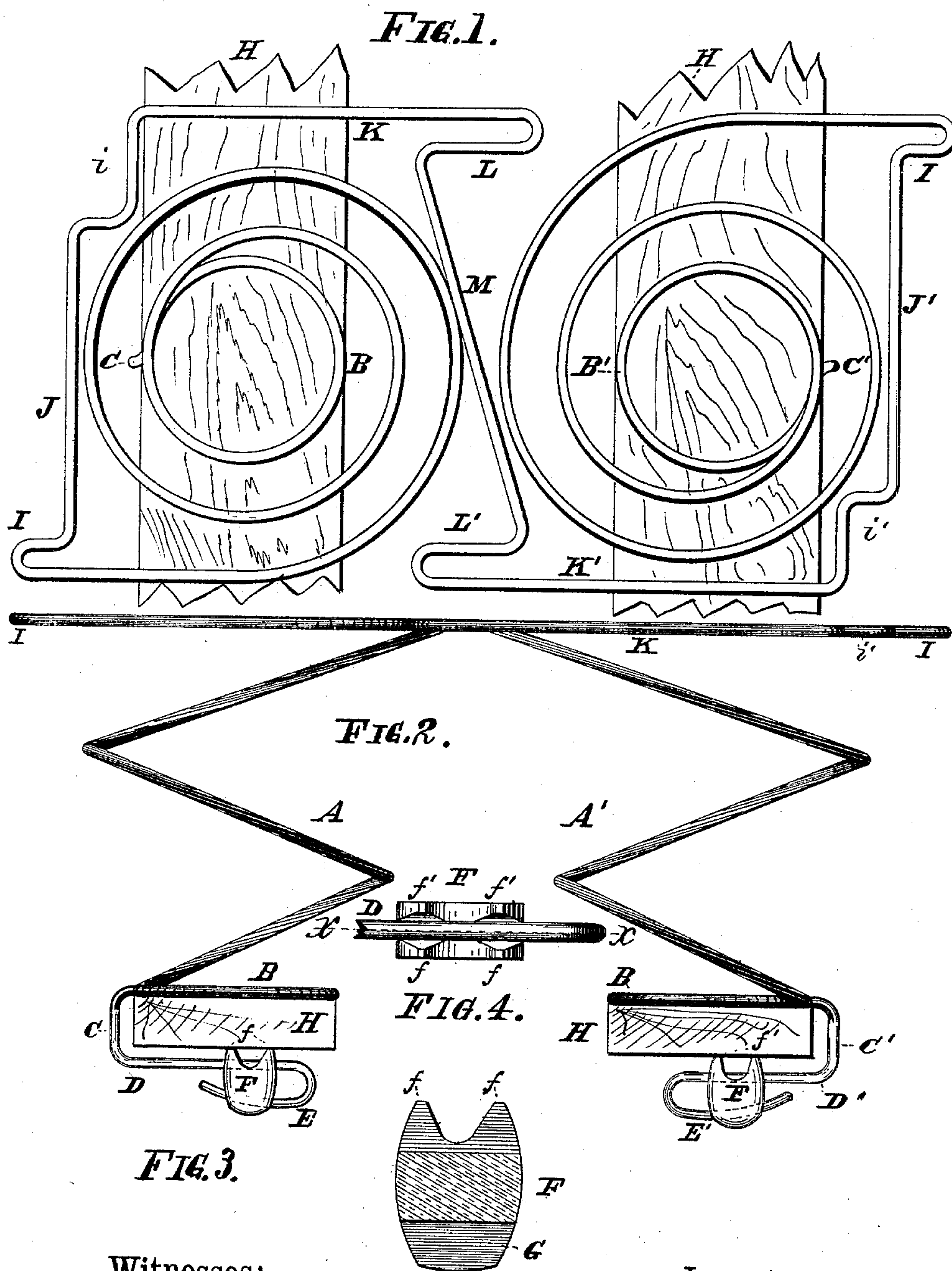


(No Model.)

W. H. TURNER.  
BED SPRING.

No. 452,815.

Patented May 26, 1891.



Witnesses:  
*Ch. Stark*  
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# UNITED STATES PATENT OFFICE.

WILLIAM H. TURNER, OF EAST AURORA, NEW YORK.

## BED-SPRING.

SPECIFICATION forming part of Letters Patent No. 452,815, dated May 26, 1891.

Application filed December 18, 1890. Serial No. 375,085. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. TURNER, of East Aurora, in the county of Erie and State of New York, have invented certain new and useful Improvements in Bed-Springs; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has general reference to improvements in bed-springs; and it consists, essentially, in the novel and peculiar combination of parts and details of construction, as hereinafter first fully set forth and described, and then pointed out in the claims.

