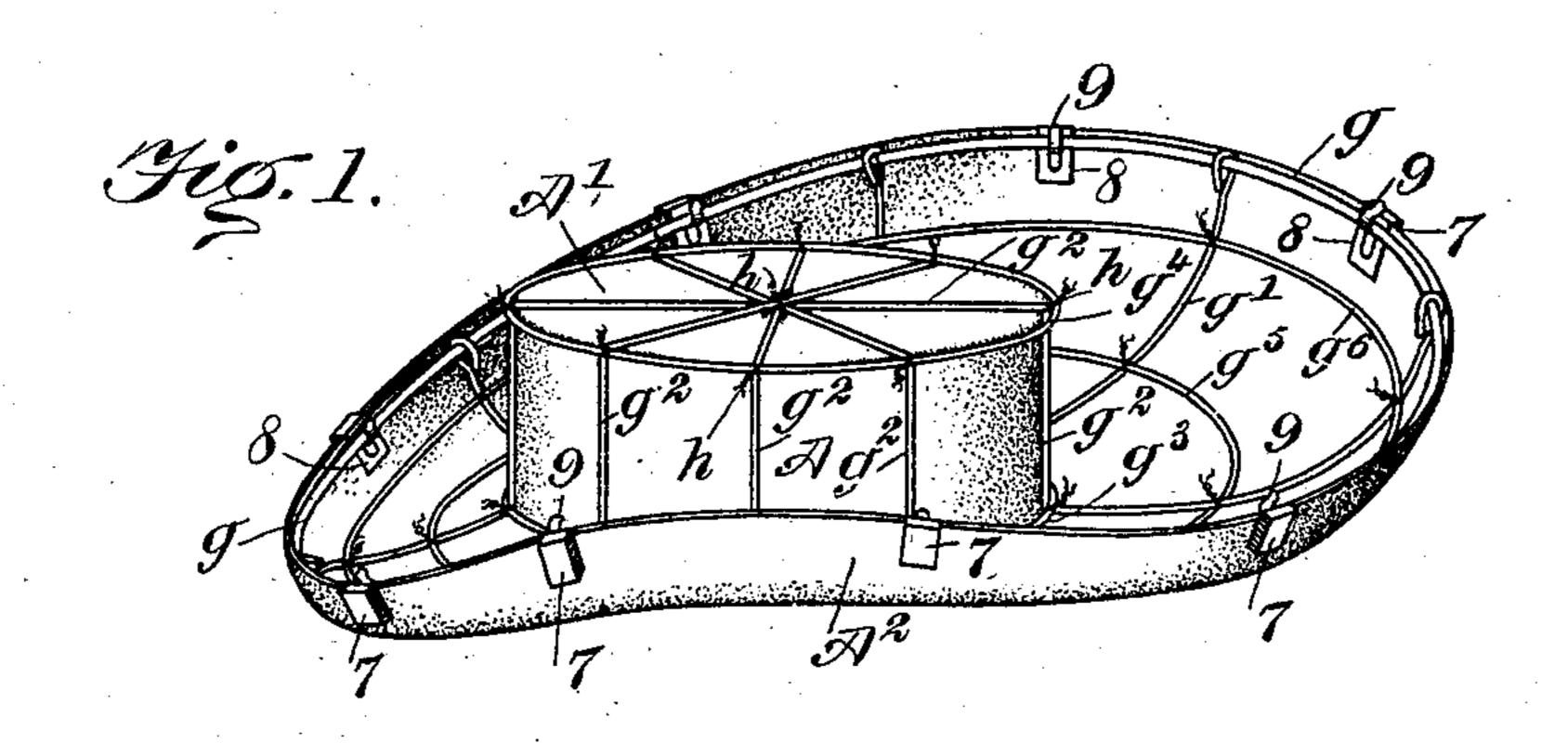
