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 JACQUARD LINK FOR KNITTING MACHINES.
 APPLICATION FILED JULY 24, 1912.

1,059,918.

Patented Apr. 22, 1913.

Fig. 1.

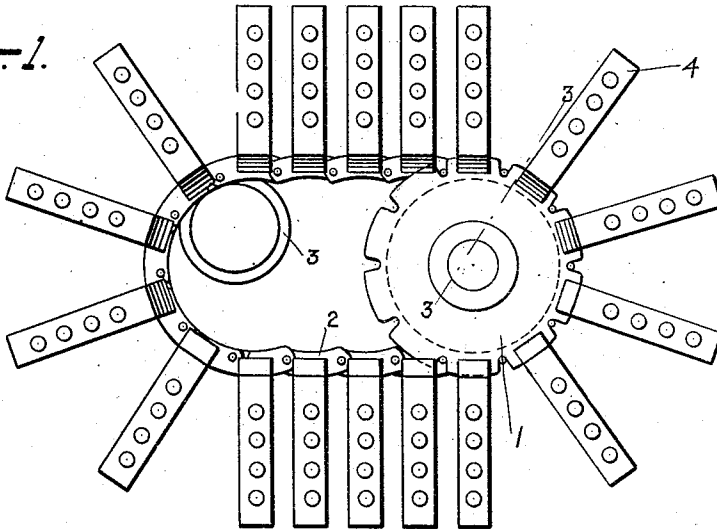


Fig. 2.

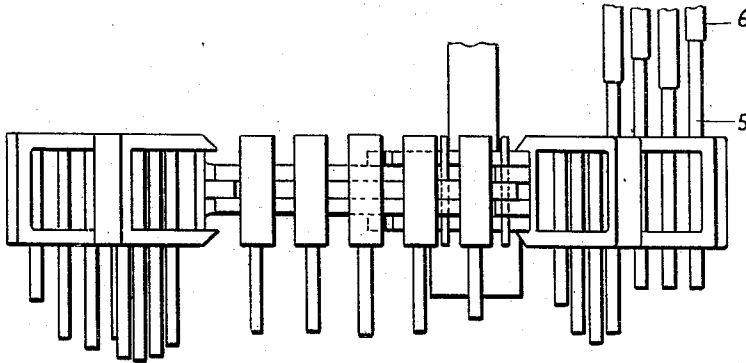


Fig. 3.

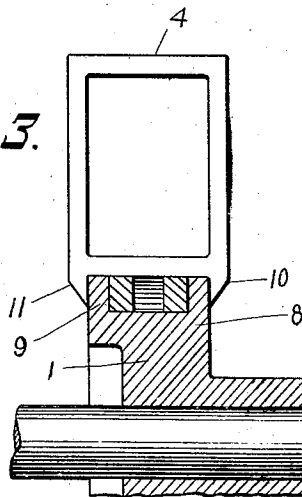
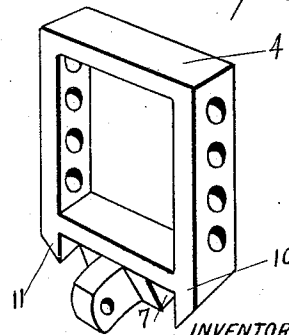


Fig. 4.



WITNESSES

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JACQUARD-LINK FOR KNITTING-MACHINES.

1,059,918.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, GEORGE CHRISTIAN LOUIS TISCH, LOUIS TISCH, JR., and JOHN H. TISCH, all citizens of the United States, and residents of Elizabeth, in the county of Union and State of New Jersey, have invented a new and Improved Jacquard-Link for Knitting-Machines, of which the following is a full, clear, and exact description.

This invention relates to improvements in jacquard links for knitting machines, and has for an object to provide an improved construction of link to that shown in Patent No. 457,265 which issued August 4, 1891 to Julius Frelloehr and Louis Tisch, so as to overcome the more or less loose motion which results from wear.

A further object of the invention is to provide a link of the character mentioned having a pair of depending flanges or braces co-acting with a chain structure for holding the link correctly in position on a sprocket.

