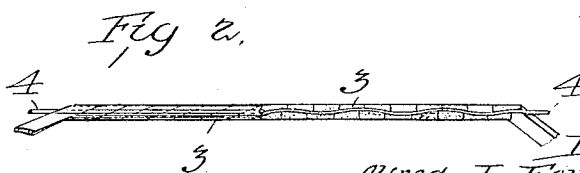
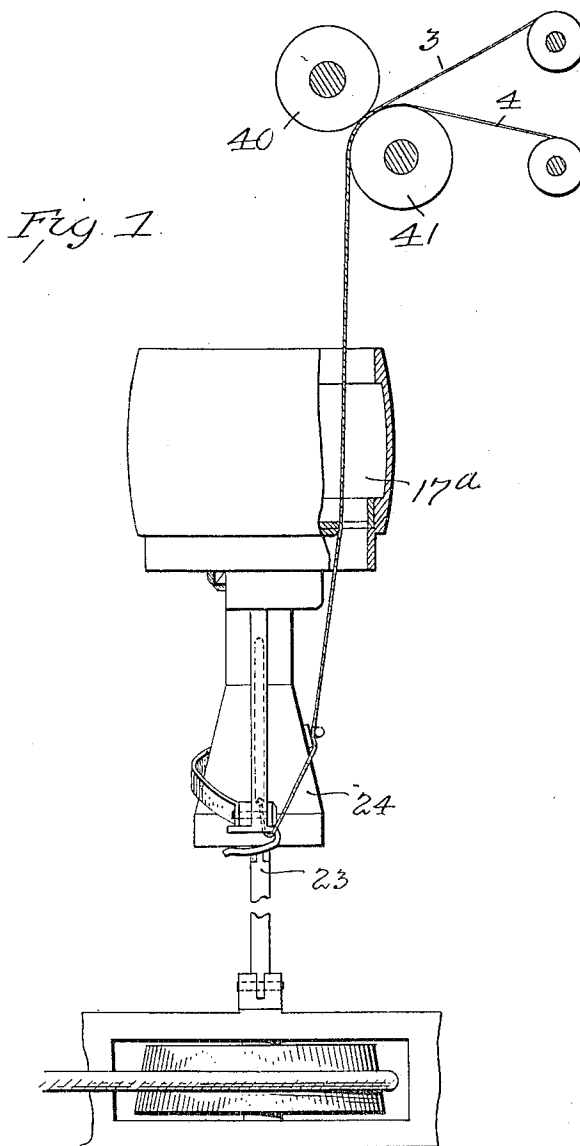


No. 807,814.

PATENTED DEC. 19, 1905.

A. J. & H. A. FOULDS.
ASBESTOS THREAD AND METHOD OF MAKING SAME.
APPLICATION FILED APR. 20, 1905.



Attest:

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UNITED STATES PATENT OFFICE.

ALFRED J. FOULDS AND HENRY A. FOULDS, OF LANSDOWN, PENNSYLVANIA.

ASBESTOS THREAD AND METHOD OF MAKING SAME.

No. 807,814.

Specification of Letters Patent.

Patented Dec. 19, 1905.

Application filed April 20, 1905. Serial No. 256,580.

To all whom it may concern:

Be it known that we, ALFRED J. FOULDS and HENRY A. FOULDS, citizens of the United States, residing at Lansdown, Pennsylvania, have invented certain new and useful Improvements in Asbestos Thread and Methods of Making Same, of which the following is a specification.

Our present invention relates to improvements in spinning threads or yarns composed of fiber, such as asbestos, and a metal wire, the wire being covered or spun together with the asbestos in the form of a composite thread, the wire by our method being entirely concealed.

Heretofore in order to reinforce asbestos or other fiber yarns by introducing a fine wire it has been necessary to first spin one or more strands of asbestos or other fiber yarns, then to "double," "spin," or "twist" this one or more yarns with a fine wire, involving considerable expense in time and material and with the result that the wire instead of being embedded and concealed in the yarn is twisted and forms a spiral with the comparatively hard-twisted thread or threads of yarn, and is consequently more or less exposed to view. By our method, no preparatory spinning is necessary, the slubbing and the wire are fed together to our machine, and by the action of the rolls the wire is forced into the slubbing just before it receives the twist, resulting in the perfect concealment of the wire. According to our invention, therefore, we twist with the wire a soft asbestos or other fiber slubbing without having imparted to said slubbing any preliminary twist or treatment whatever, and thereby secure a wire core completely covered with a coating of such soft asbestos or other fiber slubbing wound around said core. We also wind said composite thread into a cop simultaneously with the twisting thereof, whereby it is in one operation placed in shape for weaving into asbestos fabric and like purposes. We have found that we may with great advantage utilize for this purpose the combined spinning and winding machines described in and covered by Letters Patent of the United States granted to us on the 29th

day of November, 1904, and numbered, respectively, 776,128 and 776,129, and we have accordingly shown such machine conventionally in the accompanying drawings.

In the drawings, therefore, Figure 1 is a conventional side elevation, while Fig. 2 is a view of a portion of the thread, greatly enlarged beyond actual size for the purposes of illustration.

In the drawings the asbestos slubbing 3 and the wire 4, which is usually of copper or brass, are shown as passing together from a suitable source of supply between the feed-rollers 40 and 41. From these rolls they pass down to the combined twisting and winding device, passing through the body portion 17^a thereof and to and through the vertically-movable thread-guide. From this point the twisted composite thread is led to the spindle 23 through the slot in the cop-builder 24.

As fully explained in our above-mentioned patents, the twisting device, including the cop-builder 24, is rotated at a greater speed than the spindle 23. The result is that by the rotation of the twisting device the soft asbestos slubbing and the wire are twisted together in such a manner that the slubbing completely covers and incloses the wire, and the composite thread thus formed is wrapped around the spindle by the more rapid movement of the cop-builder and formed into a cop thereon.

Having thus described our invention, what we claim is—

1. The herein-described method of producing asbestos-covered wire which consists in simultaneously twisting together a straight wire and a soft untwisted fiber slubbing, substantially as described.

2. As a new article of manufacture, a wire strand having a covering of pure asbestos slubbing, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

ALFRED J. FOULDS.
HENRY A. FOULDS.

Witnesses:

CHARLES JANVIER,
D. F. SLADE.