(No Model.)

# W. H. LEWIS.

## SPRING PILLOW.

No. 490,447. Patented Jan. 24, 1893.

FIG. 3.

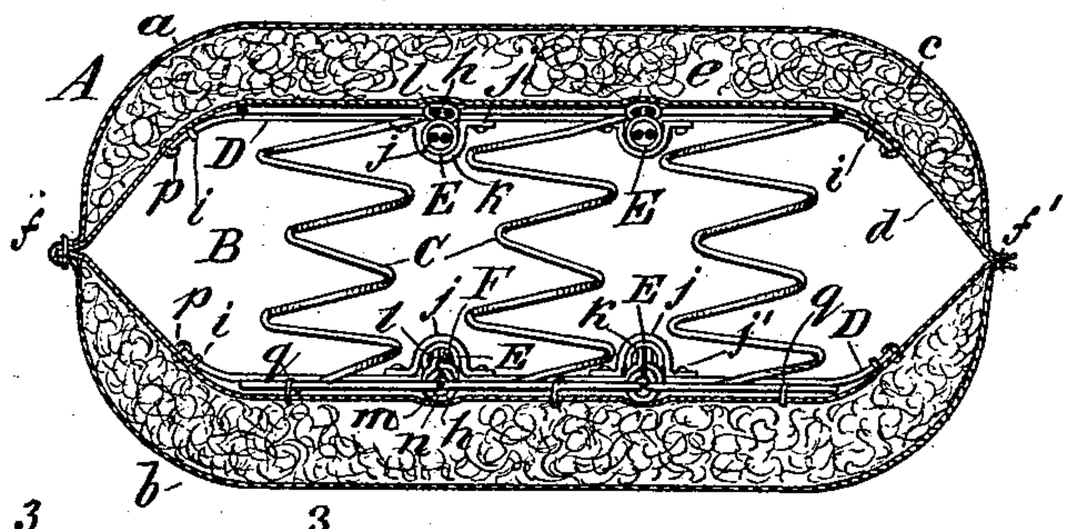



FIG. 2.

