(No Model.)

H. W. STRUSS.

TUBULAR BRAIDING MACHINE.

No. 458,645. Patented Sept. 1, 1891.

Fig. 1.

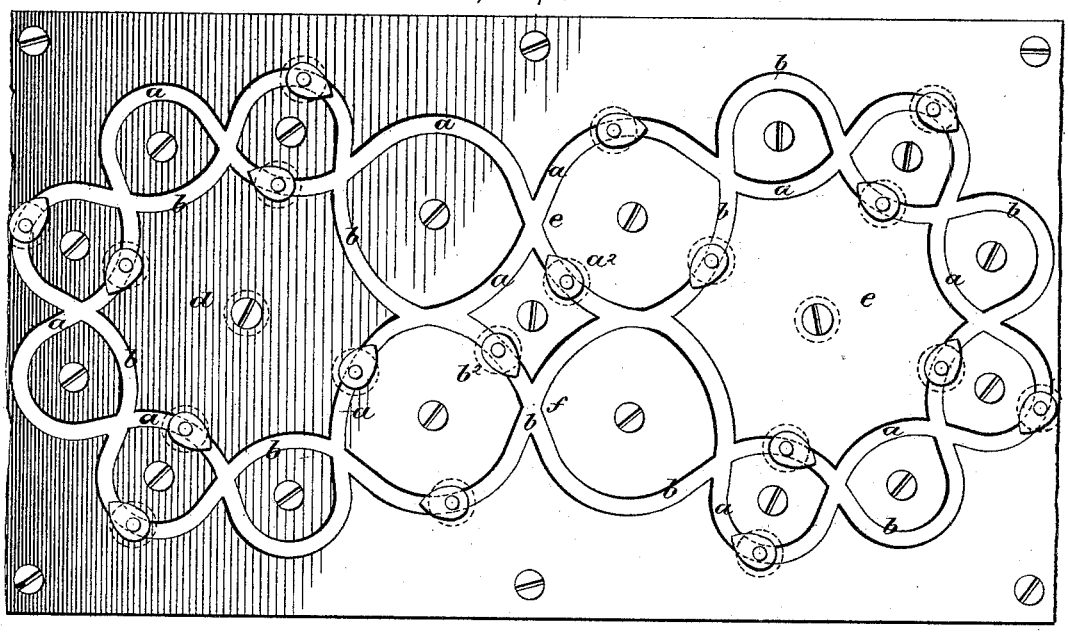


Fig. 2.

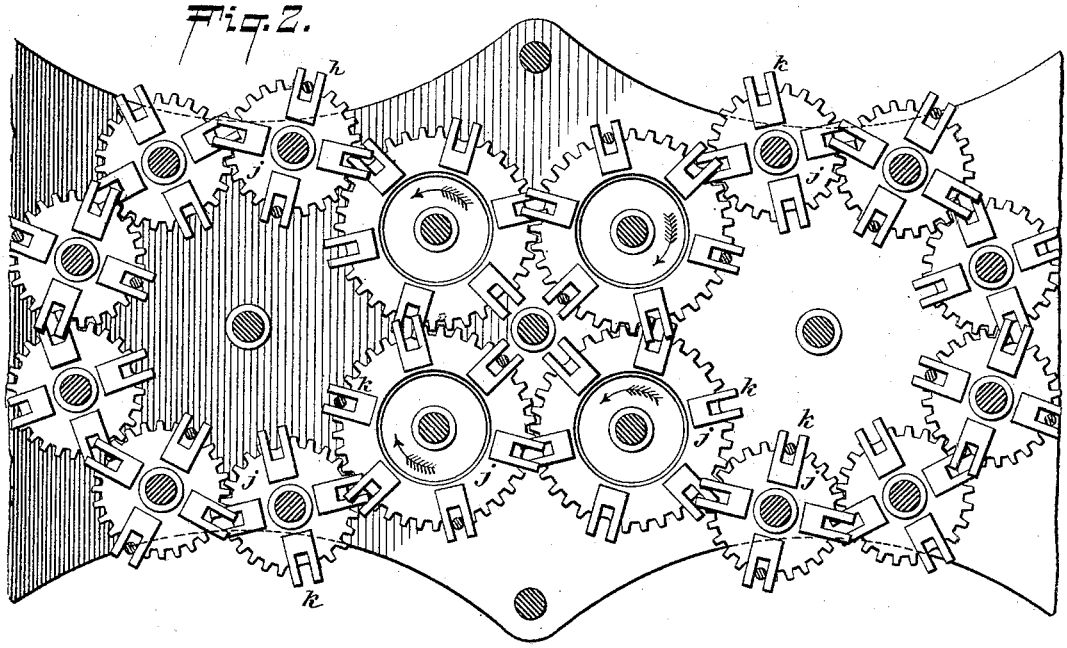
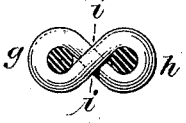


