

(No Model.)

S. C. CARY.

METHOD OF MAKING COILED METAL BOX STRAPS.

No. 441,355.

Patented Nov. 25, 1890.

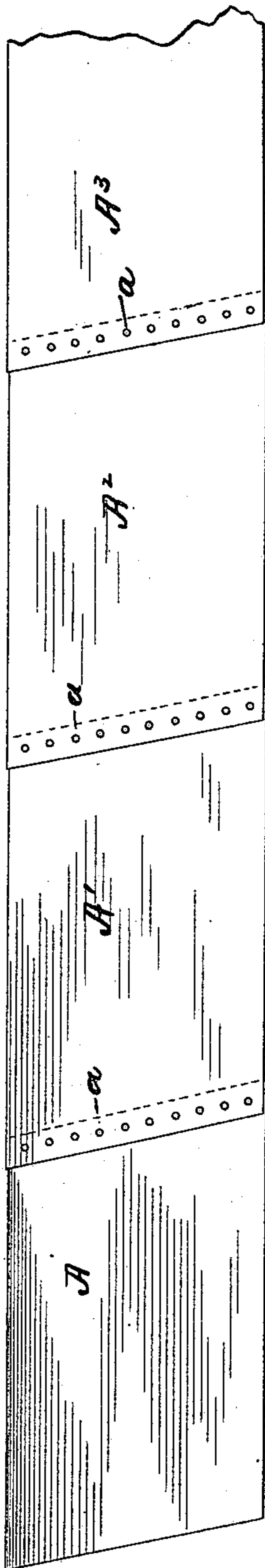


Fig. 1.

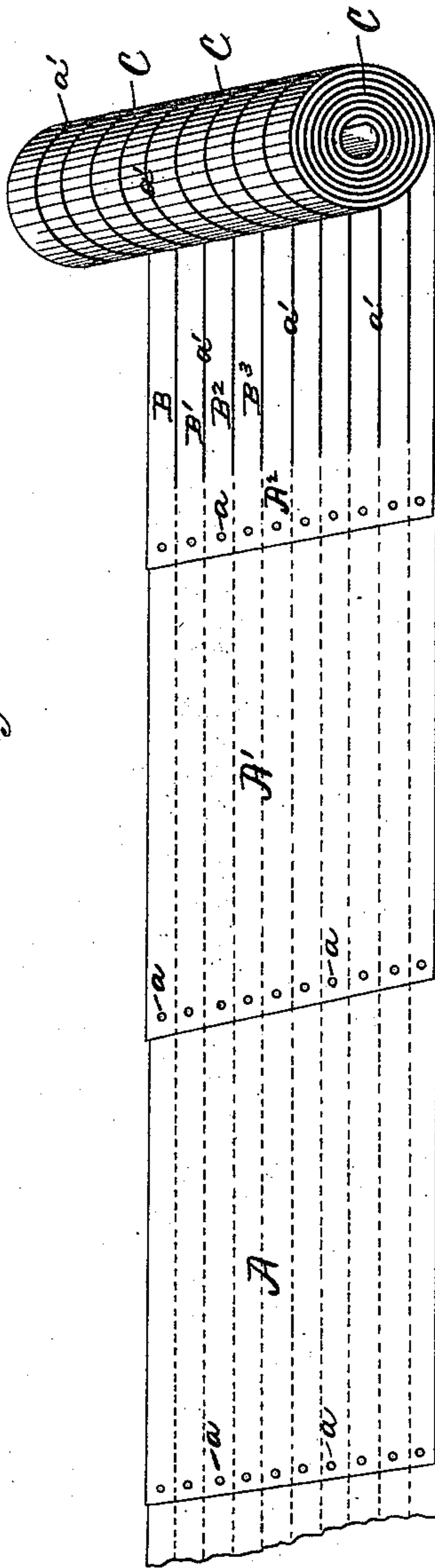


Fig. 2.

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METHOD OF MAKING COILED METAL BOX-STRAPS.

SPECIFICATION forming part of Letters Patent No. 441,355, dated November 25, 1890.

Application filed June 11, 1890. Serial No. 355,028. (No model.)

To all whom it may concern:

Be it known that I, SPENCER C. CARY, of Baldwin, county of Queens, State of New York, a citizen of the United States, have invented certain new and useful Improvements in the Method of Making Coiled Metal Box-Straps, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention consists in the method of making coiled metal box-straps, which comprises, first, uniting endwise at their corresponding edges an indefinite number of metal sheets of equal width by similar series of individual and preferably equidistantly-located fasteners or joints, with the corresponding individual fasteners in each said series at the several unions of the sheets in line with each other, respectively, throughout the extent of the united sheets, then slitting or cutting the thus-united metal sheets into strips or bands equal in number to the number of fasteners in each series thereof, and each thus-constituted strip or band including and having the respective corresponding fasteners of each said series thereof, and, finally, coiling the thus-constituted metal strips or bands of indefinite length separately upon themselves, respectively, into individual helices, as and for the purpose hereinafter set forth.

