(No Model.) 2 Sheets—Sheet 1.

H. W. STRUSS.

BRAID.

No. 467,584. Patented Jan. 26, 1892.

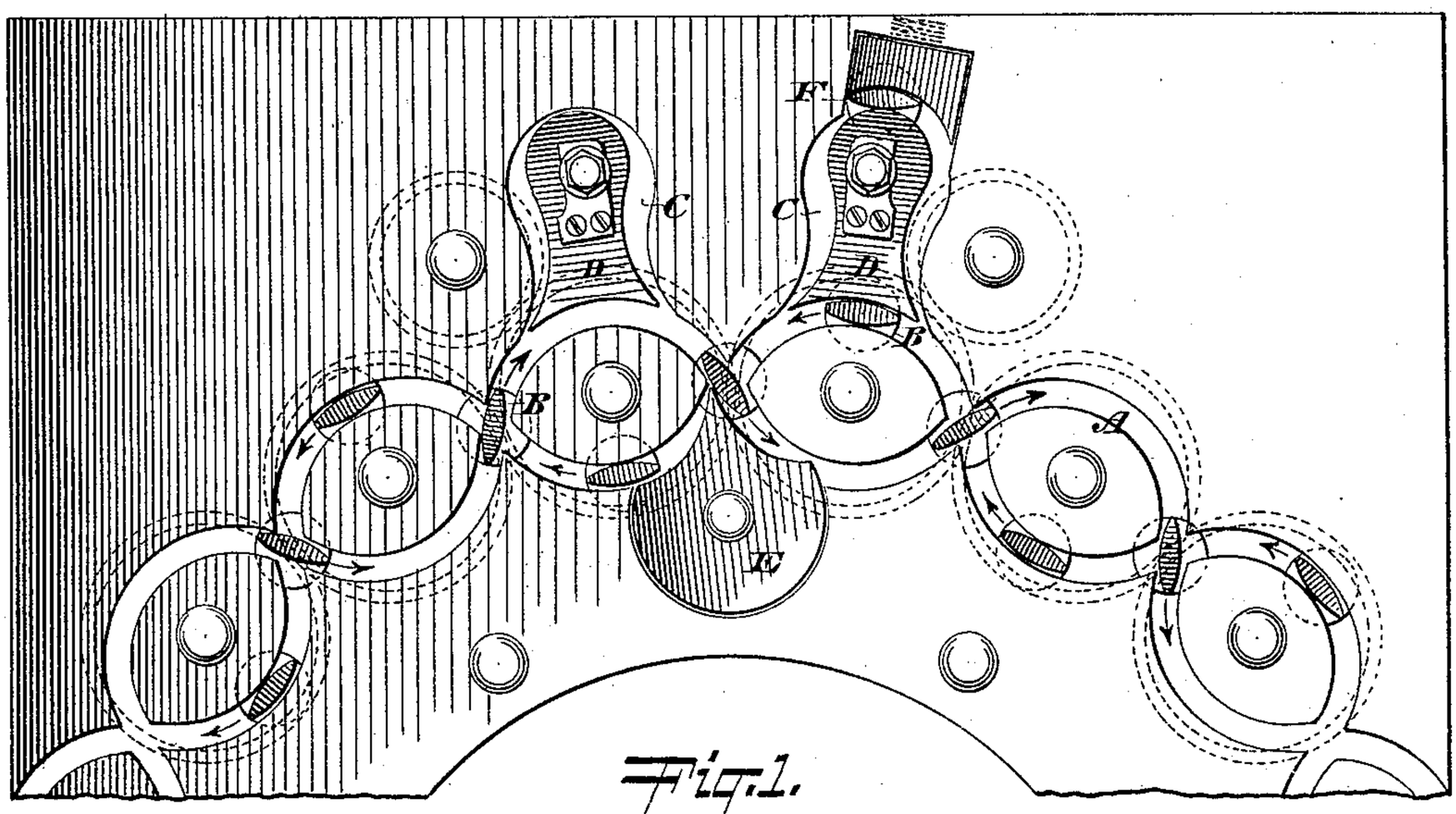

Fig. 1.

