

No. 629,005.

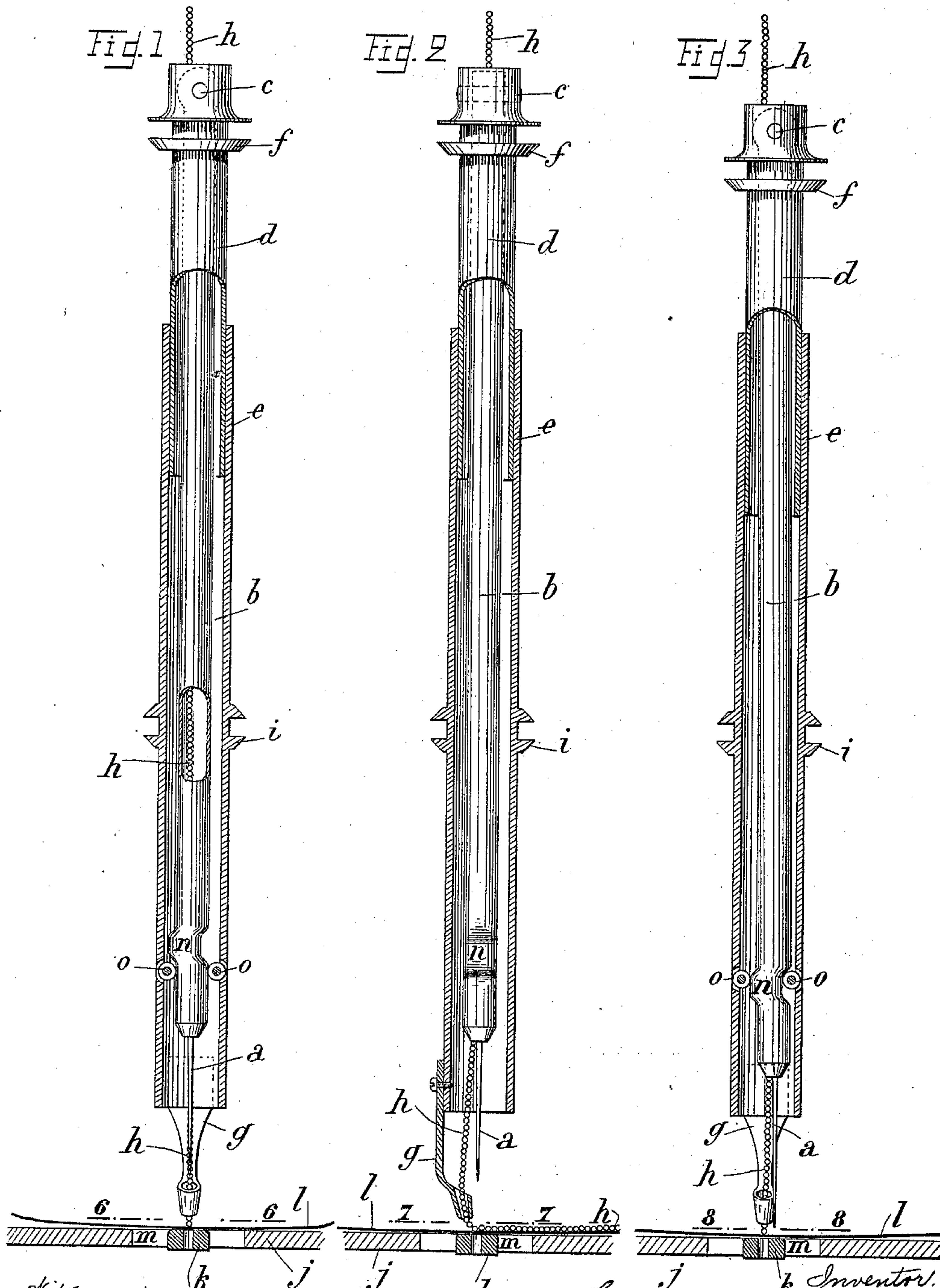
Patented July 18, 1899.

H. A. DOMENGET.
MACHINE FOR SEWING BEADS TO FABRICS.

(Application filed Mar. 26, 1898.)

(No Model.)

