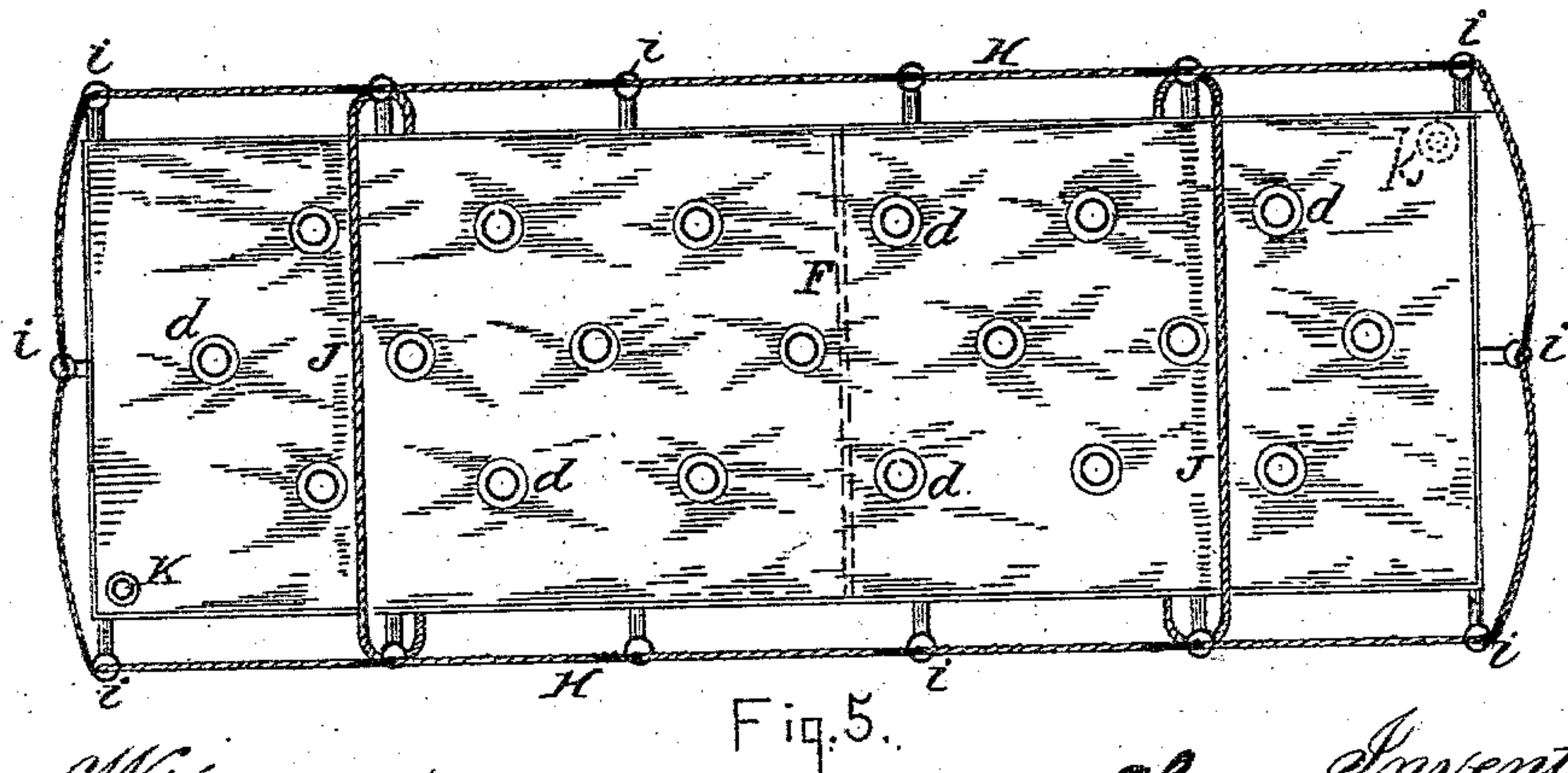
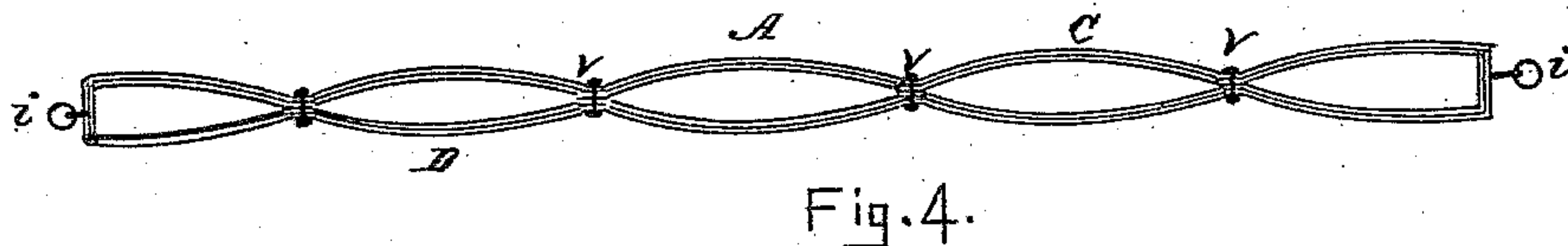
