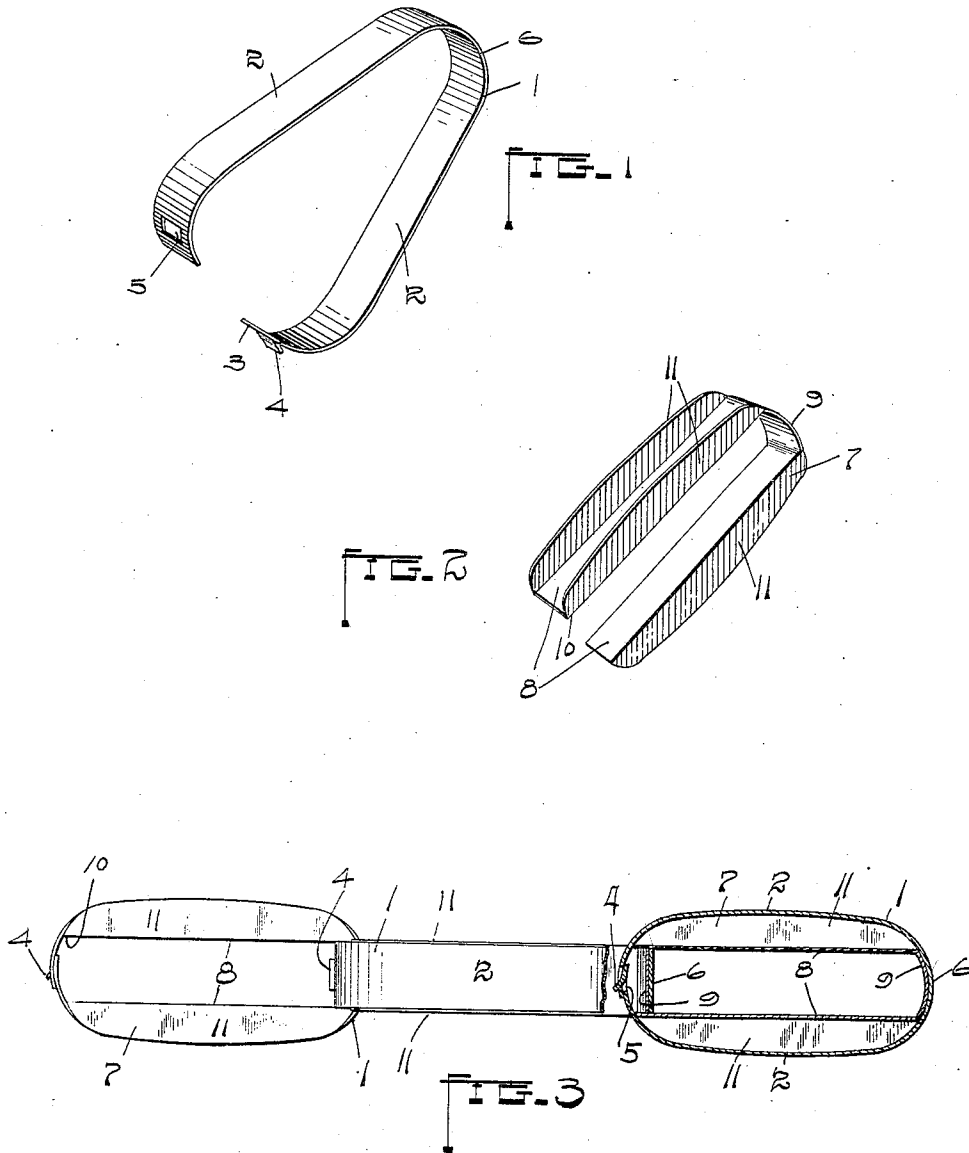


F. W. WAKEFIELD.
CHAIN.
APPLICATION FILED DEC. 8, 1911.

1,049,179.

Patented Dec. 31, 1912.



WITNESSES

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CHAIN.

1,049,179.

Specification of Letters Patent.

Patented Dec. 31, 1912.

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To all whom it may concern:

Be it known that I, FREDERICK W. WAKEFIELD, a citizen of the United States, and a resident of Vermilion, county of Erie, and State of Ohio, have invented a new and useful Improvement in Chains, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

The present invention relates generally to chains, and the chain provided by the invention is particularly applicable to the supporting of lighting fixtures. A support of the chain type for lighting fixtures, and especially for electric fixtures, may be constructed very advantageously of sheet metal and it is found that such a fixture is in itself sufficiently strong for its purpose, and is also highly ornamental. It is sometimes desirable, however, that the support have the appearance of being much heavier than sheet material, or in other words, that it simulate the old style heavy, solid link.

The present invention provides means for retaining the lightness and inexpensiveness of the sheet metal link which, at the same time, simulates the solidity of the old style link.

To the accomplishment of these and related ends, said invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims.

