

(No Model.)

G. E. JONES.
KNITTING MACHINE NEEDLE.

No. 322,454.

Patented July 21, 1885.

Fig. 1

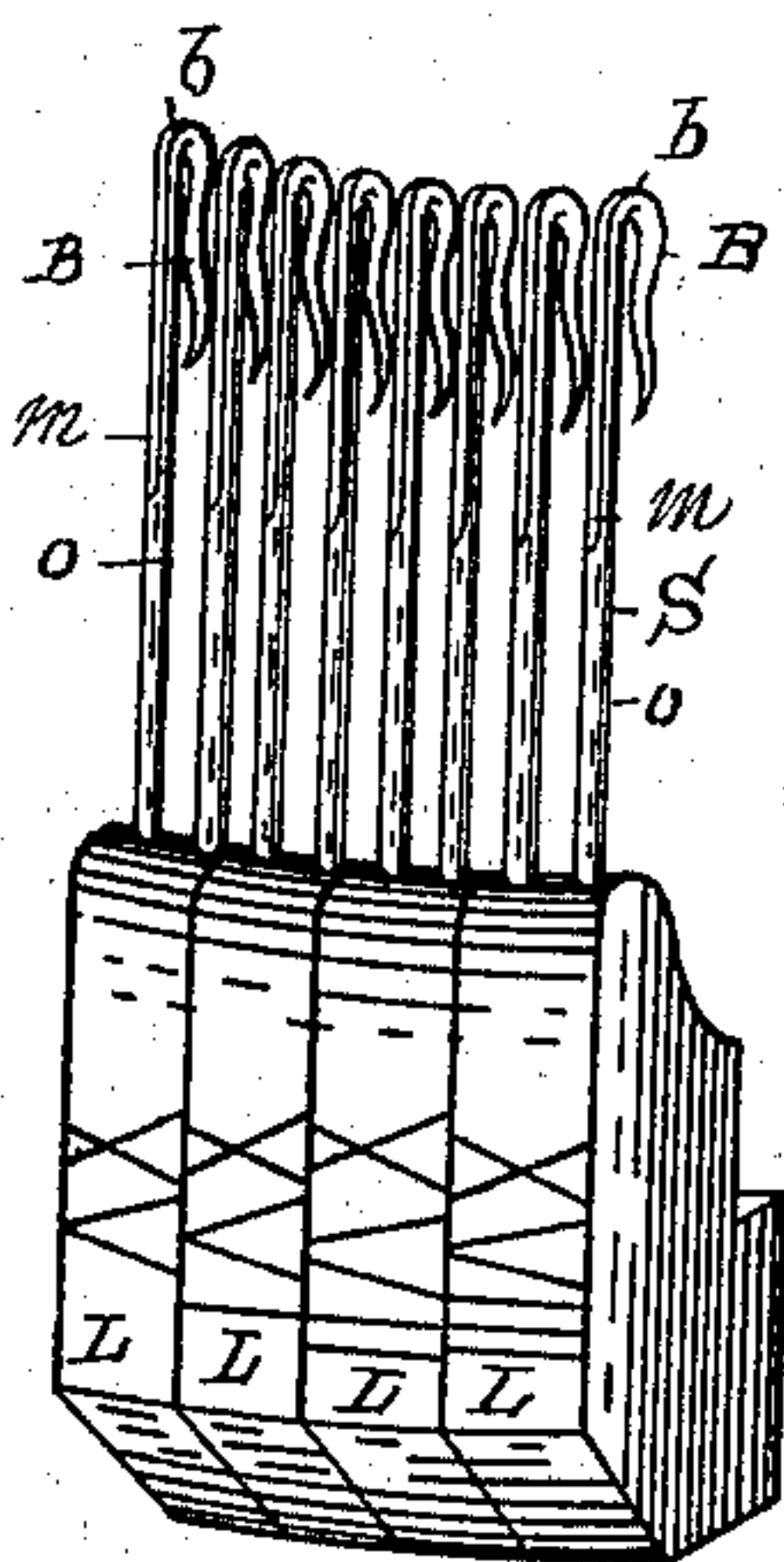
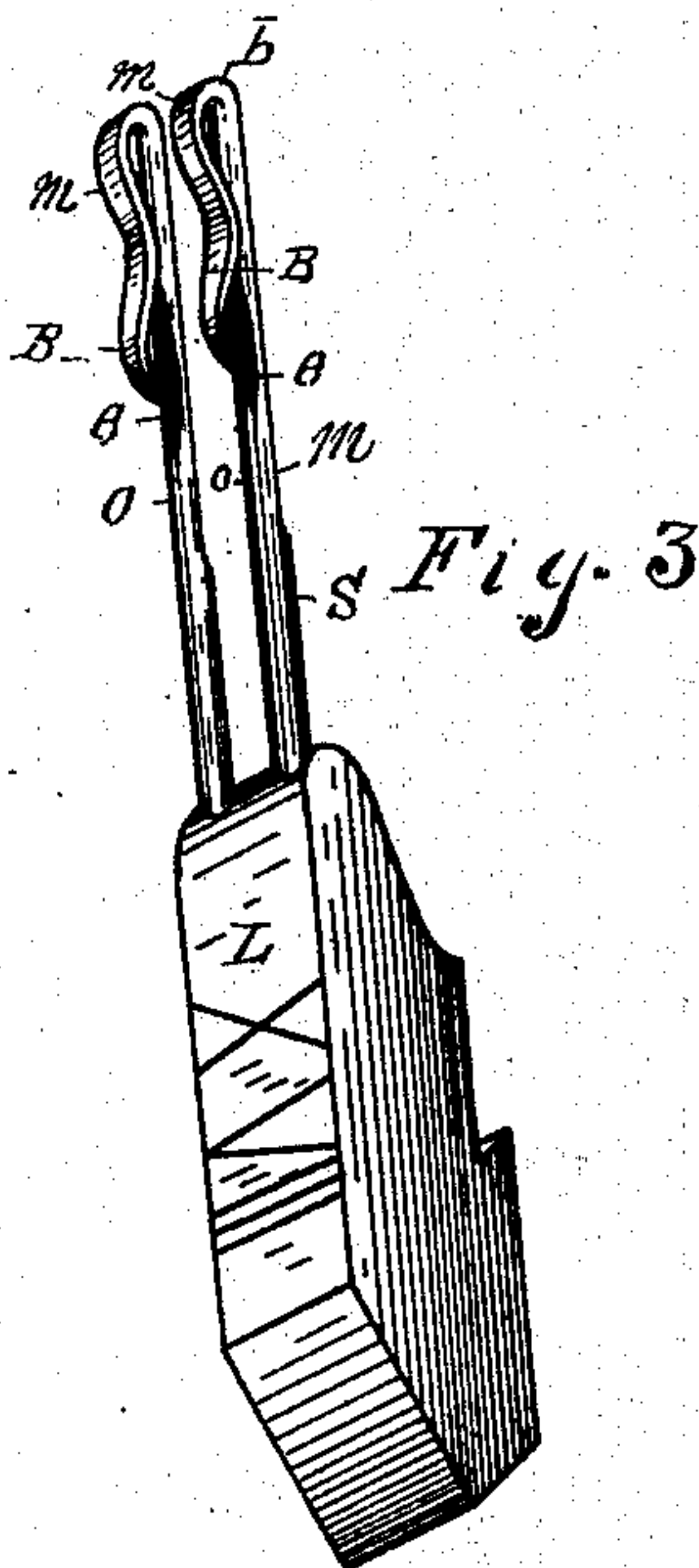
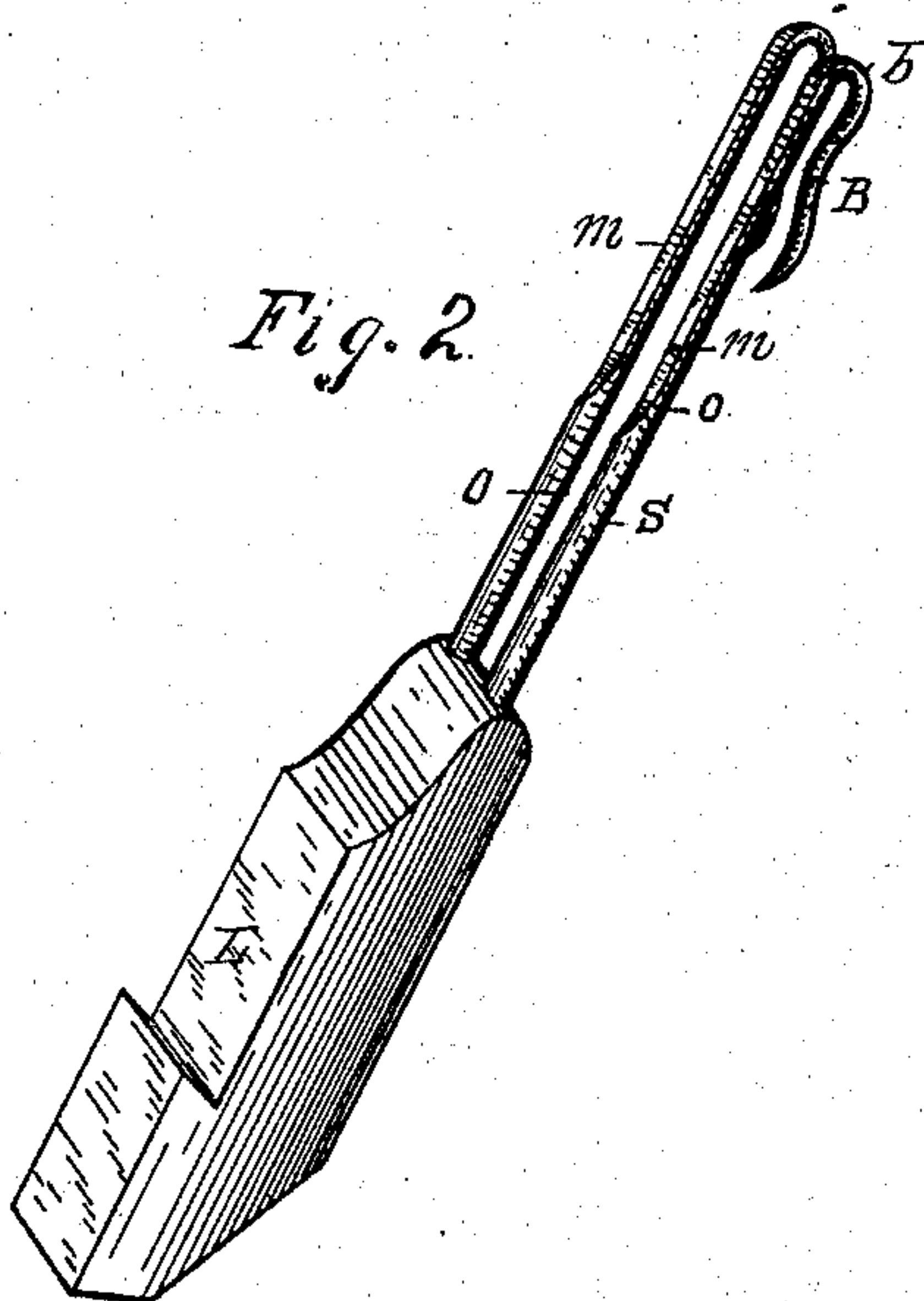