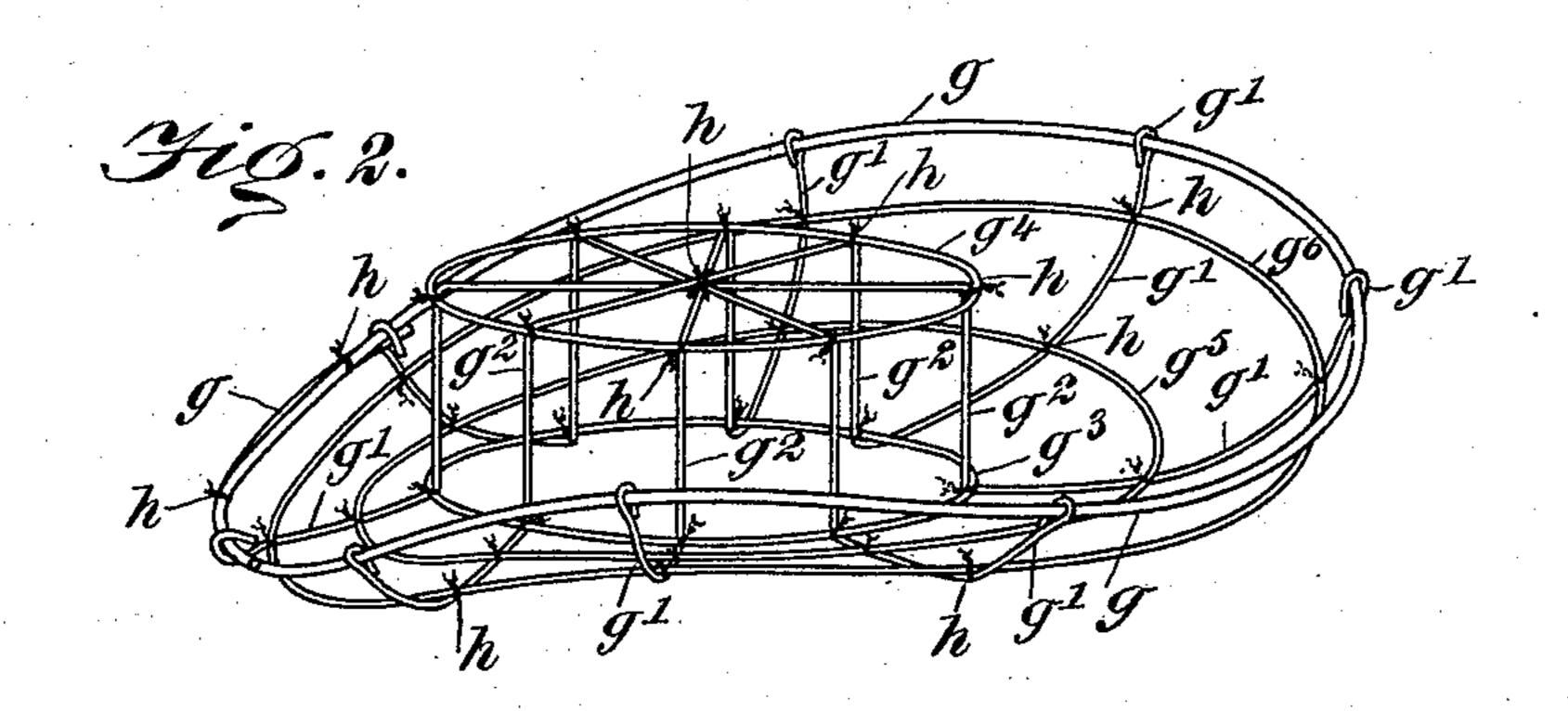
## A. BRODIN.

