

J. JOHNSON.  
Spring-Beds.

No. 166,701.

Patented Aug. 17, 1875.

Fig. 1

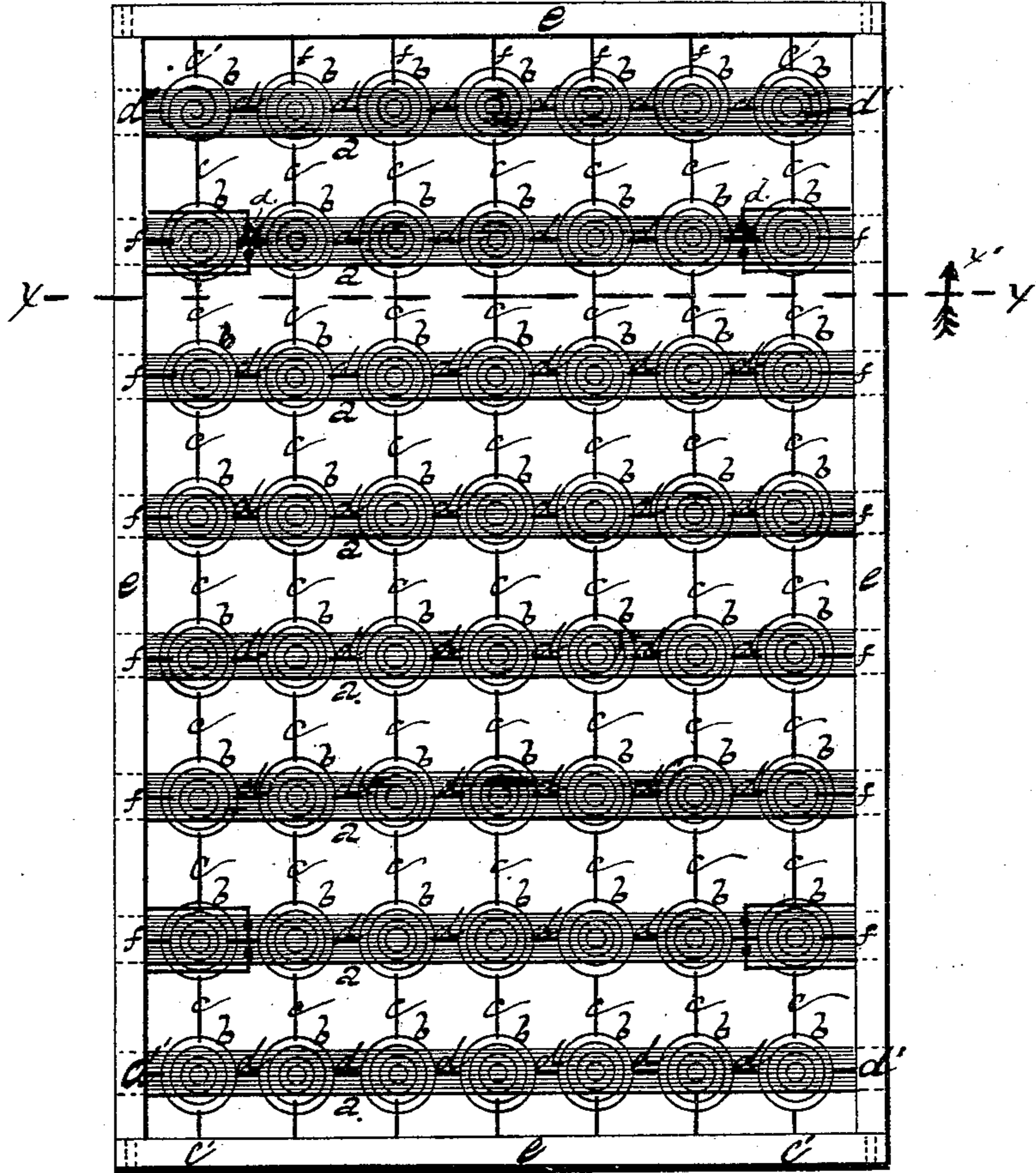
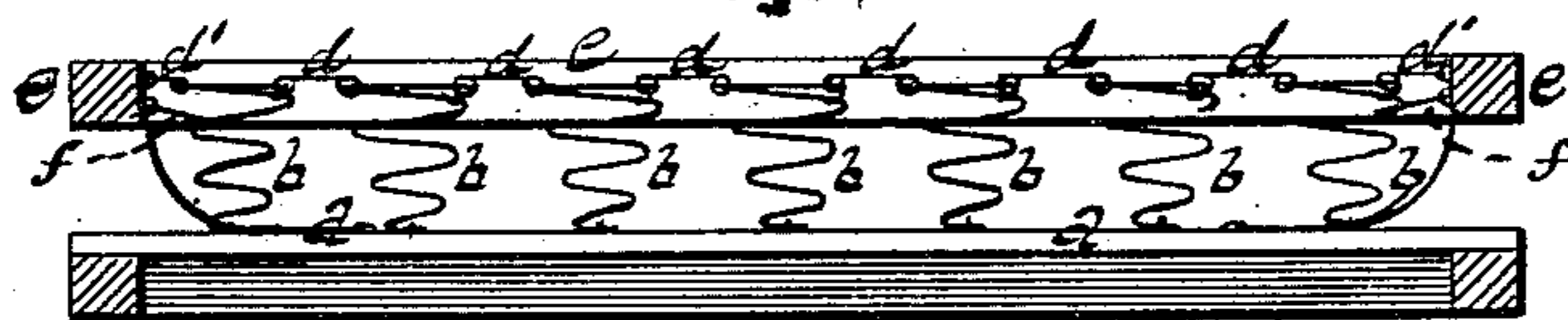


