No. 628,818. Patented July 11, 1899.

M. KOCH.

KNITTED DRIVING BELT.

(Application filed Sept. 13, 1898.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

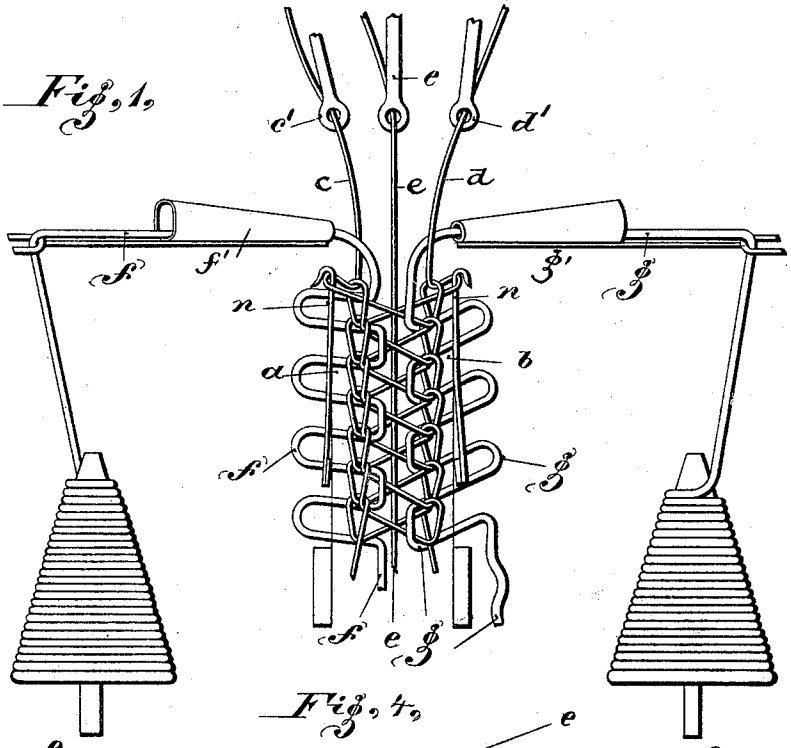
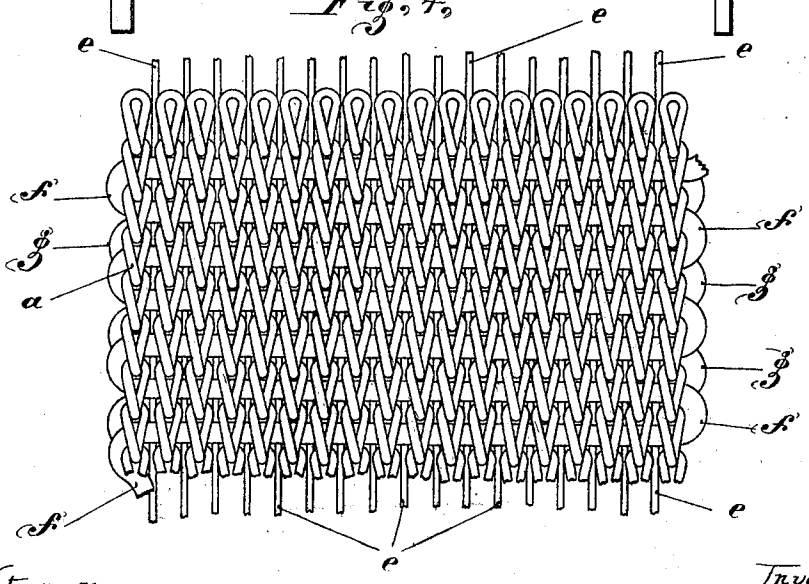


Fig. 4.



Witnesses
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Fig. 2.

