

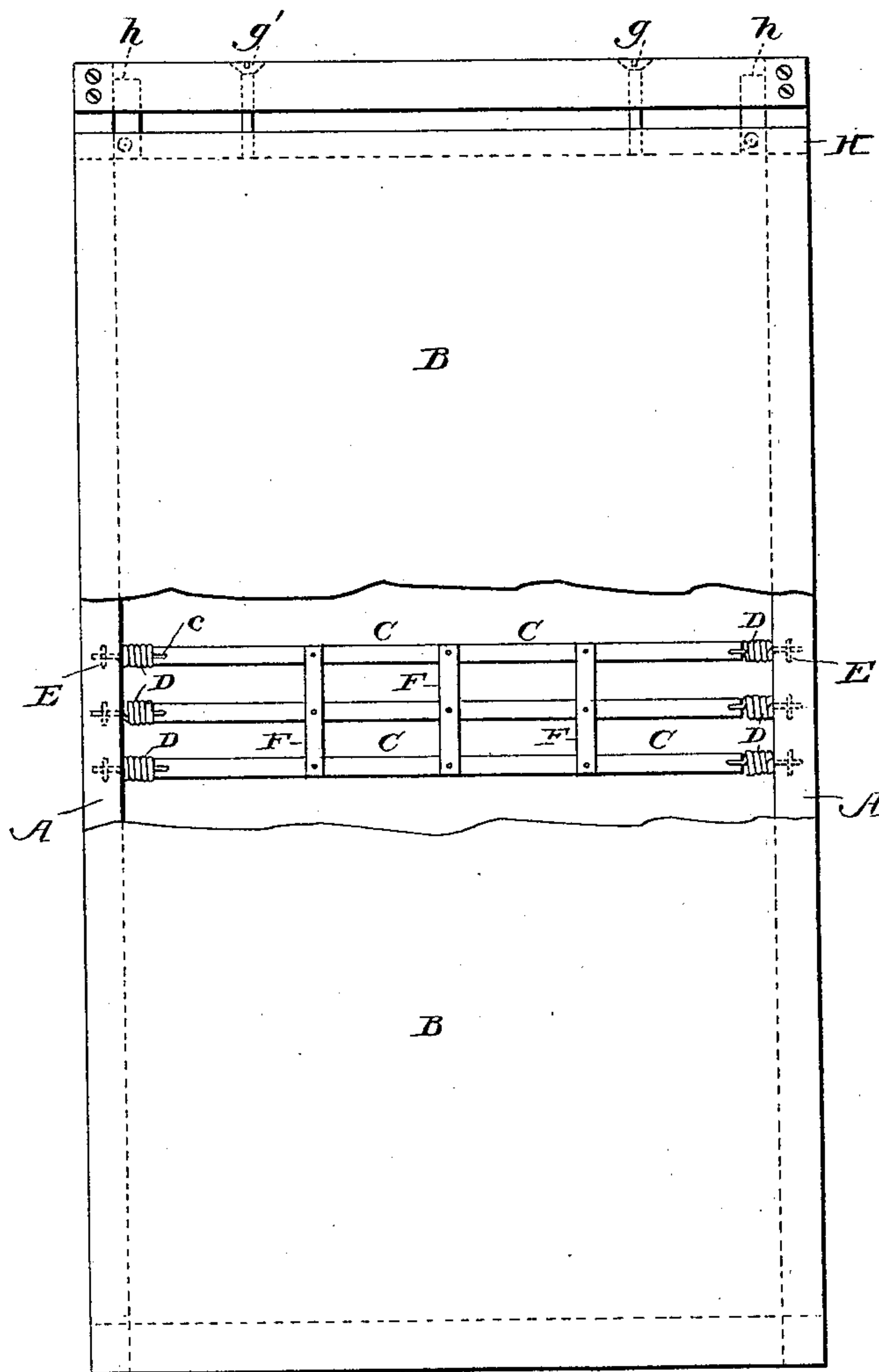
(No Model.)

D. KNOWLTON.

BED BOTTOM.

No. 371,464.

Patented Oct. 11, 1887.



Witnesses:

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by

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# UNITED STATES PATENT OFFICE.

