

(No Model.)

2 Sheets—Sheet 1.

W. F. BEARDSLEE.
METHOD OF SEWING PARALLEL SEAMS.

No. 438,795.

Patented Oct. 21, 1890.

Fig: 4.

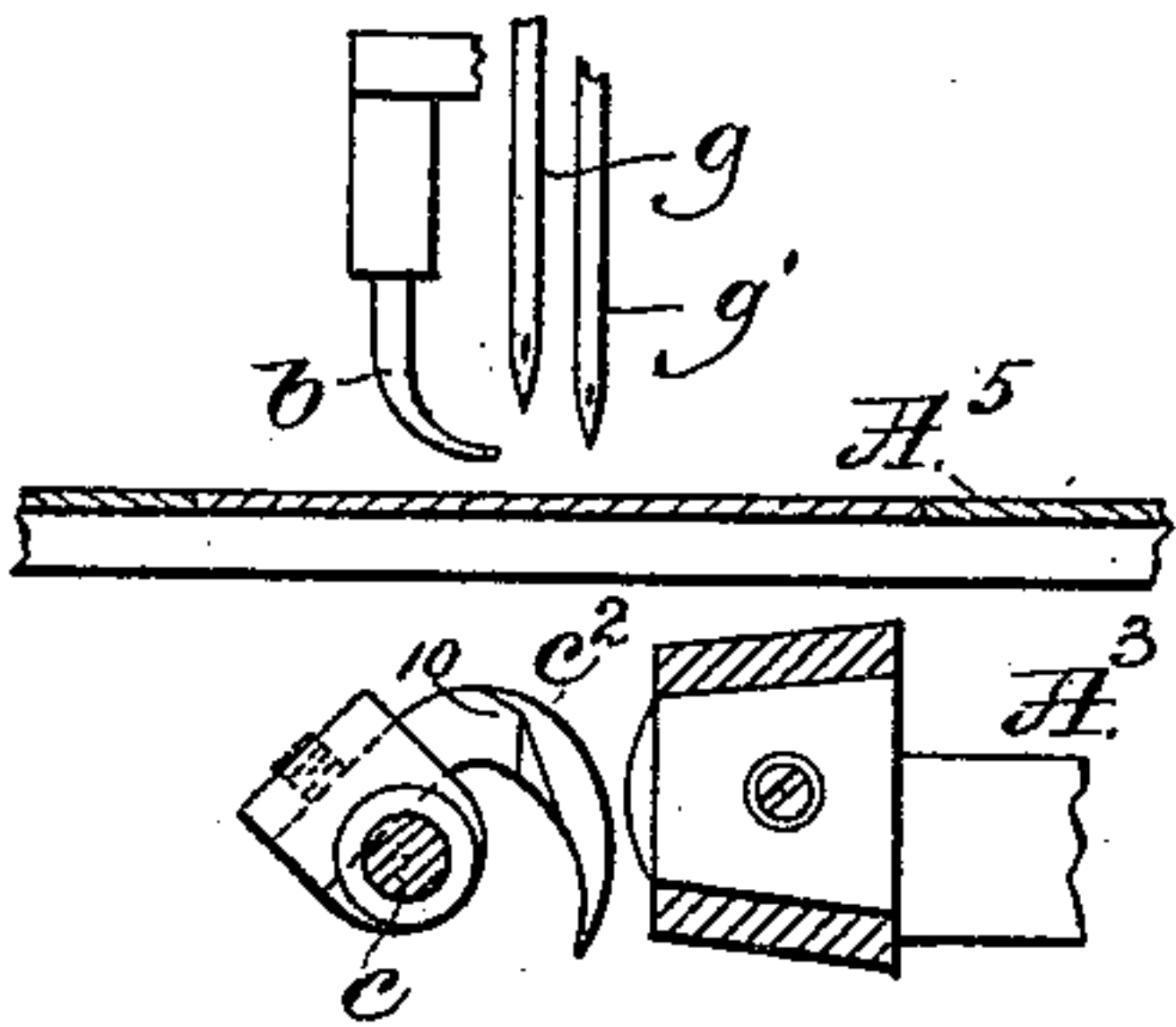


Fig: 5.

