E. H. BATES.

BRACKET.

No. 189,833. Patented April 24, 1877.

Fig. 1.

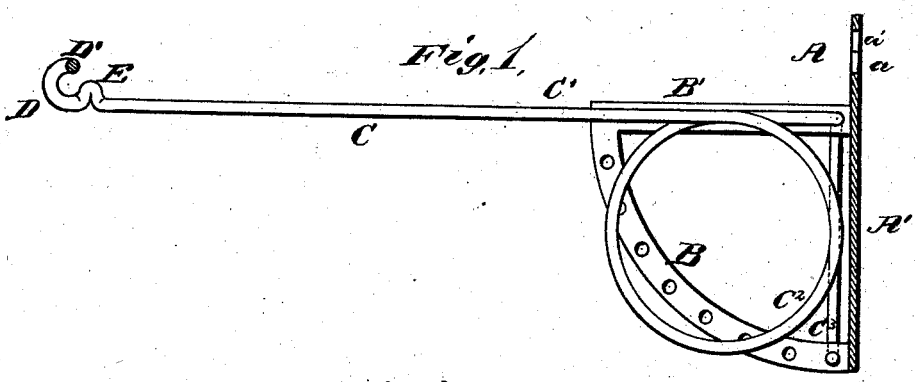


Fig. 2.

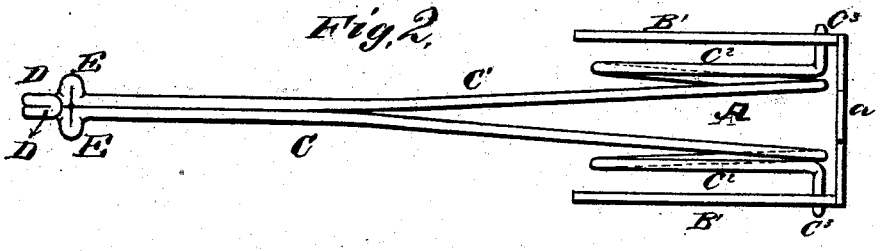


Fig. 3.

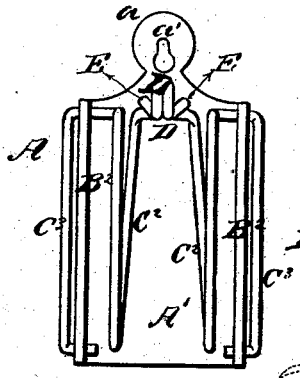


Fig. 4.

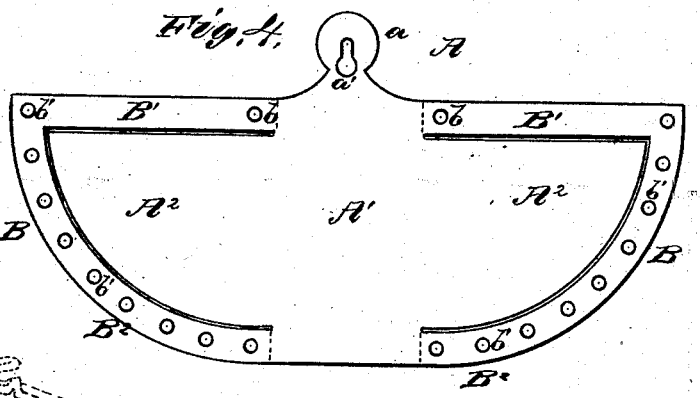
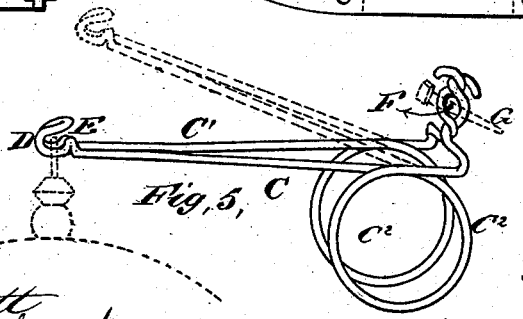


Fig. 5.



WITNESSES

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EMORY H. BATES, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN BRACKETS.

Specification forming part of Letters Patent No. **189,833**, dated April 24, 1877; application filed February 17, 1877.

To all whom it may concern:

Be it known that I, EMORY H. BATES, of Washington, in the county of Washington and District of Columbia, have invented certain new and useful Improvements in Bird-Cage Brackets; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a representation of a vertical section of my bird-cage bracket. Fig. 2 is a plan view thereof, and Fig. 3 a front view of the same. Fig. 4 is a plan view of the blank (shown in position in Fig. 1) as struck up, and Fig. 5 is a perspective view of a modification of my bird-cage bracket.