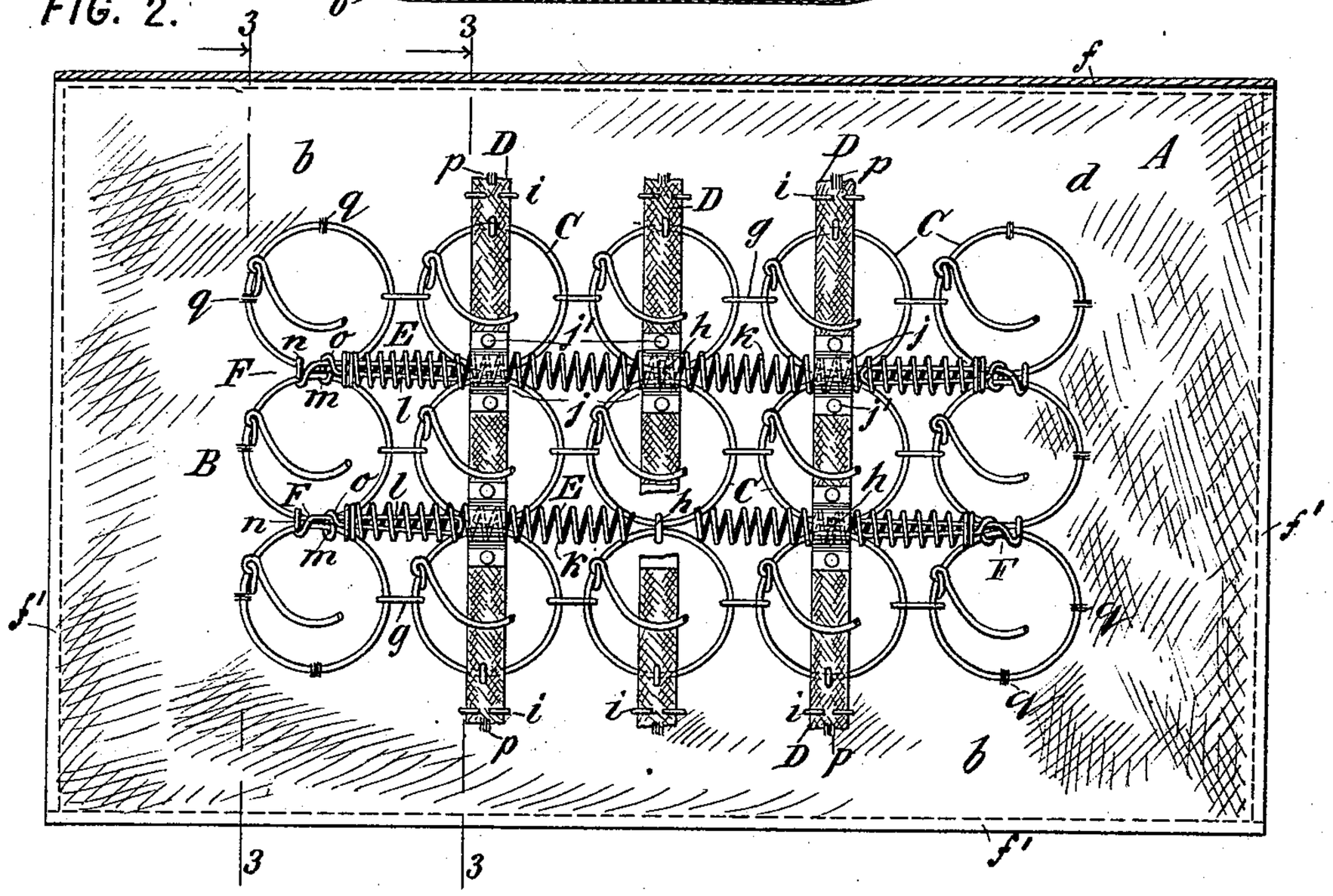
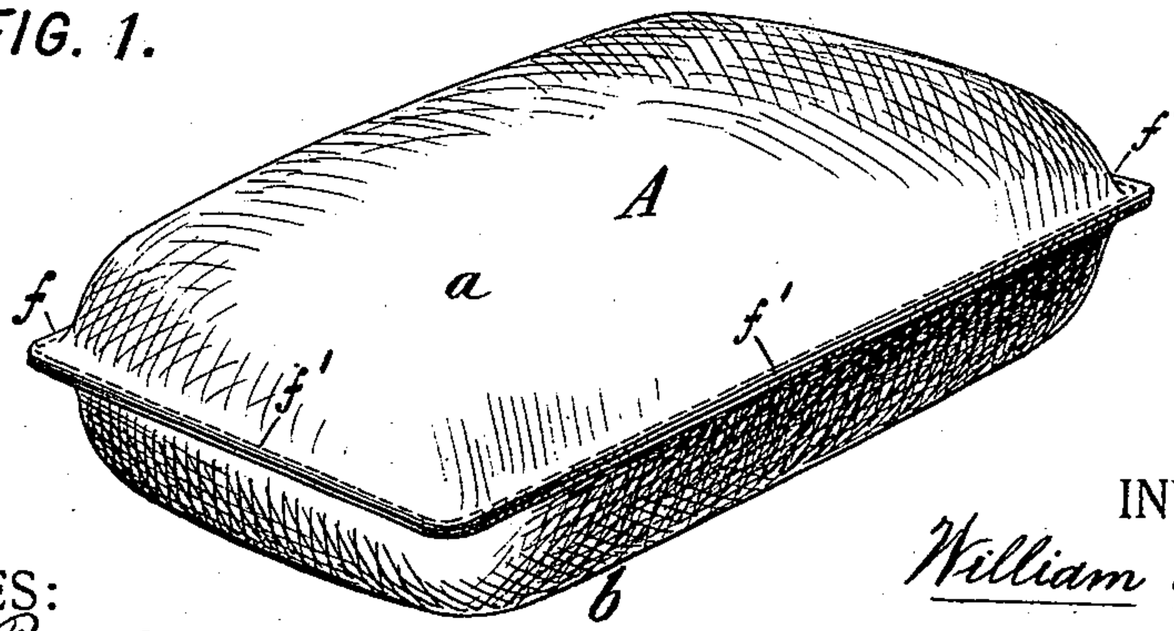



FIG. 1.

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# UNITED STATES PATENT OFFICE.

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## SPRING-PILLOW.

SPECIFICATION forming part of Letters Patent No. 490,447, dated January 24, 1893.