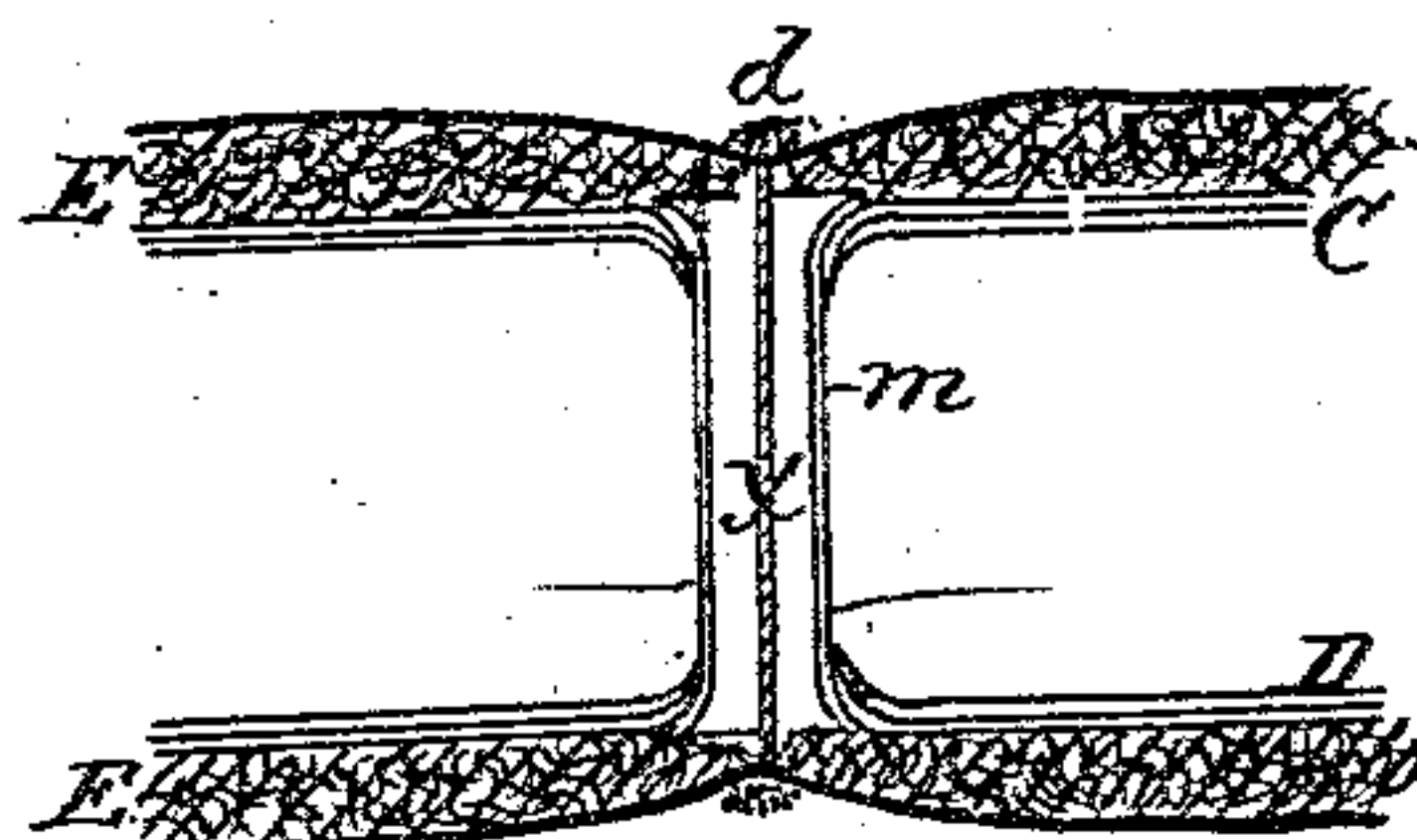