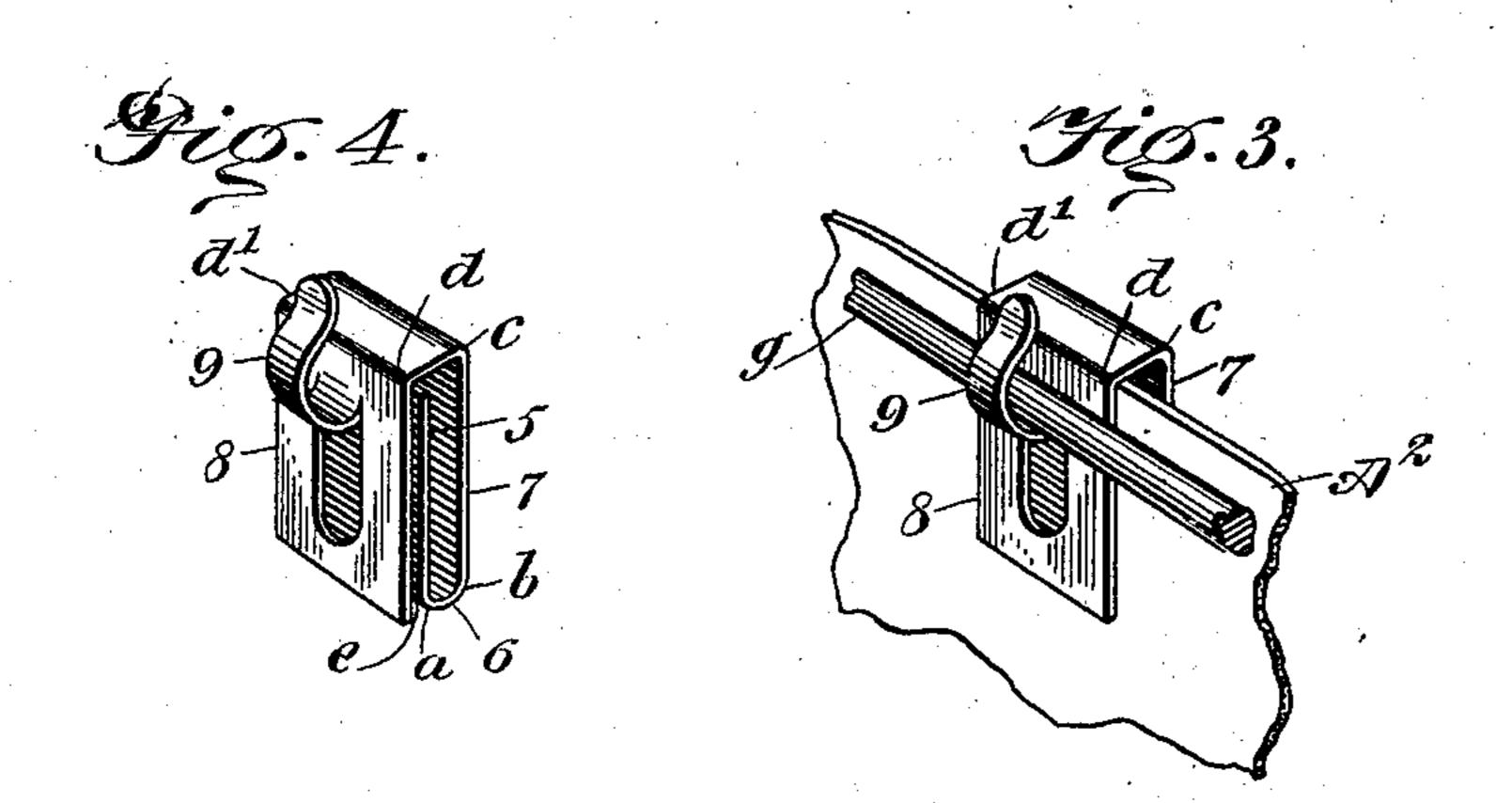
## CLASP FOR SHAPING HAT OR BONNET FRAMES.

