(No Model.)

E. WAGNER.

BIRD CAGE SPRING.

No. 382,571. Patented May 8, 1888.

Fig. 2.

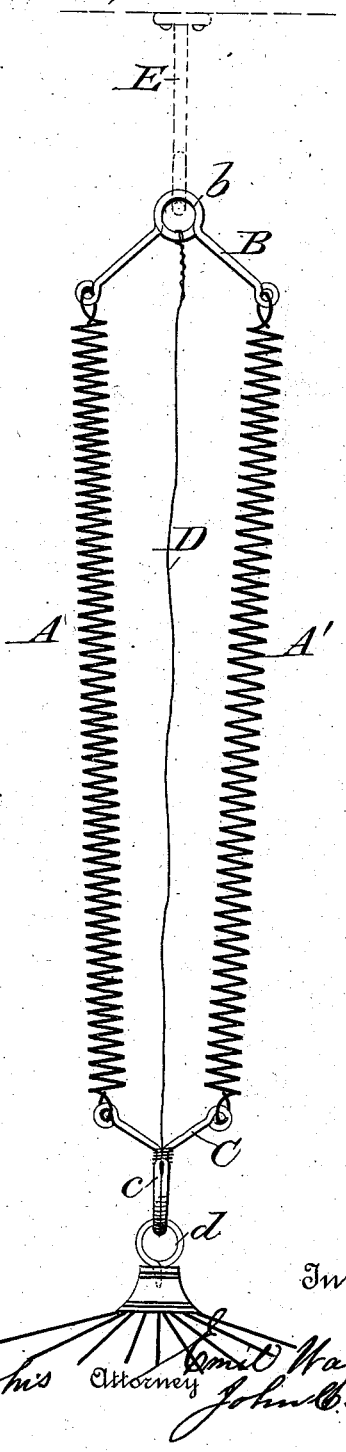
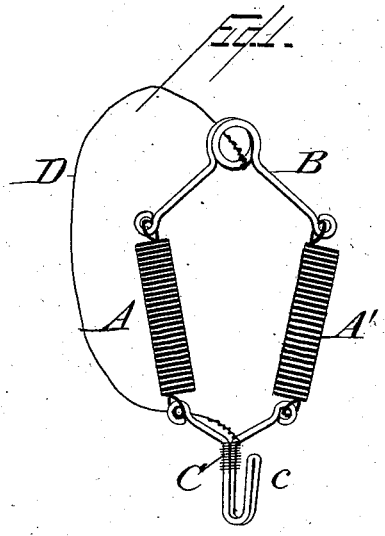


Fig. 1.



Witnesses.

F. H. Schott.

Fred E. Tasker.

Inventor.

Emil Wagner.

By his Attorney John C. Tasker.

UNITED STATES PATENT OFFICE.

EMIL WAGNER, OF WASHINGTON, DISTRICT OF COLUMBIA.

BIRD-CAGE SPRING.

SPECIFICATION forming part of Letters Patent No. 382,571, dated May 8, 1888.

Application filed February 29, 1888. Serial No. 265,717. (No model.)

To all whom it may concern:

Be it known that I, EMIL WAGNER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Bird-Cage Springs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in spring devices for supporting bird-cages or similar articles, the object thereof being to yieldingly support or suspend the bird-cage or other article, so that during the movements of the bird within the cage it may have a gentle swaying motion analogous to that of the limbs of trees; and the invention consists, essentially, in a double spring properly arranged to support the cage, and in the combination therewith of a guard wire or cord whose purpose and function it is to limit the extension of the springs and also to promote safety in the use of the device, all substantially as will be hereinafter described and claimed.

In the annexed drawings, illustrating my invention, Figure 1 is a side view of my improved device when not in use, the springs being compressed. Fig. 2 is a view of the device when in use, and shows the springs extended to their full limit, said limit of extension being determined by the guard wire or cord.

Like letters of reference designate like parts in both figures.

In the ordinary spring devices which are at present employed for the purpose of yieldingly suspending bird-cages and analogous contrivances a single helical or spiral spring is ordinarily employed; but the use of a single spring is attended with many disadvantages, preeminent among which is that of allowing the bird-cage or suspended article to revolve more or less at all times, thus disarranging the position of the cage and oftentimes causing dizziness to the bird.

My invention aims to overcome this difficulty by providing a double spring in lieu of the single spring.

In the drawings, A and A′ represent the two springs. They are ordinary spiral springs, the rounds of whose coils have the same diameter throughout. It is evident, however, that I do not intend to confine myself to any particular form of spring, it being only essential that I have two parallel springs which are capable of compression or expansion along the line of their axes. The upper ends of the springs A and A′ are fastened to a connecting cross-piece or yoke, B, having an eye, *b*, or otherwise suitably formed for connection to a hook upon which the whole device is suspended. In Fig. 2 I have indicated in dotted lines at E a hook which passes through the eye *b*.

The lower or bottom ends of the wires A and A′ are connected or attached in some suitable manner to a cross-piece, C, which is preferably made with a hook, *c*, adapted to engage a ring, *d*, on the top of the bird-cage.

The shape and structure of the parts B and C may vary considerably without departing from the spirit of my invention. The form shown in the drawings is indicated by way of example only.

I have said that the wires A and A′ were parallel, meaning by this that they are substantially parallel, for the wires may in some instances come nearer together at the bottom than at the top.

By employing two springs arranged substantially as just described it will be obvious that when the cage is supported it will not be susceptible of a rotary motion, for it will be so held as to maintain a constant position. The cross-pieces B and C are so connected to the supporting-hook E and the ring *d*, respectively, that they cannot revolve about them, and hence the cage cannot have a rotary motion unless the wires A and A′ twist about each other, which is not likely or possible. The cage will therefore maintain the position in which it is suspended, and the door thereof will always be on the same side and easy of access.

D denotes a guard-wire, whose purpose it is to regulate the limit of extension for the springs A and A′, and also to serve as a sort of safety device, so that if either spring breaks or becomes dislocated from position the cage will not fall, but will be supported by said wire. This wire is located midway between the parallel springs A and A′ and parallel to them,

it being attached at its upper end to the part B at its eye *b*, and at the lower end to the part C at its middle point, near the hook *c*. Its length is such that it will be stretched to occupy a straight position when the springs have been comfortably extended. Thus the springs will last longer than otherwise, for they will never be subject to any undue extension when a heavy cage is to be supported. They will not be strained beyond what is proper, and hence they will last longer. Further, if at any time one of the springs becomes detached from either the part B or C, or if it is broken by any means, the wire or cord D will support the cage, and the latter will suffer no displacement or disturbance in consequence of the disarrangement of the spring.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device for supporting bird-cages, the combination of the coiled springs A and A′, the cross-piece B, having eye *b*, and the cross-piece C, having hook *c*, all substantially as described.

2. The combination of the springs A A′, the upper cross-piece, B, the lower cross-piece, C, and the guard-wire, all arranged substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

EMIL WAGNER.

Witnesses:
PHILIP MAURO,
FRED E. TASKER.