

WIRE FABRIC.

907,914.

Patented Dec. 29, 1908.

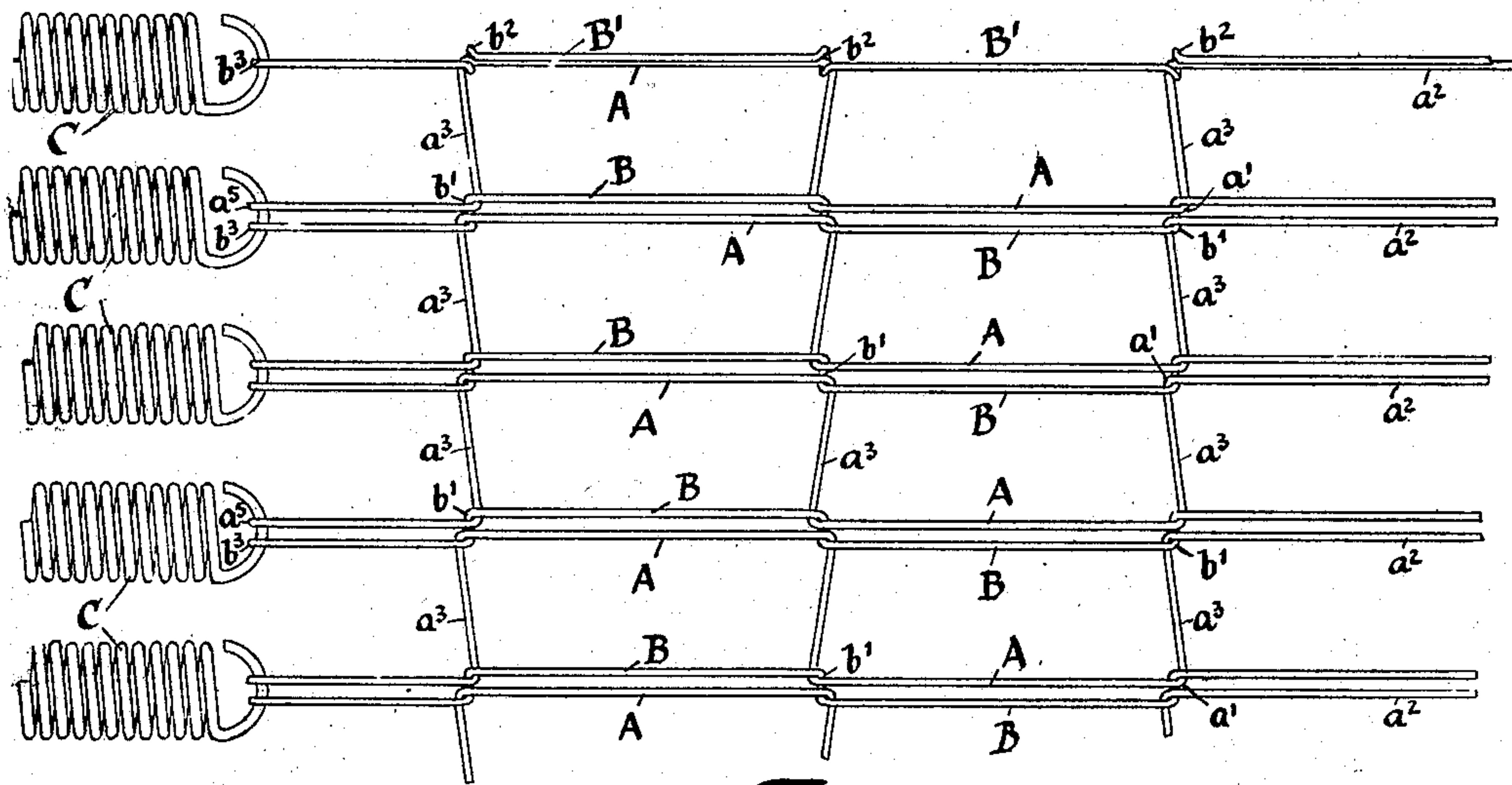


Fig. 1