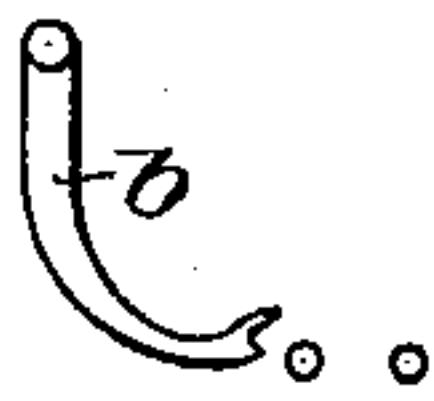


Fig: 6.



Fig: 1.

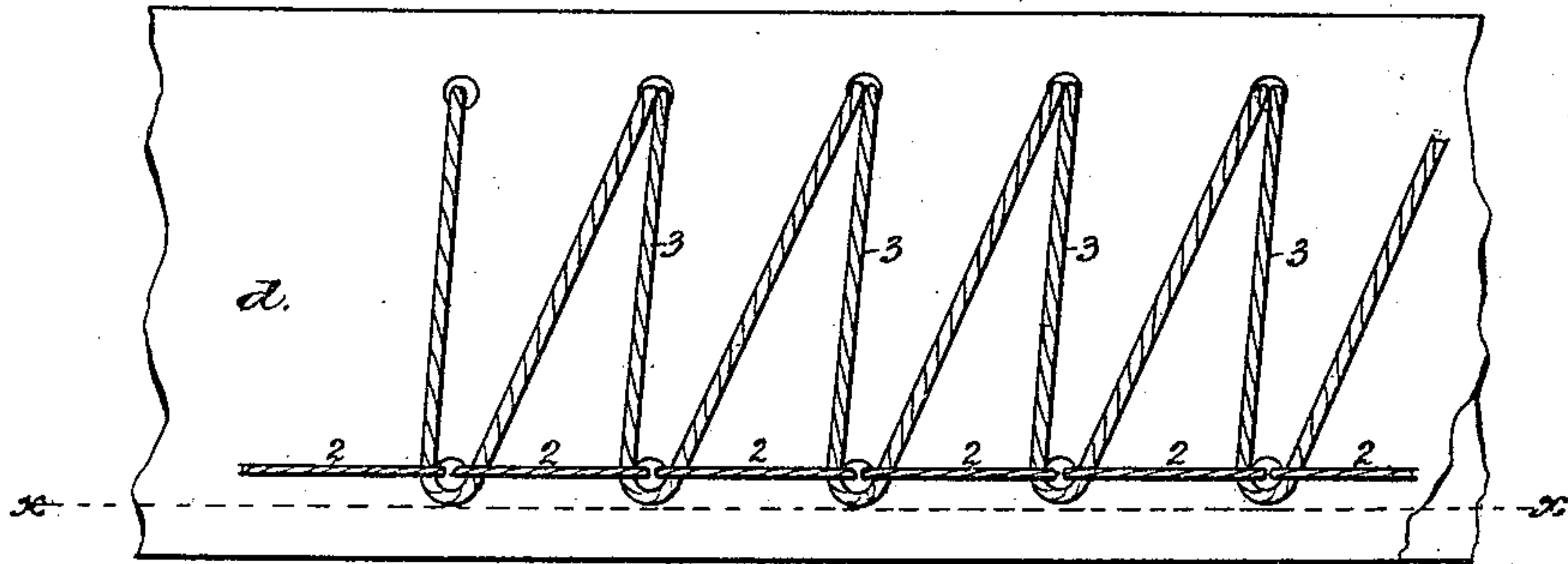


Fig: 2.

