

(No Model.)

A. J. CURTIS.

Spring Bed.

No. 238,029.

Patented Feb. 22, 1881.

Fig. 1.

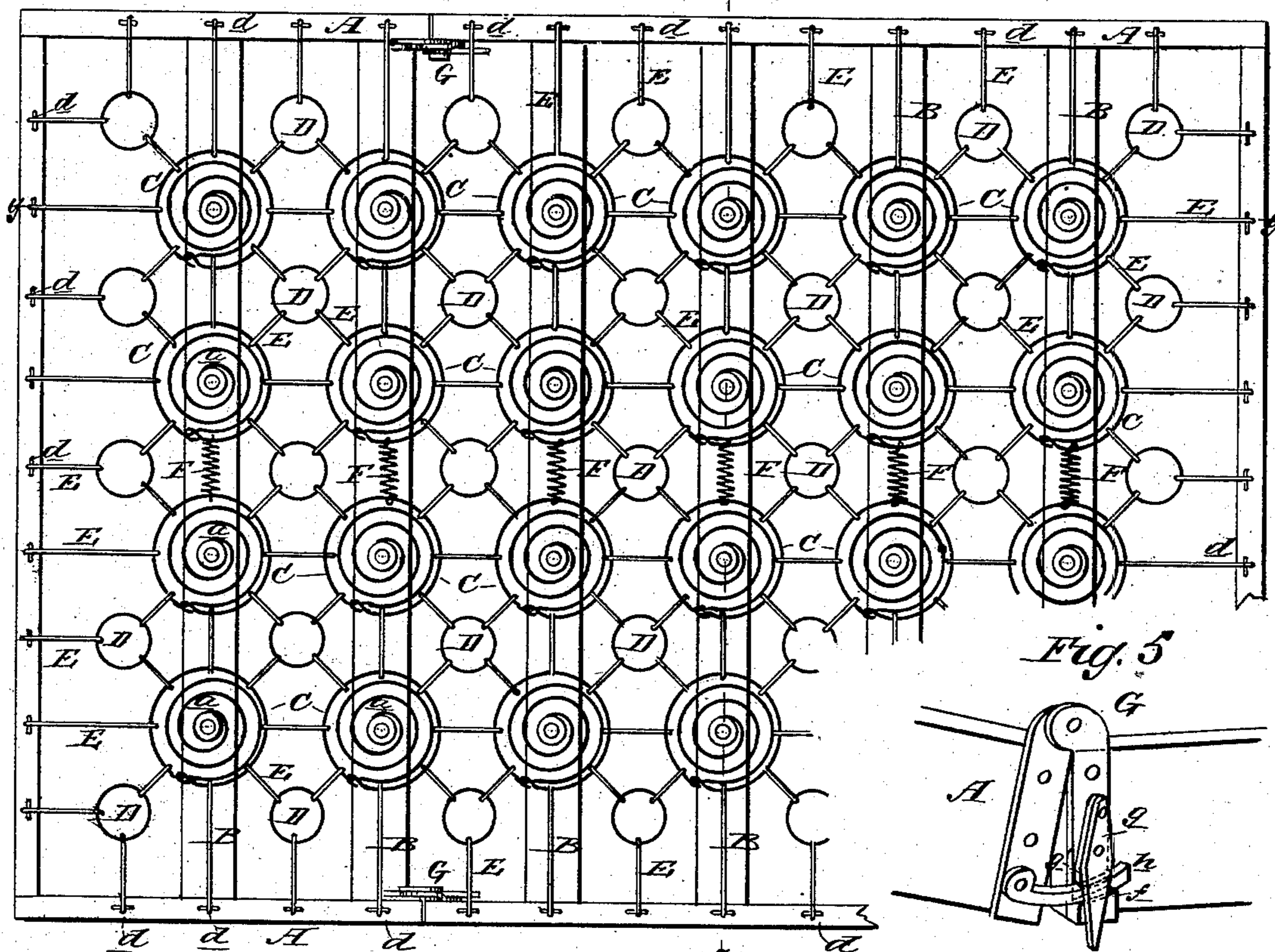


Fig. 5

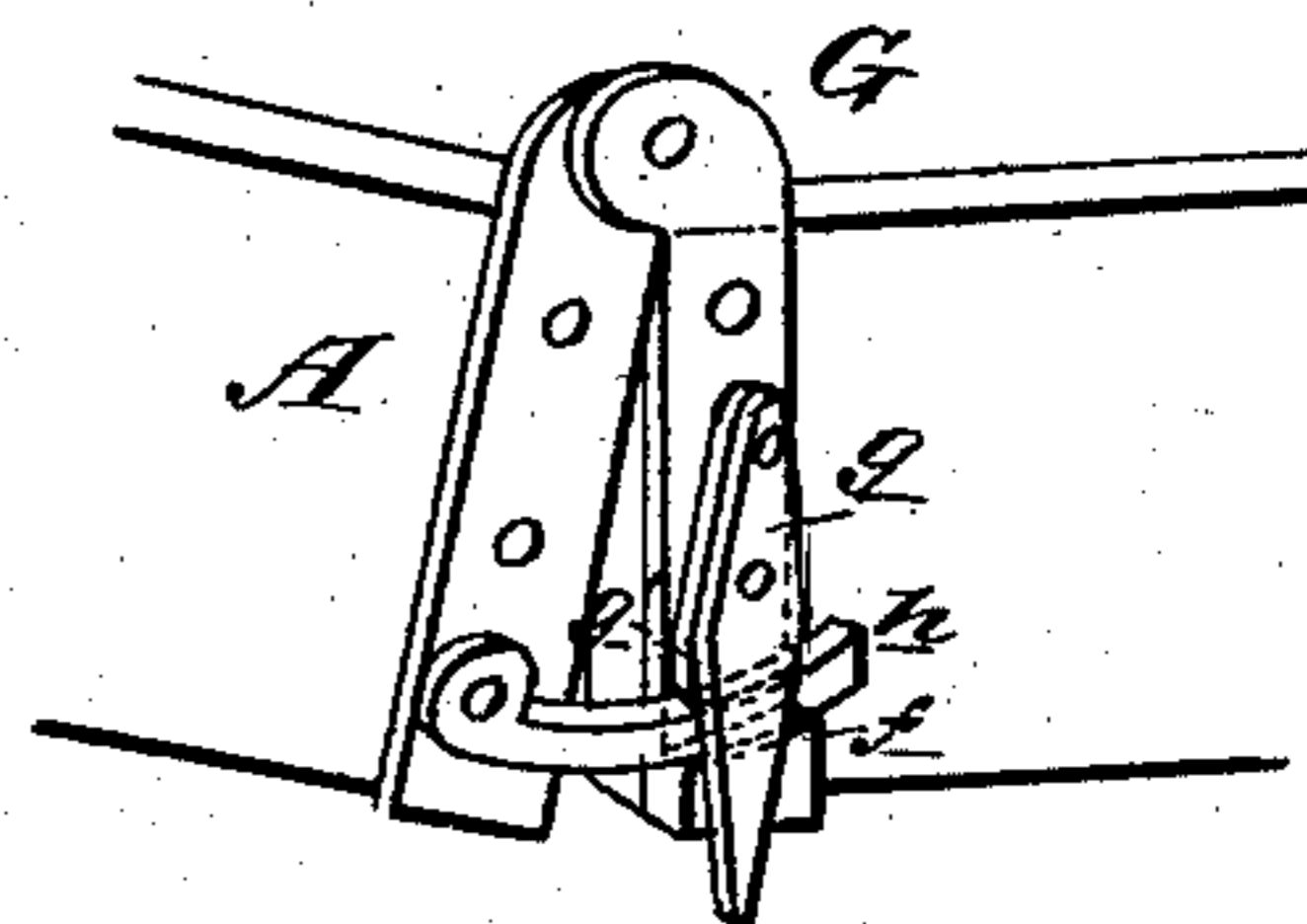


Fig. 2

