

(No Model.)

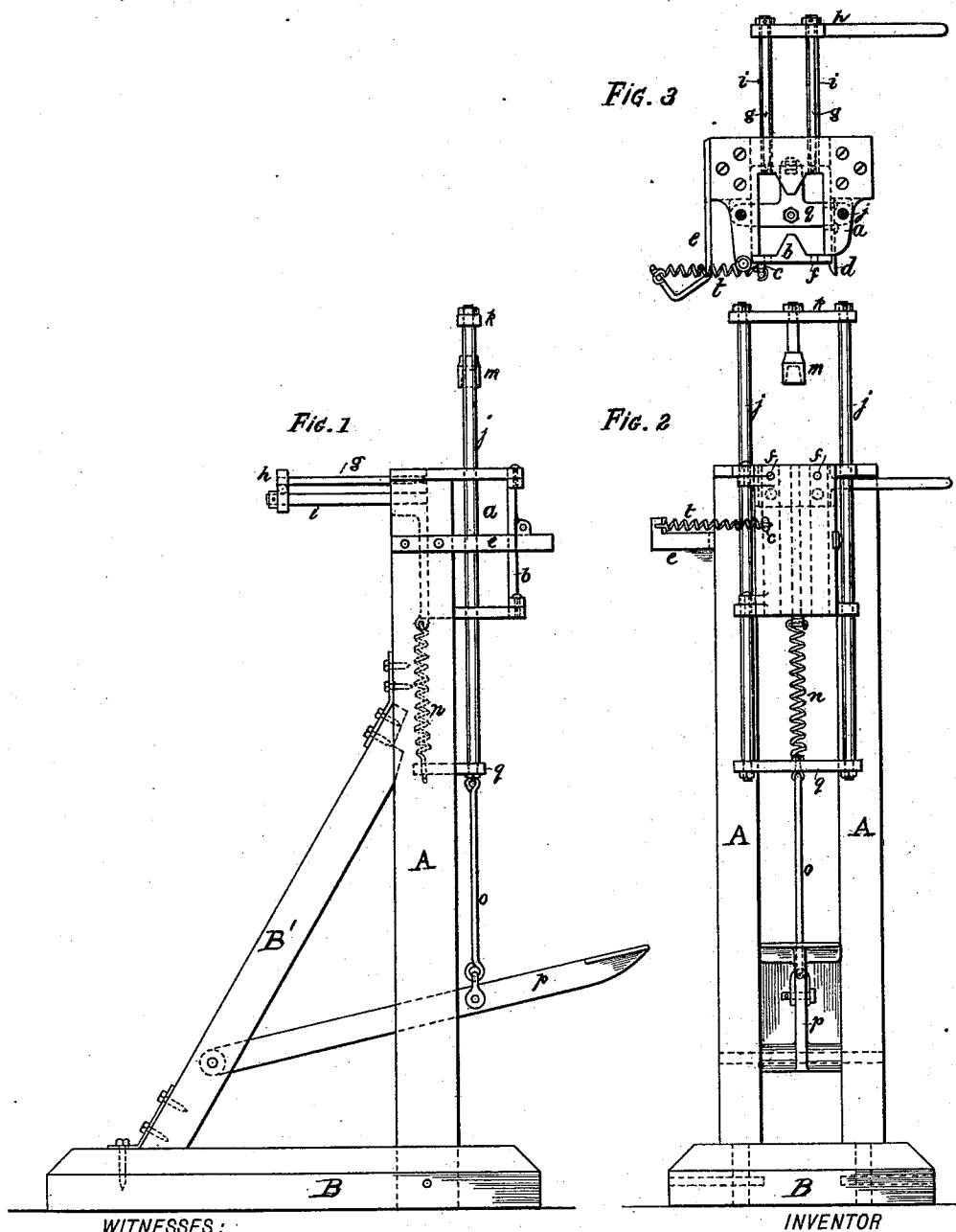
2 Sheets—Sheet 1.

D. A. COBB.

MACHINE FOR COMPRESSING AND FORMING THE ENDS OF SECTIONAL
WOVEN WIRE SPRINGS.