DALLAS KNOWLTON, OF BRANTFORD, ONTARIO, CANADA.

## BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 371,464, dated October 11, 1887.

Application filed October 2, 1886. Serial No. 215,123. (No model.) Patented in Canada November 11, 1886, No. 25,330, and October 13, 1886, No. 25,112.

*To all whom it may concern:*

Be it known that I, DALLAS KNOWLTON, residing in the city of Brantford, in the county of Brant, in the Province of Ontario, Dominion of Canada, a subject of the Queen of Great Britain, have invented a new and useful Bed-Bottom, (for which I have obtained patents in Canada, No. 25,530, dated November 11, 1886, and No. 25,112, dated October 13, 1886,) of which the following is a specification.

My invention relates to bed-bottoms on which woven-wire or other web is employed.

The object is to prevent the web from sagging too much when there is weight upon the bed, while still allowing the bed to present requisite or comfortable elasticity. The object is, further, to prevent the web from sagging by any giving way or turning or loosening of its supports at the ends, and at the same time have capability of tightening or adjustment.

With these objects in view the invention consists in the combination of apparatus, substantially as hereinafter described and shown.

The chief points of the invention, then, are to prevent undue sagging of a web without necessarily interfering with its independent resiliency for presentation in itself alone of an adequate and comfortable spring support for light objects, but with capability of bringing into play another spring, thus presenting as a whole a stiffer spring when heavy objects are to be supported; also, to prevent undue sagging of the web, with incidental racking of the frame, by rendering the end rail or end rails perfectly firm against turning or motion inward, while at the same time the web may be tightened or loosened from the end.

In the accompanying drawing, forming part of this specification, and in which like letters of reference indicate corresponding parts, the figure represents an example of embodiment of my invention, and is a plan view, with part of the web cut away, showing the spring-support free from the web, the adjustable cross-rail at an end, with cleats beneath it, and a fixed cross-rail, with the draft-screws for tightening the web.

In the drawing, the letter A designates the sides of a bed-bottom frame; B, a web, of woven

wire or other suitable material, fastened to an adjustable cross-rail at one or both ends; C, the spring-support consisting, in the present illustration, of hoop-iron bars; and D, coiled springs having the wire of one end bent at right angles to the spring, in order that they may be driven into the sides of the frame A, the other ends being formed into hooks, designed to connect with openings *c* in the ends of the hoop-iron bars C. After the bent ends of springs D are driven into the sides A, staples E are driven over them, thus clamping them securely and firmly in position.

F are bars of hoop-iron crossing bars C and riveted at their intersection, thus forming a spring supporting-frame.

At one or both ends of the frame and securely attached thereto is a fixed cross-rail, G, and connected therewith at one or both ends by means of the draft-screws *g g* is an adjustable cross-rail, H, provided with cleats *h h*, extending under the fixed cross-rail G, thus preventing turning or motion inward of the adjustable cross-rail H, to which the web is attached, when any strain is brought to bear upon it. The draft-screws *g* pass through the fixed cross-rail G and engage the adjustable cross-rail H, serving both as a tightening device when the web has become loose and sags from continued use, or to slacken the web, if desired, and as an additional support to the adjustable cross-rail H.

It is obvious that the spring supporting-frame herein described does not in any way act as a support for the web, not being connected with nor interfering at all with its natural resiliency, but simply acts as an additional spring when heavy objects are to be supported.

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

1. The combination, with a bed-bottom having a fixed cross-rail, of an adjustable cross-rail, to which the webbing is to be attached, provided with cleats extending under the fixed cross-rail, and draft-screws seated in the fixed cross-rail and entering the adjustable cross-rail, substantially as specified.

2. The combination, with a bed-bottom hav-



ing a fixed cross-rail, of an adjustable cross-rail provided with cleats extending under the fixed cross-rail, the web attached to the adjustable rail and to another rail of the bed-  
5 bottom, the draft-screws seated in the fixed cross-rail and entering the adjustable cross-rail, and the spring-support consisting of the bars, coiled springs having their ends driven into the sides, and the staples driven over the ends of the springs, substantially as described. 10

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