

(No Model.)

G. NICHOLSON.

BAND FOR STRAPPING BOXES, BALES, &c.

No. 315,438.

Patented Apr. 7, 1885.

Fig 1.

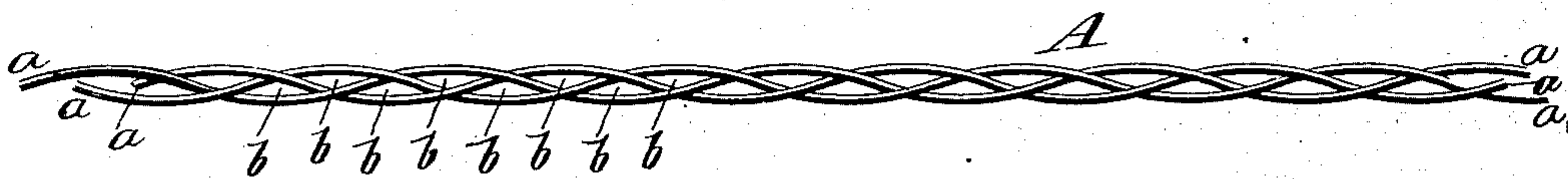
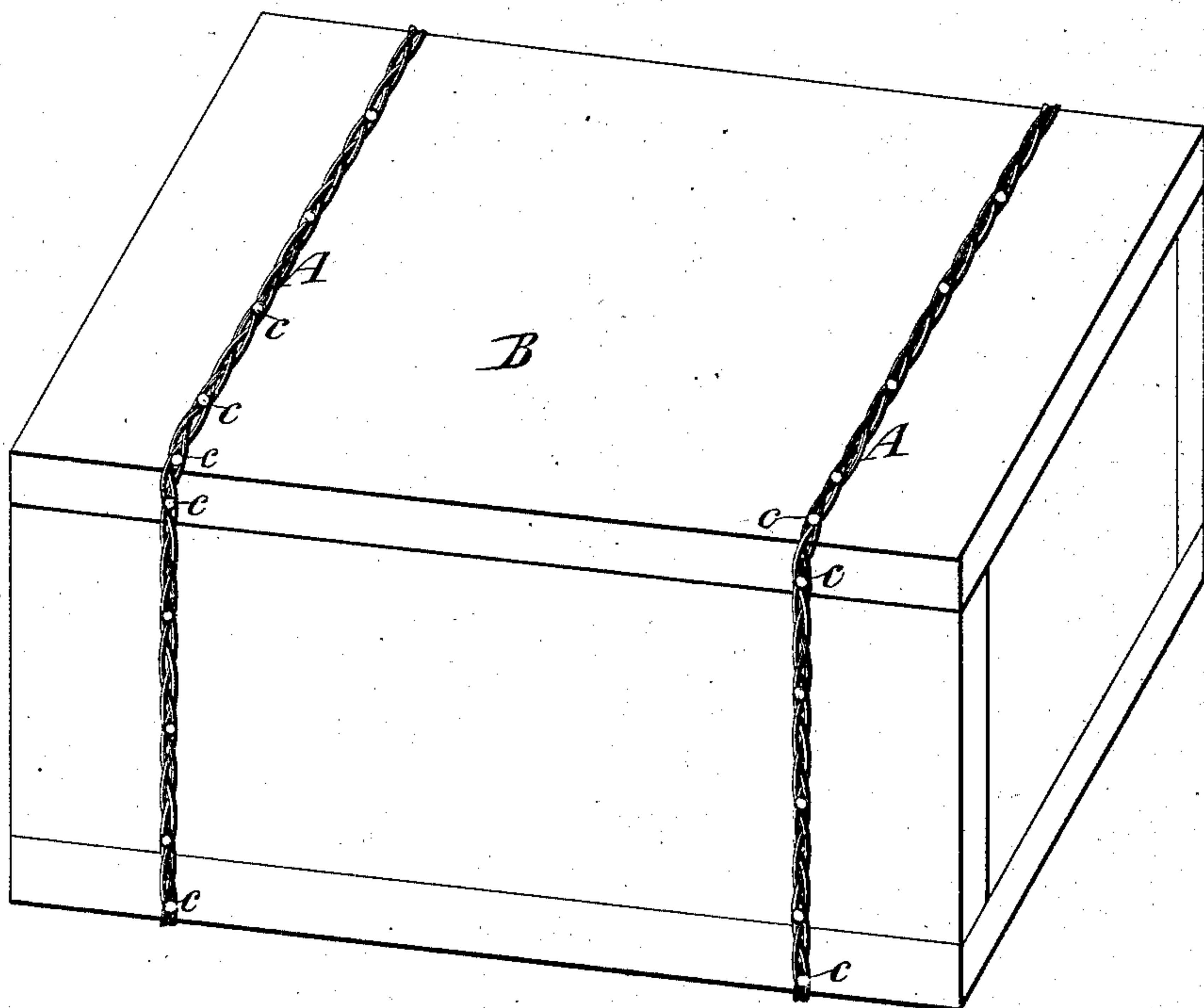


Fig 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

GRANVILLE NICHOLSON, OF NEW YORK, N. Y., ASSIGNOR TO JOHN L. CLARK, OF SAME PLACE.

BAND FOR STRAPPING BOXES, BALES, &c.