No. 486,853.

Patented Nov. 29, 1892.



S. E. W. Bewley.
George H. Gleis.

Dewey A. Cobb.
BY
Thomas J. Bewley.
ATTORNEY.

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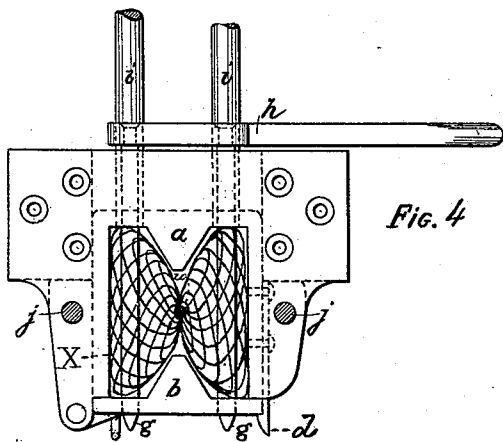


Fig. 4

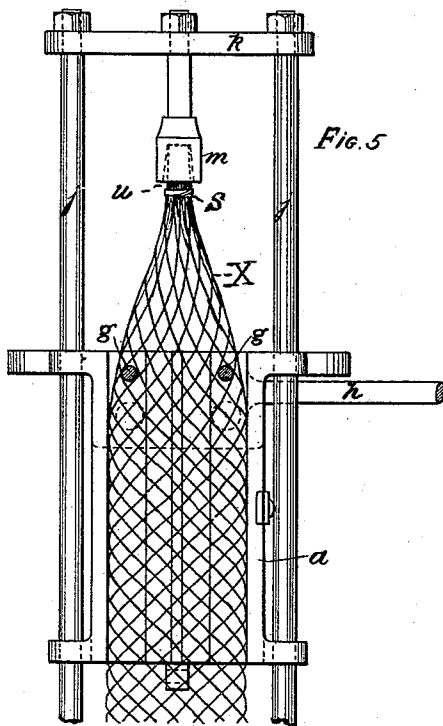


Fig. 5

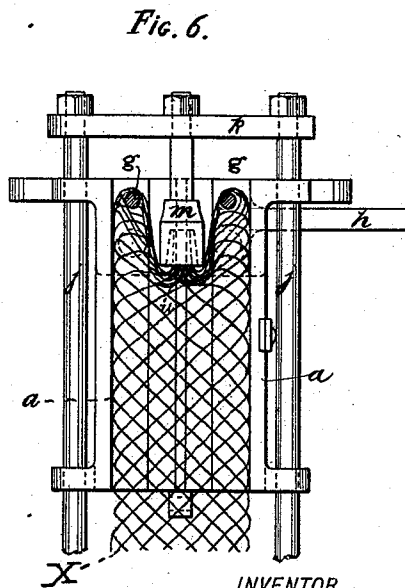


Fig. 6.

WITNESSES:

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UNITED STATES PATENT OFFICE.

DEWEY A. COBB, OF PHILADELPHIA, PENNSYLVANIA.

MACHINE FOR COMPRESSING AND FORMING THE ENDS OF SECTIONAL WOVEN-WIRE SPRINGS.

SPECIFICATION forming part of Letters Patent No. 486,853, dated November 29, 1892.

Application filed March 24, 1892. Serial No. 426,184. (No model.)

To all whom it may concern:

Be it known that I, DEWEY A. COBB, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Compressing and Forming the Ends of Sectional Woven-Wire Springs for Mattresses, Cushions, &c., of which the following is a specification.

My invention relates to an improvement in machines for compressing and forming the ends of sectional wire springs which have been woven into tubiform sections in such a manner that the ends of the wires that have been previously bound together by means of wire staples or other suitable fastenings encircling the same are compressed within the ends of the sections, as more fully hereinafter described.