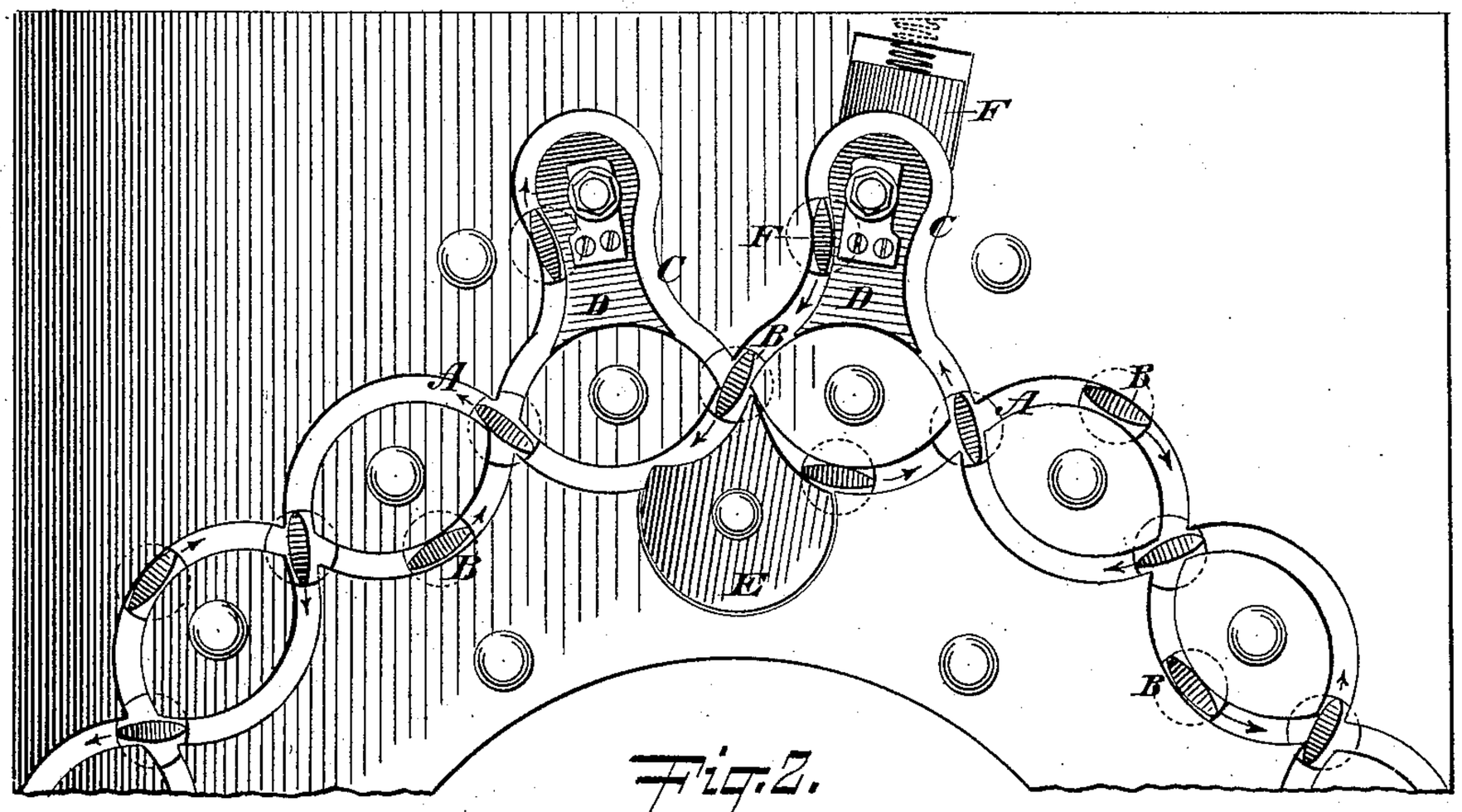

Fig. 2.

WITNESSES:

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Otto Dietrich.

INVENTOR

Henry W. Struss.

