(No Model.)

H. W. STRUSS.

MULTIPLE BRAIDED TUBING.

No. 450,685. Patented Apr. 21, 1891.

Fig. 1.

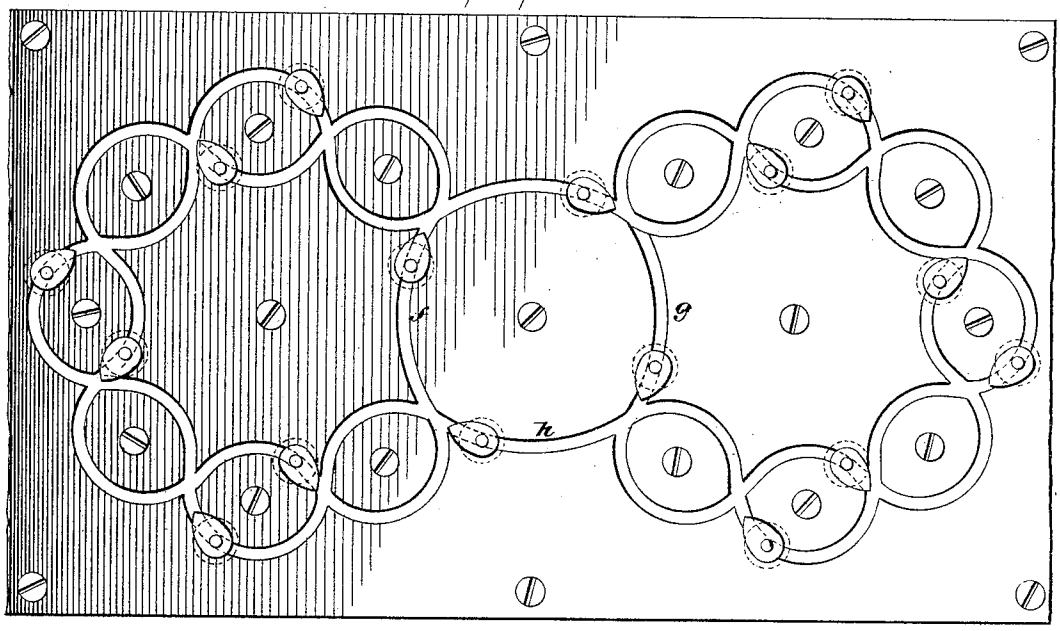


Fig. 3.

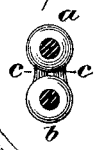


Fig. 2.

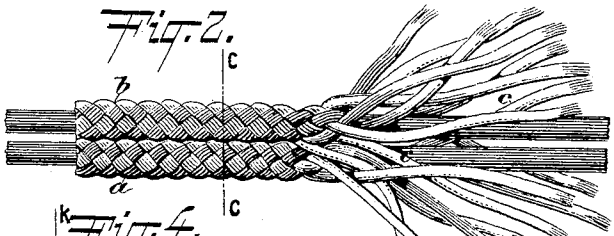


Fig. 4.

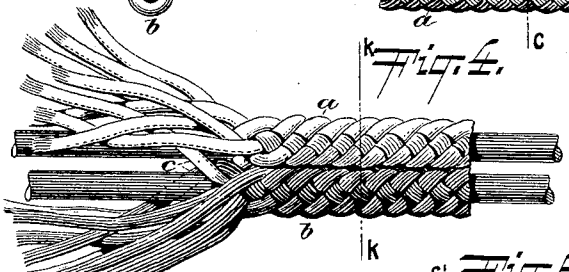


Fig. 5.



Fig. 6.

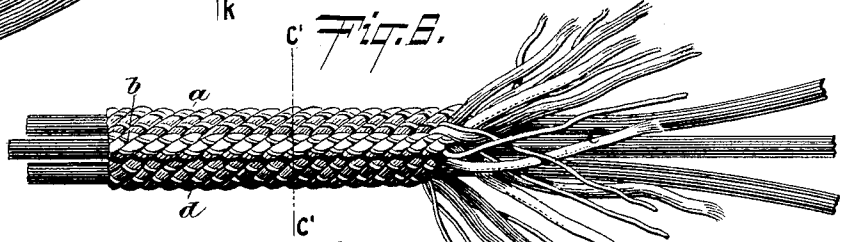


Fig. 7.

