

(Specimens.)

F. R. WILLIAMS.
TWINE AND METHOD OF MAKING SAME.

No. 520,249.

Patented May 22, 1894.

Fig. 1.

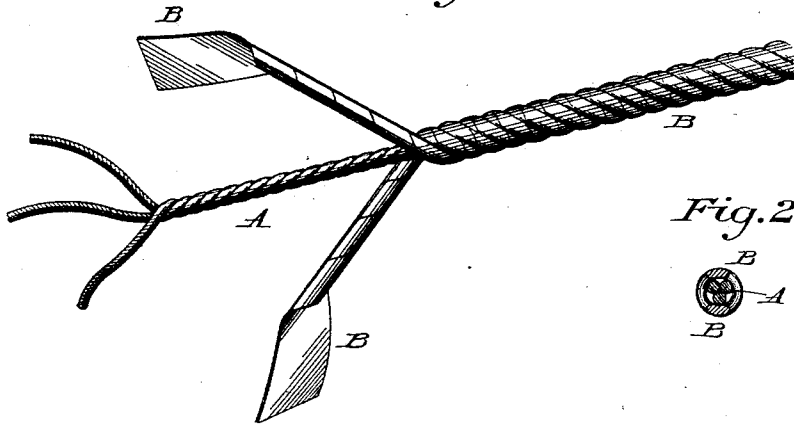


Fig. 2.

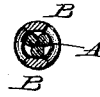


Fig. 3.

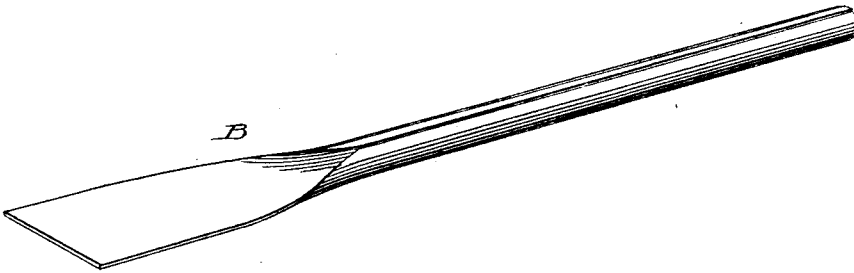
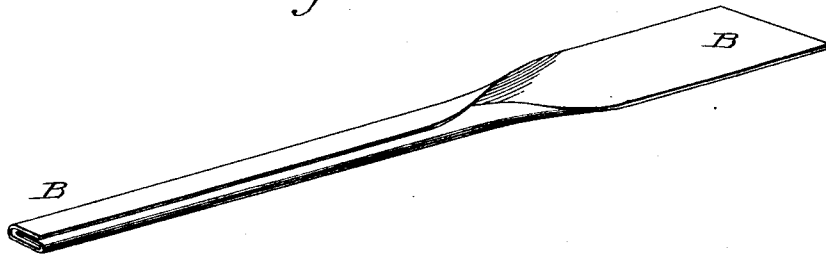


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

FARMER ROOD WILLIAMS, OF BELOIT, WISCONSIN, ASSIGNOR TO THE
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TWINE AND METHOD OF MAKING SAME.

SPECIFICATION forming part of Letters Patent No. 520,249, dated May 22, 1894.

Application filed September 14, 1889. Serial No. 23,915. (Specimens.)

To all whom it may concern:

Be it known that I, FARMER ROOD WILLIAMS, of Beloit, in the county of Rock and State of Wisconsin, have invented certain Improvements in Twine and Methods of Making the Same, of which the following is a specification.

This invention is directed more particularly to the production of a cheap, strong and pliable twine adapted for use in grain-binding machines.

The invention consists in the method of manufacturing twine by folding or coiling a strip of paper and thereafter winding the same around a central core of fibrous material, and, also in the improved twine resulting from such operation.

I am aware that a flat paper strip has been wound spirally around a fibrous core, and this I do not claim. When the paper is thus applied the strip is strained unequally and is frequently ruptured from the edges inward, the twine being weak and unreliable. By first folding or coiling the paper into tubular or tape-like form, then winding it around the core, I am enabled to utilize the full tensile strength of both the paper and the fiber, and to produce a twine which answers all practical requirements for the purpose named.

My core may consist of hemp, cotton, jute or other fibers of suitable strength, laid loosely in the direction of the length of the twine, or twisted, braided or otherwise united in any of the modes commonly practiced in the manufacture of twine.

The paper may be of any stock and quality possessing the requisite strength and pliability, and it may be twisted, folded or otherwise formed into tubular shape. One or more of these tubes, either with or without being previously flattened or collapsed, is wound upon the central core in any manner which will secure close and permanent union of the two.

In the accompanying drawings,—Figure 1 is a perspective view showing my cord in one

of its forms and the method of producing the same. Fig. 2 is a cross section of the same. Fig. 3, shows the strip rolled into a tube, and Fig. 4, shows it folded down flat from both edges.

In Fig. 1 A represents the fibrous core of ordinary twine or cord composed of fibers twisted into strands which are in turn twisted together.

B is the paper covering consisting of a paper strip coiled helically into a tube, as at b, and then wound helically and tightly around the core A, so as to cover, conceal, and strengthen the same. There may be two or more of these paper covering strands wound upon the core as indicated.

In Fig. 3 the paper strip is rolled edgewise into a tube; it may be applied to the fibrous core in this condition.

In Fig. 4 the edges of the strip are folded in upon each other and flattened down, and in this form the strip is wound upon the core. This folded strip presenting several thicknesses is practically the same as a flattened tube and is a substantial equivalent of the coiled or folded tubes of the preceding figures.

Having thus described my invention, what I claim is—

1. The method of manufacturing twine consisting in first folding or coiling a strip of paper on itself and thereafter winding such coiled or folded strip upon a core of fibrous material, whereby a pliable twine is produced in which longitudinal strains will be safely distributed throughout the paper.

2. The improved twine consisting of a fibrous core and a previously coiled or folded strand of paper wound thereon.

In testimony whereof I hereunto set my hand, this 12th day of September, 1889, in the presence of two attesting witnesses.

FARMER ROOD WILLIAMS.

Witnesses:

M. E. HOLTON,
FRED S. POND.