Nov. 30, 1943. F. S. SANDER 2,335,314

DRESS FORM

Filed April 30, 1942

Fig. 1

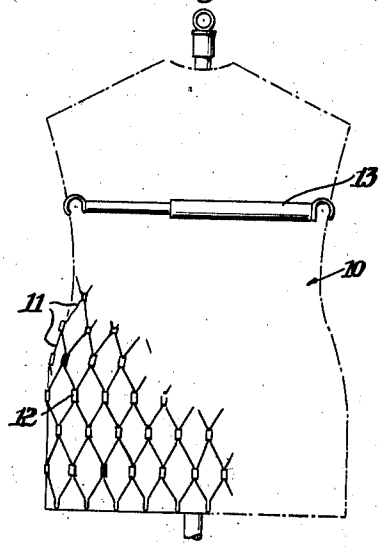


Fig. 2

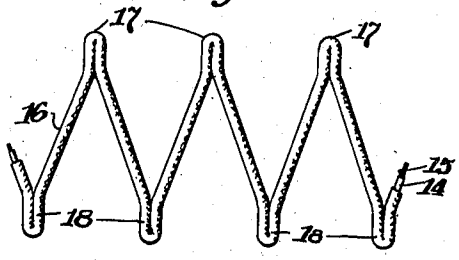


Fig. 3

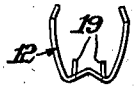


Fig. 4

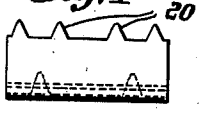


Fig. 5

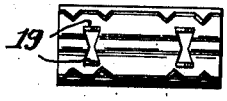


Fig. 6

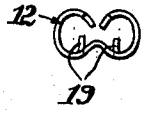


Fig. 7

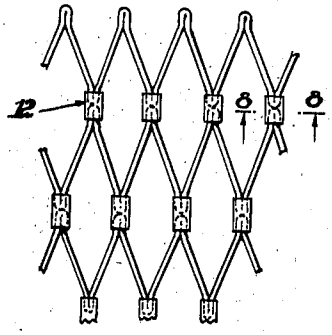


Fig. 8

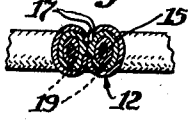
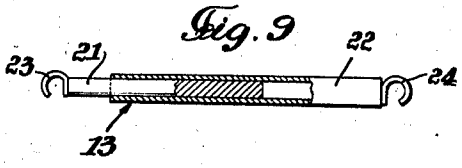


Fig. 9



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UNITED STATES PATENT OFFICE

2,335,314

DRESS FORM

Frank S. Sander, New York, N. Y.

Application April 30, 1942, Serial No. 441,137

3 Claims. (Cl. 223—68)

My present invention relates to dress forms and more particularly to dress forms which are adjustable to any desired figure.

The main object of my present invention is to improve the construction of existing dress forms in order to obtain the necessary stiffness and rigidity of the structure together with easy adjustability.

A further object of my present invention consists of a dress form which can be produced inexpensively so as to be easily accessible to everybody needing it.

Still a further object of my present invention consists of a dress form which can be molded to the body quickly and retains its exact shape rigidly and indefinitely.

Another object of my present invention consists of a dress form which is pliable and thus easily storable and which nevertheless can be remolded over and over again whenever needed, either for different figures or for the same figure if it changes.

It should be mentioned that adjustable dress forms have been used heretofore. However, none of them combined all advantageous features of the dress form proposed by me herewith. Thus, for instance, it has already been proposed to use dress forms in which the wires of the form were flexibly connected to each other at their joints. However, such dress forms have the important disadvantage that flexible joints never keep their position; thus, wire forms with such flexible joints cannot be considered as shape retaining to the needed extent. It has also been proposed by other inventors to make dress forms of uncovered wire which, as well-known, usually has a smooth surface. Dress forms made of such wire are generally flexible in the joints at which they are connected to each other and therefore not well adapted to be used over a period of time without readjustment.