APPLICATION FILED MAR. 7, 1903.

NO MODEL.







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## CLASP FOR SHAPING HAT OR BONNET FRAMES.

SPECIFICATION forming part of Letters Patent No. 747,682, dated December 22, 1903.

Application filed March 7, 1903. Serial No. 146,615. (No model.)

To all whom it may concern:

Be it known that I, ARVID BRODIN, a citizen of the United States, and a resident of St. Joseph, in the county of Buchanan and State of Missouri, have invented a new and Improved Clasp for Shaping Hat or Bonnet Frames, of which the following is a full, clear, and exact description.

This invention relates to the forming of 10 wire frames for hats and bonnets worn by

women.

In the manufaature of hats and bonnets for women's wear material of different kinds is used, such as straw braid, felt, buckram, and 15 also flimsy goods, such as silk, lace, chiffon, and velvet. When straw braid, hair-plaited braid, felt, or buckram forms the body of the head-gear, such material after being sewed together or otherwise given approximate form 20 is pressed into correct shape on a block that is the exact form to be given to the hat or bonnet. If, however, the head covering is to be mainly composed of unsubstantial material, such as hereinbefore mentioned, such 25 goods must be given and maintained in proper shape by a skeleton frame of wire. The trade has been supplied with wire bonnet and hat frames by manufacturers of such specialties, and as there are generally quite a number of 30 different shapes in vogue each season a manufacturing milliner to suit the various fancies of her patrons must keep in stock a number of wire frames of all the fashionable shapes. This requirement involves expense 35 and a possible loss, as all frames on hand at the end of a season may become unfashionable the following season, and therefore unsalable.

The object of this invention is to provide simple novel means to enable a milliner to quickly shape a frame of wire to serve as the foundation of a hat or bonnet to be made of chiffon or other light unsubstantial goods by using a hat or bonnet formed of felt, straw, or other substantial material that has been pressed into proper shape on a block, such means consisting of a specially-devised clasp to be applied in sufficient number for the retention of wire as it is manually bent into shape over the hat or bonnet body that is to be duplicated in light flimsy material.

The invention consists in the novel con-

struction of the clasp from a single piece of metal, as is hereinafter described, and defined in the appended claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective representation of 60 a shaped hat and of a wire frame formed thereover by employment of a suitable number of the improved clasps applied thereto. Fig. 2 is a perspective view of the completed wire frame removed from the hat whereon it had 65 been formed. Fig. 3 is an enlarged fragmentary perspective view of the edge portion of a hat-rim, the improved clasp mounted on the hat-rim, and a piece of the hat-frame wire held by the clasp; and Fig. 4 is a perspective 70 view of the improved wire-holding clasp.

The clasp that comprises the feature of improvement in use is employed in sufficient number to serve effectively as a wire-holder during the operation of shaping wire strands 75 into a skeleton wire frame and is constructed as follows: An oblong rectangular planchet, of resilient thin sheet metal, is provided, the dimensions of said planchet or flat blank being proportioned to permit the formation of 80 the improved clasp therefrom. At a the blank is bent to afford a member 5, which extends as a flat spring upward from the angular corner a, and at a short distance from said corner another bend b is formed, thus 85 disposing the material parallel with the spring member 5 and spaced therefrom by the transverse member 6, that may be termed "the heel portion" of the clasp. At a point slightly above the free upper end of the plate- 90 spring 5 a right-angle bend c is formed, thus defining the height of the outer side plate 7, that coacts with the members 5 and 6 to produce a U-shaped spring. There is another right-angle bend  $\bar{d}$  formed in the remaining 95 portion of the material at such a distance from the angular corner c as will produce a spacing-web d', that properly spaces the depending resilient member 8 from the upright spring member 5, and, as shown in Fig. 4, the icc member 8 preferably equals in length that of the member 7. It will be seen that the space e, which defines the distance between the spring member 5 and the outer spring mem2 747,682

ber 8, is such as will permit the introduction of a piece of material—such as the edge of a hat-rim or the like—therein and that these spring members will be reliably clasped 5 thereon, due to the coaction of the three spring members 5, 7, and 8, together with the transverse members 6 and d'. A fingerspring 9 is formed integral with the spring member 8 by cutting a suitable portion of ro the material of said member loose at the side edges and one end of the finger-spring, leaving the opposite end remain intact, and, as shown, the finger-spring 9 is preferably curved upward and toward the horizontal 15 spacing-web d', so as to adapt the fingerspring for clasping engagement with a wire strand to hold it clamped against the depending spring member 8, as is shown clearly in Fig. 3.

The hat shown in Fig. 1 to illustrate the use of such a head-covering as a form whereon to shape a wire frame and the application of the improved clasp for such a purpose is one of the popular styles and consists of a circularly-walled crown-piece A, having a flat top A' and a wide rim A², which projects at the front and is curved upward around the entire edge portion. It is to be understood that the shape of the model hat, which is to serve as a form whereon a wire frame is to be built, may be varied in style and be of any material that is sufficiently substantial in texture to hold its shape when pressed over a block into form. The operation of forming the wire

frame over the hat as a defining form by employing the improved spring-clasps in proper

number will now be described.

