

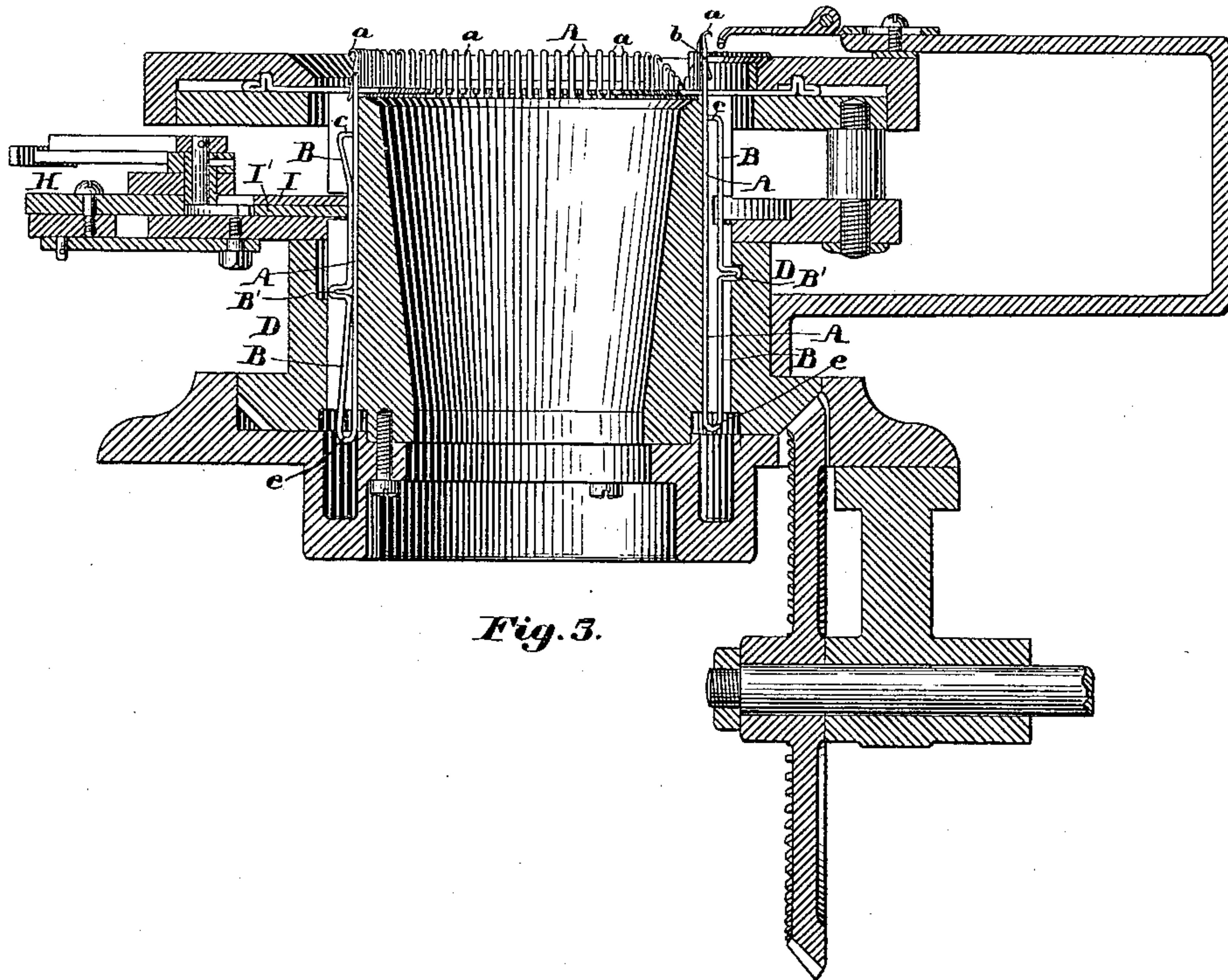
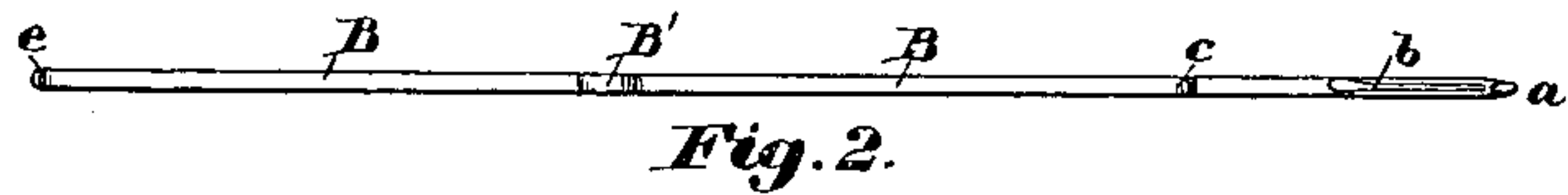
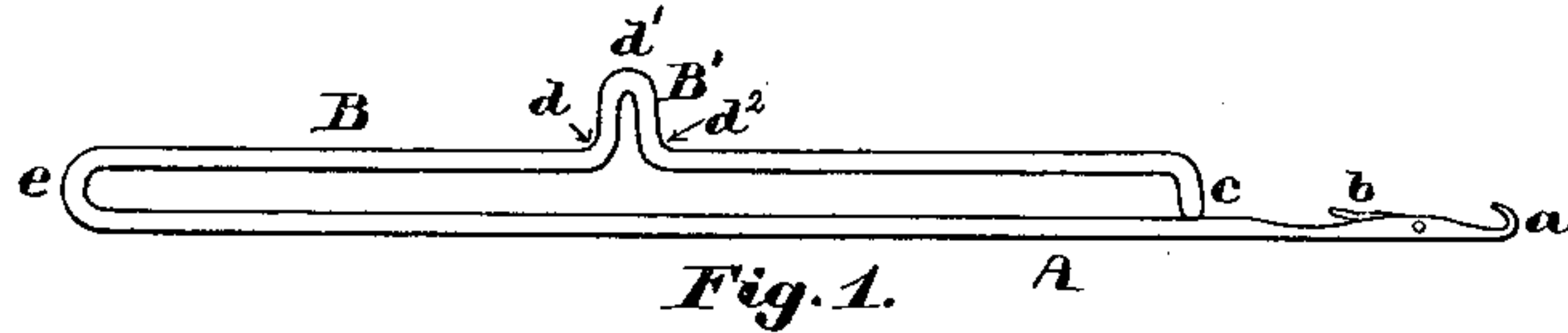
(No Model.)