3 Sheets—Sheet 1.



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Henri Andre Domenget,
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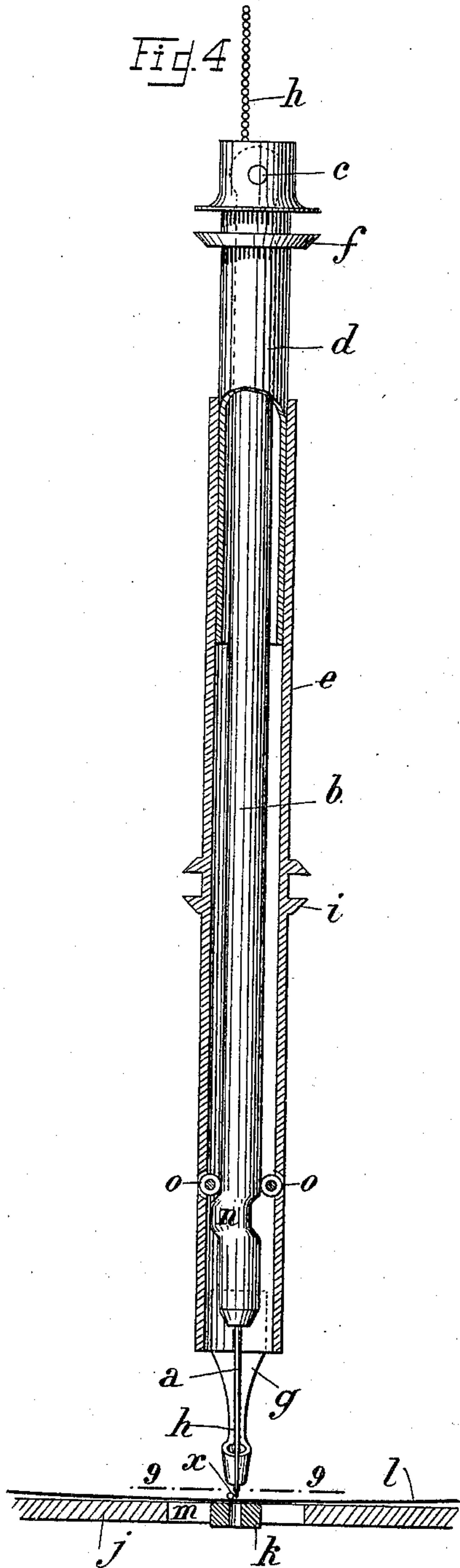
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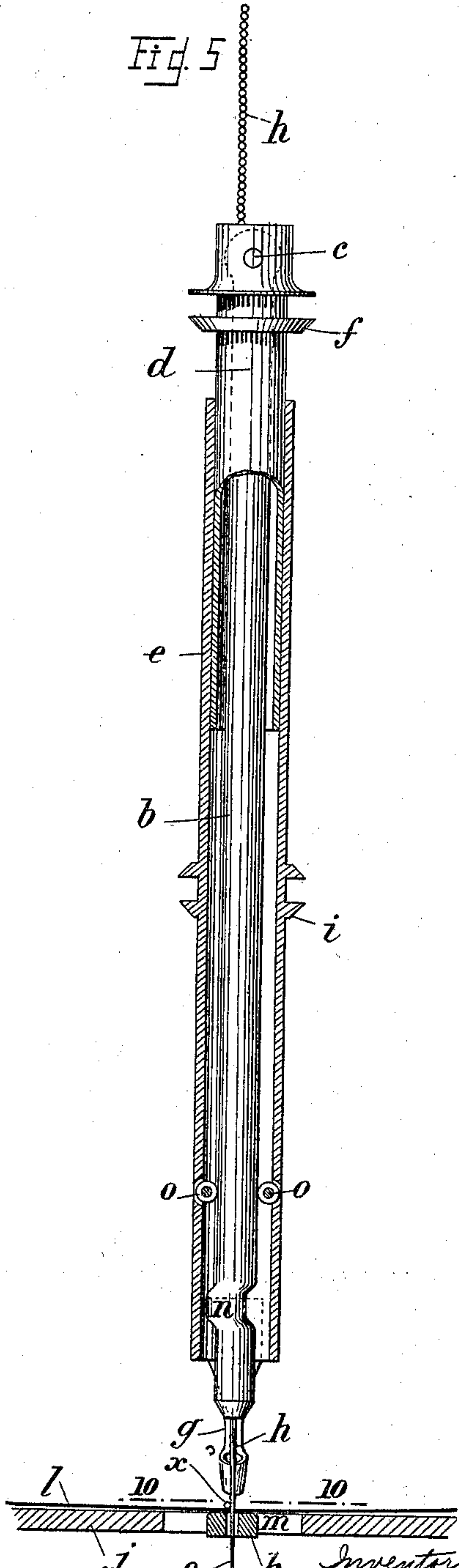
(Application filed Mar. 26, 1898.)

