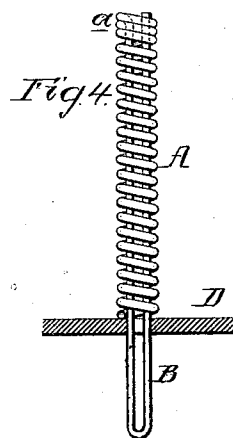
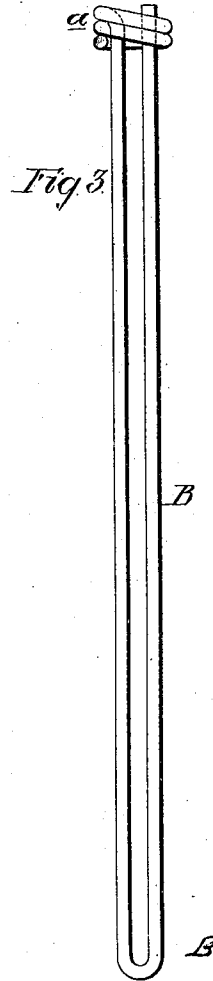
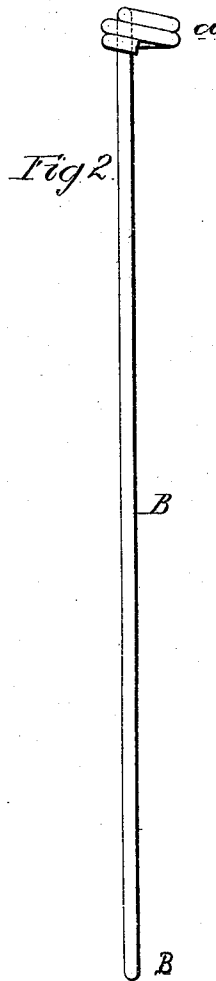
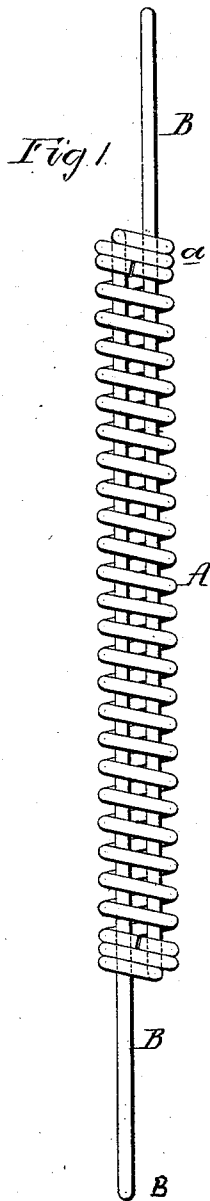


A. B. STEVENS.
COILED WIRE SPRING.

No. 175,520.

Patented March 28, 1876.



Witnesses
Harry Hawson
Harry Smith

Asher B. Stevens
by his Attorneys
Hawson and Son

UNITED STATES PATENT OFFICE.

ASHER B. STEVENS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
HENRY S. HALE, ARTEMAS KILBURN, J. WARREN HALE, CHENEY KIL-
BURN, AND WARREN HALE, OF SAME PLACE.

IMPROVEMENT IN COILED-WIRE SPRINGS.

Specification forming part of Letters Patent No **175,520**, dated March 23, 1876; application filed
December 17, 1875.

To all whom it may concern:

Be it known that I, ASHER B. STEVENS, of Philadelphia, Pennsylvania, have invented an Improvement in Springs, of which the following is a specification:

The object of my invention is to construct a durable and efficient spring of that class in which a rod or wire passing through the interior of the spiral tends to pull on and compress the same.

In the accompanying drawing, Figure 1 is a side view of the spring; Figs. 2 and 3, detached views of parts of the same, and Fig. 4 a modification.

The spring, as shown in Figs. 1, 2, and 3, is composed of three parts—namely, the spiral A and two loops, B B. The spiral consists of a simple coiled wire, and each loop B, as shown by Figs. 2 and 3, is made of a single piece of wire, one end of which is coiled to form the annular head *a*, the other end of the wire passing through the head. One loop thus formed is passed through the spiral in one direction, and the other loop through the spiral, as well as through the head of the first loop, in the other direction, so that the head of one loop will bear against one end of the spiral, and that of the other loop against the opposite end of the spiral, thus completing the spring, which is operated by pulling one or both loops, thereby compressing the spiral.

The projecting ends of the loops afford facilities for the attachment of the spring to different objects. For instance, one loop may be connected to the slat and the other to the rail of a bedstead.

In some cases one loop only may be combined with the spiral—as, for instance, in Fig. 4, in which case one end of the spiral bears against the fixed object D, through which the single loop passes, this loop being connected to any device to which resiliency has to be imparted.

I am aware that springs of this character have been made with a loop of a single piece of wire, having its adjacent ends bent over the spiral; but this loop is apt to slip down the coils or over to one side, and thus put the spring out of order. I am also aware that such springs have been made with a rod passing through the center and a disk on the end bearing on the end of the spring; but these are more expensive in construction.

In my spring there is combined economy in constructing it of one piece of wire with durability in making the annular head adapted to bear evenly on all parts of the spiral.

I claim as my invention—

The combination of a spiral spring, A, with a loop or loops, B, made of a single piece of wire, one end of which wire is coiled to form an annular head adapted to bear on and compress the spiral, through which spiral and through the said head *a* the opposite end of the wire passes, all substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ASHER B. STEVENS.

Witnesses:

HARRY HOWSON, Jr.,
HARRY SMITH.