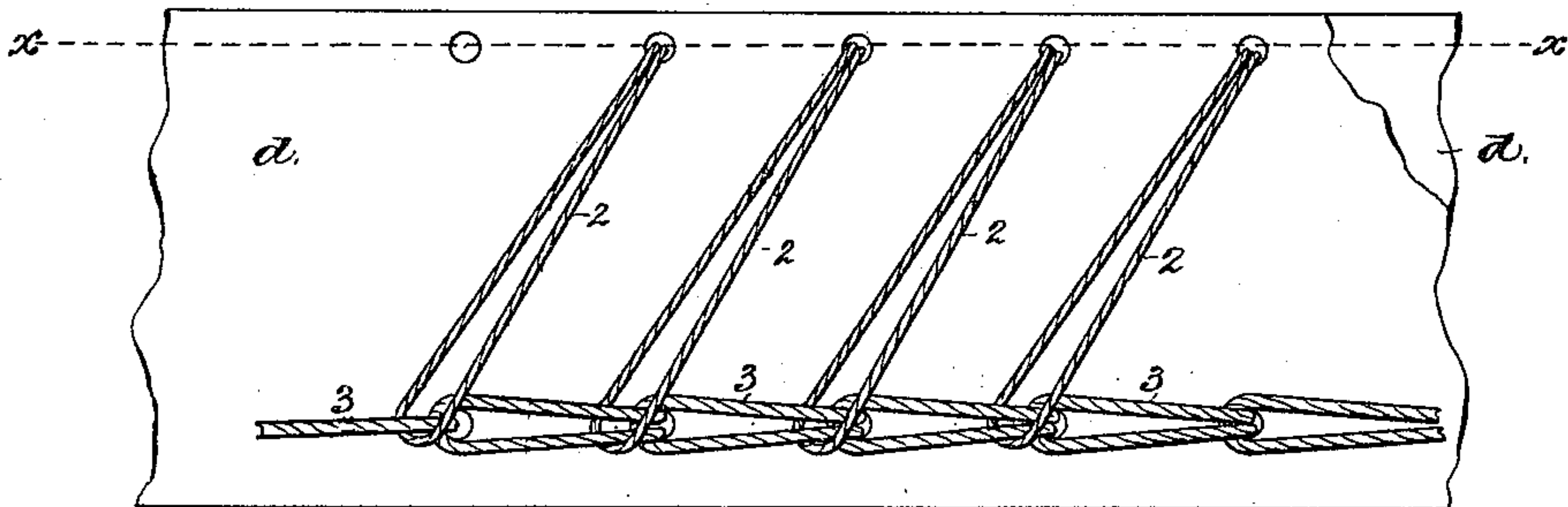
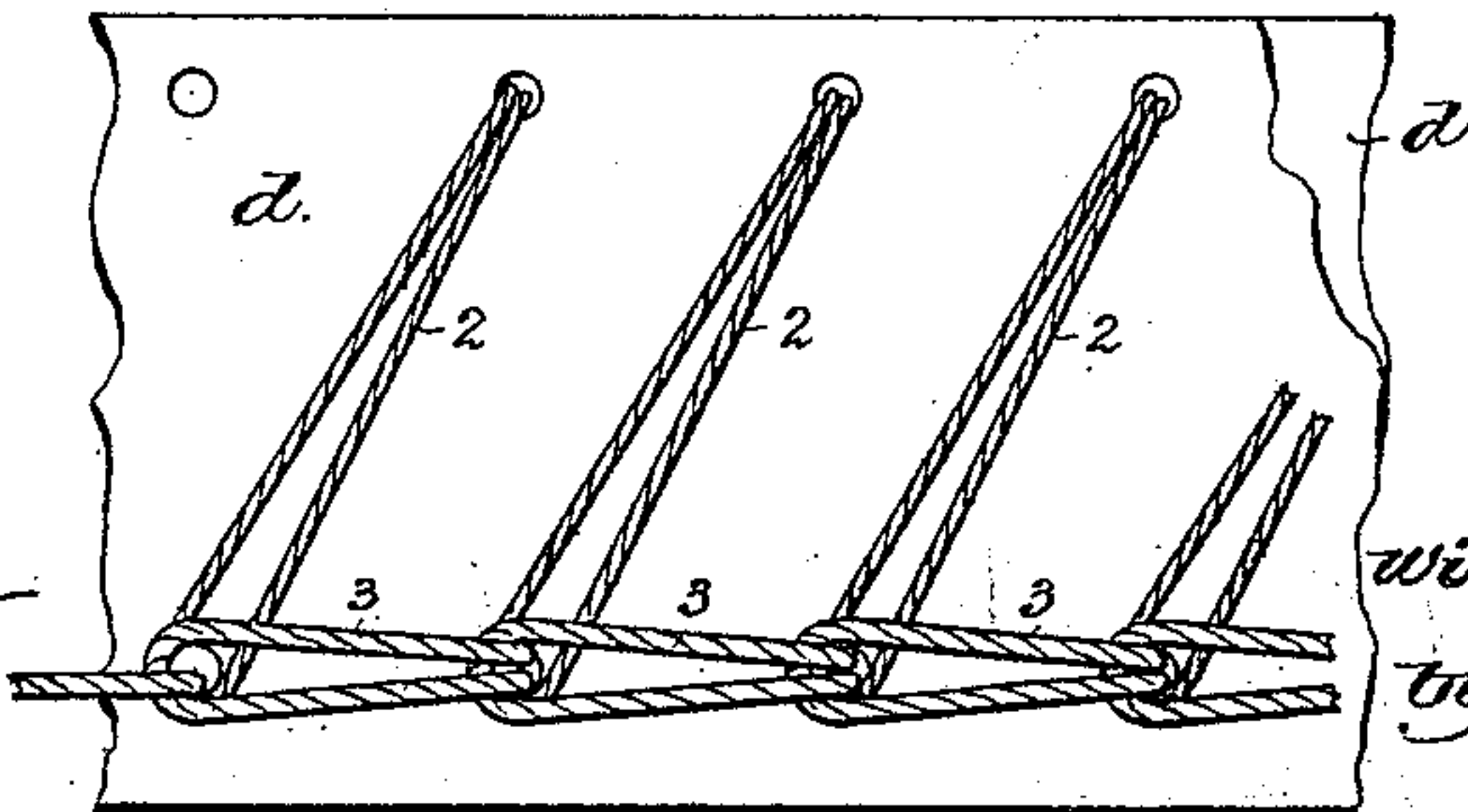