The mechanism of the invention consists of a standing frame or housing having a box-shaped inclosure of suitable conformity in its inner area to correspond with the external area of the spring designed to be inclosed therein. This inclosure is provided with a door, which forms one of the sides of the inclosure. When the spring is placed within the aforesaid inclosure, with one end of its bound series of wires placed vertically beneath an overhanging rod adapted to be depressed by means of a treadle and connections thereto attached, said rod having a socket in its lower surface extending upward therein, which descends onto the end of the spring and compresses the bound ends of same into the body or main portion, presenting the series of curved wires at said end of the spring, placing the bound ends within the body and presenting a finished appearance of the end, as more fully shown and described in the accompanying drawings and following detailed description.

In the drawings, which make a part of this specification, Figure 1, Sheet No. 1, is a side elevation of my improved machine. Fig. 2 is a front elevation of the same. Fig. 3 is a plan or top view. Fig. 4, Sheet No. 2, is a plan view, on an enlarged scale, of the inclosing box A, with the sectional spring X in position, the cross-head *h*, and socketed rod *m* being removed. Fig. 5 is a side elevation of

the machine with the tubiform-section spring X in position ready for the compression of its upper end, the door *b* of the inclosure A being removed. Fig. 6 is a like view of the same, showing the socketed rod *m* as having descended and forced downward the ends of the spring X into and within the main portion.

Like letters of reference in all the figures indicate the same parts.

A are the housings or standing-frame of the machine, which serves as a support for the rigid and the movable parts. B is the base-plate upon which the frame A is erected.

B' is a stay-brace between the base-plate and housings.

The frame A is provided with the box *a*, into which a sectional woven-wire spring is placed previous to the compression of its end, as seen clearly in the first stage of the process of compression in Fig. 5, Sheet No. 2 of the drawings.

b is the door, which is held onto the front edges of the sides of box *a* by means of the plate or bar-spring catch *d*.

e is a bar on the side of said box, which extends outward horizontally therefrom and acts as a fender to prevent the door, when opened, from flying too far to the side of the machine by reason of the resilient action of the helical wire spring *t* attached thereto.

g g are the pointed wire pins that extend outward from the rods *i i*, upon which the spring X rests, serving as a means for holding the latter in its vertical position and preventing the crushing action of the socketed rod *m*, which rests upon the bunched end *u* of the series of wires from being exerted upon the body of the spring below their point of entrance therein, and also to give the desired shape and finish thereto.

h is a lever for inserting and drawing the pointed rods *g* into the meshes of the spring, the ends of which are shown in section in Figs. 5 and 6 and in side view in Fig. 4. This lever, with which said rods have rigid connection at one end, also withdraws the rods from the spring when the process of compression is completed.

The method of operation of the machine is as follows: The spring X, having previously had its series of wires of which it is con-

constructed bound together by the encircling wire staple *s*, as seen in Fig. 5, is placed in the inclosure-box *a*, the door *b* closed thereon and secured by means of the catch *d*. The
5 lever *h* (see Figs. 4, 5, and 6, Sheet No. 2) is actuated to draw the pointed rods *g* forward through the meshes of the spring, which prevents any compression of the spring below those points. Then power is exerted upon
10 the treadle *p*, (see Figs. 1 and 2,) which communicates through the intermediate rod *o* with the cross-plate *q* and its side rods *j j*, to which is connected the cross-head *k*, carrying the socketed vertical rod *m*, causing
15 the latter to descend with its socket that is situated in the lower end down upon the bunched end *u* of the connected wires at the point shown in Fig. 4, and compresses said end *u* down into the shape shown in Fig. 6,
20 which process completes the formation of one end of the spring. The lever *h* is actuated in

a reverse manner to withdraw the rods *g* from their connection within the meshes of the spring, the door *b* opened, and the spring *X* removed in a complete state.

I claim as my invention and desire to secure by Letters Patent—

In a machine for compressing and forming the ends of tubiform woven-wire springs, the combination of the standing frame *A*, having an inclosure or box *a* for the reception of the end of the spring, provided with an entrance-door *b*, the horizontal rods *g*, actuated by the lever *h*, the vertical rods *j j* in the cross-head *k*, and the socketed plunger-rod *m*, all arranged substantially in the manner herein shown and described, for the purpose set forth.

DEWEY A. COBB.

Witnesses:

THOS. J. BEWLEY,
THEO. F. SCOTT.