An energy guiding chain with rollers

CLAIMS:

1. An energy guiding chain (1) for guiding hoses, cables and the like, comprising a number of chain links which are connected to one another in an articulated manner and are formed by mutually parallel link plates (11, 12) and cross members (21) connecting the lateral link plates, said link plates being linked to form parallel strands of link plates, wherein the lateral link plates can pivot relative to one another about a pivot axis that is common to two respectively adjacent lateral link plates, wherein the energy guiding chain (1) can be displaced in such a way that it forms a loop having an upper strand, a lower strand, and a deflection zone connecting said two strands, thus defining an inner face and an outer face of the chain links in relation to the loop, wherein the upper strand lies on the lower strand under at least partial contact of the inner faces of chain links, and wherein at least some of the chain links are provided with rollers (16) which are inserted into the lateral link plates, are exposed on the inner face, and can roll off a running surface formed by the narrow faces of the lateral link plates (11, 12) of the respectively opposite strand in the elongated state of the chain, characterized in that the lateral link plates of each lateral link plate strand are formed by alternating inner link plates (14) and outer link plates (11, 12), and at least some of the outer link plates (11, 12) are provided with rollers (16), whereas only the inner link plates (14) comprise

limit stops which delimit the pivot angle between adjoining link plates.

2. An energy guiding chain according to claim 1, characterized in that at least some of the outer link plates are composed of two link plate parts (11, 12) which are pivotable relative to each other about a pivot axis.

3. An energy guiding chain according to claim 2, characterized in that the assembled outer link plates are provided with rollers (16) whose rotary axis coincides with the pivot axis of the link plate parts.

4. An energy guiding chain according to one of the preceding claims, characterized in that the cross members (21) are fixed by means of suitable fastening means to the lateral link plates.

CLAIMS:

1. An energy guiding chain (1) for guiding hoses, cables and the like, comprising a number of chain links which are connected to one another in an articulated manner and are formed by mutually parallel link plates (11, 12) and cross members (21) connecting the lateral link plates, said link plates being linked to form parallel strands of link plates, wherein the lateral link plates can pivot relative to one another about a pivot axis that is common to two respectively adjacent lateral link plates, wherein the energy guiding chain (1) can be displaced in such a way that it forms a loop having an upper strand, a lower strand, and a deflection zone connecting said two strands, thus defining an inner face and an outer face of the chain links in relation to the loop, wherein the upper strand lies on the lower strand under at least partial contact of the inner faces of chain links, and wherein at least some of the chain links are provided with rollers (16) which are inserted into the lateral link plates, are exposed on the inner face, and can roll off a running surface formed by the narrow faces of the lateral link plates (11, 12) of the respectively opposite strand in the elongated state of the chain, characterized in that the lateral link plates of each lateral link plate strand are formed by alternating inner link plates (14) and outer link plates (11, 12), and at least some of the outer link plates (11, 12) only are provided with rollers (16), whereas only the inner link plates (14) comprise limit stops which delimit the pivot angle between adjoining link plates.

2. An energy guiding chain according to claim 1, characterized in that at least some of the outer link plates are composed of two link plate parts (11, 12) which are pivotable relative to each other about a pivot axis.

3. An energy guiding chain according to claim 2, characterized in that the assembled outer link plates are provided with rollers (16) whose rotary axis coincides with the pivot axis of the link plate parts.

4. An energy guiding chain according to one of the preceding claims, characterized in that the cross members (21) are fixed by means of suitable fastening means to the lateral link plates.