Nov. 8, 1927. 1,648,404

H. C. KENLY

FIGURE TOY

Filed Sept. 14, 1926 2 Sheets-Sheet 1

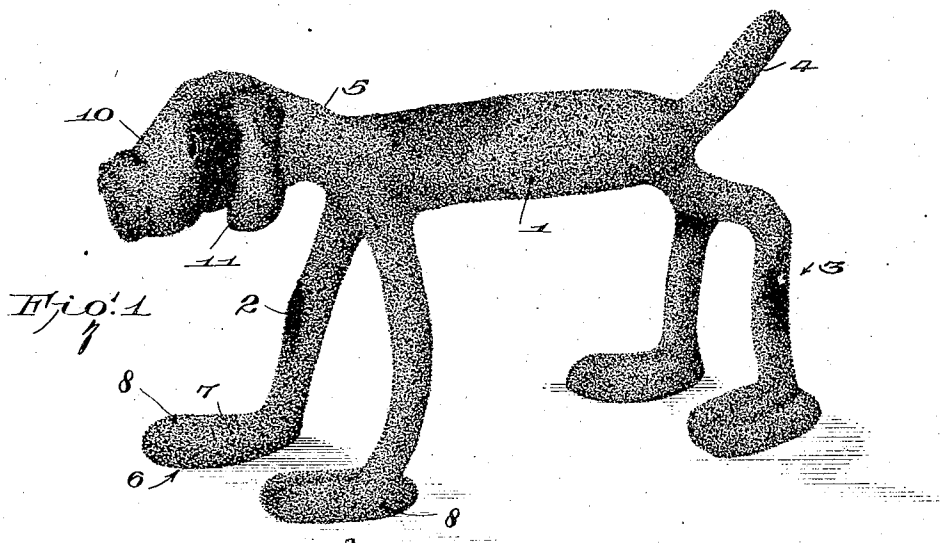


Fig. 1.

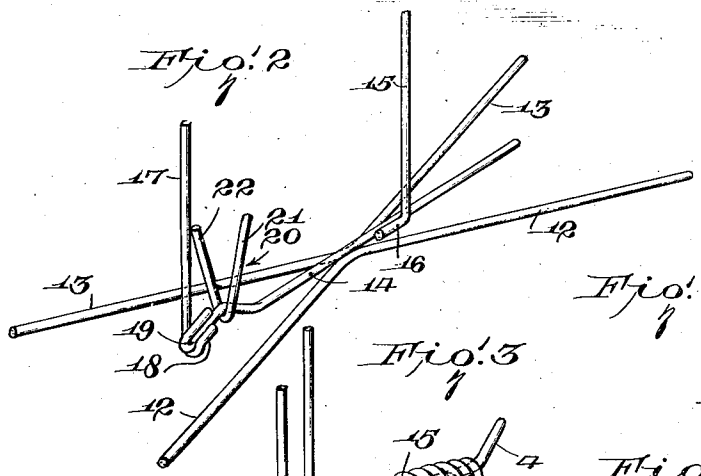


Fig. 2.

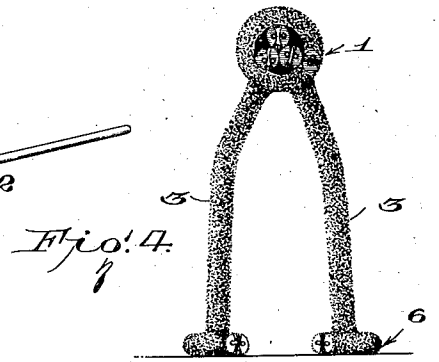


Fig. 4.

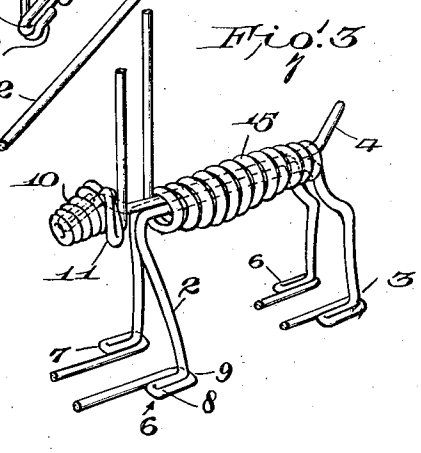


Fig. 3.

