(No Model.) 2 Sheets—Sheet 1.

J. T. COWLEY.

PILLOW OR CUSHION.

No. 588,957. Patented Aug. 31, 1897.

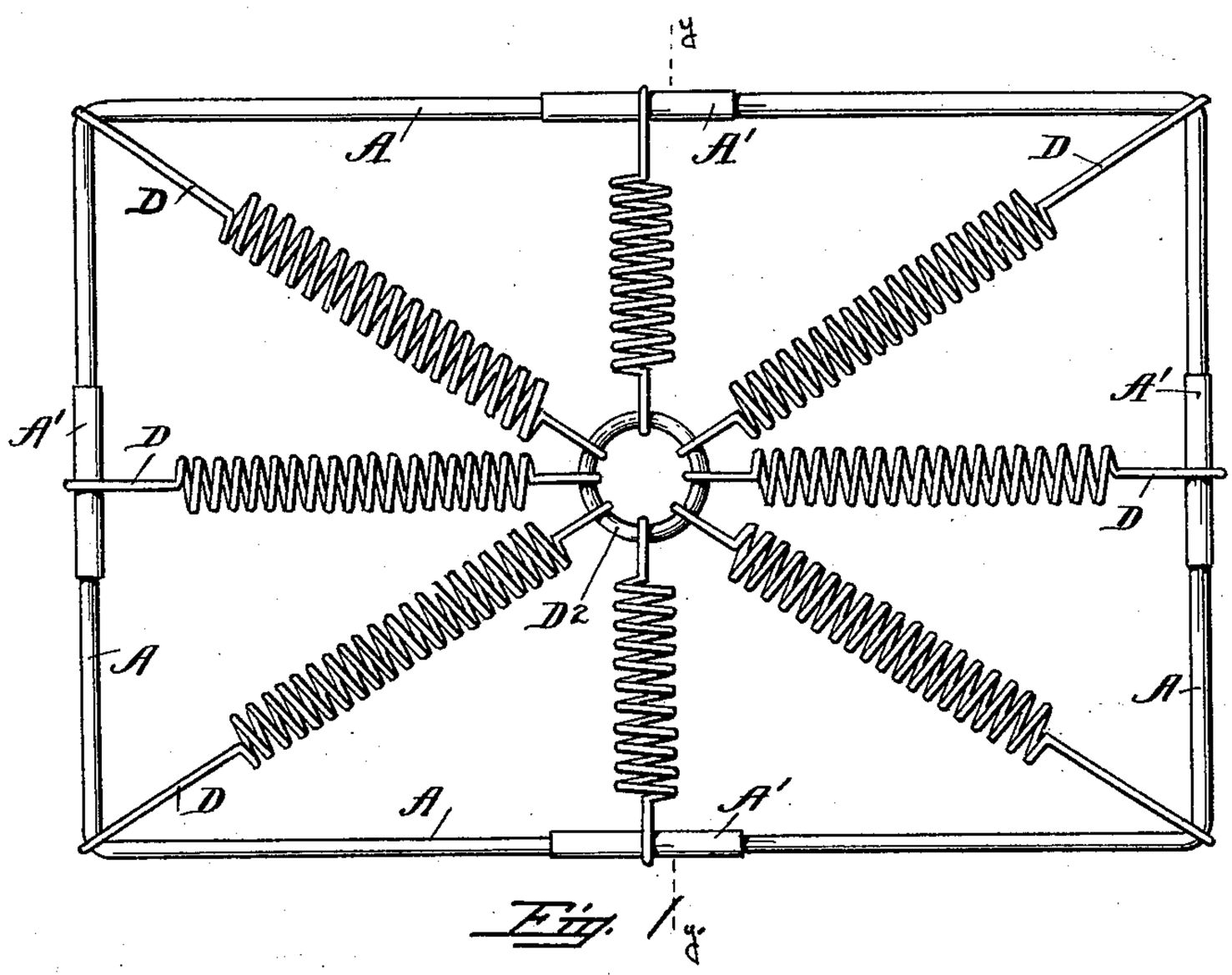

Fig. 1.