In the drawings already referred to, which serve to illustrate my said invention more fully, Figure 1 is a plan of a connected pair of my improved bed-springs as attached to the common slats of a bedstead. Fig. 2 is an elevation of the same. Fig. 3 is a sectional elevation of one of the shoes of the bed-springs in line *xx* of Fig. 4. Fig. 4 is a plan of the same.

Like parts are designated by corresponding letters of reference in all the figures.

The object of this invention is the production of an efficient set of springs for, and means for attaching them to, the slats of a bedstead. To accomplish this result I construct my improved bed-springs of a connected pair of spirally-wound springs *A A'*, the lower ends of which are first formed into horizontal circular coils *B B'*, then downwardly bent at *C C'* a distance equaling the thickness of the thickest slat usually found in a bedstead, then bent at right angles and toward each other at *D D'*, and finally formed into hooks *E E'*, as clearly shown in Fig. 2. Upon these hooks *E E'* are placed shoes *F*, each of which has four upwardly-projecting points *f f'*, between which the horizontal portions *D D'* of the springs are located, and on its lower surface a groove *G*, wherewith engages the hooked portion *E E'*. These shoes are placed upon the ends of the springs, with the points *f f'* projecting upwardly to engage the slats *H* on their under side, whereby the horizontal coils *B B'*, in conjunction with the

horizontal portions *D D'* and the bends *C C'*, form elastic clamps, so as to adapt them for engagement with various thicknesses of the slats *H*, the horizontal portions *D D'* being normally formed at an acute angle to the horizontal coils *B B'* in a manner readily comprehended. The upper portions of the connected springs are formed into a series of bends in the following manner, whereby a very good carrying-surface for the mattress is produced: The helices of the springs *A A'* first end in a straight portion *J J'*, an offset or recess *i i'*, then a straight portion *K K'* at right angles to the straight portion *J J'*, then return-bends *L L'*, and finally an oblique portion *M*, connecting the return-bends *L L'*, so that the return-bends *L L'* and the oblique connecting-bar *M* partly fill the space between the adjacent uppermost convolutions of the springs *A A'*, and the return-bends *I I'* fill the offsets *i i'*. By constructing the top portions of the springs in this peculiar manner I provide for a large carrying-surface for the mattress, resulting in a perfect spring bed-bottom when a series of these connected springs are placed side by side upon the usual slats of a bedstead.

It will be readily observed that by constructing a spring bed-bottom of a series of entirely disconnected double springs upon the usual bed-slats I derive advantages which no other construction permits in an equal degree—viz., that a spring bed-bottom can be arranged by any one by purchasing the necessary number of springs; that the individual springs may at any moment be removed without disturbing the remaining springs; that the springs can all be readily removed for cleaning purposes, which can be better and with less labor performed than with connected series of double springs, and that a complete bed-bottom can be produced at less cost than any other spring bed-bottom with which I am acquainted.

The introduction of the shoes to the free ends of the springs is an important factor in spring bed-bottoms. It prevents the shifting or twisting of the springs, owing to the fact that the points engaging the slats prevent such displacement, so that no other separate connection between the springs is required to preserve them in their respective positions.



These shoes may be produced in cast-iron and the ends E E' simply clinched upon them, thereby adding nothing to the cost, but rather effecting a saving over other means for holding the springs to the bed-slats.

Having thus fully described my invention, I claim as new and desire to secure to me by Letters Patent of the United States—

1. An improved spring bed bottom consisting, essentially, of a series of slats and a series of pairs of connected springs, each pair consisting of the coils A A', the horizontal coils B B', the bends C C', the horizontal portions D D', and the top portions consisting of the bends I I', straight portions J J', having recesses *ii'*, the portions K K' at right angles to the portions J J', the return-bends L L', and the oblique portions M, connecting the

return-bends L L', as described, said horizontal portions D D' being fitted with shoes F, engaging the slats on the under side and the horizontal coils B B' engaging said slats on the top side, as and for the object stated.

2. A shoe for the free ends of springs, consisting of the body F, having the upwardly projecting points *ff'* on its upper surface and a groove G in its lower surface, said shoe being attached to the springs, in the manner as and for the object stated.

In testimony that I claim the foregoing as my invention I have hereto set my hand in the presence of two subscribing witnesses.

WM. H. TURNER.

Attest:

MICHAEL J. STARK,  
WM. O. STARK.