

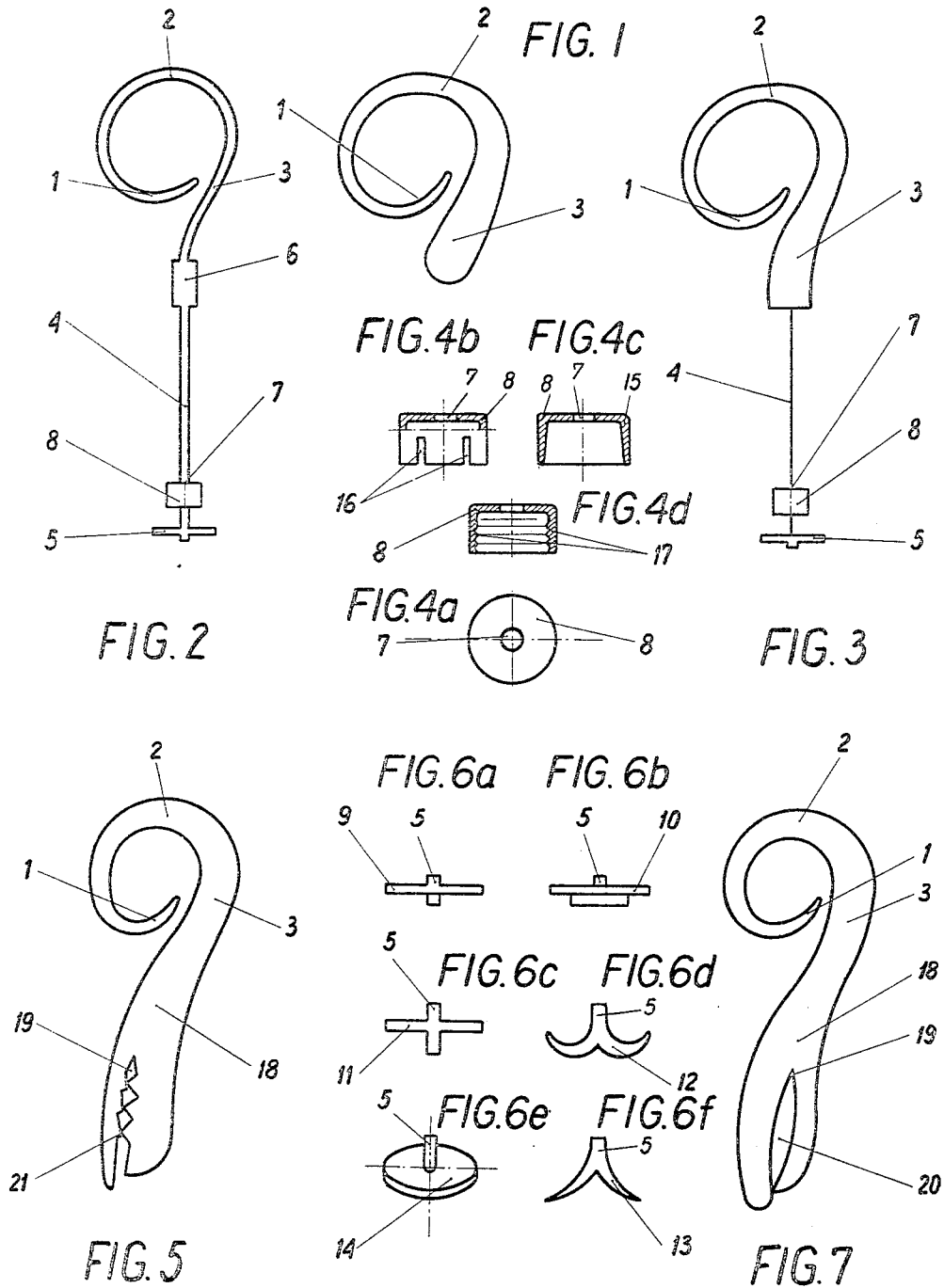
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ELASTIC HANGER

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ELASTIC HANGER

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ABSTRACT OF THE DISCLOSURE

An elastic hanger having an upper gripping arm formed by at least one loop of a spiral of resilient material and a depending load carrying arm attached to the gripping arm. The free end of the load arm preferably has attached thereto a support means which engages with the suspended item.

The object of the invention is to provide an elastic hanger, destined to hang light weight items, particularly: Christmas balls, Christmas tree ornaments, shooting range targets, pasters, decorative and display elements.

Hitherto many different kinds of threads or strings have been used to suspend light weight items. The hangers have had the shape of loops, hooks, clips or the letter S. All such hanger devices are troublesome and labour consuming for installation.

The elastic hanger according to the invention does not cause such inconveniences, it allows prompt hanging and taking down of suspended items, and these operations entail very little work.

The present invention comprises an elastic hanger having a gripping arm in the form of at least one spiral and a depending carrying arm attached to the gripping arm. The free end of the carrying arm is selectively fitted with support means to engage with the suspended item.