(No Model.)

3 Sheets—Sheet 2.



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3 Sheets—Sheet 3.

Fig. 6

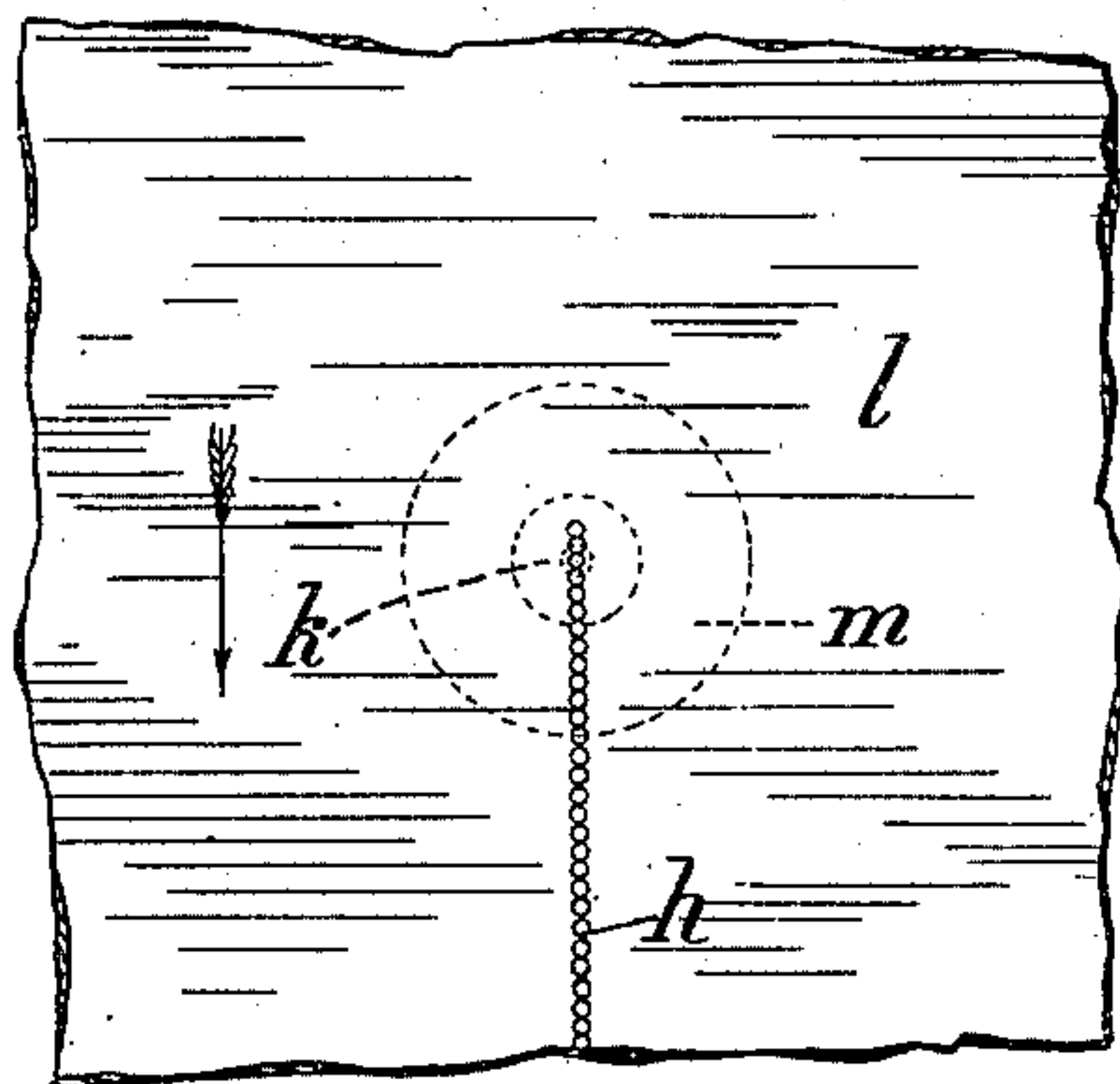


Fig. 7