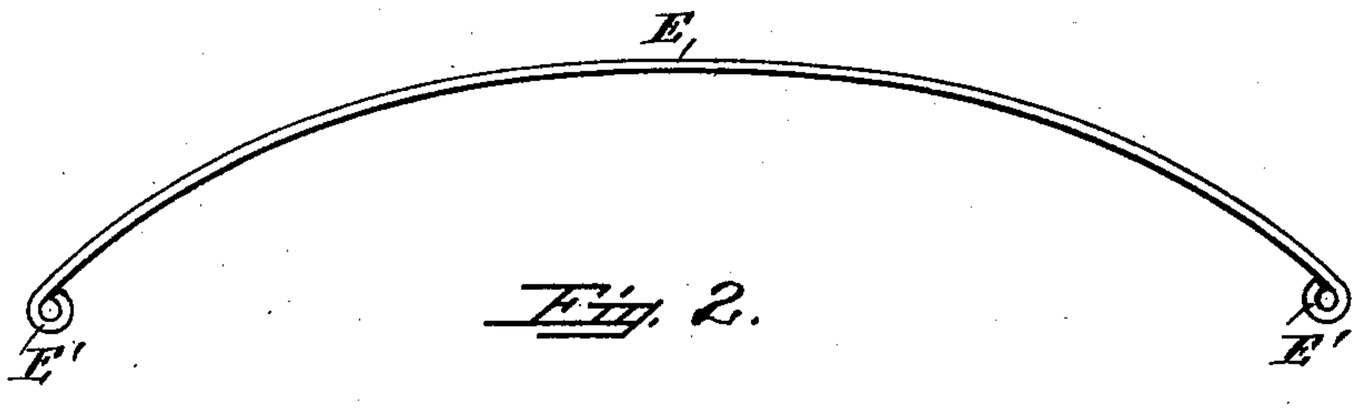

Fig. 2.

