T. YAMAMOTO.

INTERLOCKED NETTING.

APPLICATION FILED NOV. 6, 1909.

1,026,544.

Patented May 14, 1912.

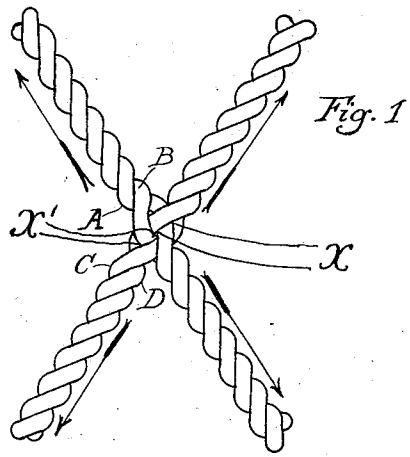

Fig. 1

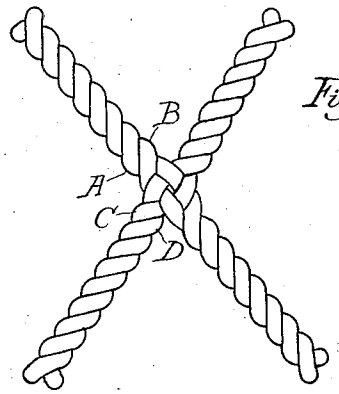

Fig. 2.

WITNESSES:

R. Goldstein

E. Schallinger

INVENTOR

Takejiro Yamamoto

BY

G. Singer

ATTORNEY

UNITED STATES PATENT OFFICE.

TAKEJIRO YAMAMOTO, OF TOKYO, JAPAN, ASSIGNOR TO YEIZABURO HITAKA, OF TOKYO, JAPAN.

INTERLOCKED NETTING.

1,026,544. Specification of Letters Patent. Patented May 14, 1912.

Application filed November 6, 1909. Serial No. 526,592.

To all whom it may concern:

Be it known that I, TAKEJIRO YAMAMOTO, a subject of the Emperor of Japan, residing at No. 27 Mita Shikokumachi, Shibaku, in the city of Tokyo, Empire of Japan, have invented new and useful Interlocked Netting, of which the following is the specification.

This invention relates to knotless nets, wherein the meshes are of the well known rhombic shape.

Objects of the invention are to facilitate and simplify the manufacture of nets, to reduce the manufacturing expense, and to produce a netting of uniform size of the meshes.

Netting used for fishing nets, silk worm nets, garments and such like was heretofore made mainly in two different ways, designated by knotting and weaving respectively. Nettings made according to the knotting method wore out in comparatively short time, especially on the knots which form the main resting points of the fabric, when the same is spread out evenly. Moisture absorbed by the net is retained in the knots for longer time than in the twines themselves, so that the drying period for the nets was disadvantageously long. In the weaving system the meshes frequently were of irregularly deformed shape, the wefts tending to shift on the warps under strain and causing thereby a partial distortion of the meshes. Intertwisted threads could not be very well used, but the preferably used material consisted of cords or single threads.

In the drawings Figure 1 is the structure of the improved netting at the point of intersection of two cords, shown on an enlarged scale, Fig. 2 is a modification of the same.

Strands A and B of the first cord are twisted together and drawn in preferably diagonal direction from left to right to their point of intersection with the strands C and D of the second cord likewise twisted together and drawn in preferably diagonal direction from right to left. At the point of intersection one of the last named strands passes between the strands A and B, which are crossed over each other, and the other one of the strands drawn from the right is passed between them. The strands of each pair or cord in their continuation are intertwisted again.

In the modification illustrated in Fig. 2 strand A alone is inserted between the intertwisted strands C and D drawn from the right, strand C is underneath strand B, which is underneath strand D.

By the aforedescribed method a netting is obtained without any knots, but with unchangeable meshes. Moisture will be absorbed uniformly in every part of the fabric, which is of great advantage in fishing nets. Tensile strain applied to the net in any or all directions can not permanently deform the shape of the meshes.

It will be seen that the strands A, B, of the first cord pass between and outside the strands C, D, of the second cord in substantially opposite direction with respect to each other, the strands C, D, being similarly disposed with respect to the strands A, B, and that such interlocking of the strands of the cords effectively prevent axial displacement of the interlocked cords in either of the directions indicated by the arrows, in Fig. 1. It will also be seen, by reference to Fig. 1, that the strand A of the first cord passes between one lap of twist x of the strands C, D, and that the strand B passes between the next adjacent lap of twist x' of the strands C, D, the strands C, D passing between the adjacent laps of twist of the strands A, B, in like manner.

It will be obvious that by reason of the interlocking relation of the strands of the cords, with respect to each other, the strain imposed by the load will be distributed upon all of the strands of the cords, at the point of intersection thereof.

I claim:—

1. An interlocked netting consisting of intersecting first and second cords each composed of twisted strands, the strands of the first cord passing between the strands of the second cord in substantially opposite directions, and the strands of the second cord passing between the strands of the first cord in substantially opposite directions, whereby each cord is locked against axial displacement with respect to the cord intersected thereby.

2. An interlocked netting consisting of intersecting first and second cords each consisting of twisted strands, one strand of the first cord extending between one lap of twist of the strands of the second cord and the other strand of the first cord extending be-

tween the next adjacent lap of twist of the strands of the second cord, the strands of the second cord extending between adjacent laps of twist of the first cord, whereby each cord is locked against axial displacement with respect to the cord intersected thereby.

3. An interlocked netting comprising first and second intersecting cords each consisting of a plurality of strands, all of the strands of the first cord being intertwined through and between the strands of the second cord and all of the strands of the second cord being intertwined through and between the strands of the first cord, at the point of intersection of said cords.

In testimony whereof I affix my signature and seal in presence of two witnesses.

TAKEJIRO YAMAMOTO. [L. S.]

Witnesses:
GEUJI KURIBARA,
MASATARO OKASAVA.