2 Sheets--Sheet 1.

T. S. SPERRY.

Improvement in Formers for making Frames for Spring Pillows, &c.

No. 123,738. Patented Feb. 13, 1872.

Figure 1.

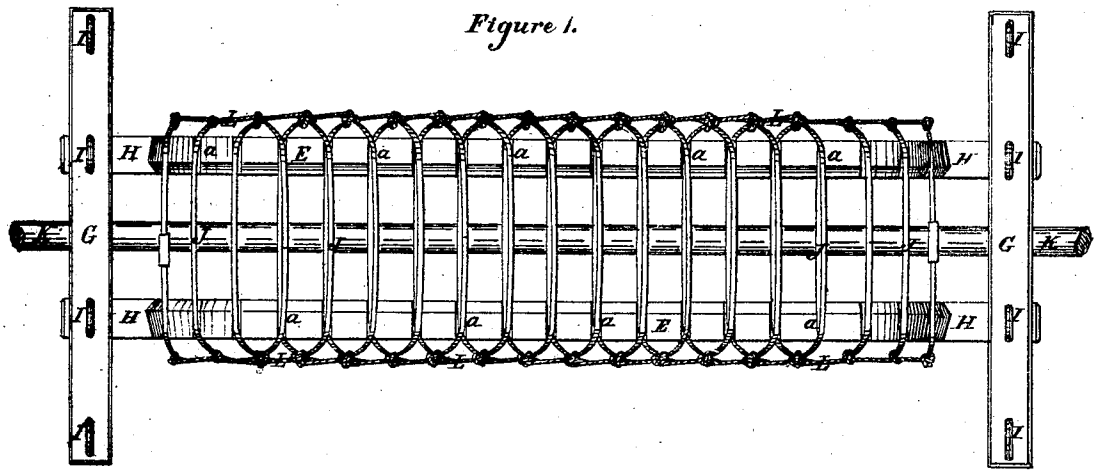


Fig. 2.

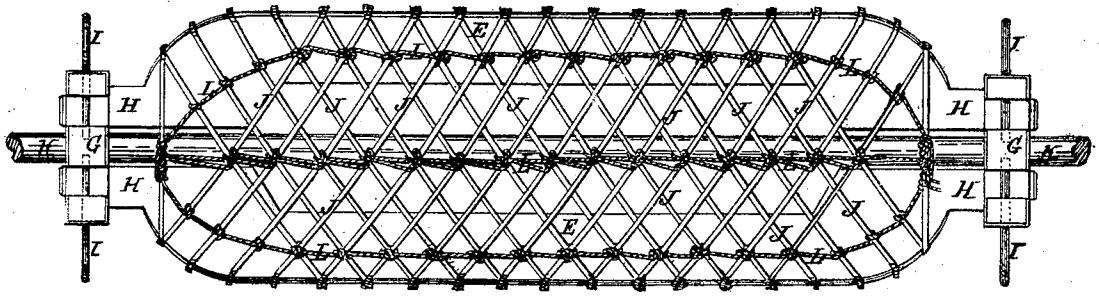
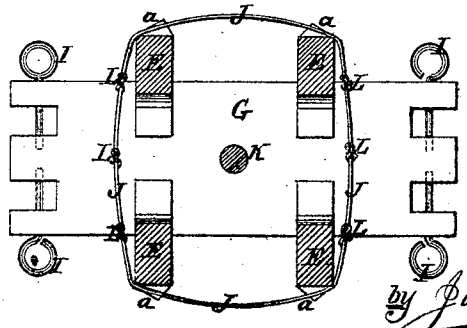


Fig 3.



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2 Sheets--Sheet 2.

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Fig. 4.