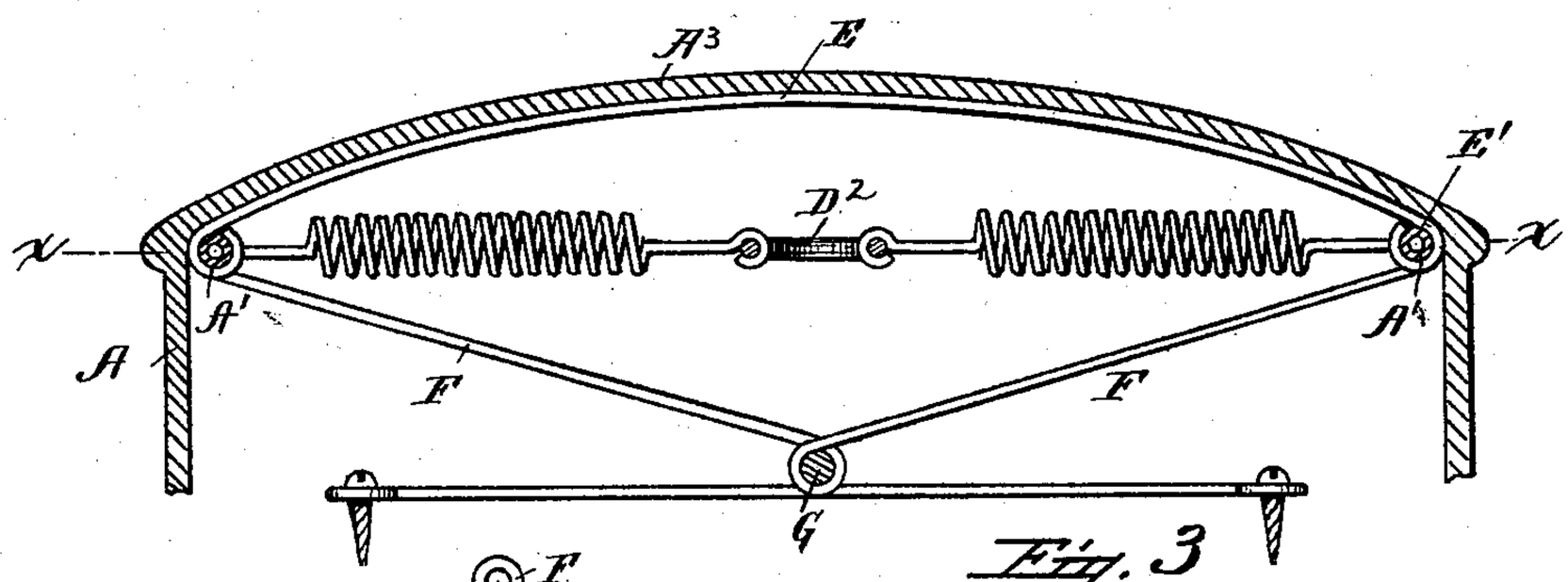

Fig. 3

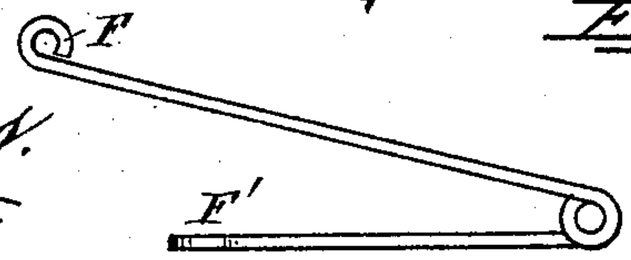

Fig. 4.

Witnesses.
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(No Model.)

2 Sheets—Sheet 2.

J. T. COWLEY.

PILLOW OR CUSHION.

No. 588,957. Patented Aug. 31, 1897.