The means for accomplishing the foregoing objects and other advantages, which will be apparent to those skilled in the art, are set forth in the following specification and claims, and are illustrated in the accompanying drawings dealing with several embodiments of the invention. Reference is made now to the drawings in which:

FIG. 1 shows a side view of a first embodiment of the inventive hanger;

FIGS. 2 and 3 show side views of alternate second embodiments of the inventive hanger;

FIGS. 4a to 4d show a plan and section views, respectively, of various coverplates used with the inventive hanger;

FIGS. 5 and 7 show side views of alternate third embodiments of the inventive hanger; and

FIGS. 6a to 6f show various forms of supports which may be used with the invention.

The elastic hanger according to the invention can be made, as shown on the figures, as a uniformly shaped piece (FIGURE 1) or as a three link hanger (FIGURES 2 and 3) consisting of a group, i.e., rounded open arm 1, 2, 3, integral carrying arm 4 or separate flexible thread 4', which allows swinging, and support 5, on which the suspended item rests. In the alternate embodiment of the elastic hanger (FIGURES 5 and 7) the grip is a rounded open arm 1, 2, 3 of which the continuation 18 is prolonged, most often as a thickened portion having a slot 19 which grippingly supports the suspended item.

The arm 1, 2, 3 may have uniform thickness or be of

different thicknesses but is preferably gradually thickened so that the foremost part of arm 1 may be elastically distorted under a slight pressure, and the upper portion 2 and further arm 3 became distorted under larger forces which at least balances the weight of the suspended item.

The arm of the grip, 1, 2, 3 is connected either permanently or detachably with the carrying arm 4, 4' which on the other end is connected permanently or detachably with the support 5 on which the suspended item rests. The support 5 may be executed in any shape as a transverse structure to carrying arm 4, 4' as for example: transverse bars 9, 10, a small cross 11, an anchor 12, a small shield 14, or a bifurcated carrying arm 13. If the elastic hanger is destined for Christmas balls or other Christmas tree ornaments, the length of the support 5 perpendicular to the carrying arm 4 must be bigger than the diameter of the protective cover plate 8 in order to prevent falling of the suspended item from the support.

The elastic hanger destined to hang Christmas balls has on its carrying arm 4 a movable protective cover plate 8 which is affixed on the thin upper "neck" part of the Christmas ball. The cover plate 8 has a hole 7 in its middle through which the carrying arm passes. The continuation of the arm of the grip 3 is in part thickened to be thicker than the diameter of the hole 7 in the protective cover plate thus facilitating manipulation of the inventive elastic hanger, as well as protecting against falling of the cover plate 8. The cover plate 8 should be adjusted to the dimensions of the thin upper "neck" part of the Christmas ball, and for better tight clinging thereto, may have the walls slightly converging 15, have either grooves or corrugations on the inside 17 or have slots 16.

The elastic hanger according to the invention, as shown in FIG. 5 and FIG. 7, with prolonged arm of the grip 3 is provided with slots 19 preferably slightly separate at its middle portion 20 and with grooved or corrugated walls 21.

The elastic hanger according to the invention to be more attractive may be made wholly or in some elements of metal, or plastic, either organic or inorganic, as well as of plastic or reflecting, phosphorizing or luminescent foils.

We claim:

1. An elastic hanger comprising a gripping arm and an integral, depending load supporting arm, support means on the free end of said load supporting arm, said gripping arm comprising at least one spiral of elastically distortable material, a protective cover plate having a substantially centrally located bore and depending peripheral walls which are convergent towards their lower ends, said cover plate being movably mounted with said load supporting arm passing through said bore, and a thickened portion at the upper end of said load supporting arm preventing movement of said cover plate beyond said portion.

2. An elastic hanger according to claim 1 wherein said gripping arm is substantially circular in cross section and is gradually thicker towards said load supporting arm so that the free end of the gripping arm is readily distorted at its free end and said load supporting arm has a distorting force equal to the weight supported.

3. An elastic hanger according to claim 1 wherein said load carrying arm is made from materials selected from the group consisting of plastic thread, thin thread, twisted thin threads, metal, organic and inorganic plastics.

4. An elastic hanger according to claim 1 in which said support means is selected from the group consisting of a transverse arm, a transverse cross, an anchor, and a disk, each of the foregoing being made of flexible material.

5. An elastic hanger according to claim 1 wherein said hanger is made from materials selected from the group consisting of metal, plastic, reflecting material, phosphorizing material; and luminescent material.

References Cited

UNITED STATES PATENTS

937,679	10/1909	Hite -----	248—340
1,841,028	1/1932	Jones.	
2,039,394	5/1936	Dalton.	
2,823,004	2/1958	Melloh -----	248—311 XR
2,988,315	6/1961	Saxe -----	248—304 XR
3,042,355	7/1962	Stevens -----	248—340 XR
3,223,373	12/1965	Molinaro -----	248—339

2,327,519	8/1943	Groothedde -----	161—16 X
2,976,593	3/1961	Exton -----	24—237 X

FOREIGN PATENTS

5	1,301,642	7/1962	France.
	1,077,269	11/1954	France.

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