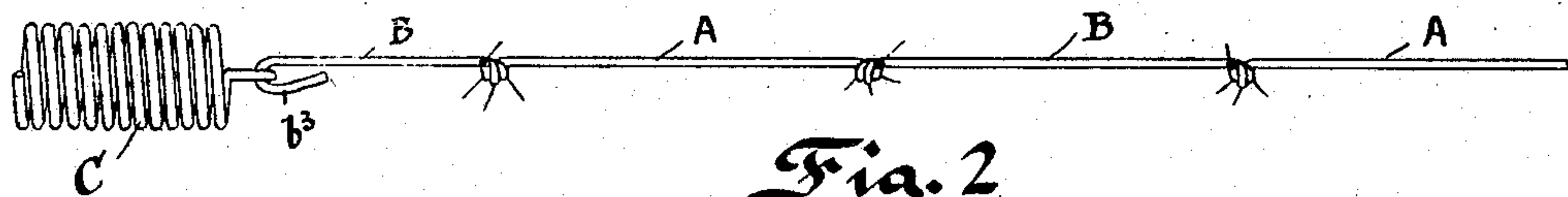
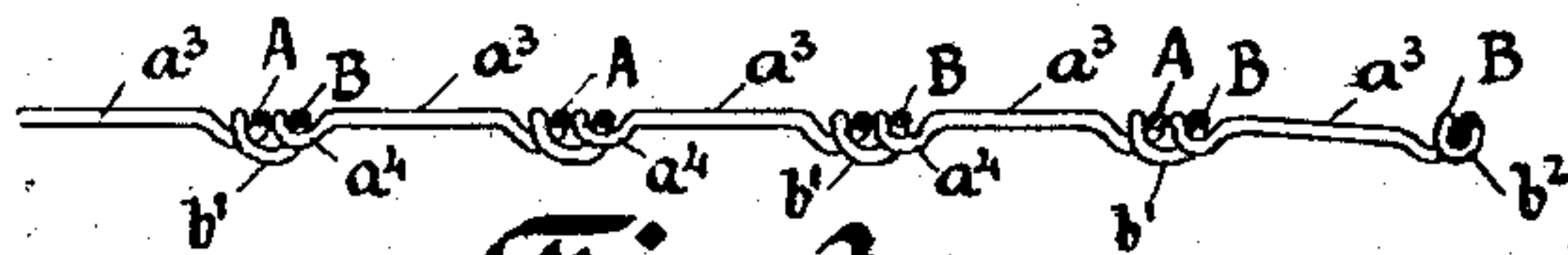
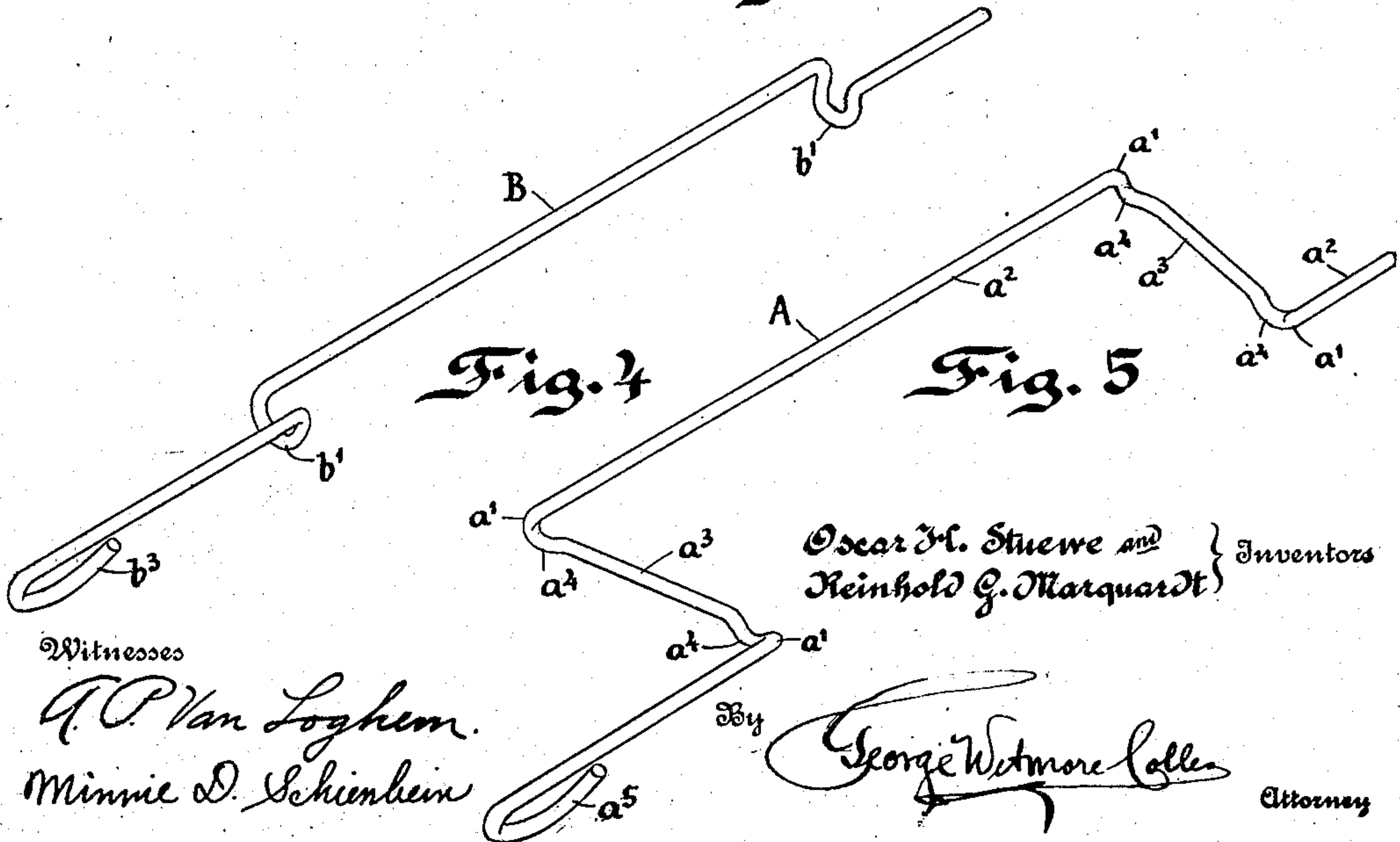