A wire strand g of sufficient length and proper thickness to afford necessary stability 40 is bent into curved form, so that it will lie in contact with the inner surface of the hatrim A<sup>2</sup>, near the edge of the same, and to insure stiffness of the border-wire g it is lapped together at its end portions, and these lapped 45 ends are held connected by wrappings of tiewire, as shown at h. A suitable number of the improved clasps hereinbefore described are now applied at spaced intervals upon the hat-rim for retention of the border-wire q 50 removably in position thereon, and it will be seen that the great degree of resilience afforded to the clasps, considered separately, by the coaction of the U-shaped spring, that is composed of the members 5 6 7, with the 55 depending spring member 8, permits the insertion of the edge portion of the hat-rim A<sup>2</sup> fully within the channel e, between the spring members 5 and 8, for the retention of each clasp in position on the hat-rim without dis-60 torting the shape of said rim, which is a very essential matter, as otherwise it would be impossible to give correct form to the wire border g, that is the main support of the re-

It will be seen in Figs. 1 and 3 that in application of the improved clasps the spring-

maining portions of the wire frame.

plate members 8 are disposed so as to contac with the inner surface of the hat-rim A<sup>2</sup>, so that the border-ring g may be introduced beneath the finger-spring 9, and thus be clamped 70 against the plate-springs 8, which will hold the shaped border-ring at the edge of the rim  $A^2$  and conforming with its undulating shape. From the border-ring g a series of frame-wires g' extend toward the body of the crown A, 75 these wires g' being looped at their outer ends for a hooked attachment to the borderring and are spaced apart equally. At the base of the crown A where it joins the rimpiece  $A^2$  the wires g' are bent angularly, so 80 that portions  $g^2$  may extend upward in contact with said crown-piece A. There are like bends formed in the upright wires  $g^2$  at the upper edge of the hat-crown A where the top piece A' joins it and the wires  $g^2$  cross the 85 top piece, lapping one upon the other at the center of the latter, there being a tie-wire hwrapped around the wires at their crossingpoint and secured by twisting its ends. A wire ring  $g^3$  is provided that closely encircles 90 the wires  $g^2$  where they are bent upward at the base of the crown A, and at the points where said ring  $g^3$  crosses the wires  $g^2$  said wires are secured thereto by tie-wires h. Another wire frame-ring,  $g^4$ , is held closely en- 95 circling the upright wires  $g^2$  at their upper bends by the tie-wires h, and it will be seen that the rings  $g^3$   $g^4$  by their secured engagement with the upright wires  $g^2$  and with the horizontal portions of the same that cross the roo top of the hat serve to space apart and stiffen the skeleton wire-crown structure of the hat-The transverse wire-frame members g', that are bent so as to have close engagement with the concave upper surface of the 105 hat-rim A<sup>2</sup>, are held spaced apart by two wire rings  $g^5 g^6$ , that are of such relative dimensions as will permit them to be properly spaced from the inner and outer edges of the hat-rim and from each other, and, as shown, 110 the transverse wires g' are secured to the rings  $g^5 g^6$ , where they cross said rings, by tie-wires h.

It will be seen that by construction of the hat-frame, as described, it will exactly conform with the shape of the model hat, and 115 when the frame is completed it may be removed from the hat upon which it was formed by removal of the clasps from the hat and

border of the hat-frame.

Obviously any number of wire frames may 120 be built upon the hat or bonnet of which such frames are to be counterparts in an expeditious manner and at far less cost than that of frames furnished by manufacturers to the trade. Furthermore, it will be evident that 125 it is a prime essential to provide detachable means for retaining the border frame-ring engaged with the rim of the hat until the hatframe is completed, as otherwise the work of assembling the parts of the skeleton frame 130 would be retarded and be imperfectly executed.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

As an improved article of manufacture, a clasp for the purpose described, formed of a strip of resilient plate metal bent to form the outer members 7 and 8 and the intermediate spring member 5 extending from the member 7 up between the said members, the member 8 being provided with the spring-finger

9 struck up therefrom and extending upwardly toward the connecting portion of the outer members, as set forth.

In testimony whereof I have signed my name to this specification in the presence of 15 two subscribing witnesses.

ARVID BRODIN.

Witnesses:
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