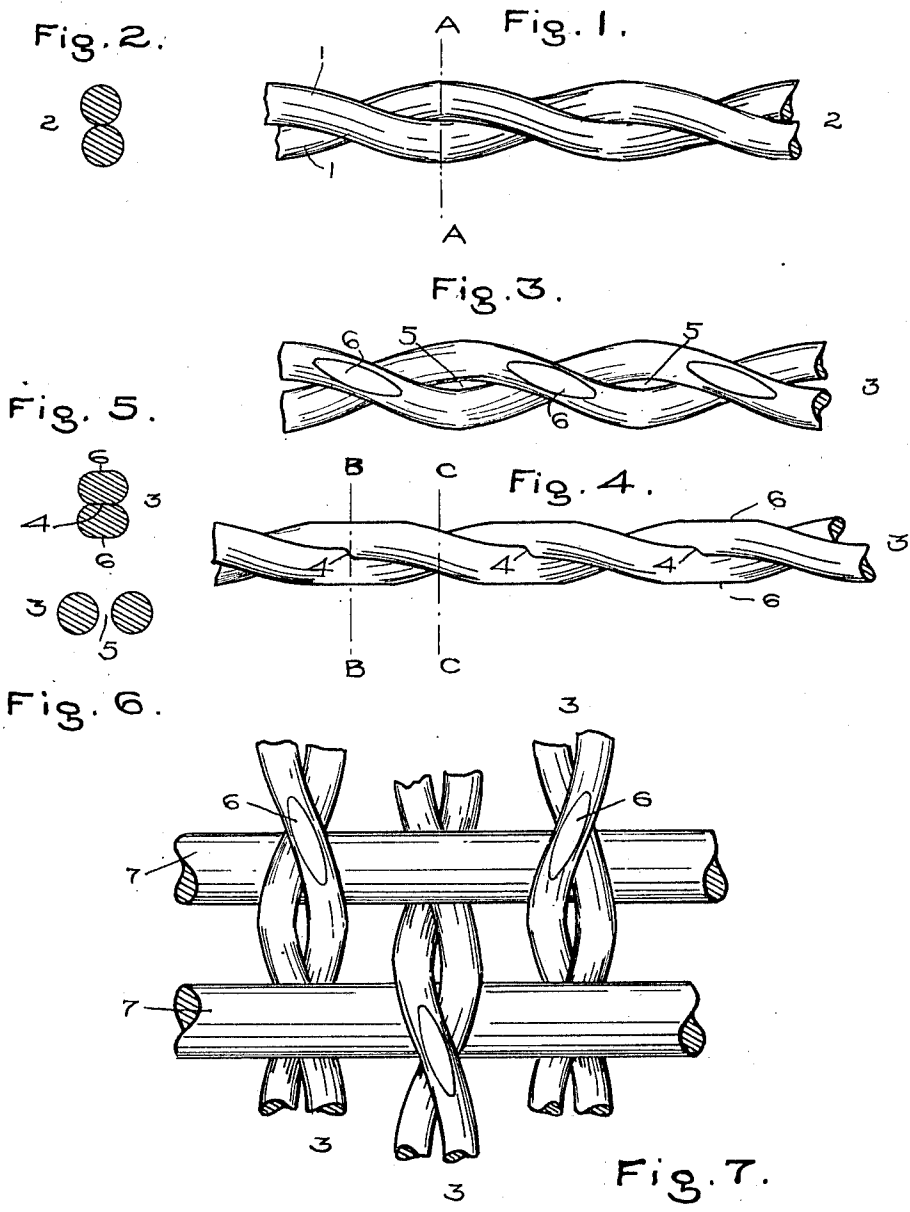


J. C. BELL.
 MAKING WIRE FOR PAPER MAKING.
 APPLICATION FILED OCT. 5, 1910.

1,020,073.

Patented Mar. 12, 1912.



WITNESSES
 Cornelius Gabriskie.
 Frances W. Blodgett.

John C. Bell, INVENTOR,
 BY
 Russell M. Everett, ATTORNEY.

UNITED STATES PATENT OFFICE.

JOHN C. BELL, OF HARRISON, NEW JERSEY.

MAKING-WIRE FOR PAPER-MAKING.

1,020,073.

Specification of Letters Patent. Patented Mar. 12, 1912.