Fig. 2.



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UNITED STATES PATENT OFFICE.

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WIRE FABRIC.

No. 907,914.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed July 1, 1908. Serial No. 441,323.

To all whom it may concern:

Be it known that we, OSCAR H. STUEWE and REINHOLD G. MARQUARDT, of Milwaukee, Wisconsin, have invented a Wire Fabric, of which the following is a specification.

This invention relates to wire fabric usable for various purposes but intended more particularly for use in bed and couch-bottoms, especially for folding-bottoms such as are used in Davenports, spring-beds, cots, cribs and couches.

Our object is to provide an improved form of foldable fabric and bed-bottom by a combination of two forms of wire-elements interlocked together in such a manner that the elements are turnable about the joints and the joints cannot become dislocated.

We further aim to produce a better disposition of the material so that the fabric shall have a greater longitudinal than lateral strength corresponding to the direction of strain upon the bed-bottom, and which shall present a smooth upper surface giving a better and more desirable support to the mattress.

Our invention consists of a combination of two forms of wire-elements one of which is bent into a series of alternating rectangular loops or bights and the other is substantially straight with intermediate small loops corresponding to the corners of the loops or bights on the first element; each of said second elements serving to unite two of said first elements by means of the small loops thereon.

As illustrated in the accompanying drawings, Figure 1 is a plan view of a part of our fabric constituting one corner of a bed or couch bottom; Fig. 2 is a longitudinal section therethrough; Fig. 3 is a transverse section thereof; and Figs. 4 and 5 are perspective views of the respective elements which make up the fabric.

In these drawings every reference letter and numeral refers always to the same part.

The aforesaid two elements are designated respectively A and B; the former being bent at an angle a little less than a right angle at the points a' so as to provide longitudinal laps a^2 and transverse laps a^3 ; and at the ends of the transverse laps are preferably formed crimps a^4 which enable the laps a^3 to pass around the elements B while the intermediate part lies flush with the upper surface of the fabric. The element B has at inter-

vals corresponding to the distances between the laps a^3 U-shaped transverse loops b' which are turned alternately in opposite directions as shown in Fig. 4 and are of sufficient opening to allow two wires side by side between them. These loops pass under and around the wires A at the corners a' , uniting them together, and with the result of producing a fabric all of whose wires are tangent to the same plane on the upper surface, and whose strength longitudinally is reinforced with double the amount of wire that would be used in case elements A were interlocked with each other directly, thus producing a better distribution of material. A selvage is formed by means of one of the elements B embracing the outside element A as shown at B' , the loops b' being in this case pressed together over the single wire as shown at b^2 . Hooks a^5 , b^3 are formed on the ends of the elements A, B, for engagement with the helical springs C which are commonly used to support bed-bottoms of this class.