BY Briesen & Knauth

his ATTORNEYS

(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

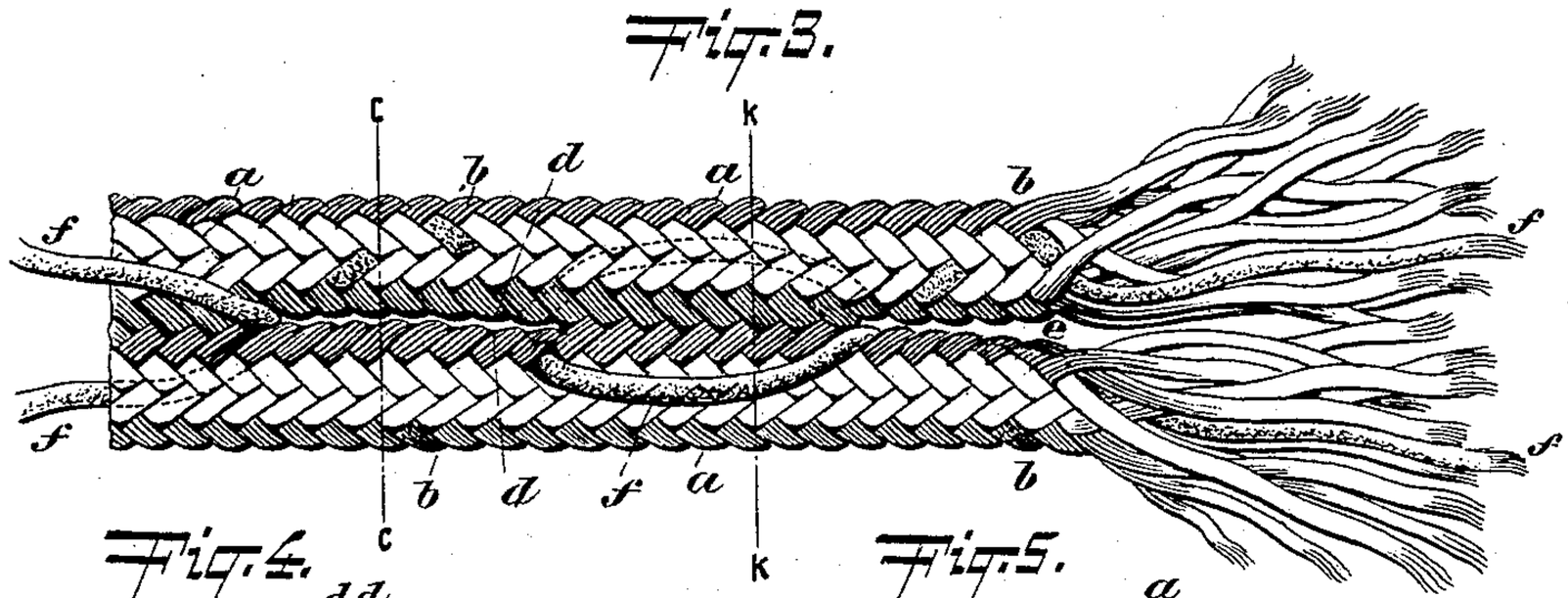


Fig. 4.

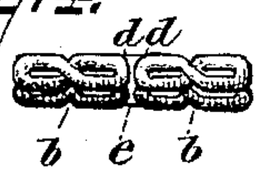


Fig. 5.

Fig. 6.

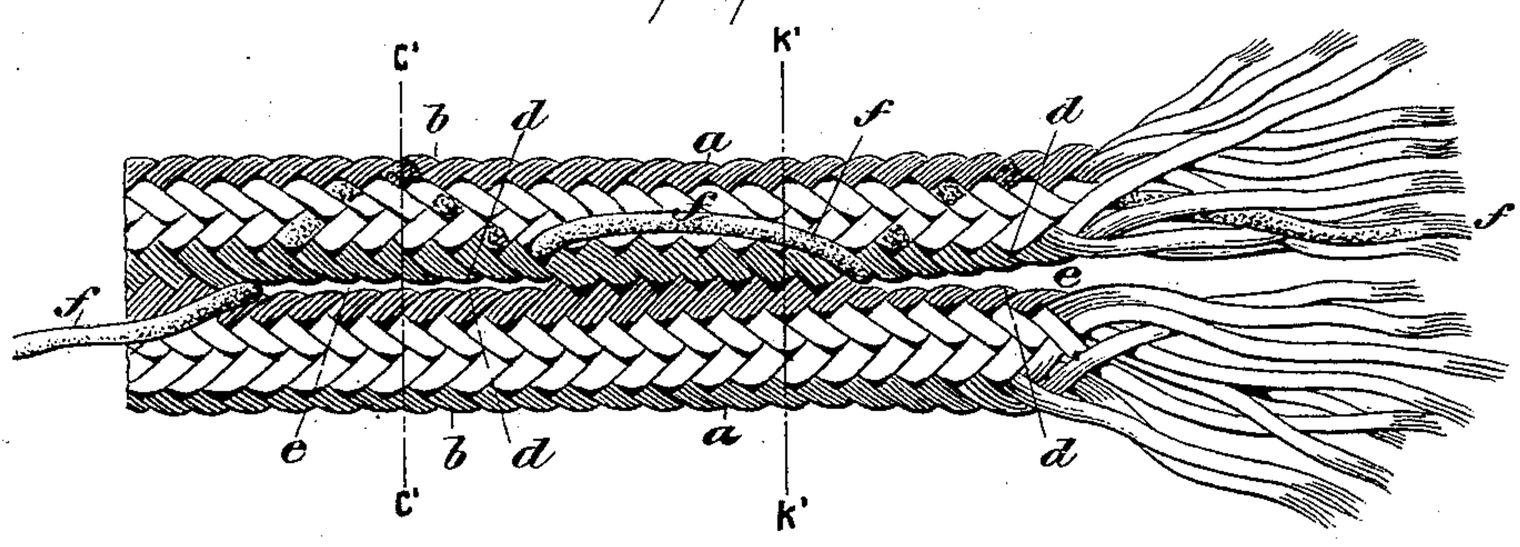
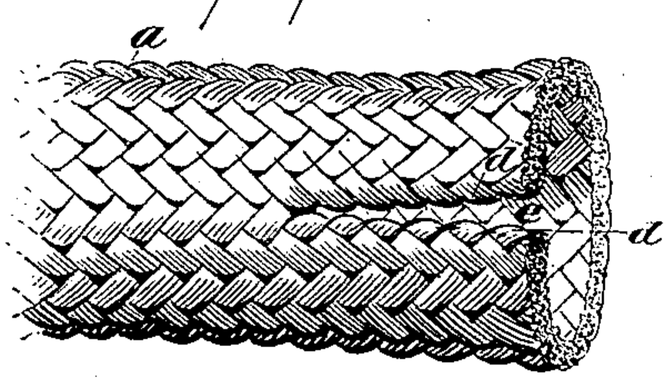