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE EDWIN JONES, OF COHOES, NEW YORK.

KNITTING-MACHINE NEEDLE.

SPECIFICATION forming part of Letters Patent No. 322,454, dated July 21, 1885.

Application filed May 22, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE EDWIN JONES, of the city of Cohoes, county of Albany, State of New York, have invented a new and useful
5 Improvement in Knitting-Machine Needles, of which the following is a specification.

My invention relates to knitting-machine needles; and my invention consists (as will be more fully detailed hereinafter in connection with its illustration) in a knitting-machine
10 needle formed with a flat exterior surface extending from a point in the shank opposite or below the end of the beard to the point of the beard, and having a rounded interior surface
15 to the point of the beard.

The objects of my invention are to make the needles wear a longer time than those in common use and to increase their strength. These
20 objects I attain by constructing the needles with a flat surface on their exterior face in front of the beard and extended over the loop to the rear of the stem back of and below the beard, leaving the interior surface rounded to the point of the beard. Where the needles are
25 bent with the flat milled surface, within the bend and a rounded exterior surface, as has been the custom, the outer part of the bend occurs in the rounded part where there is the least metal. When this construction or con-
30 formation is reversed, and the bend is made in the needle to produce the beard with the flat milled surface outside and the rounded surface inside, the outer wearing part of the bend has more metal in it than the rounded
35 part would have if on the outside, and this outer surface of the bend is where the most frictional wear comes.

Accompanying this specification, to form a part of it, there is a sheet of drawings, contain-
40 ing three figures, illustrating my invention, with the same designation of parts by letter-reference used in all of them.

Figure 1 shows a series of leads containing my improved needles and as they are arranged

in a knitting-machine. Fig. 2 shows one of 45 the leads containing two of my needles with what is their inner side when in a knitting-machine turned toward the sight, and Fig. 3 a lead containing two of them with their outer
50 faces turned toward the sight.

To construct my improved needle, I take a rounded needle-blank and mill or otherwise form a flat surface, *m*, thereon, commencing below or opposite a point back of the end of the
55 barb and extending to the point of the blank. The beard *B* is then bent over and down, substantially as shown in the drawings at *b*, so as to bring the flattened surface on the outer face of the stem and beard and the rounded sur-
60 face *o* beneath the beard with the point of the beard resting at the eye *e*. The shank *S* of the needle is then secured in the lead *L*, as usual.

As thus made the needles will last longer, from the fact that the friction-wear upon them 65 is sustained by a broader surface than when the rounded surface is exteriorly placed, and the rounded interior surface gives less friction to the movement of the yarn in the formation of the interlooping loops or stitches than a flat
70 one.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The knitting-machine needle herein de- 75 scribed, formed with a flattened exterior surface, *m*, extended from a point on the back of the stem to the point of the beard, and a rounded interior surface, *o*, within the loop of the needle, substantially as described. 80

Signed at Troy, New York, this 6th day of May, 1884, and in the presence of the two witnesses whose names are hereto written.

GEORGE EDWIN JONES.

Witnesses:

DAVIS WATSON JONES,
N. E. HOGAN.