SPECIFICATION forming part of Letters Patent No. 315,438, dated April 7, 1885.

Application filed February 24, 1885. (No model.)

To all whom it may concern:

Be it known that I, GRANVILLE NICHOLSON, of the city and county of New York, in the State of New York, have invented a new and useful Improvement in Bands for Strapping Boxes, Bales, &c., of which the following is a specification.

Hoop-iron has most commonly been employed for strapping boxes heretofore; but there have also been employed wire bands, in which two wires are tightly twisted throughout the greater part of their length, but have at intervals eyes or holes formed by outward bends in the wire, and which receive the bodies and exclude the heads of nails or other fastening devices.

The fastening-nails cannot be inserted elsewhere than at the eyes, and these, being at definite and considerable distances apart, often come opposite parts of a box not well adapted to receive nails, or, if used as a bale-band, such eyes do not always coincide in the two ends of the band so as to receive a rivet for connecting them. Such bands, being made of tightly-twisted wires, are stiff, and, if of large wire, considerable power is required to bend them around a box.

The object of my invention is to provide a wire band having provision for the insertion of fastening devices at any and every point in its length, which is flexible and easily bent, and which will be very strong, inasmuch as the wires are not weakened by the disturbance or distortion of their fibers resulting from the operation of twisting.

My invention consists in a band for strapping boxes and bales, consisting of wires braided together flatwise, whereby there is produced a flat and broad band, which is flexible, and may be readily bent, and which has ranges of holes or interstices lapping on or extending past each other throughout the length of the band, and made of a size to receive the bodies and exclude the heads of nails or other fastening devices.

The invention also consists in the combination, with a box or bale, of a band of the kind described bent around and secured thereto. The band may have applied to it any suitable rust-proof compound, which may be readily

applied, or it may be tinned or galvanized, and if tinned or galvanized the wires will be soldered or secured at their points of intersection by the process of tinning or galvanizing.

In the accompanying drawings, Figure 1 represents a portion of a band embodying my invention, and Fig. 2 is a perspective view of a box strapped with my improved band.

In both figures, A designates the band, which is composed of or consists of a number of separate wires, *a a a*, braided together flatwise, as best shown in Fig. 1. I have here shown the band as having three wires only; but it might have four or more. The several wires are preferably of steel; but iron or other wire may be employed for the purpose. The band thus produced will be broad or wide, and hence, even when made of light wires, it will be very strong and still so flexible that it may be readily bent around a box, and will lie flat thereon. Another most important advantage results from forming the band of braided wires. I thereby form a band in which there are ranges of holes or interstices *b*, which lap on one another or are practically continuous throughout the length of the band, and which are of a size to receive the bodies and exclude the heads of nails or other fastening devices. These ranges of holes or interstices provide for the insertion of nails or other fastening devices at any conceivable point in the wire where it may be desirable to place them. For example, in applying the band to a box, B, made of thin boards or lumber, it will be advantageous to drive nails *c* into the edges of the boards, and with this band holes or interstices *b* are certain to come at these points without any care in adjusting or applying the band. A nail *c* may therefore be driven into the edge of each board which is presented at the corner of the box, and this result could not be secured where the band is provided with eyes formed only at definite distances apart, unless the band is specially made for boxes of that exact size.

My band can be applied to boxes of any size, and the holes or interstices will, without any adjustment of the band, be so arranged that nails may be driven for fastening it at

any and every point desired. It will also be seen that if this band be used for bales there will be no difficulty in securing the ends together by a rivet or other fastening devices, as there will always be holes in the two end portions, which will, without any adjustment of the band, be coincident with each other. This band may be made in continuous length and sold in lengths of five hundred feet (more or less) upon a spool or reel; or the bands may be supplied of any definite lengths desired, to be used without cutting.

I am aware that it is not new to make fence metal by braiding together wires and interlocking wire barbs therewith. An important object in fence metal is to produce a band or strip which is as large as possible, in order that the same shall be clearly visible to stock, and fence metal which is composed of braided wires and interlocking barbs cannot be successfully employed for banding boxes, because the braiding is so open that the heads of nails or other fastening devices will pass directly through the holes or interstices, and because the barbs which are interlocked with the braided wires will prevent the band from being applied closely to and lying flat upon a box.

I am also aware that it is not new in the art of galvanizing metal to secure together at their points of intersection wires which compose a woven-wire cloth or fabric, and I do not claim this, broadly, as of my invention.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The band for strapping boxes and bales, consisting of wires braided together flatwise, and formed with ranges or rows of holes or interstices *b*, which lap on each other and are continuous throughout the length of the band, and which are of a size to receive the bodies and exclude the heads of nails or other fastening devices, substantially as herein described.

2. The combination, with a box or bale, of a band consisting of wires braided together flatwise, and having ranges or rows of holes or interstices which lap on each other throughout the length of the band, and fastening devices *c*, inserted through the holes or interstices *b* and securing the band to the box or bale, substantially as herein described.

3. The band for strapping boxes and bales, consisting of wires braided together flatwise, and having ranges or rows of holes or interstices *b*, which lap on each other throughout the length of the band, and are adapted to receive the bodies and exclude the heads of fastening devices, the band being galvanized or tinned, whereby its wires are secured together at their points of crossing, substantially as herein described.

GRANVILLE NICHOLSON.

Witnesses:

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