Fig. 2



Witnesses.

Miss Henry Brockleby.  
Edward G. Turner

Inventor.

John Johnson  
By W. E. Simonds  
Atty.

# UNITED STATES PATENT OFFICE.

JOHN JOHNSON, OF HARTFORD, CONNECTICUT.

## IMPROVEMENT IN SPRING-BEDS.

Specification forming part of Letters Patent No. **166,701**, dated August 17, 1875; application filed December 7, 1874.

*To all whom it may concern:*

Be it known that I, JOHN JOHNSON, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements pertaining to Spring-Beds, of which the following is a specification, reference being had to the accompanying drawings, where—

Figure 1 is a top view of a bed embodying my said improvements. Fig. 2 is a view of the same, in cross-section, on the plane  $xx$ , looking in the direction indicated by the arrow  $x'$ .

I already have a patent for a spring-bed consisting, in general terms, of volute springs, connected at the top or upper spiral by wire-links, and also connected to a surrounding rectangular frame by similar wire-links, all starting from the top or upper spiral of the outer rows of springs.

In practice I have found this bed to have a defect, to wit: a person lying, say, upon the center of the bed would bring all the lateral or crosswise connecting-links to a bearing by a slight depression, and also such of the longitudinal links as were acted upon directly by his weight, with the result of seriously affecting the elasticity of the bed in any further desired depression.

The object of my present invention is, while retaining the general construction of the bed as just described, to obviate and remove the defect just described.

The letters  $a$  denote a series of slats, properly connected together, each having a series of spiral or helical or volute springs,  $b$ , connected at their tops by longitudinal links  $c$ , and by transverse or lateral links  $d$ . In the drawing the spring at each corner is connected

to the surrounding rectangular frame  $e$  by longitudinal link  $c'$  and by transverse link  $d'$ , starting from the top or upper spiral of the spring, as in the old or former construction. The springs upon the outer rows other than the corner springs are connected to the surrounding rectangular frame by links  $f$ , starting not from the top or upper spiral of the springs, but from the second or some lower coil. The effect of this is that if a person lies, say, in the middle of the bed, no measure of depression his weight may exercise will bring the links  $f$  to a bearing, thus doing away with the defect and rigidity incident to the former construction, in which the links connecting the outer rows of springs with the surrounding rectangular frame started from the top or upper spiral of the springs.

It is obvious that the interior rows of springs, one or more of them, may be connected by links starting from some spiral lower than the top spiral, in the place of this manner of connection at the outside; or that such connections may be made both interiorly and on the outside, and the purpose aimed at will be served, and such modifications of my invention will be included within the scope of my invention.

I claim as my invention—

In a bed-bottom constructed as described, the connecting-links  $f$ , arranged between the intermediate springs of the outer rows and the surrounding frame  $e$ , and attached to the lower coils of the springs and to the frame, in the manner and for the purpose set forth.

JOHN JOHNSON.

Witnesses:

WM. E. SIMONDS,  
GEORGE G. SELL.