

(No Model.)

G. MEACOM.
MACHINE BELTING.

No. 353,873.

Patented Dec. 7, 1886.

Fig: 1.

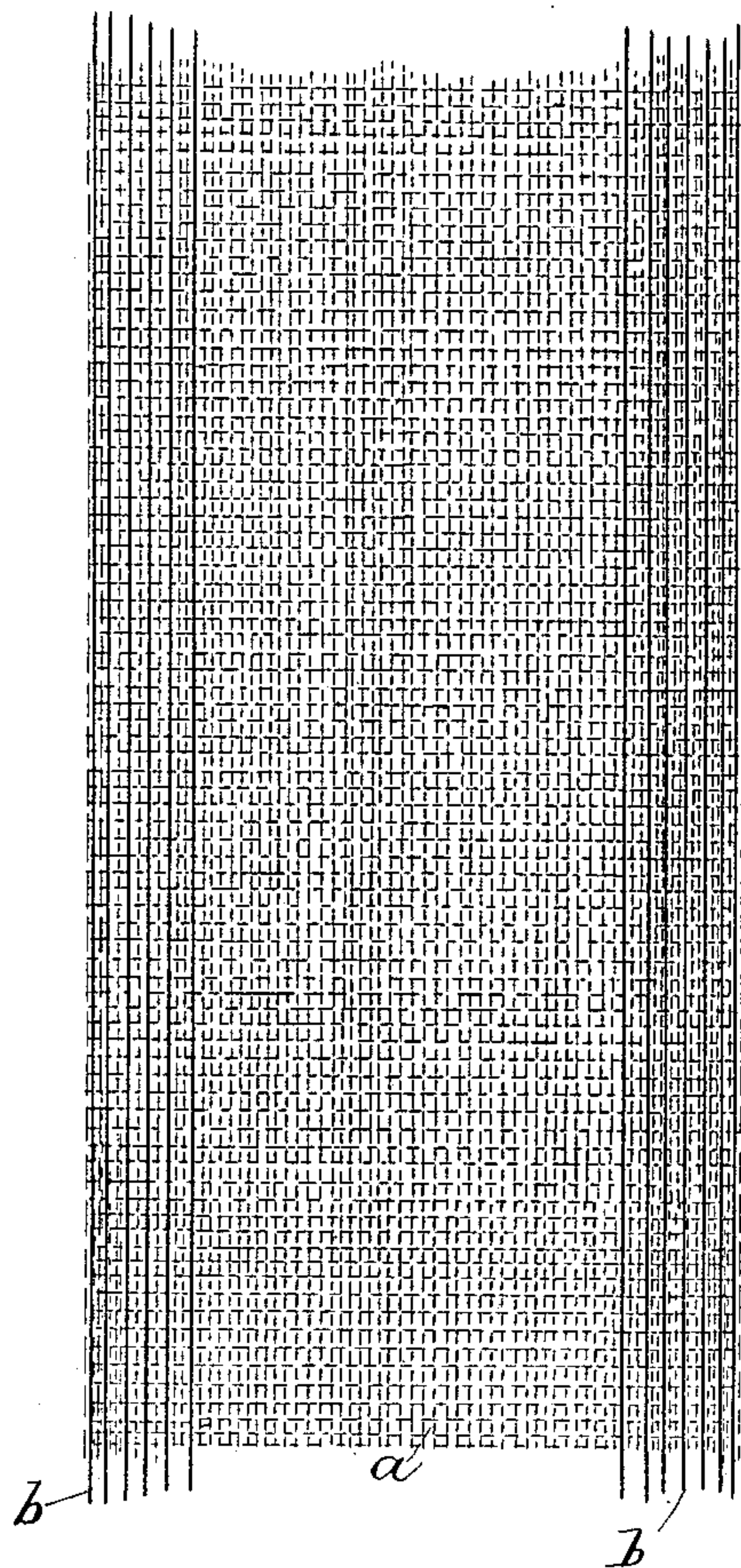


Fig: 4.

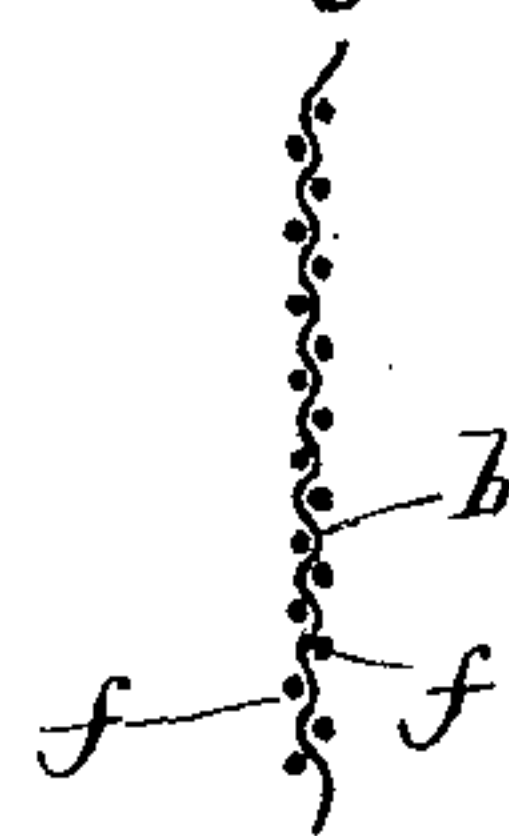


Fig: 2.