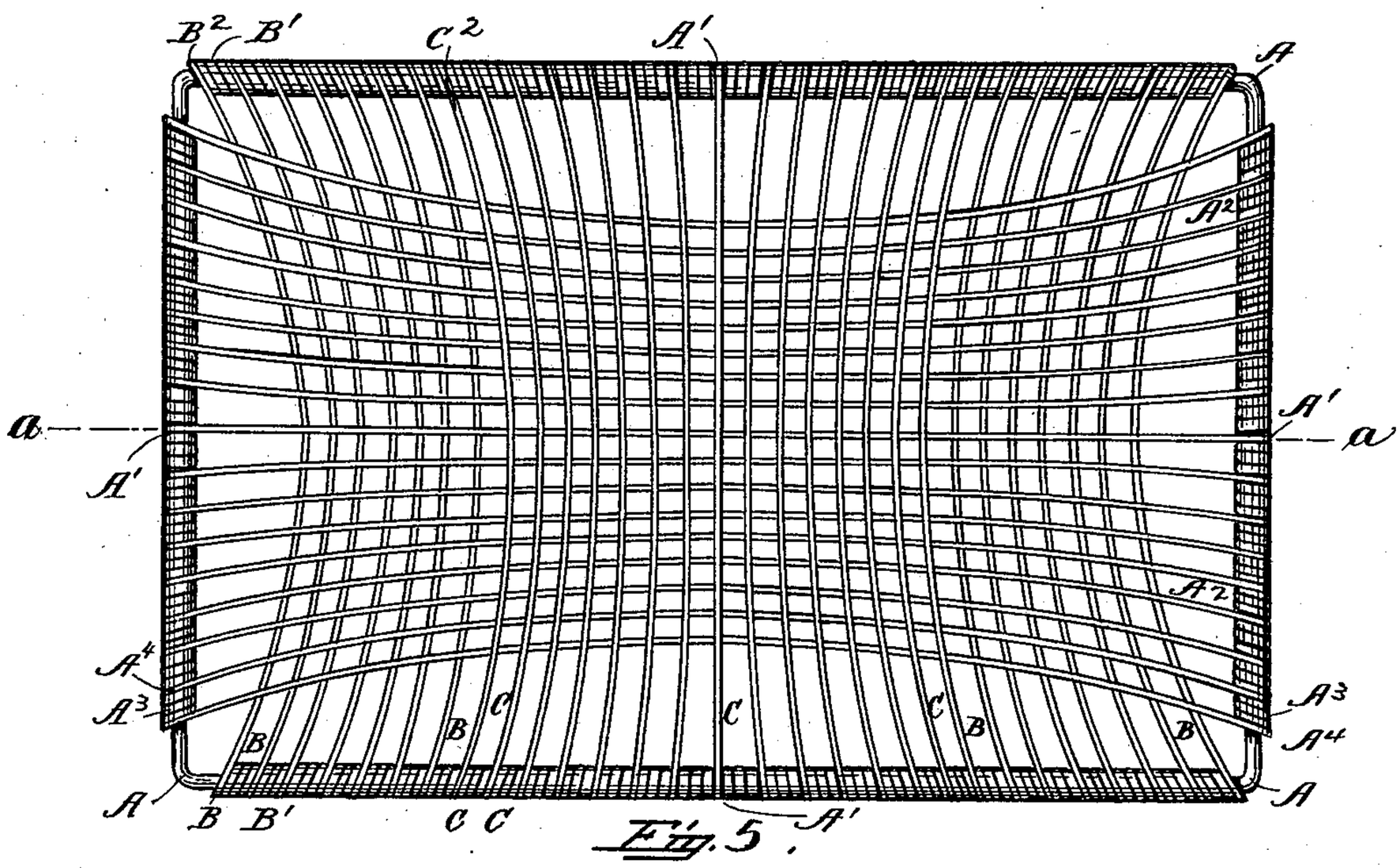

Fig. 5.

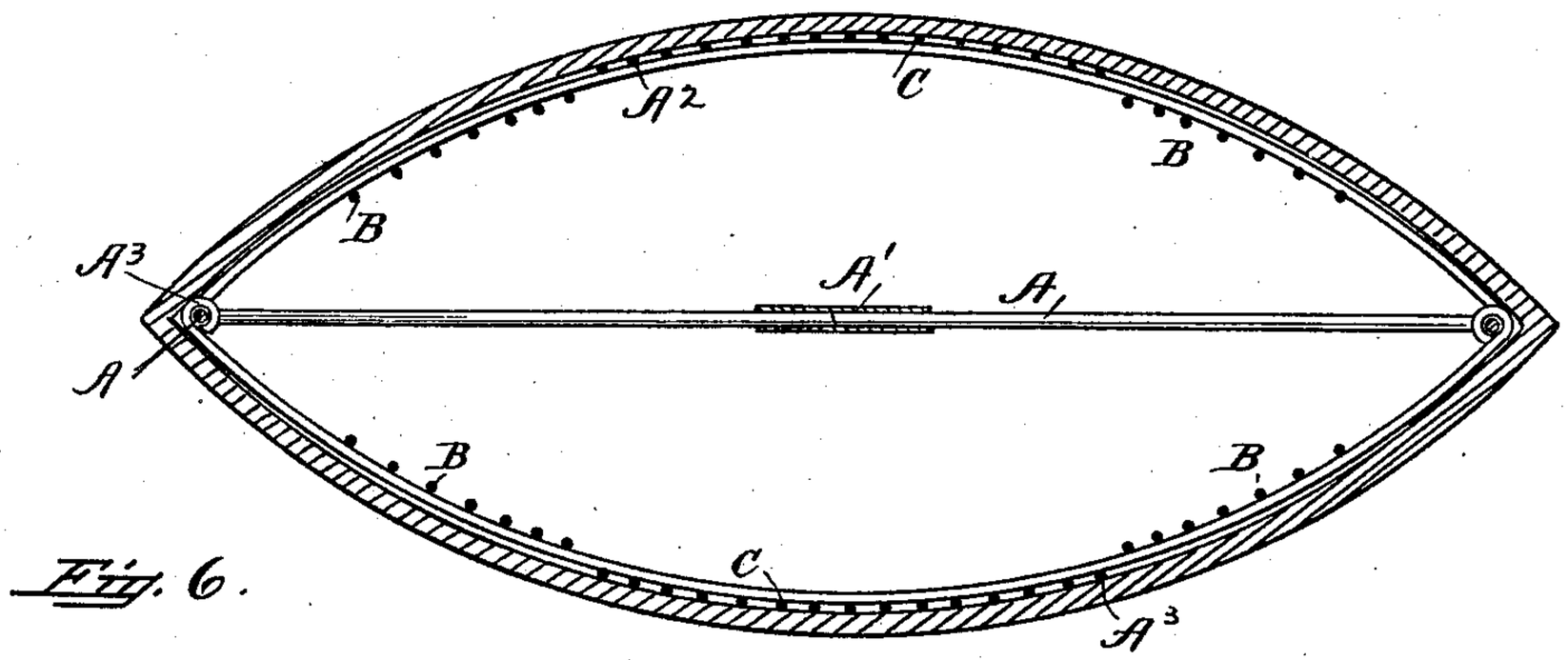

Fig. 6.