Application filed October 5, 1910. Serial No. 585,377.

To all whom it may concern:

Be it known that I, JOHN C. BELL, a citizen of the United States, residing at Harrison, in the county of Hudson and State of New Jersey, have invented certain Improvements in Making-Wires for Paper-Making, of which the following is a specification.

This invention relates to paper-makers' wire fabric such as is used in Fourdrinier paper-machines, and more particularly to that particular kind of such wire fabric shown in my prior Patent No. 600,352, granted March 8, 1898.

The objects of the present invention are to secure a making-wire with a flattened warp which shall be strong and durable; to employ for this purpose a warp composed of a plurality of strands; to strengthen the warp by twisting the strands together; to flatten such a warp of twisted strands, and to obtain other advantages and results as may be brought out in the following description.

Referring to the accompanying drawings, in which like numerals of reference indicate the same parts throughout the several figures, Figure 1 shows the round wires twisted together in the first step of forming the flattened warp employed in my invention; Fig. 2 is a transverse section on line A—A of the same; Fig. 3 is a plan view of the warp after it has been flattened; Fig. 4 is an edge view of the same; Fig. 5 is a transverse section taken on line B—B of Fig. 4; Fig. 6 is a transverse section taken on line C—C of Fig. 4, and Fig. 7 shows in plan a portion of the woven making-wire greatly enlarged.

In said drawings, 1, 1 indicate two strands of round wire each about three and one-half thousandths of an inch in diameter, which strands are twisted together by any suitable mechanism or means known to the art to produce a compound wire about eight-thousandths of an inch in diameter. This compound wire 2 is then flattened somewhat by pressure, as by running it through rolls, (not shown), when it is ready to be woven into my improved making-wire. Such flattening may be carried to any extent desired, but preferably the flattened warp 3 or twisted strands is about nine thousandths of an inch in width by six thousandths of an inch thick. Obviously, such flattening or rolling will mash the strands 1, 1 together somewhat where they overlie each other, as at 4,

and separate them slightly where they lie alongside each other between the rolls, as at 5. The effect of this rolling is illustrated in Figs. 3, 4, 5 and 6, it being understood that all the figures of the drawing are greatly enlarged, and Figs. 3-7, inclusive probably exaggerated somewhat. The rolling thus produces flattened areas 6 upon the strands 1, 1 at the opposite sides of the warp, as indicated in the drawing. The compound or twisted wire, thus flattened, is used for the warp in weaving my improved making-wire, being kept flatwise of the woven fabric in any common and well-known manner. The weft is made up of common round filling-wires 7, preferably of a diameter about the same as the width of the flattened warp-wires, as for example eight or nine thousandths of an inch. The making-wire is woven in ordinary manner, and when completed it appears, greatly magnified, substantially as shown in Fig. 7. It has the advantageous feature of presenting a uniform surface, devoid of sharp prominent knuckles, and at the same time its warp is stronger and more durable because compound or composed of twisted strands.

Having thus described the invention, what I claim is:

1. A making-wire for paper-making, comprising warp-wires and filling-wires woven together, the warps each being composed of a plurality of strands twisted together and being flattened after such twisting, the sides of said flattened warp forming the outer surface of the fabric.

2. A making-wire for paper-making, comprising warp-wires and filling-wires woven together, the warps each being composed of two strands twisted together and being flattened after such twisting, the sides of said flattened warp forming the outer surface of the fabric.

3. A making-wire for paper making, comprising warp-wires and filling-wires woven together, the warps each being composed of two round strands twisted together and being flattened after such twisting, the sides of said flattened warp forming the outer surface of the fabric.

4. A making-wire for paper-making, comprising warp-wires and filling-wires woven together, the warps each being composed of two round strands twisted together and being flattened after such twisting to a thickness greater than the diameter of said

strands, the sides of said flattened warp forming the outer surface of the fabric.

5 A making-wire for paper-making, comprising warp-wires and filling-wires woven together, the warps each being composed of two round strands twisted together and being flattened after such twisting at those points where the strands cross each

other in a line perpendicular to the parallel planes of flattening, the sides of said flattened warp forming the outer surface of the fabric. 10

JOHN C. BELL.

Witnesses:

CORNELIUS ZABRISKIE,
FRANCES E. BLODGETT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