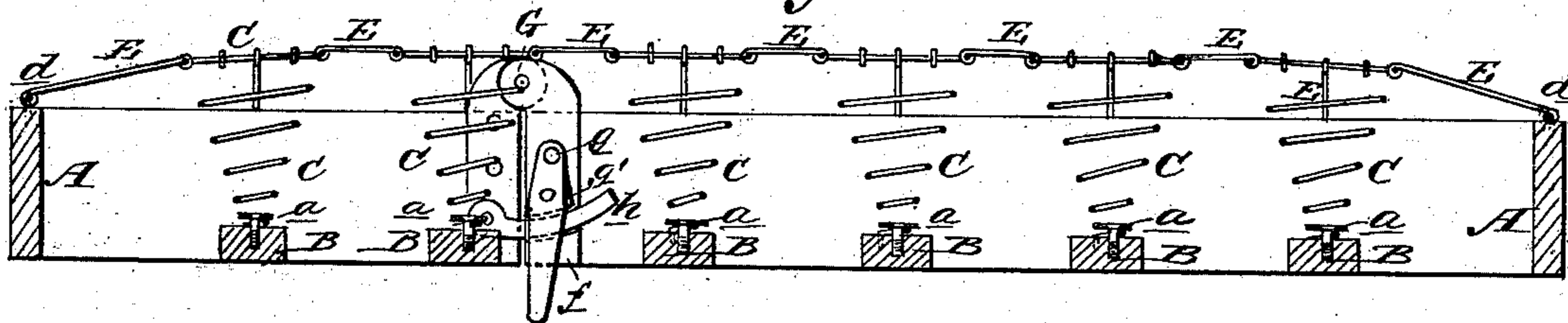
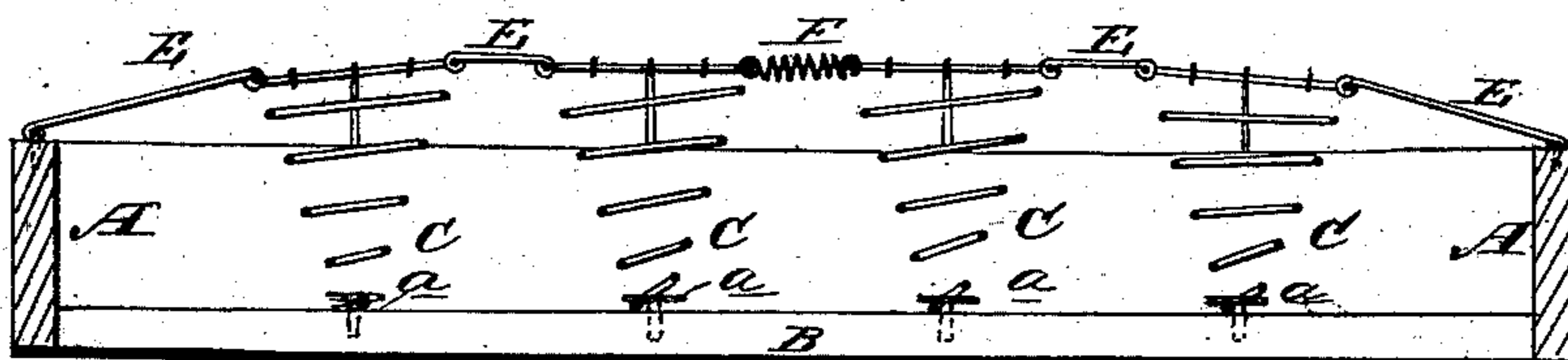


Fig. 3



WITNESSES:

Francis McArdle.
C. Sedgwick

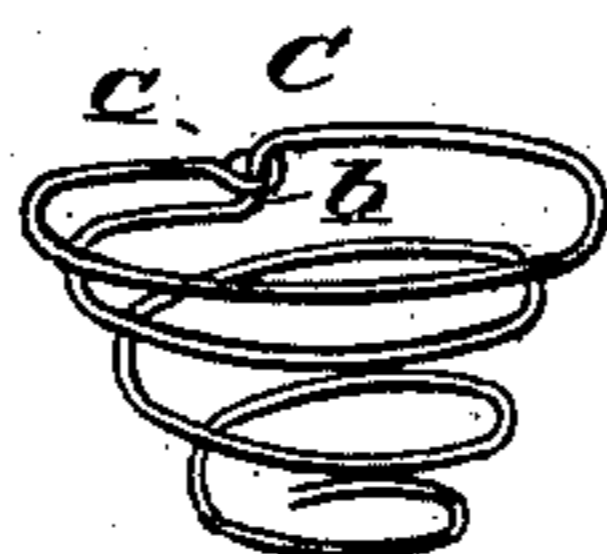


Fig. 4

INVENTOR:

A. J. Curtis

BY

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UNITED STATES PATENT OFFICE.

ANDREW J. CURTIS, OF MONROE, MAINE, ASSIGNOR TO HIMSELF, ALLEN M. BACHELDER, FRED L. PALMER, AND FRANCIS J. BAILEY, OF SAME PLACE.