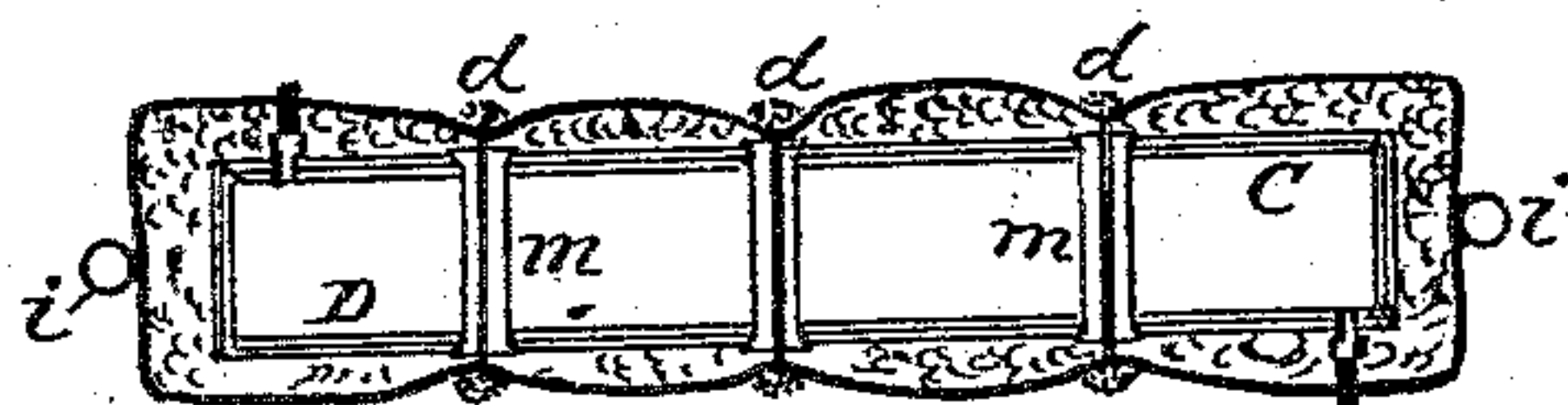
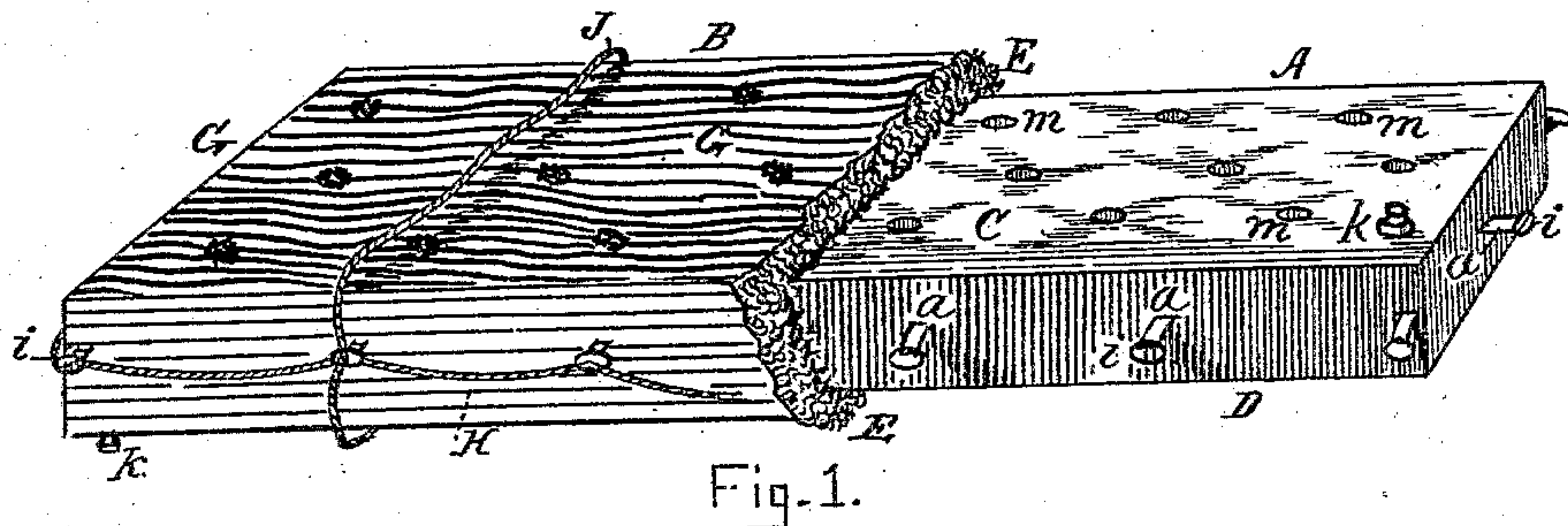