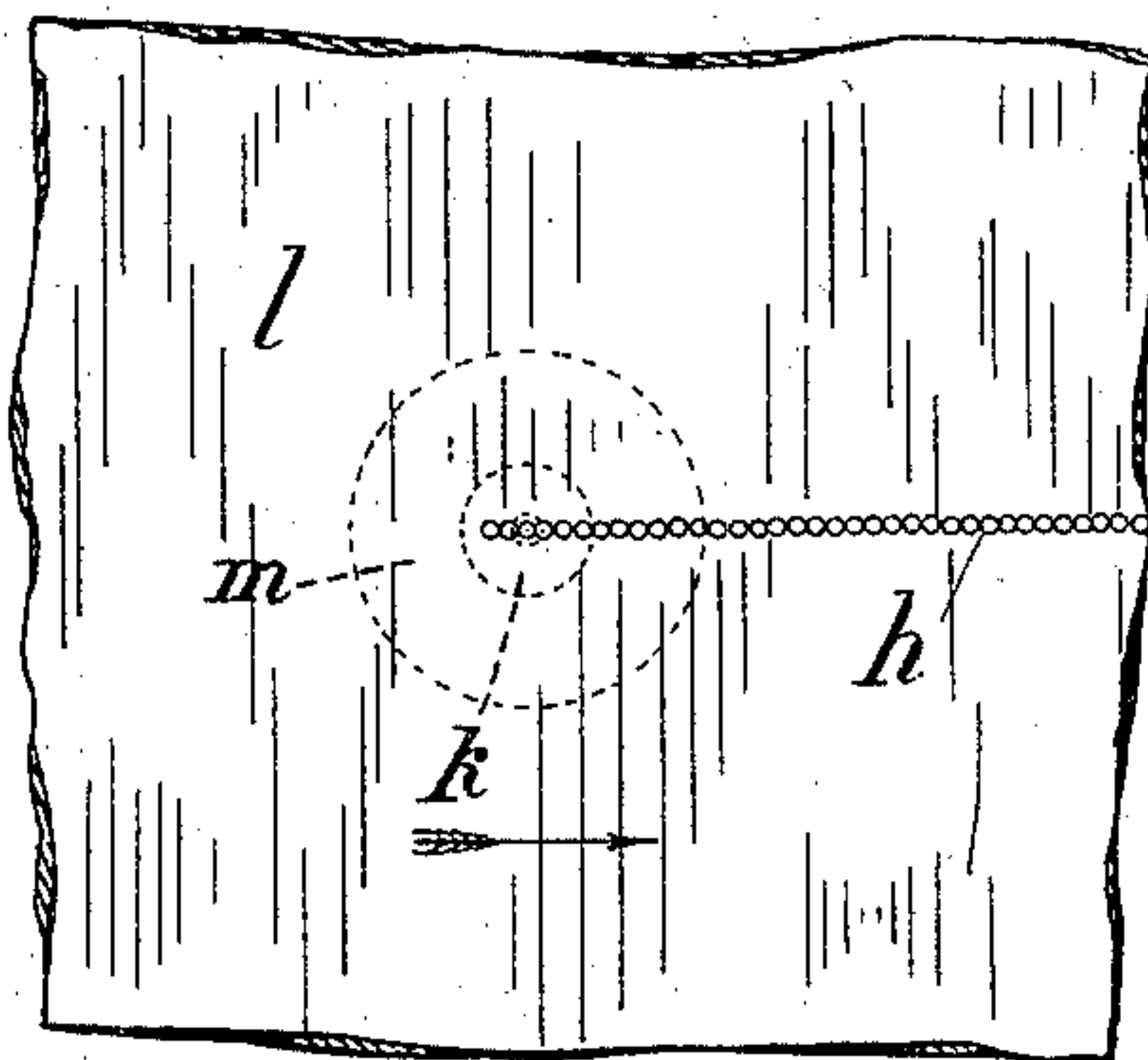


Fig. 8

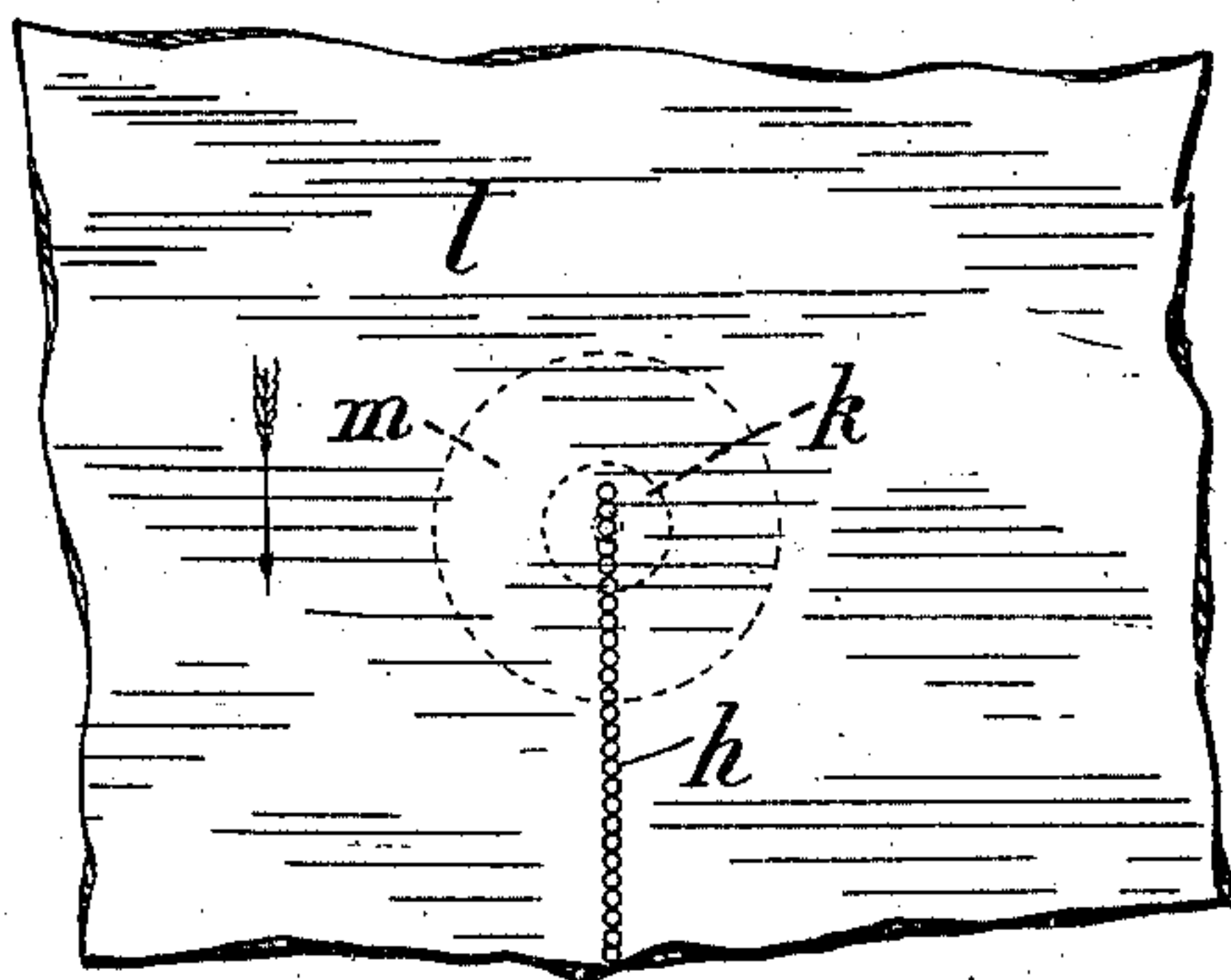


Fig. 9