This invention relates to springs for suspending bird-cages in order to allow the same to move like a bough stirred by the wind.

The nature of said invention consists, principally, in certain adjusting devices for increasing the tension of such springs at will; and in a peculiar form of hook, employed as and for the purposes hereinafter set forth.

In the accompanying drawings, A, Figs. 1, 2, and 3, designates a fastening plate or bracket, formed from a sheet-metal blank. (Shown in Fig. 4.) Said blank consists of a middle or back piece, A^1, a small upward extension, *a*, two wings, A^2 A^2, and two rim-pieces, B B, which are separated from said wings in the operation of stamping. In preparing said bracket for use the rim-pieces B B are bent outward at right angles to back A^1, but wings A^2 A^2 and upward extension *a* remain flat and even with said back, so as to rest squarely against a wall. When in this latter position, wings A^2 A^2 serve as braces for back A^1, to prevent it from being twisted sidewise, which would weaken the attachment of extension *a* and injure the entire bracket.

Said extension *a* is provided with a vertical key-hole-shaped slot, *a'*, the larger part of which is downward. By means of this slot the said bracket is readily hung upon a nail, or detached therefrom. The head of the nail passes through the lower and larger part of said slot, and the bracket is slightly drawn downward for attaching it to the said nail, (its own weight will often suffice for this,) and raised for detaching it from the same.

When rim-pieces B B are bent forward, as stated, each of them consists of a projecting upper horizontal plate or bar, B^1, and a lower segmental plate, B^2, which curves downward and backward therefrom to back plate A^1. Each upper horizontal plate B^1 is provided with a small perforation, *b*, near its junction with back plate A, and each segmental plate B^2 is provided with a series of similar perforations, *b'*, extending at regular intervals from the upper end of said segmental plate to the lower end thereof. Said parts B^1 B^2, with perforations *b b'* on the opposite sides of said bracket, are counterparts of each other, and together constitute the bearings or supports for the spring C, from which the bird-cage is suspended. This spring is formed from a wire or small metal rod, which is doubled upon itself, so as to form a projecting and normally horizontal arm, C^1. The rear portions of said doubled wire are wound into spring-coils C^2 C^2, which set between the bearings or supports above described, and the end of said wire behind each coil is bent, so as to pass outward through one of the openings *b*, and inward again through one of the openings *b'*, as shown in Figs. 1 and 2.

When the spring weakens by long use, or when an unusually heavy cage is to be suspended thereby, the bent rear ends C^3 C^3 of said spring are set forward one or more holes *b' b'*. This has the effect of tipping upward the doubled arm C^1, unless the weight thereon is too heavy to be thus raised, and of increasing the resistance of the spring sufficiently to fit it for the performance of its function.

The doubled wire forming the arm C^1 converges at its front end to a point, which is bent upward into a hook, D. In the rear of said hook said arm is again bent, so as to form a stop or upward fold, E. This stop may be formed in one side of said wire arm C^1, or in both; and in the latter case the folds may either be vertical or obliquely diverging, as shown in Figs. 2 and 3. From hook D the bird-cage is suspended by the ring attached to the upper part thereof, and stop E pre-

vents said ring from sliding backward toward bracket A when arm C^1 is tipped upward.

Fig. 5 shows a modification in which the bracket A is entirely dispensed with, the ends of the wire-forming spring C being twisted gether.

By depressing the outer end of arm C^1 hook D is brought into such a position that the ring of the bird-cage can be readily slipped on or off the same. The elasticity of said spring C, as soon as pressure is removed, will restore it to its proper position.

What I claim as new, and desire to secure by Letters Patent, is—

1. A spring-bracket for suspending bird-cages, in combination with devices for adjusting the tension of the spring, substantially as and for the purpose set forth.

2. The combination of spring C, having bent ends C^3 C^3, with segmental adjusting-plate B^2, substantially as and for the purpose set forth.

3. Spring C, having hook D, stop E, arm C^1, coils C^2 C^2, and bent rear ends C^3 C^3, substantially as and for the purpose set forth.

4. Bracket A, provided with back plate A^1, arms B^1 and B^1, perforated at *b b*, upward extension *a*, having a key-hole-shaped slot, *a'*, and segmental plates B^2 B^2, having perforations *b' b'*, substantially as and for the purpose set forth.

5. A bracket or base, A, provided with segmental adjusting-plates B^2 B^2, having perfotions *b'*, for regulating the tension of the spring C, substantially as described.

6. In a bracket for suspending bird-cages, the hook D, having the side projections or stops E E, for the purpose of preventing a rotary motion to the cage, substantially as described, and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

EMORY H. BATES.

Witnesses:
JOHN F. ACKER,
ROBERT EVERETT.