Figure 1 illustrates the first step in my improved method, showing in perspective plan several metal sheets united endwise at their corresponding similar edges in succession by similar series of individual and equidistantly-arranged fasteners; and Fig. 2 illustrates the second and final steps in my method, showing the united metal sheets partially slitted into strips or bands corresponding in number to the number of individual fasteners in the respective series thereof and the thus-constituted metal strips or bands coiled separately upon themselves into individual helices.

In carrying out my invention I take metal sheets which are of a desirable gage or thickness, and which are of uniform width and of a width adapting them to constitute strips or bands suitable for box-straps when slitted or cut by parallel kerfs, and I unite these metal sheets endwise successively at their corre-

sponding edges by means of individual eyelets, rivets, or equivalent fasteners, which are arranged or located in series at the several successive joints or unions of the sheets, and with the fasteners of each series preferably equidistant from each other, and so that the corresponding individual fasteners in each said series are in line with each other, respectively, throughout the several unions of the sheets.

In Fig. 1, $A A' A^2$ are the metal sheets of uniform width, and a are the individual fasteners, which are arranged as hereinbefore set forth and unite the metal sheets endwise, the edges of the sheets being overlapped successively, as shown. When the metal sheets are thus united successively to constitute a continuous sheet of indefinite length, I slit the said continuous sheet into strips or bands of uniform width and of such width as adapts them for use as box-straps. In slitting the said united sheets, as described, I make the cuts parallel to each other and preferably equidistant from each other, and I thus divide the sheets into continuous bands or strips, which are equal in number to the number of individual fasteners a in each series thereof at the successive joints of the sheets, and which bands or strips each include and have the respective corresponding fasteners of each series thereof, by making the cuts in the sheets in lines midway between the adjacent fasteners in the series thereof at each union of the sheets.

In Fig. 2 the lines of the slits or cuts in the sheets are shown at a' , and the thus-constituted several metal bands or strips are shown at $B B' B^2$, &c.

In completing my invention I coil the continuous bands or strips $B B' B^2$, &c., separately upon themselves into individual helices C , as illustrated in Fig. 2. The metal sheets may be united successively endwise at their lapped edges by perforating the said lapped edges with a series of coincident holes in a suitable punching-machine having a gang of punching-dies, and then by means of a gang of eyeleting-dies or rivet-fasteners fixing eyelets or rivets in the said holes. The united sheets may be slit, as described, by a machine provided with a gang of cutters or knives,

and the separate bands or strips thereby constituted may pass in said machine directly to spools fixed on a revoluble mandrel and be thereon coiled into individual helices.

5 By means of my improved method I am enabled to economically and rapidly fabricate box-straps of great length from metal sheets of comparatively short lengths and to coil these long straps into individual helices on
10 suitable spools or reels, in which condition they are adapted to be handled, transported, and sold as an article of manufacture and merchandise, and are in convenient form for use.

15 I am aware that metal box-straps have been heretofore made by cutting strips or bands successively from the edge of a metal sheet, and then jointing these bands or strips together endwise successively to form a continuous strap of indefinite length, and I make
20 no claim herein to such mode of making metal box-straps. Such said mode of making box-straps is a slow, tedious, and expensive operation, and the object of my present invention is to overcome the objections incident
25 to such old method.

30 I am also aware that metal box-straps of indefinite length have been heretofore coiled into helices, and therefore I make no claim herein, broadly, thereto.

35 I am furthermore aware that continuous and homogeneous sheets of material—such as paper—have been heretofore slitted into bands or ribbons and these bands or ribbons coiled into separate helices, and I make no claim
40 herein, broadly, to thus slitting a sheet of material and coiling the resultant individual strips, inasmuch as the same does not constitute my invention, which consists in taking metal sheets of uniform width and uniting them endwise at their corresponding edges successively by similar series of individual and preferably equidistantly-located fasteners, with the corresponding individual fasten-

ers in each said series at the several unions 45 of the sheets in line with each other, respectively, throughout the extent of the united sheets, then slitting the thus-united metal sheets into bands or strips equal in number to the number of the fasteners in each series 50 thereof, and each thus constituted strip or band including and having the respective corresponding fasteners of each said series thereof, and, finally, coiling the thus-constituted metal strips or bands of indefinite 55 length separately upon themselves, respectively, into individual helices, whereby I am enabled to expeditiously and economically fabricate coiled metal box-straps of great or indefinite length from metal sheets of comparatively short lengths or limited extent, and it is to this specific method that I intend to confine my claim herein.

What I claim as my invention, and desire to secure by Letters Patent, is— 65

The method of making coiled metal box-straps, which consists in first uniting endwise at their corresponding edges an indefinite number of metal sheets of uniform width by similar series of individual fasteners with the corresponding individual fasteners in each said series at the several unions of the sheets in line with each other, respectively, throughout the extent of the united sheets, then slitting the thus-united metal sheets into bands or strips 75 equal in number to the number of fasteners in each series thereof, and with each thus-constituted band or strip including and having the respective corresponding fasteners of each said series thereof, and, finally, coiling the 80 thus-constituted metal bands or strips separately upon themselves, respectively, into individual helices, substantially as and for the purpose set forth.

SPENCER C. CARY.

Witnesses:

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A. T. FALES.