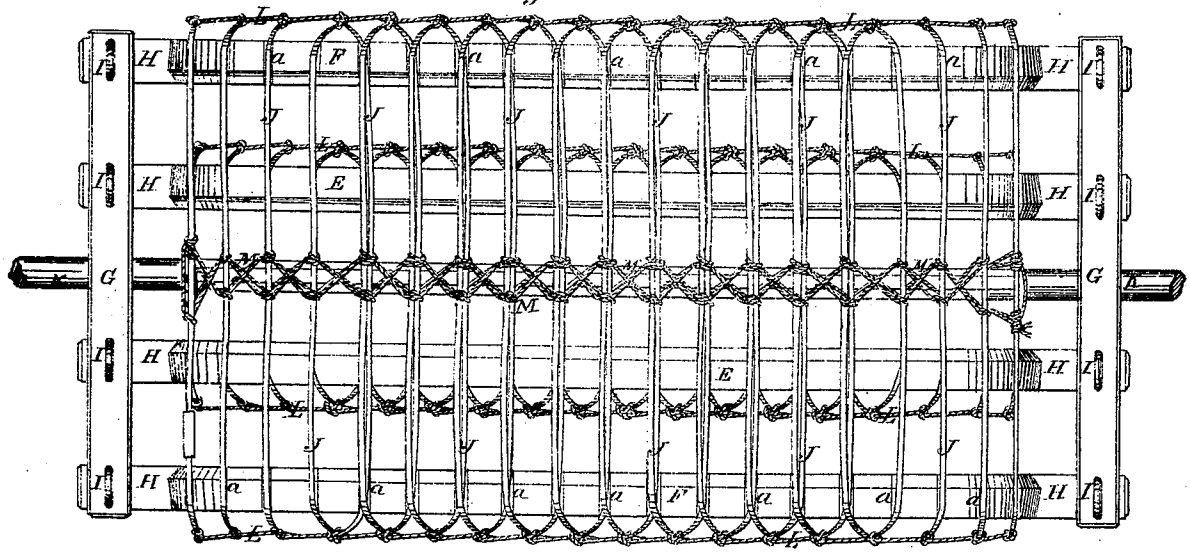


Fig. 5.

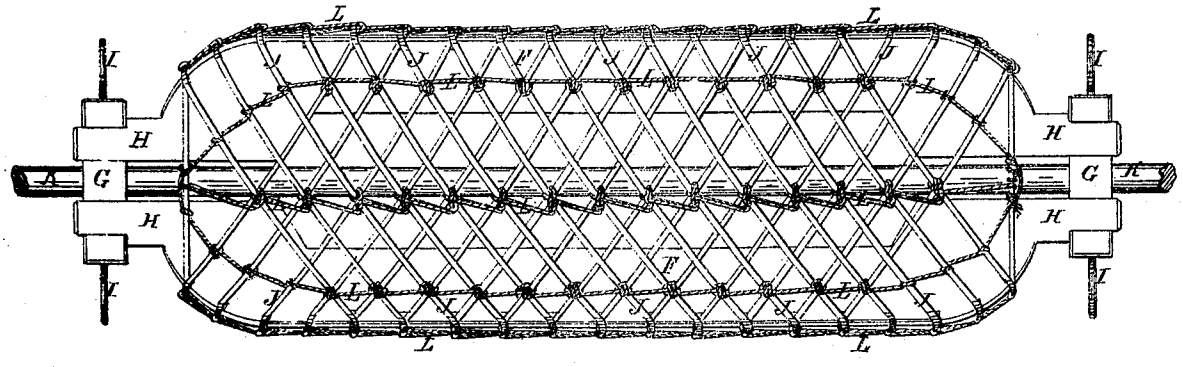
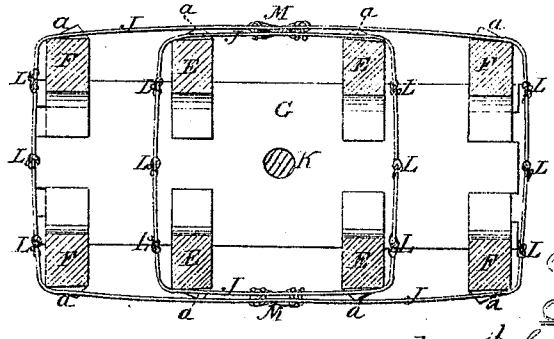


Fig. 6.



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UNITED STATES PATENT OFFICE.

TIMOTHY S. SPERRY, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN FORMERS FOR MAKING FRAMES FOR SPRING-PILLOWS, &c.

Specification forming part of Letters Patent No. 123,738, dated February 13, 1872.

I, TIMOTHY S. SPERRY, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Method of Making Skeleton-Frames for Spring-Pillows and Bolsters—applicable also for beds, cushions, and seats, and in formers therefor—of which the following is a specification:

In a patent dated January 24, 1871, I have described, represented, and claimed a new and useful spring pillow and bolster, suitable also for beds, cushions, and seats; and the object of my present improvement is to obtain a simple, cheap, and convenient means or former for making or constructing said pillow and bolster-spring frames; and the said invention consists in the method of constructing such spring shell-frames in separate and distinct sections upon formers, and in the employment for this purpose of separate and independent collapsible pivoted frames or formers held together so as to constitute a support for the spring shell-frames, and to admit of their ready removal and separation therefrom when the same are completed. A full and particular description of the spring shell-frames and their covering is deemed unnecessary here, as such matter is fully described and represented in the patent aforesaid.