(No Model.)

L. HEATH.
MATTRESS.

No. 274,495.

Patented Mar. 27, 1883.



Witnesses
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UNITED STATES PATENT OFFICE.

LABAN HEATH, OF BOSTON, MASSACHUSETTS.

MATTRESS.

SPECIFICATION forming part of Letters Patent No. 274,495, dated March 27, 1883.

Application filed October 6, 1882. (No model.)

To all whom it may concern:

Be it known that I, LABAN HEATH, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Mattresses, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an isometrical perspective view, showing a portion of the upholstery removed; Fig. 2, a vertical transverse section; Fig. 3, a vertical section, showing one of the tubes; Fig. 4, a vertical longitudinal section of a modification of the air-chamber or body, and Fig. 5 a bottom plan view of the body.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates more especially to life-preserving mattresses, or that class of mattresses which are provided with means for rendering them buoyant and preventing accidental drowning; and it consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a more effective device of this character is produced than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation, its extreme simplicity rendering an elaborate description unnecessary.

In the drawings, A represents the air-chamber or body of the mattress, and B the upholstery.

The body consists of an air-cushion rectangular in form, and composed of rubber, rubber cloth, or similar material, being divided into two compartments by the partition F, and each compartment provided with an inflating-tube, K, preferably located on opposite sides of the mattress, or so that one of the tubes will always be accessible when the mattress is submerged, and should one compartment become leaky the other will float the mattress. The top and bottom, C D, of the body are connected by a series of short vertically-arranged tubes, *m m*, opening outwardly through the same, the

tubes being preferably composed of rubber and hermetically sealed or united thereto.