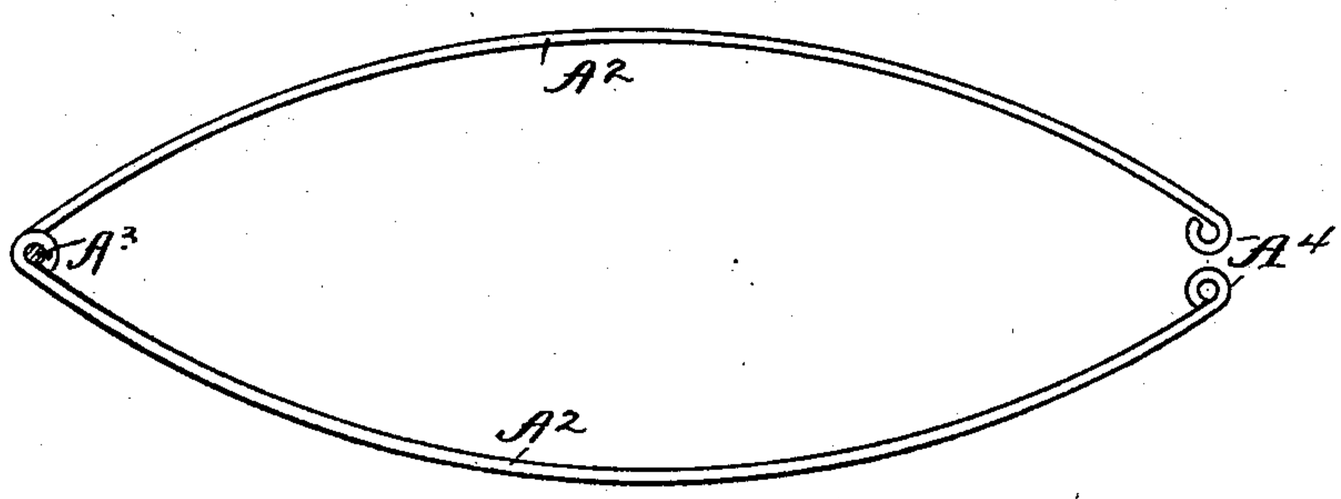

Fig. 7.

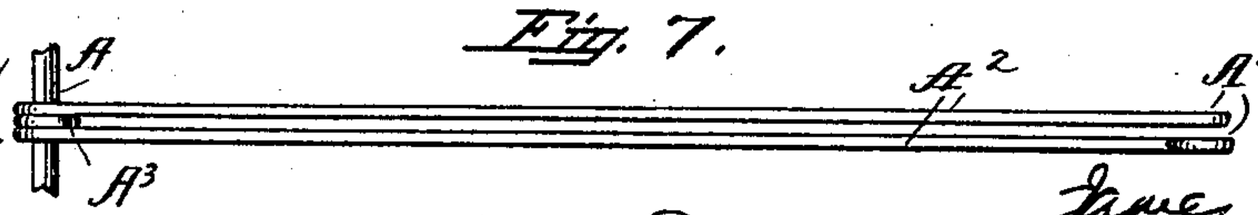

Fig. 8

Witnesses
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L. H. Thorn.

Inventor
James T. Cowley
By J. J. Rusk
Atty

UNITED STATES PATENT OFFICE.

JAMES T. COWLEY, OF LOWELL, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE AMERICAN METALLIC CUSHION COMPANY, OF WEST VIRGINIA.

PILLOW OR CUSHION.

SPECIFICATION forming part of Letters Patent No. 588,957, dated August 31, 1897.

Application filed May 4, 1896. Serial No. 590,120. (No model.)

To all whom it may concern:

Be it known that I, JAMES T. COWLEY, of Lowell, county of Middlesex, and State of Massachusetts, have invented new and useful Improvements in Pillows or Cushions; and I hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the construction of a pillow or cushion in which spring-wires are used instead of the usual spiral springs or hair, and it is adapted to be used in connection with furniture, carriages, or any articles in which a flexible or pliable cushion is required.