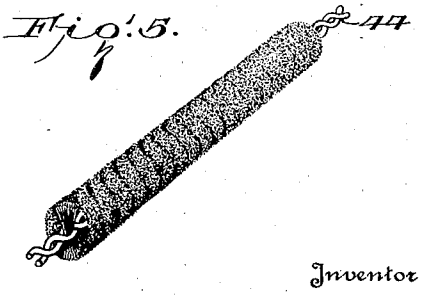


Fig. 5.

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FIGURE TOY

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Fig. 6.

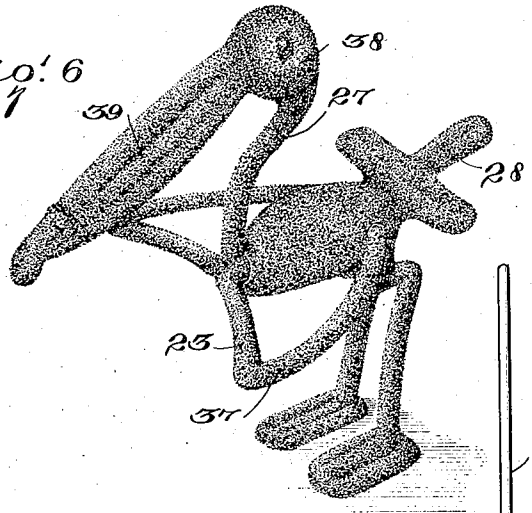
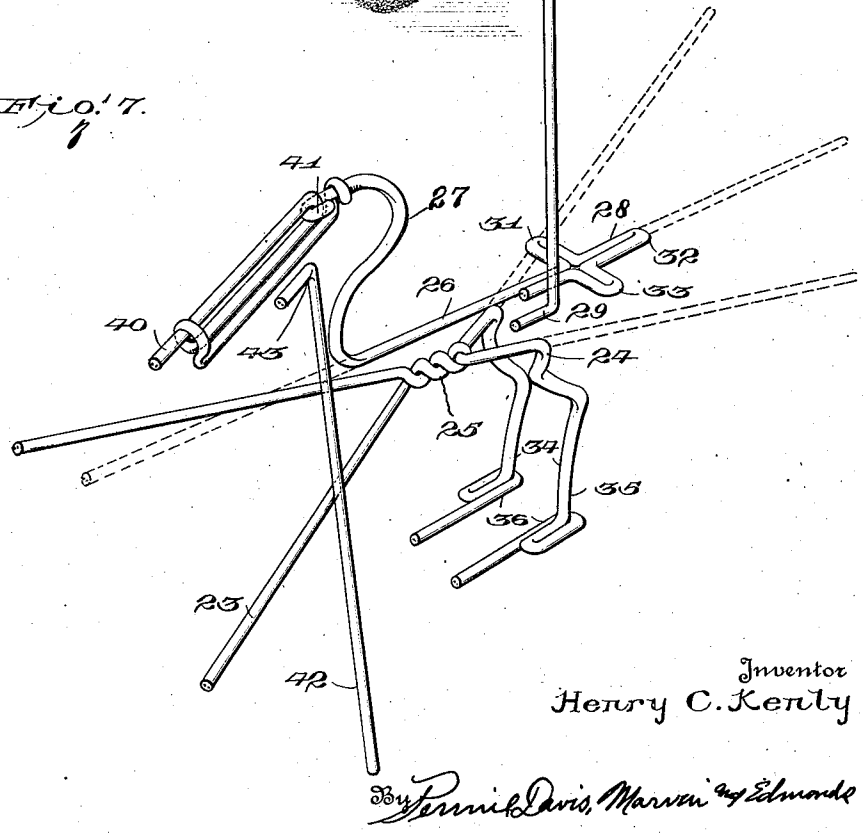


Fig. 7.



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UNITED STATES PATENT OFFICE.

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FIGURE TOY.

Application filed September 14, 1926. Serial No. 135,379.

This invention relates to figure toys and more particularly to toys of the doll type, and the method of producing the same.

Figure toys have been used in large numbers during recent years and many of these toys have been employed for ornamental purposes, sometimes being displayed upon garments when of miniature formation, and in the home. Toys of this type have usually been painted or otherwise coated in order to give the same a finished appearance, but it has long been recognized that it is important to form these figure toys which simulate animals, with a covering to give an appearance of hair, fur, or feathers, and to select the particular finish or covering according to the animal represented.