Fig: 3.



Witnesses.
Frederick L. Emery-
Edgar A. Gordon

Inventor.
William F. Beardslee,
by Leroy & Gregory
Attys.

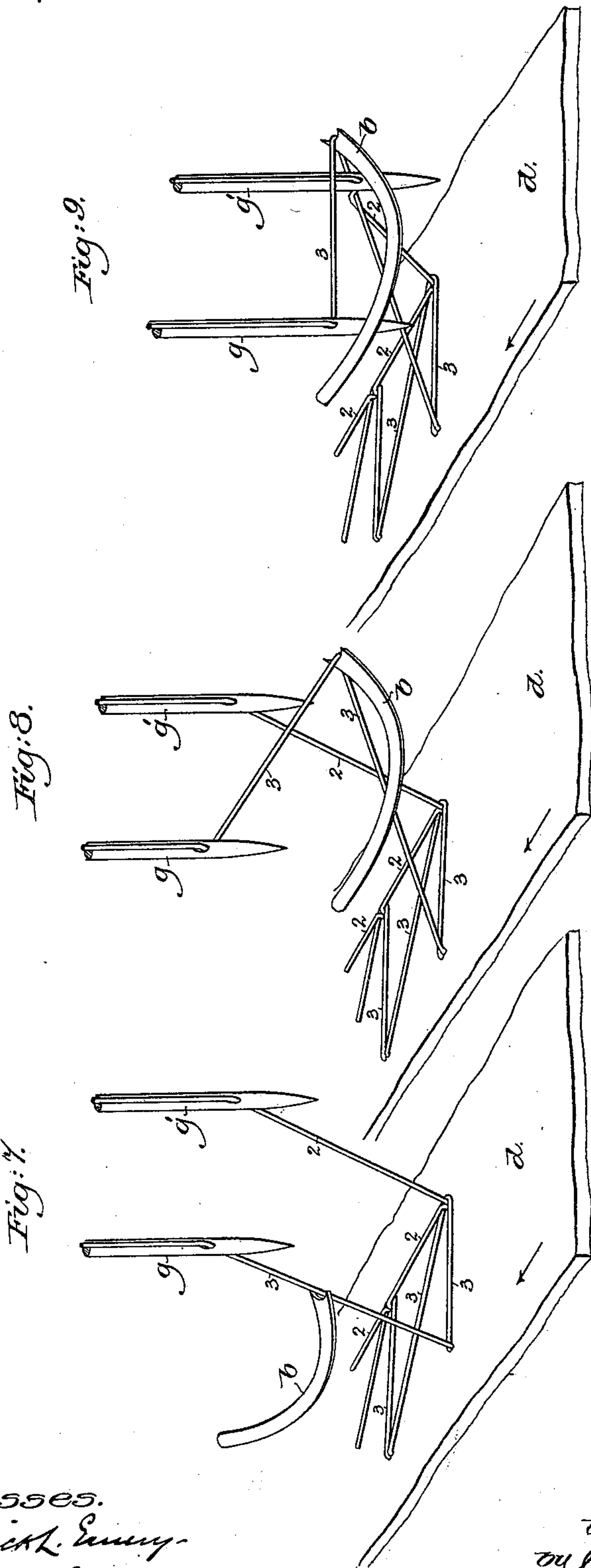
(No Model.)