Application filed October 10, 1892. Serial No. 448,462. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. LEWIS, a citizen of the United States, residing at Rome, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Spring-Pillows and Like Articles, of which the following is a specification.

This invention relates to spring pillows and like articles. One example of such devices is illustrated in my United States Letters Patent No. 414,229, granted November 5, 1889, wherein the pillow consists essentially of an outer covering in which a set of springs is arranged.

My present invention aims to improve pillows of this general class, and to provide such a pillow of cheap, light and convenient construction.

To this end in carrying out my present invention, I provide certain improvements in the details of construction of the pillow and its springs which will be hereinafter fully set forth.

Referring to the accompanying drawings which illustrate the preferred adaptation of my invention, Figure 1 is a perspective view of a pillow constructed according to my invention; Fig. 2 is a plan view of the pillow, the outer covering being removed; and Fig. 3 is a cross-section thereof on the two different planes indicated by the lines 3—3 in Fig. 2.

Referring to the drawings, let A indicate the pillow covering, B the set of springs, C C the individual springs of the set, D D the lateral strips therefor, and E E the longitudinal connections therefor.

In general the parts thus referred to are of well known construction, but I will now proceed to describe them more specifically, setting forth the detail features incident to my present invention.

The covering A may be of any suitable construction, that shown consisting of the usual top and bottom flaps *a b*, which as heretofore are composed of an outer fabric *c*, an inner fabric *d*, and an intermediate filling of cushioning material *e*. As usual the covering A is made of one integral piece for both flaps, the material being gathered at the middle and stitched at *f* to form the dividing line or seam between the two halves, and after the set of springs is fastened in place between the flaps, the three remaining edges of the cover are stitched together at *f'* to close the remainder of the cover tightly around the springs. Preferably the gathered portion *f* of the covering is at the long side of the pillow, and the two fabrics *c* and *d* are here folded, as shown in Fig. 3, and the stitching at this point is then run entirely through the covering, binding the two fabrics and the intermediate material tightly together. At the ends and opposite edge of the covering, the outer fabric is folded over the inner one, and the two opposing edges of the covering are brought together when thus arranged, and the stitchings at *f'* traverse these folded edges, the stitching being thus carried entirely around the pillow to thoroughly close communication with its interior. This feature effects economy and simplicity in constructing the pillow, and prevents access of anything to its interior.

The springs C C are preferably the usual light metallic wire springs standing vertically within the pillow, and having flared ends and coiled intermediate portions, and disposed side by side in groups of any desired number. In the construction shown fifteen springs are used, making a set comprising three longitudinal rows of five springs each. These are preferably arranged in parallel rows, the springs being preferably connected together at their adjacent edges by links *g* of H-shape, or by other suitable provisions, whereby the springs are maintained in relative position longitudinally of the rows. For maintaining the springs against lateral relative displacement, those of the intermediate rows are preferably coupled together as heretofore by links *h* embracing their adjacent edges, and also the adjacent portion of the cross-stays D, while the springs at the ends are coupled together preferably by my improved end pieces F F, which will be hereinafter set forth, which serve to embrace the opposite sides of the springs and couple them together.

Preferably the lateral strips D are according to my present invention constructed each of a single strip of tape or other flexible ma-

terial traversing laterally across the set of springs, arranged immediately beneath and against the top wire of the springs and coupled thereto where the spring and tape cross, as heretofore. I have shown the usual coupling link *h* for embracing the wire of the spring, and entering the material of the tape to couple the parts together. Preferably the ends of the tapes are bound by metallic clamps *i* to prevent fraying of the ends, and to permit of a firm connection between the tape and the adjacent lining *d* of the pillow covering. As heretofore, there is one tape D at top and one at bottom of each intermediate spring, and the end springs are devoid of lateral tapes. Each tape is provided on its inner side with a loop for receiving and guiding the longitudinal connection E. This loop in its particular construction constitutes one feature of my invention, and consists of a loop of leather or analogous soft material *j* of sufficient size to receive the longitudinal connection E, bent into U-shape and fastened at its opposite ends to the under side of the tape D between the adjacent rows of springs. According to my invention these loops *j* are fastened to the tapes by eyelets or equivalent metallic clamps *j'* at their ends. By this provision only one thickness of tape is required for each lateral stay.