Various attempts have been made to produce these figure toys with a finished covering of the type above referred to, but it has been found difficult and quite expensive because the toys were first made into the proper configuration and thereafter covered with a fabric or other similar material, which when in sheet form required cutting and fitting around the various extensions from the body. In some instances, particularly in the manufacture of small toys, the cut sheet material has been adhesively secured to a base previously formed into proper shape, while in larger toys the covering has sometimes been sewed in position. In practicing either of these methods, much time is necessarily consumed and, therefore, many figure toys have been manufactured without a fabric covering, and have been merely decorated with a liquid coating composition of a character that permits its application with a brush.

The present invention has for its object the production of a figure toy having a surface covering of unwoven fibrous material. The invention includes the formation of the toy with a fibrous covering, the fibers being anchored in the support by means of which the configuration of the toy is retained, so that the fiber cannot readily become freed therefrom. This invention also contemplates the formation of a figure toy from strands comprising the fibrous material, and primarily from metallic wires which have thereon a fibrous covering, the covering having been applied thereto previously to the utilization of the strand in the construction of the toy. A toy constructed from strands of this character has no metallic wires visible upon its surface as the fibrous covering for the wires of each strand is present upon the entire surface and conceals the wires regardless of the manner in which they are twisted in the constructing of the toy. The method of producing this toy also forms a part of the present invention.

Other objects and advantages of this invention will be apparent from the following detailed description when considered in connection with the accompanying drawings wherein

Figure 1 is a perspective view of a toy formed to resemble a dog, the dog being made in accordance with the present invention.

Fig. 2 is a diagrammatical view of the several strands from which the toy is constructed, the strands being shown in the position in which they are placed and initially secured together before they are bent or twisted for the purpose of forming the completed toy shown in Figure 1.

Fig. 3 is a view similar to Fig. 2, with the strands from which the toy is constructed in the formation into which they are bent during another stage of the construction of the toy.

Fig. 4 is a transverse sectional view through the body of the toy shown in Fig. 1.

Fig. 5 is an enlarged detail view of the preferred form of strand from which the toy is constructed.

Fig. 6 is a view of a toy resembling a pelican, made in accordance with the present invention; and

Fig. 7 is a diagrammatical view of the strands as initially associated for forming the toy shown in Fig. 6, this formation being a modification so that strands colored previous to incorporation into the toy may be utilized to give the appropriate color effect frequently found in animals of this general class.

Referring to the drawings in detail, the numeral 1 designates the body portion of a toy such as shown in Figs. 1 to 5 inclusive, from which the front and back legs 2 and 3 respectively, the tail 4, and the neck 5 extend. Feet 6 are formed at the lower end of each of the legs 2 and 3, each foot being formed of a portion 7 which extends at a right angle to each of the legs 2 and 3, the portion 7 being bent upon itself in the man-

ner shown at 8, around the leg as at 9 to a point adjacent the front of the completed foot, at which point the strand is severed. The neck 5 extends forwardly to a point where the association of additional strands permits the formation of the head 10 provided with ears 11.

In accordance with the present method of constructing the toy shown in Figs. 1 to 5 inclusive, two strands 12 and 13 are placed in position so that each contacts with the other at a point near its center. Another strand 14 is then placed upon strands 12 and 13 so that its central portion lies adjacent to the point of contact between these strands. Strand 15, which is provided with a portion 16 extending at a right angle thereto, is then placed with the portion 16 in contact with the three strands 12, 13 and 14, along the central portions of these strands. The strand 15 is then spirally wound upon strands 12, 13 and 14 and upon the portion 16 until these strands are bound together for a length sufficient to be utilized to form the body portion 1 of the completed toy. The strand 15 is then severed and the end thereof embedded between the several strands.

The portions of the strands 12, 13 and 14 which extend beyond the spirally wound strand 15, are each bent to form the extension which the respective portion is intended to represent. Each of the extending portions of strands 12 and 13 are bent downwardly at substantially a right angle to the body portion formed by the spirally wound strand 15 to provide the front and back legs 2 and 3. Each of these legs is then formed with a foot 6 as above described. In constructing the toy resembling the dog as shown in Figs. 1 to 5 inclusive, the back legs are made slightly longer than the front legs so that they can be bent to resemble the back legs of a dog. Of course, when it is intended to form an animal of the quadruped class other than a dog, the relative length of the fore or hind legs will be governed according to the particular animal which is intended to be simulated.