The annexed drawing and the following description set forth in detail certain mechanism embodying the invention, such disclosed means constituting, however, but one of the various mechanical forms in which the principle of the invention may be used.

In said annexed drawing: Figure 1 is a perspective view of the link proper, in open position; Fig. 2 is a perspective view of a member adapted to fit within the link proper; and Fig. 3 is partly an elevational and partly a sectional view of a series of links and members in assembled condition.

The link proper, which is illustrated in Fig. 1, forms the subject matter of U. S. Patent No. 937,663, issued to me October 19, 1909. The complete link, indicated in the drawing by the reference numeral 1, is formed of sheet material which is preferably resilient sheet brass and the link may

be of any desired shape, though it will preferably be, for ornamental purposes, of elongated shape with two sides 2 and with an open end 3 and with a rounded end 6 integral with the sides. One of the meeting ends at the open end 3 is provided with a prong or projection 4, while the other meeting end is provided with a hole 5. The resiliency of the metal acts at the closed end 6 as a spring tending to force the meeting ends apart so that when the two meeting ends are overlapped and the projection 4 enters the hole 5, the resiliency securely holds the link in closed position, and when in closed position, if the link be of the preferred form illustrated in the drawing, the sides 2 are substantially parallel to each other, as seen in the end links in Fig. 3.

The invention provides, for combination with the link proper, a member 7 which is also formed of sheet material, which will preferably be sheet brass, and the general shape of the member 7 will correspond with the selected shape of the link proper 1. In the shape selected for illustration, the member 7 comprises two parallel sides 8 connected at one end by an integral portion 9 and open at the opposite end 10, while flanges 11 project outwardly from each edge of each of the sides 8. The member 7 will be formed of resilient material, such as sheet brass, so that the closed end 9 acts as a spring tending to force the ends of the member apart.

In assembling the complete link, comprising both the link proper 1 and the member 7, the member 7 is seated loosely within the open link 1 with its closed end 9 against the closed end 6 of the link, and the meeting ends of the link 1 are then forced together until the projection 4 engages in the hole 5. Succeeding links are assembled in the same manner, but with one end of each link passing through the adjacent link.

The assembled chain is clearly shown in Fig. 3. For ornamental reasons the closed end 9 of the member conforms with and is contiguous with the end 6 of the link, and if the member be made continuous instead of with an open end it will also conform with and be contiguous with the opposite end of the link 1. The sides 8 of the member, however, are substantially parallel with the sides 2 of the link, but are spaced inwardly

from those sides, and the flanges 11 are so proportioned in a given design that they will extend substantially from the edges of the sides 8 to the edges of the sides 2 of the link. In appearance, therefore, the link is of considerable thickness and apparently of considerable weight, and consequently is in direct simulation of the old solid link. It retains, however, all of the advantages of the sheet metal link, including lightness, simplicity of manufacture, and simplicity in assembling. When the chain is completed and is sustaining its fixture or other weight, it will be noted that the strain will tend to force the ends of the link proper apart, and hence will more securely lock the projection with the edge of the hole; at the same time the strain tends to expand the member 7 and consequently, not only serves to retain the member within the link proper by the resiliency of the member, but also provides an additional pressure tending to more securely lock the ends of the link proper.

It will be understood that the invention is not limited to the use of sheet brass and that it is not limited to the exact shape of link or member shown in the drawing, for it is contemplated that the link proper may be closed instead of open, and instead of elongated it may be substantially circular or square, for instance, or any other desired shape, and the member will correspond in shape with the link. Furthermore, the member may be made continuous instead of open ended, and the part which is spaced from the link proper, which space is concealed by the flanges of the member, may be varied in extent or position as different ornamental designs suggest.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the mechanism herein disclosed, provided the means stated by any of the fol-

lowing claims or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention:—

1. In a chain, the combination of a link formed of sheet material, and a member formed of sheet material and secured within said link, said member comprising a portion spaced from the link and flanges at the edges of said portion extending to the edges of the link.

2. In a chain, the combination of a link formed of sheet material; and an open member formed of resilient sheet material and secured within said link by its resilience, said member comprising a portion spaced from the link and flanges at the edges of said portion extending to the edges of the link.

3. In a chain, the combination of an open link formed of resilient sheet material; and a member formed of resilient sheet material and secured within said link by its resilience, said member comprising a portion spaced from the link and flanges at the edges of said portion extending to the edges of the link.

4. As a new article of manufacture, a filler for chain links, comprising a re-bent resilient sheet material member open at one end and formed at its edges with outwardly extending flanges.

5. As a new article of manufacture, a filler for chain links, comprising a resilient sheet material member closed at one end and open at the other end and having substantially parallel sides and having outwardly extending flanges at the edges of the respective sides.

Signed by me this 5th day of December, 1911.

FREDERICK W. WAKEFIELD.

Attested by—

ROBERT M. SEE,
ANNA L. GILL.