2 Sheets—Sheet 2.

W. F. BEARDSLEE.
METHOD OF SEWING PARALLEL SEAMS.

No. 438,795.

Patented Oct. 21, 1890.



Witnesses.
Maurice L. Emery.
Edgar A. Goddard

Inventor.
William F. Beardslee,
by Leroy & Gregory
Attys.

UNITED STATES PATENT OFFICE.

WILLIAM F. BEARDSLEE, OF NEW YORK, N. Y., ASSIGNOR TO THE MANUFACTURER'S SPECIAL MACHINE COMPANY, OF DANBURY, CONNECTICUT.

METHOD OF SEWING PARALLEL SEAMS.

SPECIFICATION forming part of Letters Patent No. 438,795, dated October 21, 1890.

Application filed March 7, 1890. Serial No. 342,979. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM F. BEARDSLEE, of New York, in the county of New York, and State of New York, have invented
5 an Improvement in the Method of Sewing Parallel Seams, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like
10 parts.

Prior to my invention it has been customary to sew together or form seams in material by the employment of two threads carried by two eye-pointed needles set side by side, so as
15 to make parallel lines of stitching, the loops of thread thrown out from the eyes of the said needles below the material being concatenated, as in United States Patents Nos. 356,415 and 397,495, the said loops being concatenated below the material by the employment
20 of a suitable looping mechanism.

In accordance with the invention to be herein described the two parallel rows of stitching are concatenated not only below but
25 also above the material, such method of stitching forming a very strong seam, the two threads carried by the two eye-pointed needles moving in the same direction, enveloping the material between the two parallel
30 rows of stitching, and so holding the material that when trimmed close to one of the lines of stitching and thereafter opened out flat—there will be presented a well-covered safe flat seam—very desirable for use in connection
35 with knitted goods.

The stitch to be herein described is of the class known as "straight ahead," as contradistinguished from overseaming.

In accordance with my invention, some
40 stitches having been made in the material to form parts of two rows of parallel stitching, my improved method of stitching may be practiced by laying a bight of the thread connected to the material at one row of stitches across
45 on the material into the line of the second parallel row of stitches, putting a loop of the thread forming the second row of stitches through said loop, putting a loop of both threads through the material, forming a loop
50 in both the said threads below the material,

carrying one of the said loops of thread across from one to the other row of stitches, holding both the said loops of thread in such position, again putting new loops of both threads
55 through the material, the loop made in the thread first spread as described above the material at this passage through the material being passed through both loops of thread then held below the material, all as will be
60 described.

Figure 1 shows two pieces of material united by the method of sewing herein to be described; Fig. 2, an under side view of Fig. 1; Fig. 3, an under side view of a modified form of concatenation. Figs. 4, 5, and 6 show details
65 of mechanical devices by which my method of sewing may be practiced; and Figs. 7, 8, and 9 show different steps in the manipulations of the threads above the material.

Before describing my method of stitching
70 I will state that the two eye-pointed thread-carrying needles g g' set a short distance apart transverse to the line of feed. The looper c^2 , having the shoulder 10, the shaft A^3 , and the cloth-plate A^5 are and may be all
75 as in United States Patent No. 355,053, granted to me December 28, 1886, and in practicing the method of stitching herein to be described the said parts may be actuated as provided for in the said patent. The machine
80 described in the said patent acted to concatenate the loops of needle-thread only below the material, as represented in Fig. 2, and therefore the particular method of handling the threads below the said material, so as to
85 carry the loop formed from the thread 2 of the needle g' below the material across to the other line of stitches to be entered by a loop to be thereafter made in the thread 3, carried by the needle g at its next descent, need not
90 be herein particularly described. The said Patent No. 355,053 does not illustrate the stitch made by the machine therein described; but it is exactly the same as in United States Patent No. 356,415. While the looper herein
95 shown and fully described in the said patent will act to concatenate the threads below the material, as shown in Fig. 2, and also in Patent No. 356,415, I desire it to be understood that instead of the exact concatenation shown
100

in Fig. 2 the said threads below the material may be concatenated as in Fig. 3, which is the same as in United States Patent No. 397,495, the differences in the concatenation being im-
5 material in result.

