PATENT SPECIFICATION

DRAWINGS ATTACHED

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COMPLETE SPECIFICATION

Elastic Link Strap.

We, RODI & WIENENBERGER AKTIENGESELLSCHAFT, of Bleichstrasse 58-68, Pforzheim, Baden, Germany, a German Company, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to an elastic link band for decorative and utilitarian purposes, comprising parallel band links arranged one behind the other in the longitudinal direction of the band and expandably connected with each other by connecting members received within transverse openings of any two adjacent band links and subjected to pressure from leaf springs inside the band links.

The known link bands of this type have the disadvantage that ugly gaps form between the individual band links when the band is expanded or at least that indentations become visible from the longitudinal edges of the band because the connecting members connecting the band links are narrower than the actual band links. The invention intends to remove this disadvantage and provides an expandable link band which still looks uniform and closed even when expanded and further the individual parts of which can be particularly simple and easily manufactured. In particular the individual parts of the band are to be suitable for mass production on automatic machines. According to the invention an elastic link band of the type referred wherein the connecting members each consists of one pair of lugs whose backs are arranged parallel to the longitudinal sides of the band links and close laterally the gaps between the band links when the band is expanded, and that the backs of each pair of connecting members are connected to each other by a base member beneath the base surface of the band links which base members are staggered in relation to said base surfaces and cover each gap between each two adjacent band links when the band is expanded. It is particularly advantageous if the base member combining each pair of connecting members to form a unit is arched inwardly of the band and enclosed by an outwardly arched covering plate secured thereto by tags. It is an advantage if a leaf spring forming an obtuse angle is mounted in each band link and its apex, flattened by an inwardly directed depression, rests against an inner side wall of the band link, while the spring ends, free on both sides, extend behind a pair of lugs of the connecting members turned inwardly of the band and slide along this pair of lugs when the band is expanded, while the other pair of lugs of the connecting members rests directly against the inner side wall of the adjacent band link. Two opposite leaf springs facing each other can be mounted in each band link, the ends being supported against the two pairs of lugs of the connecting members.

The band links themselves can be composed in a known way from a base shell and a covering shell, the base shell preferably being of channel section and the covering shell having the form of a box open at the bottom whose longitudinal side walls cover the openings of the base shell but leave a slit for the connecting members to pass through. On the other hand the band link can also be constructed as a sleeve preferably of rectangular cross section whose openings in the longitudinal edges of the band are covered by bent over flaps forming extensions of the upper walls of the band links. The drawing shows two preferred forms of elastic link bands according to the invention.

Figure 1 is a plan view of a first embodiment;

Figure 2 is a side view in rest position;

Figure 3 is a plan view in expanded position;

Figure 4 is a front sectional view of the band on line IV-IV of Figure 3;

Figure 5 is a perspective view of the base shell;

Figure 6 is a perspective view of a covering shell;

Figure 7 is a perspective view of a connecting member for the band;

(Price 3s. 6d.)

Figures 8 to 13 show a second embodiment, and;

Figure 8 is a side view of the band;

Figure 9 is a plan view in rest position;

Figure 10 is a plan view in expanded state;

Figure 11 is a front sectional view on line XI-XI of Figure 8;

Figure 12 is a perspective view of a connecting member;

Figure 13 is a sectional side view of the connecting member on line XIII-XIII of Figure 12.

In each of the two embodiments shown in drawing the link band has link 2 which are each composed of a base shell 3, a covering shell 4 and connecting members 7 the side and lug parts 8 and 9 of which co-operate with leaf springs 20 arranged in the band links. The base shell 3 of the band link is of channel section with side walls 13 extending transversely of the band and formed centrally with a depression 18. The covering shells 4 have side walls 15 extending transversely of the band and longitudinal side walls 16 forming the longitudinal edges of the band. Projections 19 in the middle of the transverse side walls 15 fit into the depressions 18 of the base shell when the band link is assembled and are secured thereto by a crimping operation. The length of the covering shell 4 measured transversely to the length of the band is greater than the corresponding length of the base shell 3, so that slits 5 occur between the longitudinal side walls 16 of the covering shells and the longitudinal edges of the base shell 3 through which the back parts of the connecting members 7 joined together by a base member 10 can pass, while the inwardly directed lugs 8 and 9 extend into the interior of the band link and there co-operate with the ends of the leaf springs 20 arranged in the interior of the band links. In the first embodiment shown in Figures 1 to 7, there is shown a single leaf spring which by means of an inwardly directed curved depression part 26 bears against a side wall 13 of the band link 2, while the free ends of the spring each extend behind a lug 8 or 9 projecting into the interior of link. In this embodiment the base part 10, connecting the backs of the connecting member 7 is flat and bears closely against the underside of the band links.

In the embodiment shown in Figures 8 to 13, the bases combining the connecting members 7 to form a unit are arched inwardly of the band and are enclosed by a bottom plate 11 arched outwardly of the band and secured to the base 10 by securing tags 12. Figure 9 shows how two leaf springs 20 are inserted in each link, the free ends of the springs being supported against the two lugs 8 and 9 of the connecting member 7. By this arrangement of two leaf springs the base bears against the lower link walls and is staggered in each link by half the link breadth, the band thereby being given uniform symmetrical appearance even in its unexpanded state. The construction of the base according to Figures 12 and 13 gives the band a more pleasing appearance and enables it to cling to the arm better than with a construction of the connecting members according to Figure 7 in which the base of the connecting member it flat.

WHAT WE CLAIM IS:—

1. Elastic link band for decorative and utilitarian purposes, comprising parallel band links arranged one behind the other in the longitudinal direction of the band and expandably connected with each other by connecting members received within transverse openings of any two adjacent band links and subjected to pressure from leaf springs inside the band links, characterised in that the connecting members each comprise a pair of lugs whose backs are arranged parallel to the longitudinal sides of the band links, and close laterally the gaps between the band links when the band is expanded, the backs of each pair of connecting members being connected to each other by a base member beneath the base surface of the band links which base members are staggered in relation to said base surfaces and cover each gap between each two adjacent band links when the band is expanded.

2. Elastic link band as claimed in Claim 1, characterised in that the base members combining each pair of connecting members to form a unit are arched inwardly of the band and are enclosed by an outwardly arched bottom plate secured thereto by tags.

3. Elastic link band as claimed in Claims 1 and 2, characterised in that a leaf spring forming an obtuse angle is mounted in each band link and its apex, flattened by an inwardly-directed depression, rests on an inner side wall of the band link, while the spring ends free on both sides extend behind a pair of lugs of the connecting members turned in the direction of the interior of the band and slide along this pair of lugs when the band is expanded, while the other pair of lugs of the connecting members rests directly on the inner side wall of the adjacent band link.

4. Elastic link band as claimed in Claims 1 and 2 characterised in that two opposite leaf springs facing each other are mounted in each link, whose ends are supported by the two pairs of lugs of the connecting members.

5. An elastic link band substantially as hereinbefore described and as illustrated in Figures 1 - 7 or 8 to 13 of the accompanying drawings.

For the Applicants:
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