With the above objects in view, and with the additional object of avoiding all disadvantages of the above described known types of dress forms, my present invention mainly consists of the combination of an outer network made of flexible, substantially non-resilient wires which are bendable into a required shape and retain this shape after bending, means rigidly connecting these wires at the connecting points of this network in such a manner as to prevent relative movement of the connected wires at these points, and means for supporting this network in adjusted state after it has been shaped in the required manner by bending the wires forming this network.

I have found that it is very advantageous and sometimes indispensable to use wire provided with a covering of rubber or textile fabric; this covering should have a substantially rough surface and should be arranged in such a manner as to make turning of this covering about the wire impossible. By using wire of this type, relative movement between the preferably sleeve shaped connecting members and the wires which they connect can be entirely avoided; of course, use of such fabric or rubber covered wire also results in an entirely rigid connection between the connected wire ends which—as stated above—is indispensable for the proper functioning, namely the adjustability and shape-retaining quality, of foldable dress forms.

I have furthermore found it advantageous to give the new adjustable dress form an initial shape similar to the shape of the human body; therefore I propose, in order to facilitate production of the new dress forms, to compose the outer network of a series of juxtaposed, transversally arranged, zig-zag shaped wires rigidly connected with each other at the turning points of the wires caused by their zig-zag shape. This seemingly unessential fact is of extreme importance in this field as it enables inexpensive and speedy production of such forms.

The novel features which I consider characteristic of my invention are set forth in particular in the appended claims. The invention itself, however, both as to its construction and its method of operation, together with additional objects and advantages thereof, will be best understood from the following description of specific embodiments, when read in connection with the accompanying drawing in which:

Figure 1 is a front view of a dress form according to the present invention;

Figure 2 is a zig-zag shaped wire of the type used for the outer wire network of the form shown in Figure 1;

Figures 3, 4, and 5 are an end view, a side view, and a top view of a sleeve shaped connecting member before the same has been clamped around the wires that are to be connected;

Figure 6 is an end view of the connecting member shown in Figure 5 in finished bent shape;

Figure 7 is an enlarged front view of a part of the wire network of the dress form shown in Figure 1;

Figure 8 is an enlarged cross section through this network seen in direction of arrow 8—8; and

Figure 9 is a reinforcing member used for keeping the wire network in adjusted shape.

As shown in Figure 1, the dress form consists of an outer network 10 made of flexible, substantially non-resilient wires 11. These wires have to be of such type as to be bendable into the required shape with relative ease and to retain this shape after they are bent. As shown in this figure, the wires are connected with each other by connecting members 12 shown in detail in Figures 3 to 6. Furthermore, reinforcing members 13, shown more in detail in Figure 9, are provided

for in order to support the network 10 after it has been shaped in the required manner.

As shown in Figure 2, the flexible metallic wires 15 are provided with a covering 14 which is made of rubber or textile, preferably of textile fabric. As mentioned above, this covering 14—which completely encloses the wires 15—has to be arranged in such a manner as to make impossible its turning independently from the covered wires.

The dress form according to the present invention is built up of a series of zig-zag shaped fabric covered wires 15 arranged transversally to the longitudinal direction of the form; these zig-zag shaped, fabric covered wires 16 are connected with each other at their turning points 17 which are caused by the zig-zag shape of the wires. As clearly shown in the drawing, it is advisable to bend the wire portions adjacent to the turning points 17 parallel to each other, thus forming substantially U-shaped wire portions 18 at the turning points. The thus bent, zig-zag shaped, fabric covered wires 16 are arranged in such a manner that the turning points 17 of each two justaposed wires 16 are contacting each other. The thus positioned wires 16 are connected by sleeve shaped connecting members 12—shown in detail in Figures 3 to 6—in the way shown in Figures 7 and 8, namely in such a manner that each of these connecting members 12 rigidly encloses a contacting pair of U-shaped wire portions 18 of two of the fabric or rubber covered zig-zag shaped wires 16 at and near one of the contacting turning points 17, thereby preventing movement of the two wires connected at the respective contacting points relative to each other.