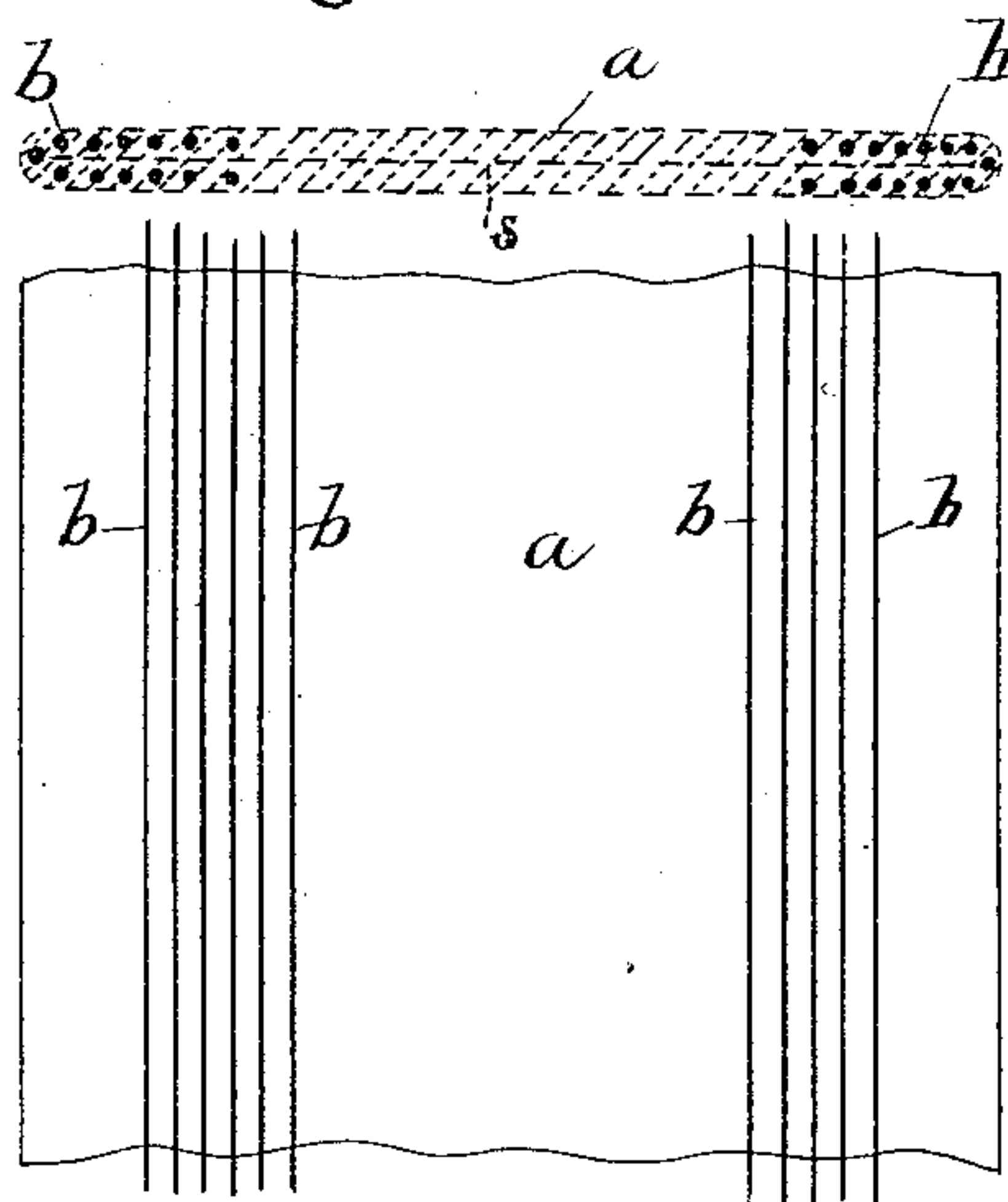


Fig: 3.

Witnesses:
H. Brown.
J. H. Porter.

Inventor.
Geo. Meacom
by Night Brown & Amely
Atty.

UNITED STATES PATENT OFFICE.

