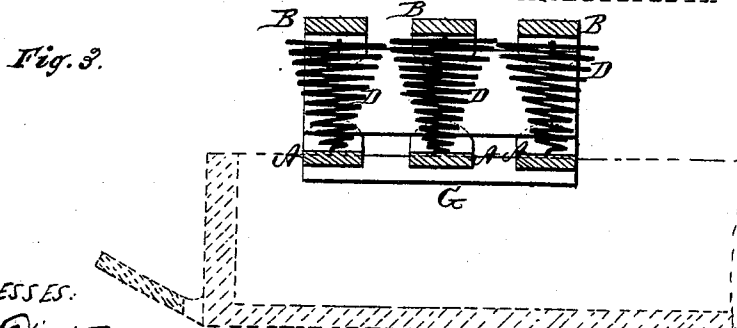
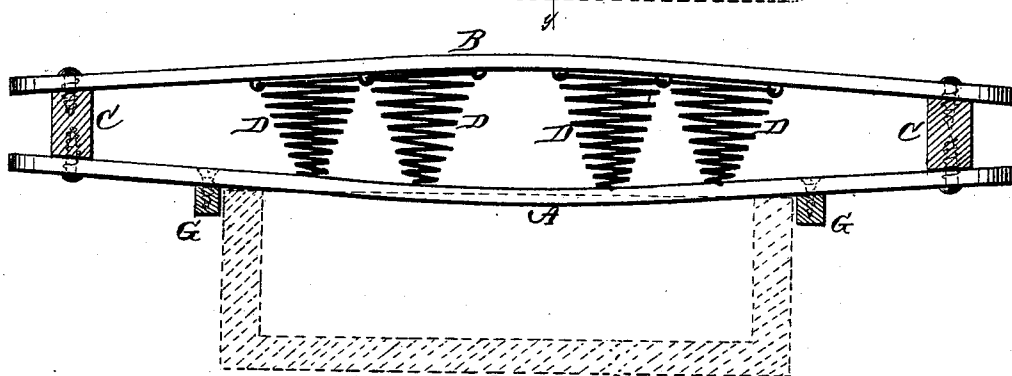
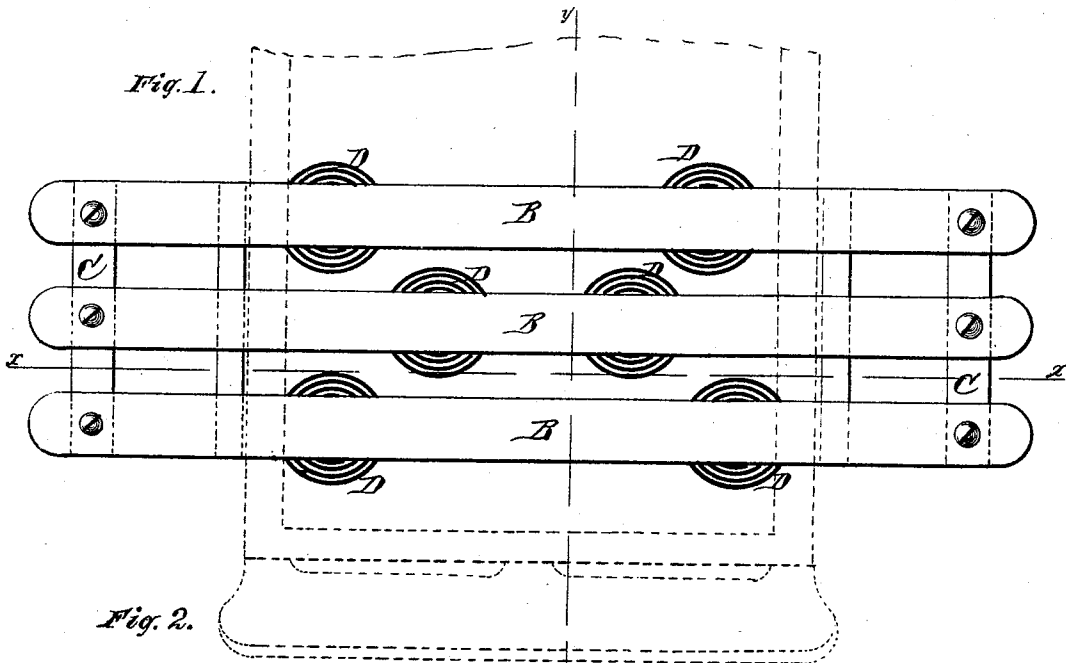


**J. E. HOPPING.**  
**Wagon-Seats.**

No. 151,665.

Patented June 2, 1874.



WITNESSES.

*P. C. Dietrich*  
*H. E. Scott.*

INVENTOR.

*John E. Hopping*

*per. C. H. Watson & Co.*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

JOHN E. HOPPING, OF PRINCETON, ILLINOIS.

## IMPROVEMENT IN WAGON-SEATS.

Specification forming part of Letters Patent No. **151,665**, dated June 2, 1874; application filed March 7, 1874.

*To all whom it may concern:*

Be it known that I, JOHN E. HOPPING, of Princeton, in the county of Bureau and State of Illinois, have invented certain new and useful Improvements in Spring-Seat for Wagons; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a spring-seat for wagons or other vehicles, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view of my improved spring-seat. Fig. 2 is a longitudinal section of the same through the line *x x*, Fig. 1; and Fig. 3 is a transverse section through the line *y y*, Fig. 1.

My seat is composed of an equal number of bottom slats, A, and top slats, B, connected, at or near the ends, to cross-bars C C, running crosswise between the top and bottom slats. Between the slats are placed spiral springs D D, which make both the top and bottom slats convex. On the under side of the seat thus formed, a suitable distance from each end, is secured a cleat, G, running crosswise of the seat.

The number of springs D between each pair of slats may vary, according to the size of the

seat and the number of persons it is intended to hold.

In using the seat on an empty wagon it is simply laid across the box the same as an ordinary board, the cleats G G preventing it from slipping off from the box. In using it on a loaded wagon it is laid on top of the load the same as a cushion. It can be used on any kind of load where a person can ride.

Being composed of double convex slats running lengthwise of the seat, and corresponding on top and bottom, the ends of the slats all bolted solid and convexed by means of the spiral springs, the seat obtains great elasticity and durability, each slat yielding entirely independent of the others, and only imparting the strain from one to the other by being convex and having solid bearings at the ends.

I am aware that slats and springs are used in bed-bottoms, the slats and springs adapted for a bed, and I do not, therefore, claim such device; but

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

The carriage-seat composed of a series of slats, A B, having the spring D between them, and cleats G beneath the lower slats to hold the seat in position, all combined as and for the purpose specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses this 27th day of February, 1874.

JOHN E. HOPPING.

Witnesses:

C. C. FULLER,  
JASON Y. ELLIS.