My invention consists of certain novel features, arrangements, and combinations hereinafter described, and particularly pointed out in the claims.

In the drawings which illustrate my invention, Figure 1 is a plan view taken on the line *x x*, Fig. 3, and omitting the top seat spring-wires and cover. Fig. 2 is a detail view of one of the top seat spring-wires. Fig. 3 is a cross-section on the line *y y*, Fig. 1. Fig. 4 is a detail view of one of the under supporting spring-wires. Fig. 5 is a plan view of a pillow or cushion, showing a modified construction of the arrangement shown in Figs. 1 to 4, inclusive. Fig. 6 is a central cross-section on the line *a a*, Fig. 5. Fig. 7 is a detail view showing the construction of one of the under spring-wires used in the construction shown in Fig. 5. Fig. 8 is a plan view of the same.

Like letters of reference refer to like parts throughout the several views.

Referring now to Figs. 1 to 4, A represents a rectangular frame, formed of two or more parts, having one or more sleeves A′, which fit around the ends of the adjacent parts, and the said ends are covered by the said sleeves A′ to permit of the expansion and contraction of the rectangular frame A, owing to the weight applied to the cushion, and thus allowing the cushion to yield under weight. The top of the cushion is formed of a series of spring-wires E, preferably arranged in close order, having an eye E′ at each end, fitting around the frame A, and over this series of spring-wires E, forming the top of the cushion, there is placed a suitable cover A^2. Arranged below the top spring-wires E there is a series of two-armed springs F, each having at the upper end an eye F′ and at the lower end an eye F^3 and between the ends thereof a coil F^2. The upper eye F′ of each of the said two-armed springs F fits around the yielding frame A, and through the eye F^3 a suitable fastening is passed to secure the said springs F to a base or framework. These springs F are arranged, as above stated, in series, and preferably in close order beneath the top seat spring-wires E, and support and hold the yielding frame A in the position shown in Fig. 3.

Through the coils F^2 of the springs F a suitable support G is preferably arranged, as shown, and serves to steady the under springs F of the cushion. A series of coiled springs D, having eyes D′ D^3 at opposite ends, are arranged between the upper seat spring-wires E and lower springs F, and the eye D′ fits around the yielding frame A, and the eye D^3 fits around the circular support D^2. These coiled springs serve, in the normal condition of the cushion or pillow, to hold the top spring-wires E in a raised position, as shown in Fig. 3, and when weight is applied to the said cushion the top spring-wires E, yielding under the influence of the weight, cause the yielding frame A to expand, subject to the control of the springs D, and when the weight is removed the seat spring-wires E tend to resume their original shape and are assisted by the coiled springs D, which, with the seat spring-wires E, contract the frame A and draw it to its normal position.

The yielding frame A may be composed of any suitable yielding material, such as coiled spring, elastic bands, cord, or any other desirable yielding material.

Referring now to Figs. 5 to 8, inclusive, there is provided a rectangular frame A, composed of two or more parts and having sleeves A′ fitting around the adjacent ends of said parts to permit a movement of said parts, the same as described for Fig. 1. In this modified construction the seat is composed of a series of spring-wires A^3, having

at each end an eye A^4, and between said ends a coil A^5. Said coil fits around one side of the yielding frame A, and the eyes A^4 on the ends fit around the frame opposite to the coil, and when weight is applied to the cushion the spring-wires A^3 yield under said weight and tend to expand the yielding frame A, and when the weight is removed the tension of the said spring-wires A^3 cause them to return to their normal position and contract the frame A, and during the expansion and contraction of said frame the cover A^2 is kept evenly stretched over the said springs at all times. The cross spring-wires B and C are identical in construction to the spring-wires A^3, before described, and are each provided, respectively, with coils B′ and eyes B^2 and coils C′ and eyes C^2, and in the construction of the pillow or cushion the cross spring-wires B pass under the spring-wires A^3 at each end of the pillow, and the spring-wires C pass over the spring-wires A^3 at the center of the pillow, the object of this arrangement being to so arrange the spring-wires A^3 and B and C so that they will serve to support each other, and the end spring-wires B being arranged beneath the longitudinal spring-wires A^3 for the purpose of bringing the ends of the pillow into a curved position, as shown, as if the said under spring-wires B were over the longitudinal spring-wires A^3 the tendency of the wires would be to form a rectanugular pillow or cushion, whereas by the arrangement shown the longitudinal spring-wires A^3 hold the spring-wires B at each end down to the position shown, and the cross spring-wires C hold the spring-wires A^3 at the center of the pillow down to the position shown, thus forming a pillow the shape shown in Fig. 6.