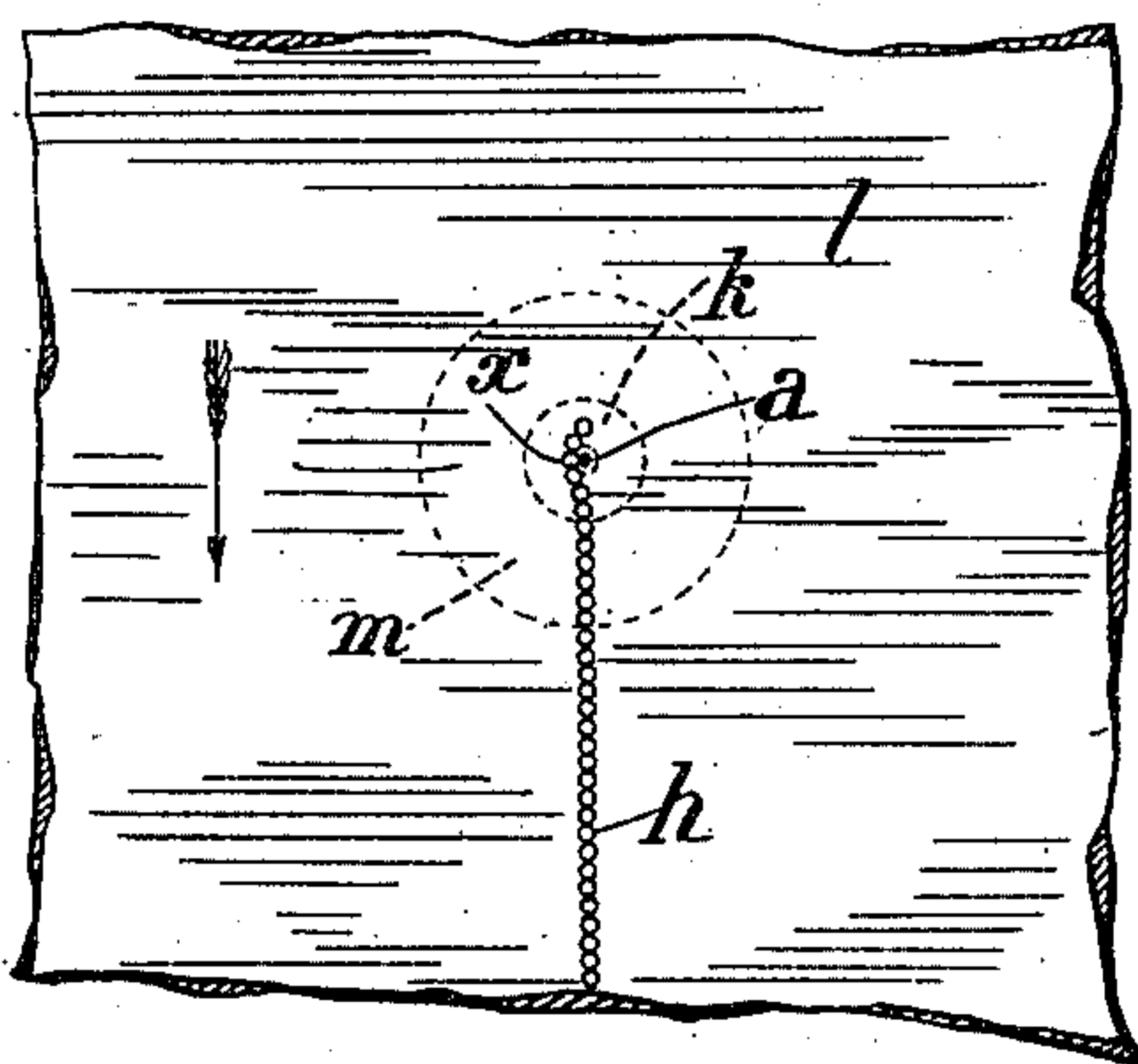
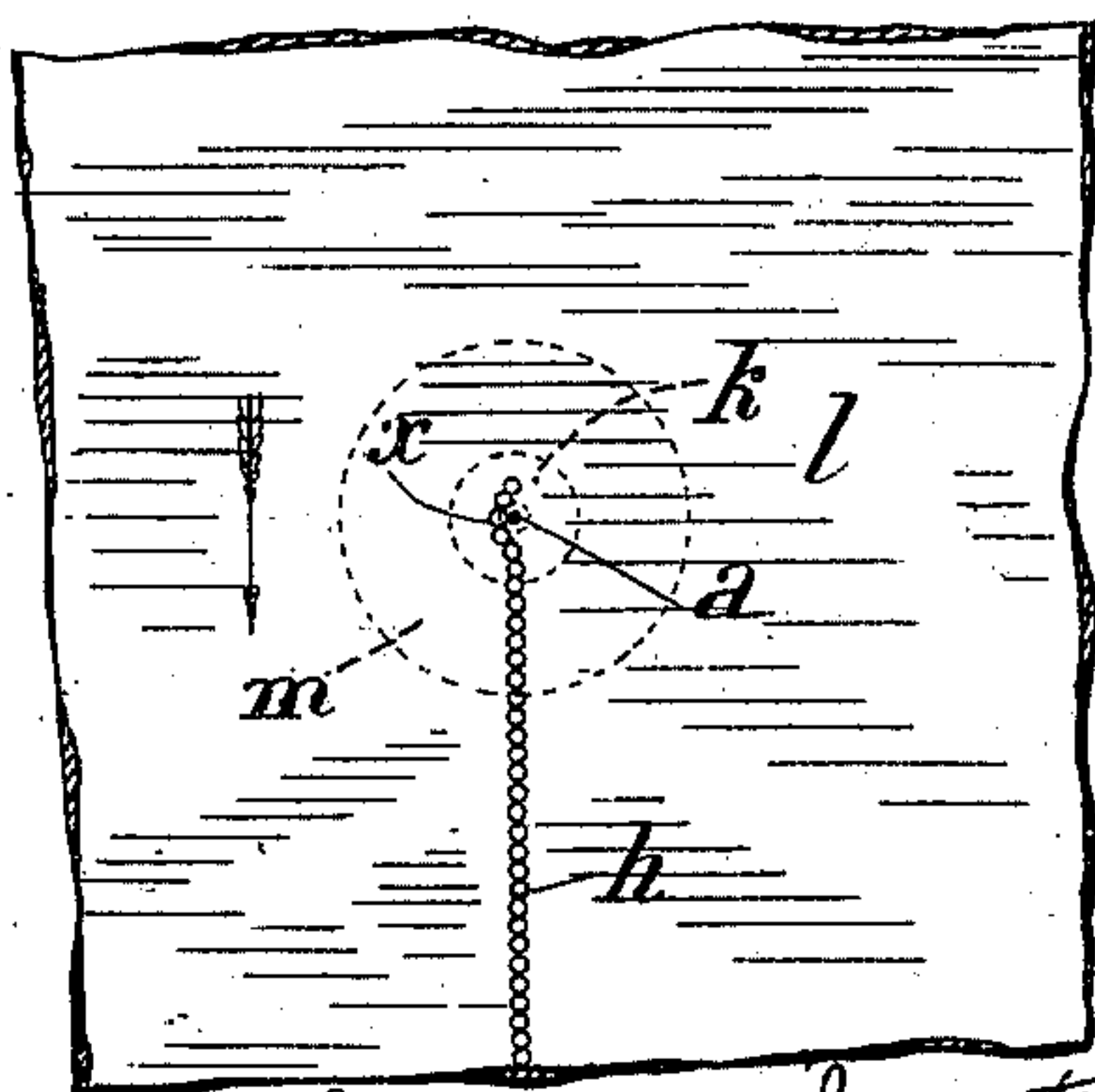