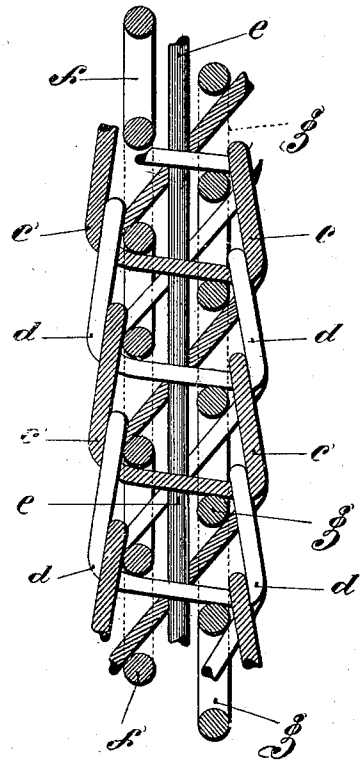
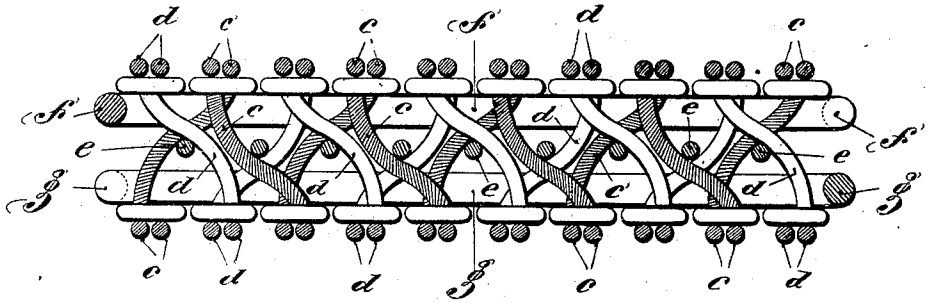


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

MAX KOCH, OF APOLDA, GERMANY, ASSIGNOR TO ERNST MILTSCH AND WALTHER JACOBI, OF SAME PLACE.

KNITTED DRIVING-BELT.

SPECIFICATION forming part of Letters Patent No. 628,818, dated July 11, 1899.

Application filed September 13, 1898. Serial No. 690,886. (No model.)

To all whom it may concern:

Be it known that I, MAX KOCH, manufacturer, a subject of the Grand Duke of Weimar, residing at Apolda, in the Grand Duchy of Weimar and German Empire, have invented certain new and useful Improvements in Knitted Driving-Belts, of which the following is a specification.

The object of the invention is to produce a belt having layers of meshes on both sides thereof connected with each other, weft-cords inclosed by said meshes extending across the belt and emerging from the latter only at the edges in the form of loops, and a series of longitudinally-extending warp-cords passing through the belt from end to end and inclosed by said weft-cords.

What I consider to be new and patentable will be set forth in the claims.

In the drawings, Figure 1 is a perspective view of a portion of the loom employed in the manufacture of my improved belt. Fig. 2 is a longitudinal section through the completed belt. Fig. 3 is a transverse section, and Fig. 4 is an elevation.

Like reference-letters indicate like parts in the different views.

My improved belt is made up of the straight longitudinally-extending warp-cords *e*, mesh-cords *c d*, and weft-cords *f g*, extending across the belt. The same is manufactured upon the loom partially illustrated in Fig. 1 of the drawings, in which one or several thread-guides *c' d'* place their cords *c d* alternately on the two rows of needles *a b*, and after the completion of one or several rows of meshes the weft-guides *f' g'* carry the weft-cords *f g* to both sides of the warp-cord system *e*, located between the rows of needles *a* and *b*. The mesh-cords *c d* are thereby passed around the needles, and thus are formed the meshes on the front face of the belt, Fig. 4, and alternately the meshes at the back of the belt, Figs. 2 and 3, are interlaced.

A belt constructed as described has the advantage of being provided on both sides with protecting-meshes. The mesh-layers on both sides are formed by the mesh-cords *c* and *d* being interlaced, so that the meshes *d* are located at the same height on the front face as the meshes *c*. The warp-cords *e* run straight through the whole length of the belt and are inclosed by the weft-cords *f g*, which latter are inclosed by the surface meshes *c d*.

The weft-cords *f g* only come to the surface of the belt at the edges and are across the whole breadth of the belt inclosed by the mesh-cords running from one flat side to the other, and vice versa, the weft-cords protecting the mesh-cords at the edges, thereby preventing the destruction of the belt.

What I claim as my invention is—

1. A belt having layers of meshes on both sides thereof connected with each other, weft-cords inclosed by said meshes and visible only at the edges, where they emerge in the form of loops, and warp-cords extending lengthwise of the belt from end to end and inclosed by said weft-cords and held below the surface of the belt, substantially as specified.

2. As an improved article of manufacture a belt having a series of meshes on both sides and linked together, bind weft-cords interwoven with the meshes and looped at the edges of the belt at points where they enter from one row of meshes to another, and warp-cords extending straight through the whole length of the belt and inclosed by the weft-cords and engaged by the meshes at alternately-opposite sides of their points of intersection, the said warp-cords being confined beneath the surface of the flat sides of the belt, substantially as shown and described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

MAX KOCH.

Witnesses:
C. LUDWIG,
OTTO ROSE.