It is to be observed that the folding of the fabric at the joints can readily take place and cannot result in the dislocating of the joints which has caused trouble in some fabrics, because the crimps a^4 and the abutment of the ends of the laps a^3 against adjacent wires prevent these laps from running up through the loops b' .

Various changes and modifications in the constructions as herein shown may be made without departing from the spirit of our invention, and we wish it understood therefore that the latter is not otherwise limited than by the reasonable scope of our claims.

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

1. A wire-fabric comprising two alternating sets of elements, the first consisting of a wire bent into substantially rectangular and alternately oppositely directed bights, and the other consisting of a wire having at intervals thereon a plurality of short transverse alternately oppositely directed loops engaging the corners of said bights.

2. A wire-fabric comprising two alternating sets of elements, the first consisting of a wire bent into substantially rectangular and alternately oppositely directed bights, each bight having a crimp at the corners thereof, and the other consisting of a wire having at

intervals thereon a plurality of short transverse alternately oppositely directed loops engaging the corners of said bights.

3. A wire-fabric comprising two alternating sets of elements, the first consisting of a wire bent into substantially rectangular and alternately oppositely directed bights forming longitudinal laps alternating with transverse laps, each of said transverse laps having crimps at its ends adjacent to the corners, and the other consisting of a wire having at intervals thereon a plurality of short transverse alternately oppositely directed loops engaging the corners of said bights.

4. A wire-fabric comprising two alternating sets of elements, the first consisting of a wire bent into substantially rectangular and alternately oppositely directed bights and the second consisting of a longitudinal wire engaging and connecting together two of said first elements at the corners thereof, the parts of said longitudinal wire being substantially in one line.

5. A wire-fabric comprising two alternating sets of elements, the first consisting of a wire bent into substantially rectangular alternately oppositely directed bights, and the other consisting of a wire having at intervals thereon a plurality of short transverse alternately oppositely directed loops engaging the corners of said bights, all of said wires except the loops and bends thereof lying substantially in the same plane.

6. A wire-fabric comprising two alternating sets of elements, the first consisting of a wire bent into substantially rectangular and alternately oppositely directed bights, and each of said second elements comprising a wire having downwardly bent U-shaped transverse loops at intervals corresponding to the lengths of said bights, said U-shaped loops being turned alternately in opposite directions.

7. A wire-fabric comprising two alternating sets of elements, the first consisting of a wire bent into substantially rectangular and alternately oppositely directed bights, and each of said second elements comprising a wire having downwardly bent U-shaped transverse loops at intervals corresponding to the lengths of said bights, said U-shaped loops being turned alternately in opposite directions, each of said loops having an opening sufficient to allow two wires to lie side by

side therein in the same horizontal plane and each of said loops embracing two bights of adjacent elements at the corners thereof.

8. A wire-fabric comprising two alternating sets of elements, the first consisting of a wire bent into substantially rectangular and alternately oppositely directed bights, and the other consisting of a wire having at intervals thereon a plurality of short transverse alternately oppositely directed loops engaging the corners of said bights, hooks bent on the free ends of all of said elements, and springs engaging said hooks.

9. A selvage for wire-fabric comprising a wire having a plurality of transverse loops at intervals thereon turned in alternately opposite directions, said loops engaging the wire or wires forming the natural edge of the fabric.

10. In combination with a wire-fabric containing elements consisting of wires bent into alternately oppositely directed rectangular bights, a selvage comprising a wire having at intervals corresponding to the corners of said bights and engaging therewith on the outside element of the fabric a plurality of alternately oppositely turned transverse loops embracing the wire forming said element.

11. In combination with a wire-fabric containing elements consisting of wires bent into alternately oppositely directed rectangular bights, a selvage comprising a wire having at intervals corresponding to the corners of said bights and engaging therewith on the outside element of the fabric a plurality of alternately oppositely turned transverse loops embracing the wire forming said element, and a spring connected with the free end of said selvage-wire.

12. A wire-fabric for bed-bottoms made up of interlocked elements providing single laps of wire extending transversely at intervals across the fabric, and double laps extending longitudinally thereof, each of said laps forming a part of a continuous wire extending from end to end of the fabric.

In witness whereof we have hereunto set our hands this 29th day of June, 1908.

O. H. STUEWE.

REINHOLD G. MARQUARDT.

Witnesses:

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