Fig. 10



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UNITED STATES PATENT OFFICE.

HENRI ANDRÉ DOMENGET, OF ARGENTEUIL, FRANCE.

MACHINE FOR SEWING BEADS TO FABRICS.

SPECIFICATION forming part of Letters Patent No. 629,005, dated July 18, 1899.

Original application filed April 10, 1897, Serial No. 631,550. Divided and this application filed March 26, 1898. Serial No. 675,295. (No model.)

To all whom it may concern:

Be it known that I, HENRI ANDRÉ DOMENGET, a citizen of the Republic of France, residing at Argenteuil, France, have invented
5 a certain new and useful Improvement in Machines for Sewing Beads to Fabrics; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention (for which Letters Patent
10 have been applied for in Germany under date of May 3, 1897, and have been obtained in France, No. 264,567, dated March 2, 1897; in Great Britain, No. 10,281, dated April 24, 1897, and in Belgium, No. 128,718, dated May
15 22, 1897) relates to machines for sewing beads to fabrics, and although more particularly designed for sewing on beads which are loose on a thread it is quite suitable for also sewing on threaded beads which have been previously
20 attached to their thread.

The present application is a subdivision of the case filed by me on April 10, 1897, Serial No. 631,550.

This invention consists of a device for so
25 controlling the needle that in descending to enter the fabric and make a stitch to sew a bead thereto it shall immediately before penetrating the fabric act upon the beaded thread and push the same out of the vertical
30 plane of the needle-plate, and thus allow the needle to execute its downward stroke unhindered by any bead which might be in a vertical plane with the hole in the needle-plate and be a cause of breakage of the needle.

35 In the accompanying drawings I have only shown the needle, the needle-carrier, and such of the coöperating parts as are sufficient for a full and clear understanding of the device herein described and claimed.

40 Figure 1 is a vertical central section taken through the central tube containing the needle-carrier, the needle being shown in its uppermost position. Fig. 2 is a vertical section at right angles to Fig. 1. Figs. 3, 4, and
45 5 show succeeding positions assumed by the device in accomplishing its function. Figs. 6, 7, 8, 9, and 10 are plans in section taken, respectively, on the corresponding lines of Figs. 1, 2, 3, 4, and 5.

