

The invention relates to an ornamental chain comprising a core and at least one metal wire, which is wound around this core, or wire elements, which surround this core.

Such a piece of jewellery is known from DE-GM 85 21 923, or respectively EP-A-0 214 363 and FR-A-2 505 629.

In a previously known piece of jewellery in accordance with the two first-mentioned publications, the core comprises a plastics material centre, the significant function of which is seen to reside in giving the overall structure the required strength and carrying capacity, which function could no longer be applied by the external metal wire, serving as the actual piece of jewellery, with very small dimensions.

In this embodiment, the plastics material centre has an external diameter which substantially corresponds to the internal diameter of the external wire spiral. This results in a helical area of contact being produced also between the plastics material centre, on the one hand, and the wire spiral, on the other hand. When the piece of jewellery has a sharp bend, more especially, this configuration in the area of contact may cause the outer metal wire to be irregularly distributed over the length of the plastics material centre, because of the relatively high sliding friction due to the helical contact line, on the one hand, and the relatively high frictional resistance of the plastics material, on the other hand.

The resultant irregular appearance impairs the aesthetic overall impression of the piece of jewellery.

In the piece of jewellery according to FR-A-2 505 629, the core comprises a plurality of strands of precious metal, which are twisted relative to one another and are wound in a continuous manner around circulatory metal wires of precious metal, in order to give the piece of jewellery the appearance that it is formed from a solid precious metal and simultaneously to give the piece of jewellery the required resilience.

The basic principle ("Wrapping and Coiling") of similar pieces of jewellery is generally described in the publication "Jewelry Concepts and Technology", New York 1982/85, Pages 206-208. Pieces of jewellery (necklaces) are shown here which have a comparatively solid appearance and wherein the windings only represent part of the overall piece of jewellery. The above-described specific problems of ornamental chains, which are "homogeneous", i.e. which exclusively comprise a core and covering, do not arise here.

An object of the invention is to develop the configuration of such an ornamental chain, so that the circulatory metal wire is held in as "free" a manner as possible by the core, i.e. so that, in particular, the bending behaviour of the circulatory metal wire remains as unaffected as possible by the internally traversing core, and so that, even with very ornamental chains, an aesthetically well-balanced appearance is ensured, more especially also when there are considerable deflections.

This object is achieved, according to the invention, in that substantially dot-shaped areas of contact are exclusively formed between each strand and the metal wire.

The helically wound metal wire is then carried,

as it were, by the traversing strands via the intermediary of a "multi-point holder".

According to one embodiment, the strands are formed from an alloy of the metal from which at least one circulatory metal wire is made.

Such an arrangement ensures that the piece of jewellery has an appearance which is visually more uniform.

Finally, according to an alternative embodiment, the metal of the strands and the metal content of the circulatory metal wire have the same precious metal fineness.

This arrangement has advantages in respect of Design Law, inter alia (punching), since a uniform design for the piece of jewellery is possible within the scope of the national and international Design Laws relevant here, and such is only possible to a limited extent, for example, when plastics material is employed for the core, or centre respectively.

Because of this multi-point mounting, an ornamental chain having the features of the invention is very transparent, in the sense that, when the core is exposed by the circulatory metal wire, for example when there is an intense deflection, the core becomes less significant from on visual point of view and is scarcely noticed by the observer as a consequence of the "free volume areas" between strands, on the one hand, and the circulatory metal, on the other hand.

One embodiment of an ornamental chain according to the invention is explained more fully with reference

to the drawings.

In the drawings:

Fig. 1 is a schematic, perspective view of a piece of jewellery having three strands, which extend parallel to one another, and one helically wound metal wire;

Fig. 2 is a cross-sectional view through the embodiment of Fig. 1; and

Fig. 3 is a cross-sectional view through an alternative embodiment.

The piece of jewellery shown in Figs. 1 and 2 comprises a core formed from three strands 11, 12 and 13, which extend parallel to one another, and one metal wire 10, which helically surrounds this core and determines the visual appearance of the piece of jewellery.

Since the internal cross-section of the metal wire 10 is substantially greater than the overall cross-section of the traversing strands 11, 12 and 13, substantially dot-shaped areas of contact K are formed, in consequence, between strands, on the one hand, and the metal wire, on the other hand, and three cross-sectional or volume areas V remain between the strands, on the one hand, and the metal wire, on the other hand. The exclusively dot-shaped areas of contact are responsible for the uniform flexibility of the piece of jewellery, more especially when the strands are also formed from metal. The volume areas V, which remain free, determine the transparency of the ornamental chain when (as illustrated at A in Fig. 1) it is possible to view the traversing strands, for example in the area of intense

bending or even when circulatory metal wires are spaced apart from the outset.

By selecting the number and diameter of the strands and their association with one another, it is also possible, in consequence, to produce cores which may be adapted to non-circular internal cross-sections of metal spirals. The cross-sectional view of Fig. 3 is only mentioned as being representative thereof.

In particular, chains according to the invention may also be very ornamental; for example, the minimum internal diameter of the metal spiral 10 in the embodiment of Figs. 1 and 2 may be 0.3 mm, and the minimum diameter of the strands used for the core may be 0.15 mm. The piece of jewellery is preferably so configured that the circulatory metal wire is formed from a precious metal (platinum, for example), and the core (strands), which absorbs the mechanical stresses is formed from a correspondingly harder alloy of the same precious metal (that is to say, for example, a platinum ? alloy). If the same fineness is then also selected both for the precious metal of the circulatory wire and for the precious metal content of the alloy of the strands, the overall piece of jewellery can be treated uniformly according to Design Law and, moreover, it constitutes both a technical solution and an aesthetically uniform solution.

It is self-evident that - on the basis of the basic concept of the "multi-strand" configuration of the core - the most varied cross-sectional forms are possible. Separate wire elements, which surround the core, are also conceivable instead of a generally circulatory metal wire.



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CLAIMS

1. Ornamental chain, comprising a core formed from at least two strands of metal or a metal alloy (11, 12, 13), which extend parallel to each other or are twisted relative to each other, and at least one metal wire which is wound around this core, characterised in that substantially dot-shaped areas of contact (K) are exclusively formed between each strand (11, 12, 13) and the metal wire (10), the internal cross-section of the metal wire (10) being greater than the overall cross-section of the traversing strands (11, 12, 13).

2. Chain-like piece of jewellery according to claim 1, characterised in that the strands (11, 12, 13) are formed from an alloy of the metal from which at least one of the circulatory metal wires (10) is made.

3. Chain-like piece of jewellery according to claim 2, characterised in that the metal of the strands (11, 12, 13) and the metal content of the circulatory metal wire (10) have the same precious metal fineness.