In the accompanying drawing, Figure 1, Sheet 1, represents a plan of the inner skeleton collapsible former, showing the inner spring shell-frame made thereon; Fig. 2, same sheet, represents a side elevation of the same; Fig. 3, same sheet, represents a cross-section of the same; Fig. 4, Sheet 2, represents a plan of the inner and outer skeleton collapsible frames, showing the outer spring shell made thereon; Fig. 5, same sheet, represents a side elevation; and Fig. 6, same sheet, a cross-section of the same.

The former consists of two frames, one upon which to construct the inner spring shell or coil, and another upon which the outer spring shell or coil is formed. Each of these frames consists of two bars, E E and F F, secured together in pairs and locked in position by end pieces G G, which may be readily removed from both formers. These formers are of a length equal to that of the pillow or article to be formed, and their width equal to that of the greatest thickness of such article. The edges of these formers are curved at their ends to conform to the contour of the article being made, which in the instance represented is for a pillow or bolster. Their ends H are square, and the locking pieces G are provided with square openings to receive the shouldered square ends of these formers. When so locked together they are secured by eye-pins I, which pass through holes in the locking pieces G and the ends H of the formers. These bars E F, are provided with notches or grooves *a* on their outer edges, corresponding in distances apart to the spring coils J, which compose the shell or pillow-frames, and into these grooves or notches *a* the coils J are tightly drawn around the former, crossing its narrowest sides obliquely, as shown in the drawing, Figs. 2 and 5. These spring-shells or frames J are made separately, the inner one first. The inner bars E are therefore locked to the end bars G, and secured by the pins I so as to maintain positions at right angles to the locking-bars. The frame E thus constructed is mounted upon a shaft, K, or upon center pins, so as to be free to be turned thereon. In forming the shell the strand of the wire is fitted tightly in the grooves *a* around the bars at one end of the former, and fastened by a clamp coupling in the ordinary manner of uniting the wires of hoop-skirts. This strand is then wound diagonally around the former in the grooves *a* on the outer edges thereof, so as to cross the sides of the bars E at angle of about 45°, and their grooved edges parallel to the end locking-bars, and in this way fitted into all the grooves and fastened at the other end of the former in the same manner as shown in Figs. 1 and 2, Sheet 1, of the drawing. When a double wire is used the second strand is fastened to the first, and wound around the former in an opposite diagonal direction to that of the first, and secured in the same manner as the first, thus forming a lattice-work at the sides of the shell-frames by the oppositely-crossing direction of the wires, as shown in the drawing, Figs. 2 and 5. This crossing of the wires forms a series of junctions, the central and outer ones of which are interlaced and tied togther with cords L, so as to secure and firmly brace them together, as shown in Figs. 2 and 5. When a single strand is used its folds are connected and se-

cured by a longitudinal spring brace and an interlacing cord, as shown and described in the patent aforesaid.

In thus constructing the spring-frames J the former E F, is revolved upon its pivot-bearing K, to facilitate the work in traversing the wire from one end of the former to the other. The inner spring-frame being thus completed, four additional bars, F, are secured to the end pieces G, in pairs, on either side of the inner former E, the notches *a*, in which correspond to those of the inner former, so that the horizontal portions of the wire strands of the outer former when drawn over and within the notches of said former, shall be contiguous to and secured to the corresponding portions of the inner wire-shell by lacing the two together by cords M, thus obtaining an upper and a lower line of junction of the two shell-frames and uniting them firmly together throughout their length, as shown in Figs. 4 and 6. The wire to form the outer shell-frame is wound around its former F, and secured in the same manner as the inner spring-frame, the said former being turned upon its pivots in winding the wire thereon, in the same manner as in making the first spring-frame. The two separate and independent spring-shells or frames are in this manner made upon two separate and independent supporting and collapsible formers held together so as be revolved upon centering points, and separated so as to be collapsed by simply drawing out the pins I, which lock them to the end pieces.

Having described my invention, I claim—

1. The method herein described of making inner and outer spring skeleton frames or shells upon separate and independent formers, constructed essentially as described.

2. A supporting and collapsible former, supported and held in position by removable clamping pieces G, substantially as described.

T. S. SPERRY.

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