The longitudinal connections E consist preferably as heretofore of yielding coiled springs *k* traversing the set of springs from end to end longitudinally between the adjacent longitudinal rows of springs C. As usual, these springs are not connected at their ends directly to the springs C, but are connected to the end springs through a connecting head engaging the end springs, and having a shank as heretofore entering within the ends of the longitudinal springs. As usual the longitudinal springs are engaged by the cross tapes D to retain them in position. This I accomplish by running them through the loops *j* on the respective cross tapes. There is one longitudinal connection E at top and one at bottom between each of the longitudinal rows of springs C. The springs *k* preferably make a snug fit within the loop *j*, and are thereby firmly retained in position.

My improved connecting head F consists as heretofore of a shank end *l* entering the interior of the end of its spring *k*, and of a coupling end *m*. Preferably the head F is a metallic piece coupled to the end springs C by being bent around the adjacent portions thereof. I prefer to construct it of a single piece of metal wire bent upon itself at its middle portion to form the shank *l* of the head, which enters and snugly fits the interior of the adjacent end of its spring *k*, while the projecting ends of the wire which extend beyond the end of the spring are bent, the one to the form of a link or eye *n* embracing the top wire of each of the adjacent end springs C, while the other is shorter than and bent in the reverse direction to the first to form a link or eye *o*, likewise embracing the said wires embraced by the eye *n*, and also embracing the other wire on which the latter eye is formed. By this construction, a very light, cheap and simple connecting head F is provided, which freely links the adjacent springs C together, and gives the desired flexible connection between them and the adjacent longitudinal spring *k*. Preferably the shank end *l* of the head F extends inwardly into the loop *j* of the adjacent tape D.

Thus far, I have described the set of springs without reference to their connection to the covering A. I will now describe the preferred manner of effecting this connection according to my invention. I preferably terminate the lateral tapes D close to the sides of the outside rows of springs C, and here secure each directly to the adjacent inner lining *d* of the covering, as by the stitching *p* shown in the drawings. Thereby lateral displacement of the intermediate springs is prevented. I preferably secure the end springs of each row at top and bottom directly to the adjacent inner lining *d* of the covering by stitching or other suitable provision *q* engaging the wire of the spring both at end and side as shown. By this construction all necessity of other provisions for preventing the too great expansion of the springs C is avoided, as the outer edges of the pillow covering serve themselves for this purpose.

It will be seen that my invention provides a simple and convenient spring pillow which can be constructed with great economy and cheapness, and which will be durable, cleanly and comfortable in use.

What I claim is, in spring pillows and like articles, the following defined novel features and combinations substantially as hereinbefore set forth, namely:—

1. In a spring pillow, the covering A, in combination with a set of springs B therein consisting of a plurality of rows of connected springs C C, the end springs of each row being secured directly to said covering, as by stitching *q*, whereby displacement of the set of springs is prevented.

2. In a spring pillow, a set of springs, as B, in combination with a longitudinal spring, as *k*, and a connecting head, as F, consisting of a shank portion, as *l*, embracing the end of said longitudinal spring, and a link portion, as *m*, embracing the adjacent sides of the end springs of the rows by being bent thereabout, as and for the purpose set forth.

3. In a spring pillow, a set of springs B consisting of a plurality of rows of springs C C, and the longitudinal spring *k*, in combination with a connecting head F consisting of a wire bent on itself and having the shank portion *l* entering the end of said spring *k*, and the link portion *m* embracing the adjacent sides of the end springs C C of the rows, as and for the purpose set forth.

4. In a spring pillow, a set of springs B consisting of a plurality of rows of springs C C,

and the longitudinal spring *k*, in combination with a connecting head F consisting of a wire bent on itself and having the shank portion *l*, and constructed with an eye, as *n*, at one of its free ends embracing the adjacent springs C C at the ends of the rows, and with an eye, as *o*, at its other free end embracing said springs, and the end on which said eye *n* is carried.

5. In a spring pillow, a plurality of rows of springs C C and intermediate longitudinal springs *k*, in combination with a lateral tape D coupled to said springs C C and consisting of a single thickness of tape constructed with a loop *j* at its inner side embracing said spring *k*, as and for the purpose set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

WILLIAM H. LEWIS.

Witnesses:
GEORGE E. WRIGHT,
GEO. G. GIFFORD.