GEORGE MEACOM, OF CHELSEA, ASSIGNOR TO PETER W. FRENCH, TRUSTEE,
OF WEYMOUTH, MASSACHUSETTS.

MACHINE-BELTING.

SPECIFICATION forming part of Letters Patent No. 353,873, dated December 7, 1886.

Application filed June 1, 1886. Serial No. 203,768. (No model.)

To all whom it may concern:

Be it known that I, GEORGE MEACOM, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented certain new and
5 useful Improvements in Belts and Belting, of which the following a specification.

My invention relates to belts and belting, and particularly to such articles as have their base or body composed of duck or similar
10 woven fabric, which fabric, to complete the belt, is treated with rubber in a well-known manner.

It is the object of my invention to so improve the structure of articles of the class
15 mentioned as to make them more serviceable than belts or belting as heretofore produced, by reason of obviating their liability to abrasion and wear at points where such results are likely to follow their use through being
20 brought into frictional contact with other parts of the belt or other things.

I will now proceed to describe my invention, so that those skilled in the art may be able to make and use the same, the invention being
25 particularly pointed out in the claim hereto appended.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a portion of a fabric constructed in accordance
30 with my invention and folded to form a belt, or the body or base of a belt. Fig. 2 is a cross-section of the same. Fig. 3 is a diagrammatic view representing the structure of the fabric before being folded to form a belt,
35 as represented in Fig. 1. Fig. 4 represents a longitudinal section through a portion of the fabric.

The same letters of reference indicate the same parts in all the figures.

40 In the drawings, *a* represents the body of the fabric for the base or body of my belt, which is composed of duck, canvas, or similar woven textile fabric.

b b represent warps of steel wire, or wire
45 of similar material, which run through and are woven into the fabric at the points where it is folded to form the edges of the belt when made into an article of that character. The fabric thus formed is coated with rubber in
50 any of the ways employed in the manufacture

of rubber belting on both faces, preferably out nearly to the edges, where the wire warps *b* are woven therein.

As is well known, the weak points of a rubber belt are its edges, which, when brought
55 into contact with the shipper or with other parts of the belt in instances where they are "crossed" or with any other thing, soon wear away, which causes them to split or become
"baggy," rendering them ineffective and
60 worthless.

In forming the fabric for my belt I arrange the warps so that they will run therethrough at points where the folds will occur in the fabric when the edges are united in such man-
65 ner as make the seams extend through the longitudinal center of one side of the completed belt, it being understood that the wire warps are woven into the fabric, so as to extend around the edges of the belt, and for a
70 short distance inward toward its center only, as shown in Figs. 1 and 2.

Fig. 3 represents a diagram of the fabric for my improved belts or belting before being folded to form a belt, the dark conventional
75 lines *b* representing the points at which the wire or metallic warps are woven in, the fibrous portion of the fabric not being delineated. It is obvious that the wire warps might be woven in at other points in the fabric with the
80 same result, the only change in the structure of a belt formed therefrom in such case would be the change in position of the seam *s*, so as to make the wire warps *b* come at points at and
85 a short distance inward from the edges.

The metallic warps *b* being composed of soft ductile steel, fine brass, white-metal, or other suitable ductile metal, assume a serpentine or zigzag position in the fabric, as represented
90 in Fig. 4. holding the fibrous wefts *f* in the hollows of their curves, effectually protecting them from abrasion and wear, and thus greatly prolonging the life of the belt.

The fabric may be woven on a circular loom in a manner that will be readily understood,
95 in which case it will be produced in a tubular form, obviating the necessity of a seam, *s*, in its manufacture into a belt.

Any desired or suitable manner of securing, as at *s*, may be adopted, and the ends of the 100

belt may be united in any known way. It may be mentioned, however, that I prefer to employ fine rivets in connection with the uniting strands along the seam or at the butt thereof, as will be understood by those skilled in the art without illustration or description.

I am aware that it is not new to incorporate strands of wire, wire cables, and strips of metal in the bodies of belts and belting for the purpose of strengthening the same and preventing stretching, and I do not therefore claim this feature broadly; but where the wire strands have been arranged at intervals entirely across the belt or belting, the latter has been objectionably heavy and the wire strands not being grouped at the edges of the belting were not arranged in the best manner to resist the wear. I have discovered that by making the body or central portion of my belting of woven textile material and grouping the

longitudinal wires at or near the edges only I produce a belting which is not objectionably heavy and in which the edges are protected from abrasion and wear.

What I claim is—

The improved belt or belting herein described, the body of the same consisting of woven textile material having woven therein at or near its edges only closely-grouped longitudinal strands of wire, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 17th day of May, 1886.

GEORGE MEACOM.

Witnesses:

ARTHUR W. CROSSLEY,
C. F. BROWN.