SPRING-BED.

SPECIFICATION forming part of Letters Patent No. 238,029, dated February 22, 1881.

Application filed November 30, 1880. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. CURTIS, of Monroe, in the county of Waldo and State of Maine, have invented a new and Improved Spring-Bed, of which the following is a specification.

The object of this invention is to construct a spring-bed with springs that can move only in a vertical plane, and whose ends are so secured that they cannot injure the mattress; and the object is, further, to provide an improved device for adjusting and holding the head of the bed at any desired angle.

The invention consists of rows of upright spiral springs whose enlarged tops are connected with each other and the inclosing bed-frame by rings and braces in such a manner that they can move only in a perpendicular line, so that when compressed the spirals of the springs shall not come in contact with each other, said springs having their upper ends firmly and unyieldingly secured to their bodies to prevent their lateral contraction and expansion; and it consists, further, in hinging an end of the bed, so that it may be adjusted and held at any desired elevation, with hinges provided with pivoted segmental slides and locking eccentric hand-levers, all of which will be hereinafter described.

Figure 1 is a plan view of the bed. Fig. 2 is a sectional side elevation on line *y y*, Fig. 1. Fig. 3 is a sectional end elevation on line *x x*, Fig. 1. Fig. 4 is a perspective view of a spiral spring. Fig. 5 is a perspective view of a hinge in position.

Similar letters of reference indicate corresponding parts.

In the accompanying drawings, A represents the frame of the bed, and B B the bottom cross-slats.

C C are the spiral springs, of conical form, secured at their smaller ends, by screws or pins *a* or other convenient device, to the slats B B, said springs C C being arranged in parallel rows, as shown. In each spring C a short vertical bend, *b*, is made in the upper spiral, and the upper end of the spring is formed into an eye, *c*, and firmly hooked and closed about said bend *b*, to prevent said end from slipping,

and also to prevent it from catching in the mattress that may be placed on the bed, and by this device the spring C is prevented from expanding or contracting laterally, and its top is, in effect, formed into a rigid ring, that is much preferable for upholstering purposes to rings that yield laterally under pressure. The springs C C are connected to each other, and to the frame A, by solid rings D and solid braces E, and a central row of connecting spiral-spring braces, F, serves to increase the elasticity of the bed, and to permit it to assume an easy curve from side to side. The solid rings D are set in parallel rows between the springs C, and between said springs C and the sides and ends of the frame A, on a level with the tops of said springs C, and are connected with said springs C and frame A by the braces E. Some of the braces E also extend from each spring C directly to the adjoining ones and to the frame A, as shown, without connecting with rings D. The braces E, that are connected with the frame A, have their ends secured therein by staples *d d*, or other convenient device.

The frame A is jointed at one end and provided with hinges G G on its opposite sides, each hinge G having a fixed ledge or stop, *f*, at the lower end of one arm thereof, and having a lever, *g*, provided with an eccentric, *g'*, secured on its inner face, pivoted above stop *f*, and having pivoted on the other arm a segmental guide, *h*, whose free end extends between the stop *f* and the lever-eccentric *g'*, so that when the hinged end of the frame A is raised the lever *g* can be made to press the guide *h* firmly against the upper edge of the stop *f*, and thereby hold said hinged end of the frame A at any desired elevation. By releasing the pressure of the lever *g* from the guide *h* the hinged end of the frame A can be elevated to any desired position.

I am aware that spiral springs having their upper ends secured to the body so as to form loose sliding joints to permit the expansion and contraction of the springs have been used in beds; but I am not aware that spiral springs constructed as those herein shown and described have before been used; and I am aware

that in beds the springs have before been connected by rings and braces; hence I do not broadly claim said rings and braces.

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

1. A spring-bed constructed, substantially as herein shown and described, with rigid-topped spiral springs C, rings D, braces E,
10 and central spiral-spring braces, F, arranged substantially as herein shown and described.

2. The combination, with the bed-frame A, of the hinges G, provided with stop *f*, lever *g*, having eccentric *g'*, and segmental guide *h*,
substantially as herein shown and described, 15
whereby the hinged portion of said frame may be held at any desired elevation, as set forth.

ANDREW J. CURTIS.

Witnesses:

GEO. H. FISHER,
F. A. PIPER.