Fig. 7.

Fig. 8.

Fig. 9.



WITNESSES:
Gustave Dietenich.
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UNITED STATES PATENT OFFICE.

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

BRAID.

SPECIFICATION forming part of Letters Patent No. 467,584, dated January 26, 1892.

Application filed January 3, 1891. Serial No. 376,629. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. STRUSS, a resident of the city, county, and State of New York, have invented an Improved Braid, of which the following is a specification.

My invention relates to an improved article of manufacture; and it consists in a braid, said braid being of the construction made by the machine shown and described in application, Serial No. 376,730, filed by me on the same day this specification was filed.

The object of this invention is to construct a braided fabric which shall consist of an alternate single or solid braided portion, and of a divided braided portion, all of said parts having braided edges. Braids of this construction may be either single or double flat braids or single or double tubular braids. It will be seen that the main object is to make a division in a braid without cutting said braid, each division being made with all the edges braided.

To illustrate my invention I introduce the accompanying drawings, in which—

Figures 1 and 2 are plan views of my braiding mechanism; Fig. 3, a face view of a double braid of my construction, showing the solid part and the divided portion of the braid. Fig. 4 is a section on the line *c c*, Fig. 3. Fig. 5 is a section on line *k k*, Fig. 3. Fig. 6 is a face view of a single thickness of braid, showing the solid braid and the divided braid. Fig. 7 is a section on line *c' c'*, Fig. 6. Fig. 8 is a section on line *k' k'*, Fig. 6. Fig. 9 is is a perspective view of a tubular braiding, showing a division in its side.

a is a solid portion of braid.

b represents the divided portion of the braid, the same having braided inner edges *d d*, as shown. I thus produce a braid in which at any desired interval a division or button-hole *e* is formed, the edges *d* of which are fully braided. Heretofore when such a division or opening was required in braiding it had to be cut, thereby breaking the continuity of the threads and weakening the entire fabric; but by my invention such a division is produced in form of a completed braid throughout.

The machine, which is represented in Figs. 1 and 2, and which is more fully described in my above-named application, consists, mainly, of an interlocking track A, in which run the thread-carriers B B, said track having branches C C, that are either cut out by the slides D D, as in Fig. 1, or connected with the main track by lowering said slides, as in Fig. 2. In combination with these parts is a switch E, which is moved alternately by the carriers B B to cause them to run alternately in opposite directions from their point of contact with the switch. An extra thread-carrier F is held out of action by one of the slides D when in the position shown in Fig. 1, which is the position for making the solid braid; but when the slides D D are moved inward, as in Fig. 2, this extra carrier F is brought into action and causes by contact with the switch a variation in the run of the other carriers B B, so that they will run in divided tracks and produce the divided braid *b* as long as the extra carrier F is in action. This extra carrier braids its thread *f* into the fabric as soon as the divided braid *b* is produced, but leaves said thread *f* loose on the solid braid when the latter is being produced. The loose parts of the thread *f* are cut out when the braiding is completed; but I do not confine myself here to any particular mechanism for making the improved braid.

What I claim is—

As a new article of manufacture, a braided fabric consisting of the alternate single braid *a* and divided braid *b*, said divided braid having braided edges *d* along the line of division *e* and containing one or more threads *f*, which do not enter into the solid braid, substantially as herein shown and described.

HENRY W. STRUSS.

Witnesses:

J. L. SUYDAM,

R. C. MITCHELL.