W. D. HUSE.

KNITTING MACHINE NEEDLE.

No. 329,906.

Patented Nov. 10, 1885.



Witnesses:

Walter E. Lombard.
Geo. K. Snow

Inventor:

Warren D. Huse,
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UNITED STATES PATENT OFFICE.

WARREN D. HUSE, OF LACONIA, NEW HAMPSHIRE, ASSIGNOR TO ORISON TWOMBLY, OF LAKE VILLAGE, NEW HAMPSHIRE, AND THOMAS S. NOWELL, OF BOSTON, MASSACHUSETTS.

KNITTING-MACHINE NEEDLE.

SPECIFICATION forming part of Letters Patent No. 329,906, dated November 10, 1885.

Application filed July 21, 1884. Serial No. 138,352. (No model.)

To all whom it may concern:

Be it known that I, WARREN D. HUSE, of Laconia, in the county of Belknap and State of New Hampshire, have invented a new and
5 useful Improvement in Knitting-Machine Needles, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to that class of knitting-machine needles which have imparted thereto an endwise reciprocation for the purpose of forming the stitch, and is designed to facilitate the throwing of said needle out of action with its cam; and it consists in a needle
10 the main body of which is composed of two bars parallel with each other for the greater part of their length, and forming a loop with the lug to be operated upon by the cam projecting outward from the outer one of
20 of said bars, and the end of said outer bar bent at right angles thereto, so as to rest upon the other bar, as will be more fully described.

Figure 1 of the drawings is a side elevation of a needle embodying my invention. Fig.
25 2 is a front or edge view of the same, and Fig. 3 is a central vertical section of a knitting-machine, illustrating the use and operation of my improved needle.

In another application of even date herewith, filed in the Patent Office July 21, 1884, Serial No. 138,349, I have described and claimed certain improvements in knitting-machines, one feature of which was making the grooves which formed the bearing for the
35 needles, and in which they were reciprocated, with curved bottoms, or deeper at the middle of their lengths than at their ends. To avoid the extra milling necessary to produce the curved bottoms of said grooves I have produced the needle which is the subject of my
40 present application.

In carrying out my invention I take a piece of suitably-flattened wire, of a length about twice as great as the required length of
45 the finished needle, form upon one end thereof the hook *a*, and pivot thereto at the proper distance from said hook the latch *b*, bend a short portion, *c*, of the opposite end of the wire at right angles, or nearly so, to the main
50 body of the wire in the same direction as the hook *a*, form at the proper point the lug or projection *B'* by bending the wire at *d*, *d'*,

and *d*², and then forming the semicircular bend *e* in such a manner that the end of the part *c* shall rest upon or against the part A, 55 and the straight portions of the part B so bent over shall be parallel with the part A and a distance therefrom about equal to the distance which the lug *B'* is designed to project into the path of the cam-cylinder D, as
60 shown at the right-hand side of Fig. 3.

When it is desired to throw the needles out of action, it is done by moving the plate H and segments I and I' inward, and then intermittently moving said segments in opposite
65 directions around the cylinder in precisely the same manner as described in said other application; but the result produced thereby is different from that produced in the other application, in that in the use of my im-
70 proved needle only the outer bar, B B', is sprung inward to remove the lug from the cam, the inner bar, A, remaining straight, and the hook *a* maintaining the same distance
75 from the center of the needle-cylinder whether in or out of action, while in the case of throwing out of action the needle shown and described in said other application the hook is thrown outward when the middle of the
80 needle-shank is bent inward; and while a very good result is produced by this last-mentioned arrangement, a better result in some respects will be obtained by the employment of my
85 improved needle, which forms the subject of this present application.

I am aware that needles having two bars arranged parallel to each other have been before used, as shown and described in the Patent No. 7,509, July 16, 1850; in English Patent No. 2,201 of 1883, and German Patent No. 15,883, and therefore I do not claim anything
90 shown and described in said patents.

What I claim as new is—

A knitting-machine needle having the parts A, B, B', and *c* arranged relative to each
95 other substantially as and for the purposes described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 12th day of
100 July, A. D. 1884.

Witnesses: WARREN D. HUSE.
M. C. LOMBARD,
WALTER E. LOMBARD.