The upholstery B consists of ordinary hair or similar material, E, covered with cloth or ticking G, the mattress being tufted, or its upper and lower surfaces connected by means of cords or twines *x*, which pass from side to side through the same, and are secured at their outer ends by the buttons *d* in the usual manner.

A series of short stout straps, *a a*, are attached firmly to the sides and ends of the body at regular intervals, and provided at their outer or free ends with rings *i i*. These straps project horizontally through the upholstery, and are provided with a stout cord or life-line, H, preferably extending entirely around the edge of the mattress. There are also one or more cross-lines, J, which encircle the mattress, as best seen in Figs. 1 and 5, also secured in the rings *i i*; but these may be omitted, if desired.

The primary object of the tubes *m* is to enable the mattress to be upholstered, as without them or properly-constructed openings through the body A it would be impossible to tuft the same perfectly by means of the cords and buttons *x d* without perforating the body, and thus rendering it useless. They also perform another important function in preventing the body of the mattress from bulging or becoming unduly distended at the top and bottom when fully inflated, as would be the case were they not used, the tubes acting as stays to hold the top and bottom surfaces, C D, of the body in parallelism with each other, and thus keep the mattress in much better shape and condition than would otherwise be possible. They also serve to ventilate the mattress, permitting the air to pass more or less freely through the upholstery with which the air-chamber is surrounded.

I deem the tubes *m* preferable to any other means with which I am acquainted for connecting the upper and lower surfaces of the air-chamber, and providing means for ventilation and the passage of the upholstering-twine *x* through the same; but for very thin mattresses I sometimes omit the tubes and punch a corresponding series of holes in the top and bottom of the air-chamber, through which the twine is passed in upholstering. In this formation of the chamber the upper and lower

surfaces, or top and bottom of the body, are hermetically sealed or united around the holes *v* in such a manner as to make water and air tight connections between the parts at these points. I also use an air-chamber of the construction described, either with or without the life-lines, in making chair, settee, and carriage cushions, pillows, sofas, lounges, &c.; but as these various articles will form the subject-matter of other patents for which I propose to apply, the same are not herein specifically claimed.

I do not confine myself to attaching the life-lines *H* to the body *A* by means of the straps *a* and rings *i*, or otherwise, as these may be secured directly to the ticking or upholstery of the mattress, if preferred. Neither do I confine myself to the use of the body or air-chamber *A* in life-saving mattresses alone, as it will be obvious that it is well adapted for ordinary mattresses, in which a large saving may be effected in the amount of hair required for upholstering by its employment. It will also be obvious that the air-chamber may be divided into more than two compartments, if desired, each compartment being furnished with an inflating-tube.

I am aware that life-saving mattresses, or mattresses provided with means for rendering the same buoyant in the water, are not new, and therefore do not claim the same, broadly; but,

Having thus explained my invention, what I claim is—

1. The air-chamber or body *A*, provided with

holes or openings through the same for receiving cords or twine, whereby it is adapted to be upholstered without injury and the upholstery kept in proper position, substantially as specified.

2. The air-chamber or body *A*, provided with the tubes *m*, substantially as and for the purpose set forth.

3. The improved mattress described, the same consisting of the air-chamber or body *A*, provided with openings for the tufting cords or twine *x*, in combination with the upholstery *B* and with said cords, substantially as described.

4. The air-chamber or body *A*, provided with the holes or openings *v*, the top and bottom *C* *D* of the chamber being hermetically sealed around the holes, substantially as set forth.

5. The body *A*, provided with the straps *a*, rings *i*, and line *H*, substantially as specified.

6. The combination of the body *A*, upholstery *B*, and life-line *H*, substantially as shown.

7. The cross-lines *J*, in combination with the line *H* and body *A*, substantially as set forth.

8. The body *A*, having two compartments, each compartment being provided with an inflating-tube opening in a direction opposite that of the tube in the adjoining compartment, substantially as and for the purpose specified.

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Witnesses:

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