By constructing the spring-wires A^3, B, and C of a double turn, as shown in Fig. 7, it will not be found necessary to use the coiled springs D (shown in Fig. 3) to assist in returning the yielding frame A to its normal position after the weight has been removed from the pillow or cushion, although it is understood said springs may be used, if desired, in the construction shown in Figs. 5 and 6.

It will be understood that the construction of the yielding frame A and the character of the several types of wires may be varied as circumstances require.

I do not limit myself to the arrangement and construction shown, as the same may be varied without departing from the spirit of my invention.

Having thus ascertained the nature and set forth a construction embodying my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a pillow or cushion, a series of wires extending between the opposite edges, supporting means at said edges to which said wires are connected and adapted to yield to the movement of said wires under the action of weight upon said pillow or cushion, and means connected to said yielding supporting means for returning the pillow or cushion to its normal position when weight is removed.

2. In a pillow or cushion, a series of wires extending between the opposite edges, supporting means at said edges to which said wires are connected and adapted to yield to the movement of said wires under the action of weight upon said pillow or cushion, and a series of springs connected to said supporting means for returning the pillow or cushion to its normal position when weight is removed.

3. In a pillow or cushion, a series of wires provided with an eye on each end and extending between the opposite edges, supporting means for said wires located at the opposite edges and within said eyes and adapted to yield to the movement of said wires under the action of weight upon said pillow or cushion, and means connected to said supporting means for returning the pillow or cushion to its normal position when weight is removed.

4. In a pillow or cushion, a series of wires provided with an eye on each end and extending between the opposite edges, supporting means for said wires located at the opposite edges and within said eyes and adapted to yield to the movement of said wires under the action of weight upon said pillow or cushion, and a series of springs connected to said supporting means for returning the pillow or cushion to its normal position when weight is removed.

5. In a pillow or cushion, a series of upper wires forming the top of said pillow or cushion, supporting means for said wires at the opposite edges to which said wires are connected and adapted to yield to the movement of said wires under the action of weight upon said pillow or cushion, a series of lower wires connected at their upper ends to said supporting means located at the opposite edges and having their lower ends secured to a suitable base, and a series of springs connected to said supporting means for returning the pillow or cushion to its normal position when weight is removed.

6. In a pillow or cushion, a series of upper wires extending between the opposite edges and forming the top of said pillow or cushion, supporting means for said wires at the opposite edges to which said wires are connected and adapted to yield to the movement of said wires under the action of weight upon said pillow or cushion, a series of lower wires connected at their upper ends to said supporting means located at the opposite edges and having their lower ends secured to a suitable base, and a series of springs connected to said supporting means for returning the pillow or cushion to its normal position when weight is removed.

7. In a pillow or cushion, a series of wires provided with an eye on each end and extending between the opposite edges, supporting means for said wires located at the opposite edges and within said eyes and adapted to

yield to the movement of said wires under the action of weight upon said pillow or cushion, a series of springs connected to said supporting means for returning the pillow or cushion to its normal position when weight is removed, and a series of lower wires connected at their upper ends to said supporting means at the opposite edges and having their lower ends secured to a suitable base.

8. In a pillow or cushion, a series of wires extending between the opposite edges, supporting means for said wires adapted to yield to the movement of said wires under the action of weight upon said pillow or cushion and forming the opposite edges to both of which edges each of said wires is connected, and means connected to said supporting means for returning the pillow or cushion to its normal position when weight is removed.

9. In a pillow or cushion, a series of wires extending between the opposite edges, supporting means for said wires adapted to yield to the movement of said wires under the action of weight upon said pillow or cushion and forming the opposite edges to both of which edges each of said wires is connected, and a series of springs connected to said supporting means for returning the pillow or cushion to its normal position when weight is removed.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 1st day of May, A. D. 1896.

JAMES T. COWLEY.

Witnesses:
L. N. TANNER,
A. C. WILLIAMS.