When the toy has reached this stage of construction, the strand 14 is bent upon itself at a point spaced from the spirally wound strand 15, and a strand 17 with a right-angled extension 18, is placed with the extension in contact with the folded portion 19 of the strand 14 so that three thicknesses of strands are arranged one upon the other. The strand 17 is then wound spirally upon the extension 18, and the strand 14 at the folded portion 19 backwardly to a point adjacent the end of the folded portion 19. Another strand 20 is looped around the strand 14 directly behind the point of termination of the folded portion 19, so that two extensions 21 and 22 are provided. The strand 17 is then further spirally wound to a point behind the strand 20, then forwardly over the strand 20, and then backwardly to a point adjacent the point of termination of the strand 15, where it is severed and the end thereof embedded among the remaining strands. The rearwardly extending portion of the strand 14 may be severed according to the animal intended to be simulated, and, in the present case, is severed a slight distance from the strand 15 so that a bobbed tail 4 is formed. In order that the extensions 21 and 22 resemble ears, they are bent outwardly and downwardly and then severed as indicated in the drawings.

If desired the toy may be spotted to give various color effects, but in many instances it is found desirable to utilize different colored strands in the construction of the toy so that the necessity of coloring the completely formed toy is eliminated.

While I have described above a construction which can be formulated to resemble practically all animals by the appropriate variation of the lengths of the strands, and by appropriately bending the same, I have found that slight changes in the arrangement of the strands will permit better simulations of wings or similar fore limbs of birds, fowls and the like. In Figs. 6 and 7 of the drawing, I have shown a simulation of a pelican which will suffice to illustrate the general formation and method of constructing this modified type of toy; but, of course, in this modified construction, as in the previously described construction, detail changes may be made to permit more exact simulation of various animals.

In constructing the toy shown in Figs. 6 and 7, a V-shaped strand 23, preferably of a color suitable for forming the wings of the bird represented, is assocated with a second V-shaped strand 24, preferably of a color suitable for forming the legs of a bird, so that the strands are crossed with their apexes in contact. The strand 23 is then twisted as at 25 for a short distance so that the strand 24 is securely held thereto. The twisted portion 25 is then placed in contact with the central portion of a strand 26 which may be of a color suitable to represent the neck 27 and the tail 28 of the bird. Of course when it is desired to form a tail of varying colors, the strand 26 may be folded upon itself so as to retain in the fold a plurality of other colored strands which project rearwardly and are bent to proper formation when the toy has been otherwise completed.

The strand 26 is then secured to the strands 23 and 24 by placing a right-angled extension 29 of strand 30 in contact with the twisted portion 25, and thereafter spirally winding the other portion of the strand 30 upon the extension 29, twisted portion 25 and the contacting portion of strand 26, for a distance sufficient to represent the body of

the finished toy. If the tail is to be formed entirely from the strand 26, it is desirable to bend the strand 26 at right angles at a point adjacent the spirally wound strand 30, and to fold it upon itself as at 31, where after it is formed with a similar folded extension 32 axially arranged relative to the central portion of the strand, and to then form another right-angled folded extension 33 directly opposite the folded portion 31. The strand may thereafter be extended forwardly when the tail is formed prior to the winding of strand 30, or may be severed adjacent the base of the extension 33 as desired.

At this stage of construction the arms of the V-shaped strand 24 are bent downwardly with angular portions to resemble legs 34 and 35 respectively, having formed at their lower ends feet 36 which may be made in the same manner as feet 6 described above. Because of the fact that the legs 34 and 35 are each formed from the same strand the color of the legs will be uniform.

The next step in the construction of this toy is to bend the arms of the V-shaped strand 23 outwardly from a point adjacent the end of the spirally wound strand 30, and to subsequently fold each of said arms at a point equidistant from the strand 26, so that the arcuate extensions directed toward the opposite end of the spirally wound strand 30 may be formed. This formation of the arms of the V-shaped strand 23 provides parts to represent wings 37, and like the legs 34 and 35 they are uniform in color because they are formed from a single strand.

The head 38 is preferably formed at the extreme end of the strand 26, the neck 27 having been first made by bending the forwardly extending portion of the strand 26 in an appropriate manner. In forming the head 38 and the bill 39, it being desirable in the toy representing a pelican or similar bird to form the bill from a separate strand 40, the strand 26 is folded upon itself at 41 to engage a portion of the strand 40 intermediate its end, so that the strand 40 will have one end terminating at the extreme forward portion of the bill, which will give a somewhat pointed effect. The strand 40 extends backwardly from the end through the loop 41 and then forwardly under the first length to a point slightly behind the said end, where it is looped over the first length and downwardly to a point below the second length, and thereafter is continued backwardly and secured around the strand 26 behind the loop 41. Another strand 42, provided with a right-angled extension 43, is placed with the extension adjacent the loop 41, and the extension and adjacent strands are then bound together by winding the strand 42 upon the same until a substantially spherical portion, which is utilized as the head 38 of the finished toy, is formed.