The sleeve like connecting member 12 is shown in Figures 3 to 5 in open unused condition and in Figure 6 after bending into a form with a substantially 8-shaped cross section. This sleeve like connecting member 12 is made of sheet metal and provided with projections 19 within its surface which are preferably stamped out and projections 20 along its longitudinal edges; as shown in Figures 6 and 8, these projections reach into the tubular space enclosed by the connecting member 12, thus piercing through the covering 14 of the wires 15 and thereby increasing the holding power of the connecting members 12. As shown in Figure 7, these connecting members 12 are arranged parallel to the longitudinal axis of the form, i. e. normal to the direction of the zig-zag shaped wires; this fact further increases their grip upon the wires as it makes tearing of the wire ends out of the connecting members substantially impossible.

The reinforcing member 13 shown in Figure 9 consists of an inner rod-shaped member 21 and an outer tube 22 surrounding the member 21. Hooks 23 and 24 made of material which can be bent by hand are provided at the ends of the rod-shaped member 21 and the tube 22 respectively. Means not shown in the drawing are provided for varying the combined length of rod 21 and tube 22, thereby adjusting the distance between hooks 23 and 24. After adjusting this distance, the reinforcing member 13 is hooked into the meshes of the wire network 10 by means of these hooks 23 and 24 as shown in Figure 1, thereby retaining the shape of the network after it has been adjusted. The hook members 23 and 24 are preferably arranged turnably at the ends of rod 21 and tube 22 respectively, in order to enable their easy attachment to the wire network.

It will be understood that each of the elements described above, or two or more together, may also find a useful application in other types of dress forms differing from the types described above.

While I have illustrated and described the invention as embodied in dress forms made substantially of a wire network, I do not intend to be limited to the details shown, since various modifications and structural changes may be made without departing in any way from the spirit of the invention.

Without further analysis, the foregoing will so fully reveal the gist of my invention that others can, by applying current knowledge, readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention and, therefore, such adaptations should and are intended to be comprehended within the meaning and range of equivalence of the following claims.

What I claim as new and desire to secure by Letters Patent is:

1. Adjustable dress form comprising in combination an outer network made of flexible substantially non-resilient metallic wires, a covering enclosing said wires, said covering being arranged in such a manner as to be substantially unturnable about said wires, connecting members connecting said covered wires at the connecting points of said network, and projections on said connecting members bent inward substantially into the covering of said wires, thereby preventing turning of the same relative to said connecting members.

2. Adjustable dress form comprising in combination an outer network made of flexible substantially non-resilient metallic wires, a covering enclosing said wires, said covering being arranged in such a manner as to be substantially unturnable about said wires, longitudinal metallic sleeves having a substantially 8-shaped cross section rigidly enclosing said covered wires at the connecting points of said network, projections on said metallic sleeves bent inward substantially into the covering of said wires, thereby preventing turning of the same relative to said connecting members, and means adapted to support said wire network in adjusted state after it has been shaped in the required manner by bending the wires forming said network.

3. In an adjustable dress form, an outer network consisting of a series of juxtaposed zig-zag shaped wires having each a smooth surface and being bendable into the required shape and retaining said shape after said bending, a covering enclosing each of said wires, said covering being arranged in such a manner as to be substantially unturnable about said zig-zag shaped wires, said covered wires being arranged transversally to the longitudinal direction of said dress form in such a manner that the turning points of each two juxtaposed wires caused by their zig-zag shape are contacting each other, sleeve-shaped connecting members arranged at said contacting turning points and rigidly enclosing said covered wires at and near said contacting turning points, and projections on said sleeve-shaped connecting members bent inward substantially into the covering of said wires, thereby preventing turning of the same relative to said connecting members.

FRANK S. SANDER.