In carrying out the objects of the invention, a link structure of the usual form is provided, and substantially the usual construction of chain. Associated with the link and the chain are a pair of depending lugs formed preferably integral with the sides of the link. These lugs are adapted to fit over the flanges of a sprocket which are common to knitting machines of the kind disclosed in the above mentioned patent. As the lugs fit over the sprocket wheel and the chain fits into the sprocket wheel, the link structure is held substantially rigid or correctly in position as the same passes around the sprocket wheel.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side view of a sprocket wheel with a chain and a plurality of jacquard links connected therewith; Fig. 2 is a top plan view of the structure shown in Fig. 1; Fig. 3 is a section through Fig. 1 approximately on the line 3—3, the same being shown on a slightly enlarged scale; and Fig. 4 is a detail perspective view of an improved link.

Referring to the accompanying drawings by numerals, 1 indicates the usual sprocket wheel found in knitting machines designed to receive a chain 2. The chain 2 is sup-

ported by a suitable roller 3 so that the chain and the various links 4 connected therewith may be properly fitted to the sprocket wheel 1. The links 4 are designed to carry pins 5 which are engaged at the proper time by thread guide bars 6. It is desirable to hold the links 4 properly in position so that the pins 5 will always correctly register with the guide bars 6 and in order to accomplish this the construction heretofore used depended upon the links 7 of the chain 2 to engage the sides 8 and 9 of the sprocket wheel 1. In the present construction the link 7 of the chain 2 is used, and also a pair of depending lugs 10 and 11 are used which are designed to neatly fit the outer surface of the sprocket wheel 1 so that the links 4 cannot tilt or move to one side when the links 7 are worn to a greater or less extent. It will be evident that the lugs 10 and 11 and the links 7 could stand considerable wear without allowing the links 4 to appreciably tilt one way or the other so that the links 4 are continually held correctly in position so that the pins 5 will engage properly the guide bars 6 until the lugs 10 and 11 and links 7 are substantially worn out.

Having thus described our invention we claim as new and desire to secure by Letters Patent:—

1. In a link of the class described, a pin supporting link structure formed with downwardly extending members defining stops, and a cross bar spaced from the lower end of said stops and a chain link rigidly associated with said cross bar and spaced a predetermined distance from each of said stops.

2. In a link of the character described, the combination with a sprocket wheel formed with an annular groove, of a pin supporting link, lugs extending downwardly from said pin supporting link and engaging the outer sides of said sprocket wheel, and a chain link connected with said pin supporting link fitting in said groove and substantially filling the same whereby said pin link structure is prevented from tilting.

3. In a device of the character described, a chain structure, each of the links of which is formed with a pin support extending therefrom having a plurality of spaced apertures arranged therein, and guiding members extending from said pin support.

4. In a device of the character described, the combination with a sprocket wheel formed with an annular groove whereby the sprocket wheel has radially extending annular flanges, said annular flanges defining spokes, of a chain co-acting with said sprocket wheel, the links of said chain being formed with a substantially squared body portion for engaging the inner faces of said radially extending flanges, and with a pin support having depending lugs for overlapping said flanges whereby said links and the pin supports carried thereby are prevented from tilting while in engagement with said sprocket wheel.

5. In a device of the character described, the combination with a sprocket wheel formed with a peripheral groove therein substantially rectangular in cross section whereby annular flanges are provided, said annular flanges being notched so as to provide teeth, of a link structure co-acting with said sprocket wheel, said link structure comprising a body substantially rectangular in cross section for fitting said peripheral groove, and connecting pins adapted to project into the notches in said flanges, and a pin support rigidly connected with each of said links formed with an upper part having pin-receiving apertures, and with downwardly extending lower parts or lugs overlapping the outer surface of said annular flanges so as to co-act with the body of said link for preventing any substantial tilting of the pin support.

6. In a device of the character described, the combination with a sprocket formed with a peripheral groove therein substantially rectangular in cross section, whereby annular peripheral flanges are provided, said flanges being notched so as to define sprocket teeth, of a link structure co-acting with said sprocket, said link structure comprising a body portion substantially rectangular in cross section adapted to fit into said peripheral groove, the pin extending through one end of the body sufficiently for causing the ends thereof to fit into one of said notches in said peripheral flanges, and a pin support formed with a pair of upstanding members having apertures therein arranged in the same plane, a pair of cross members for bracing said upstanding members, one of said cross members being connected with said body portion, and a pair of depending lugs extending from said upstanding members and overlapping the outer surface of said sprocket and co-acting with said body portion for preventing the tilting of said pin support.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

GEORGE CHRISTIAN LOUIS TISCH.
LOUIS TISCH, JR.
JOHN H. TISCH.

Witnesses.

AMANDA TISCH,
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