This modified toy, like the toy previously described, may be suitably marked to represent eyes and other features.

In constructing a toy in accordance with the present invention, it is preferable to use a strand similar to that shown in Fig. 5. The strand may be made from metallic wires 44, although any comparatively stiff material may be employed; one of the wires being held in position while fibrous material is laid transversely there-across, and a second wire then placed upon the fibrous material, whereupon the two wires with the fibrous material are twisted together so that the fibrous material is anchored tightly therebetween and gives to the entire structure the appearance of a fibrous strand or thread which is well adapted for use in representing hair or fur.

Various modifications may be made in the detail construction of other animal shapes, and it is intended that the invention shall be broad enough to cover the construction of animals not specifically illustrated. Although I have constructed numerous toys having configurations of various animals, the examples illustrated will suffice to give a clear and full understanding of the invention.

What I claim is:

1. In a figure toy including a head, a body, and limb portions, the body and head comprising longitudinally extending reinforcing elements and other reinforcing elements extending transversely therearound, said transversely extending reinforcing elements being provided with a covering of unwoven fibrous material secured thereto, said fibrous material having fibers extending outwardly therefrom, whereby that portion of the fibrous material visible upon the exterior of the completed toy presents a fur-like surface.

2. In a figure toy including a head, a body, and limb portions, the body and head portions comprising longitudinally extending reinforcing elements and other reinforcing elements extending transversely therearound, said transversely extending reinforcing elements and the limb portions being provided with a covering of unwoven fibrous material secured thereto, which fibrous material has fibers extending outwardly therefrom, whereby the fibrous material where visible upon the exterior of the completed toy presents a fur-like surface.

3. In a figure toy including a head, a body, and limb portions, the body and head portions comprising longitudinally extending reinforcing elements and other reinforcing elements extending transversely therearound, said transversely extending reinforcing elements and the limb portions being provided with a covering of unwoven fibrous material secured thereto, which fibrous material has fibers extending out-

wardly therefrom, the limb portions being provided with folded extremities which resemble feet, and said fibrous material when visible upon the exterior of the completed toy presents a fur-like surface.

4. In a figure toy comprising body, head, and limb portions, at least one of the portions of the toy comprising a plurality of strands twisted into a unitary structure, each of the strands of this portion including a supporting element and a covering secured thereto of unwoven fibrous material having fibers extending outwardly therefrom, the fibers extending from adjacent strands arranged along the surface of the portion cooperating to produce a continuous fur-like exterior.

5. A figure toy comprising a body portion, a head and limbs, the head and body portion each being of a unitary nature and formed of a plurality of strands, the strands arranged along the surfaces of the head and body portion including a supporting element and a covering secured thereto of unwoven fibrous material having fibers extending outwardly therefrom, the fibers extending from adjacent strands arranged along these surfaces cooperating to produce a continuous fur-like exterior.

6. In a figure toy including a head, a body and limb portions, the body portion comprising longitudinally extending reinforcing elements and at least one other reinforcing element extending transversely thereabout, said transversely extending reinforcing element being provided with a covering of unwoven fibrous material secured thereto, said fibrous material having fibers extending outwardly therefrom whereby portions of the fibrous material which are arranged adjacent one another along the surface of the body cooperate to present a fur-like exterior for the body.

7. A figure toy including body, head and limb portions, at least one portion of the toy being of a unitary nature and made of a plurality of strands bound together, the strands which form the surface thereof comprising reinforcing elements of wire spirally twisted having fibers anchored therebetween, said fibers providing a covering therefor which presents a substantially continuous fur-like exterior.

8. The method of forming figure toys which comprises clamping fibers between two wires by spirally twisting the same to form a strand, so that the fibers form a covering for the wires and extend outwardly therefrom, placing a plurality of such strands in substantially parallel relation and binding the same together by winding another similar strand closely therearound to form a body portion, while permitting the free ends of the parallel strands to project therefrom, bending the projecting ends to resemble limbs, whereby the body portion due to the strands being closely wound therearound is provided with a surface that resembles fur and the like.

In testimony whereof I affix my signature.

HENRY CLOSSON KENLY.