The particularly novel step in my method of stitching lies in taking the thread 3 of the needle g and carrying it across the material between the needle g and the upper side of
10 the material, so that as the thread 2 is to be passed through the material it will be passed first through a bight of the thread 3, as in Figs. 1, 7, 8, and 9.

To form a bight in the thread 3, I have pro-
15 vided a looper b , the exact construction and operation of which, together with other co-operative parts, are fully described in application Serial No. 342,978, filed by me for United States patent, which shows one form of ma-
20 chine by which to practice my method. Herein it is only necessary to understand that the said looper b has an oscillating movement in a horizontal plane in a curved path, the path being such as to take the thread 3 and carry
25 it aside when the needles g g' are elevated and hold a bight of the said thread 3 across the material under the descending needle g' .

To make a stitch in accordance with my method of sewing, I will first refer to Fig. 7,
30 where d is supposed to represent the material to be stitched with two parallel rows of stitches, one row of stitches from thread 2 and the other from thread 3, the two threads being concatenated both above and below the
35 material. The said figure, as well as Figs. 8 and 9, is supposed to show several stitches as having already been made. Both needles g g' are shown elevated in Fig. 7. Their threads 3 and 2 are extended from the eyes of the said
40 needles to the material, and the material d is supposed to have been fed the length of a stitch preparatory to making two more stitches, one in each row. In this condition the looper b engages the thread 3 and carries it across on
45 the upper side of the material, as in Fig. 8, leaving a bight of the thread 3 spread under and so as to be penetrated by the needle g' at its next descent, as in Fig. 9, the said looper b being retracted into the position Fig. 7 about
50 as the two needles g g' complete or are completing their descent. The threads 2 and 3 from the two needles g' and g below the material have loops formed in them by the rising of the needles, and the said loops are both
55 entered by the looper c^2 , the latter in its back-stroke taking both loops with it and pulling the loop of thread 2 aside, as in Fig. 2, into the

path of movement of the needle g' , so that the said loops are retained by the said looper c^2 in such position below the material that at
60 the next descent of the said needles the needle g enters not only its own loop but also the loop made from the thread 2 of the needle g' . This seam, consisting, essentially, of two rows of stitches, may be trimmed as made in the dot-
65 ted line $x x$, Figs. 1 and 2, the trimming coming close to but not cutting the threads 2 and 3, and thereafter the two pieces of material may be opened out, leaving the loops of the
70 thread 2 and 3 extended from one to the other seam, the thread 2 crossing from one to the other line of stitching at one side of the opened-out material, while the thread 3 is extended
75 across on the other side of the material, the said threads each concatenated in the line of stitching made by the other thread, serving to bind and hold in place smoothly the material between the two parallel lines of stitches, making a safe flat seam.

I claim—

The herein-described method of sewing with
80 two threads 2 3, which consists in laying a bight of thread 3, connected to the upper side of the material, in one row of stitches across on the material into the line of the second
85 parallel row of stitches, putting a loop of thread 2 through the bight of the said thread 3 and through the material, and at the same time putting a loop of the thread 3 through
90 the material, forming a loop in both the said threads below the material, carrying the loop of thread 2 across at the under side of the
95 material to the line of stitches made by the thread 3, holding the said loops at the under side of the material in the line of stitches to be made by the thread 3, again laying a bight
100 of the thread 3 across on the surface of the material, as before, putting a loop of the thread 3 through the material and through a loop of its own thread and of the thread 2,
105 and at the same time putting a loop of the thread 2 through the loop of thread 3 at the upper side of the material and through the material and again catching and holding both loops of thread below the material, substan-
tially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM F. BEARDSLEE.

Witnesses:

ALBERT C. MERRIAM,
ALFRED PARTRIDGE, Jr.