Fig. 3.



WITNESSES:

Gustave Kreienick.

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UNITED STATES PATENT OFFICE.

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

TUBULAR-BRAIDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 458,645, dated September 1, 1891.

Application filed September 19, 1890. Serial No. 365,505. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. STRUSS, a resident of the city of New York, in the county and State of New York, have invented an Improvement in Tubular-Braiding Machines, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, wherein—

Figure 1 represents a plan or top view of the track portion of my improved tubular-braiding machine; Fig. 2, a plan or top view of the toothed wheel portion thereof, and Fig. 3 a cross-section of a double-braided tube made on this machine.

This invention relates to a new machine for producing at one time two or more braided tubes that are connected into a single fabric.

The invention mainly consists in constructing the machine with two interlocking undulating tracks that cross each other and that are combined with two sets of carriers, one of which moves in one of said tracks in one direction, while the other set of carriers moves in the other track in the opposite direction, all as hereinafter more fully described.

For a description of the general character of machine to which my invention relates I refer to Patent No. 112,946, of March 21, 1871.

The main element of novelty of my present invention resides in the arrangement of tracks for the carriers that carry the threads to be braided into the double tubing.

Fig. 1 represents clearly my arrangement of tracks. It will be seen from said figure that there are two tracks $a\,a$ and $b\,b$, each of which is an undulating track forming substantially two loops d and e, the track a, so far as it forms these two loops, crossing itself at the point e, whereas the track b, so far as it forms these two loops, crosses itself at the point f. To the right and to the left of these points $e\,f$, where the two tracks just referred to form the two loops $d\ e$, said two tracks cross each other in their undulations at several places, as appears clearly from an inspection of Fig. 1. Now for the purpose of producing the tubular braid a set of carriers a^2 runs in the track a in one direction, whereas another set of carriers b^2 runs in the track b in the opposite direction, and it follows that wherever these carriers cross one another's path in running around each of the loops $d\ e$ the threads carried by them will be interbraided, so that finally two tubes will be produced, which are indicated at $g\ h$ in Fig. 3, said tubes being connected by strands i, which strands are produced when the respective carriers run in their respective tracks from one loop d to the other e, and vice versa.

For imparting the necessary motion to the carriers $a^2\ b^2$ I employ the system of toothed wheels j and claws $k\,k$ thereon, which is indicated in Fig. 2, but which, in view of the well-known state of the art, need not here be specially described.

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

In a machine for producing double-braided tubing, which is connected into a single fabric, the combination of the undulating track a with the undulating track b, said tracks being arranged to cross each other throughout their extent, forming the loops $d\ e$ of interlocked tracks, and with carriers $a^2\ b^2$, and means, substantially as described, for moving the carriers a^2 in the track a in one direction and for moving the carriers b^2 in the track b in the opposite direction, all disposed so that the arrangement of tracks produces two distinct series of tubular-braiding mechanisms so connected that the carriers can pass from one to the other, substantially as herein shown and described.

HENRY W. STRUSS.

Witnesses:
HARRY M. TURK,
GUSTAV SCHNEPPÉ.