50 The eye-pointed needle *a* is fastened to the needle-carrier *b*, which is hollow and is capa-

ble of pivoting at the top on an axis *c*, fitted in a tubular bearing *d*. The lower end of the tubular bearing *d* is fitted into the upper end of the central tube *e* and has a grooved collar
55 *f*, by which it is connected to a fork (not shown) for imparting an up-and-down motion to the tubular bearing *d* in the usual manner and by the usual mechanical means. The central tube *e* itself terminates at the bottom
60 in presser-foot *g*, acting at the same time as a guide for the beaded thread *h*, and is likewise provided with a grooved collar *i*, by which it is connected to a fork (not shown) for imparting an up-and-down motion to the central
65 tube *e* in the usual manner and by the usual mechanical means.

The beaded thread *h*, which passes centrally through the needle-carrier *b*, is supplied from a spool by any suitable known means,
70 but more especially by the particular feeding device described in my application hereinbefore referred to.

j is the cloth plate, *k* is the round needle-plate having a central hole for the free pas-
75 sage of the needle *a*, and *l* is the fabric to which beads are to be sewed. The feeding of the fabric can be effected by any suitable known means; but in effecting that kind of work, there is an advantage in employing the
80 fabric-feeding device described in my aforementioned application, bearing Serial No. 631,550, and consisting of two feed-dogs, an upper one and a lower one, receiving uni-
85 versal motion independently of each other, but synchronously. The annular space *m* left between the two plates *j* and *k* is for locating the lower feed-dog of the said fabric-feeding device. (Not shown.)

In the needle-carrier is formed a bend *n*,
90 which in coöperating with two bowls *o o*, fitted in the central tube, causes it to oscillate around its pivot *c* from the position shown in Fig. 1 to that shown in Fig. 3 and from the position shown in Fig. 3 back to the initial
95 position shown in Figs. 4 and 5.

The operation of the device is as follows: The string of beads in the operation of sewing them onto the fabric *l* is guided by the
100 guide *g* across the needle-opening in the needle-plate *k*, Figs. 2, 6, 7, and 8, in the direction of feed. Assuming the needle-carrier *b*

to be in its uppermost position, Figs. 1 and 2, and assuming the machine to be in operation, the needle-carrier *b* will in descending be caused to move out of its normal vertical line of motion, coinciding with the vertical axial line of the hole in the needle-plate *k* into a line eccentric thereto by the action of the bowls *o o*, Fig. 3, and will move in this line until the point of the needle lies on one side of the bead *x*, immediately above the hole in the needle-plate *k*. At this moment the bowls *o o* leave the bend *n* of the carrier *b* and cause the same to move back to its normal line of motion, thereby pushing said bead *x* out of its path, Figs. 9 and 10, the needle then passing through the fabric to form the stitch. In view of the fact that during the downward movement of the needle-carrier the string of beads has been attached to the needle-thread, as described in my application above referred to, said string is sewed to the fabric by the stitch-forming appliances, as therein described, after which the needle rises again to its initial position, during which movement the needle-thread is drawn taut and the carrier *b* first moved out of and then back again into its normal line of motion, the described operations being repeated.

The advantage of the herein-described device is obvious. No injury to the needle can arise from a bead obstructing the hole in the needle-plate, the needle itself performing the function of clearing its own way to the hole in the needle-plate.

I claim—

1. In a machine organized to sew beads to a fabric, the combination with the needle, its

vertically-reciprocating carrier provided with a through-passage for the string of beads, the needle-plate provided with an opening in the axial plane of said carrier, and a guide for the string of beads adapted to guide the same across said opening; of means for moving the carrier out of and back into its vertical plane before the needle penetrates into the fabric and thereby push aside the bead above the needle-plate opening, for the purpose set forth.

2. In a machine organized to sew beads to a fabric, the combination with a needle, a vertically-reciprocating and laterally-movable carrier therefor having a through-passage for the string of beads and formed with a cranked or bent portion *n* intermediate of its ends, and the needle-plate provided with an opening in the axial plane of said carrier; of a guide for and arranged to guide said string of beads across the needle-plate opening, and a carrier for said guide mounted on the needle-carrier and provided with two bowls *o o* in the path of the bent or crank portion of said needle-carrier, said parts arranged to move the needle-carrier out of its vertical plane and back into it before the needle penetrates into the fabric, to push aside the bead over the needle-plate opening, for the purpose set forth.

In witness whereof I have hereunto set my hand, this 11th day of March, 1898, in presence of two subscribing witnesses.

HENRI ANDRÉ DOMENGET.

Witnesses:

R. H. BRANDON,
D. H. BRANDON.