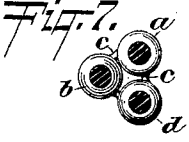
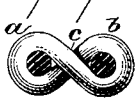


Fig. 8.



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UNITED STATES PATENT OFFICE.

HENRY W. STRUSS, OF NEW YORK, N. Y.

MULTIPLE-BRAIDED TUBING.

SPECIFICATION forming part of Letters Patent No. 450,685, dated April 21, 1891.

Application filed September 19, 1890. Serial No. 365,507. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. STRUSS, residing in the city of New York, in the county and State of New York, have invented an Improved Multiple-Braided Tubing, of which the following is a specification, reference being had to the accompanying drawings, forming part hereof, wherein—

Figure 1 represents a diagram of the arrangement of tracks in a machine by which my improved tubing can be produced. Fig. 2 is a side view of my improved tubing; Fig. 3, a cross-section of the same; Fig. 4, a side view of a modification of the tubing; Fig. 5, a cross-section of the same; Fig. 6, a side view of another modification of my improved tubing; Fig. 7, a cross-section of the same, and Fig. 8 a cross-section of still another modification of said tubing.

This invention relates to a new braided fabric; and it consists of connected braided tubes so constructed that the threads which compose the braids extend from one tube to the other to form the connection, as hereinafter more fully described.

In Fig. 1 of the accompanying drawings I have represented a track such as could be used for making one form of my present invention, it being my intention to construct this new fabric with the aid of machinery of which one type is represented in Patent No. 112,946, of March 21, 1871, but to change the arrangement of tracks in said machine so that, instead of a flat fabric such as that patented machine will produce, the double or treble or multiple tubing of my invention may result from the running of said machine.

By reference to Fig. 2 of the drawings it will be seen that I construct two braided tubes *a b* side by side, the threads *c*, (see Fig. 3,) that help form said tubes *a b*, extending from one to the other, so that the two tubes will thus be connected into a single fabric. These threads *c* may either run from tube to tube in the manner in which Fig. 3 represents them—to wit, side by side—or they may be arranged, as in Fig. 5, to interlock, or, as in Fig. 8, to cross; but in each of these forms the threads that run from one tube to the other are threads that make up the braid of the tubes and that serve to connect said tubes into a single fabric.

Figs. 6 and 7 show that the same principle is applicable to more than two connected tubes, there being in these two figures three tubes *a b d*, shown connected by the threads *c*, that help make the braiding.

The special arrangement of tracks for producing this improved article of braiding is more fully described in applications for patents for machines for making braided tubing which are filed by me at the same time with the present application, and which are known as Serial Nos. 365,504, 365,505, and 365,506, and nothing in this application is to indicate that I here desire to claim the mechanism for producing the braided tubing. Suffice it to say that the braid shown in Figs. 2 and 3 may be produced with a series of tracks such as is represented in Fig. 1 of the drawings, in which one undulating track *f* is at some little distance from a similar undulating track *g*, both said undulating tracks being traversed and connected by a longer undulating track *h*, proper carriers in these tracks running in opposite directions, so that the carriers in the tracks *f* and in the part of the track *h* that crosses *f* will help produce one braided tube, while the carriers on the track *g* and in that part of the track *h* which crosses *g* help to produce the other braided tube, the carriers where they run from one of the tracks *f* to the other *g*, and vice versa, forming the connection *c* between the braided tubes; but instead of arranging the tracks in the manner shown in Fig. 1 they may be differently arranged to produce the other forms of braid shown, so that the threads which are used in producing one of the tubes will also serve to connect that tube with the adjoining braided tube, and thus to produce my improved fabric.

The invention can be usefully employed for covering telegraph-wires, also for covering fine wires for use in articles of wearing apparel, household decoration, and the like.

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

As a new article of manufacture, a braided fabric consisting of two or more braided tubes connected into a single fabric by the threads that form the braiding of one tube extending into and connecting with the braiding of the other tube, substantially as herein shown and described.

HENRY W. STRUSS.

Witnesses:
HARRY M. TURK,
GUSTAV SCHNEPPÉ.