3 Sheets—Sheet 1.

W. C. HUFFMAN.

SPRING SUPPORTED STOOL.

No. 186,570. Patented Jan. 23, 1877.

Fig. 1.

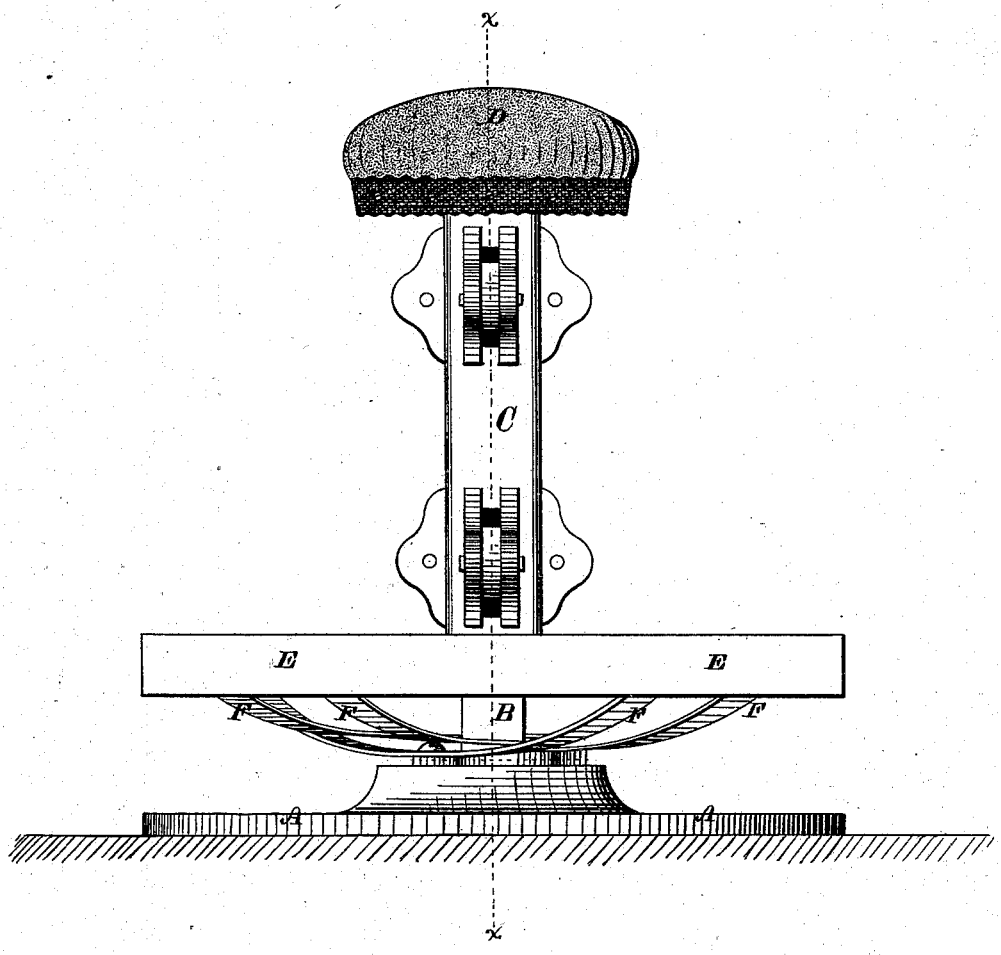

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Fig. 2:

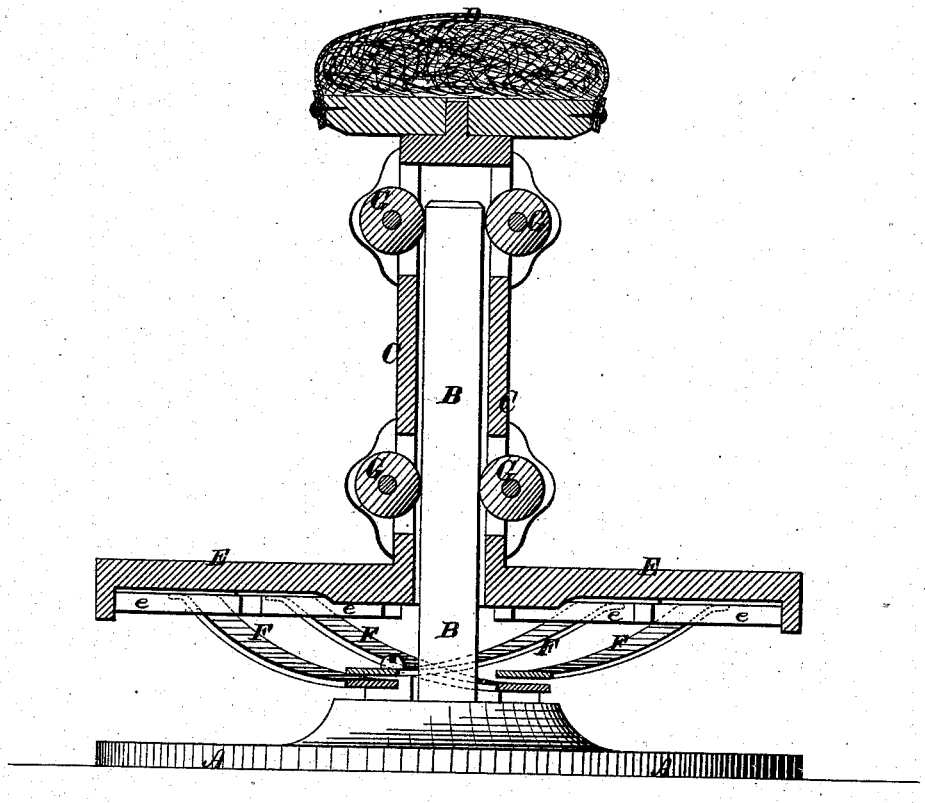

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Fig. 3.

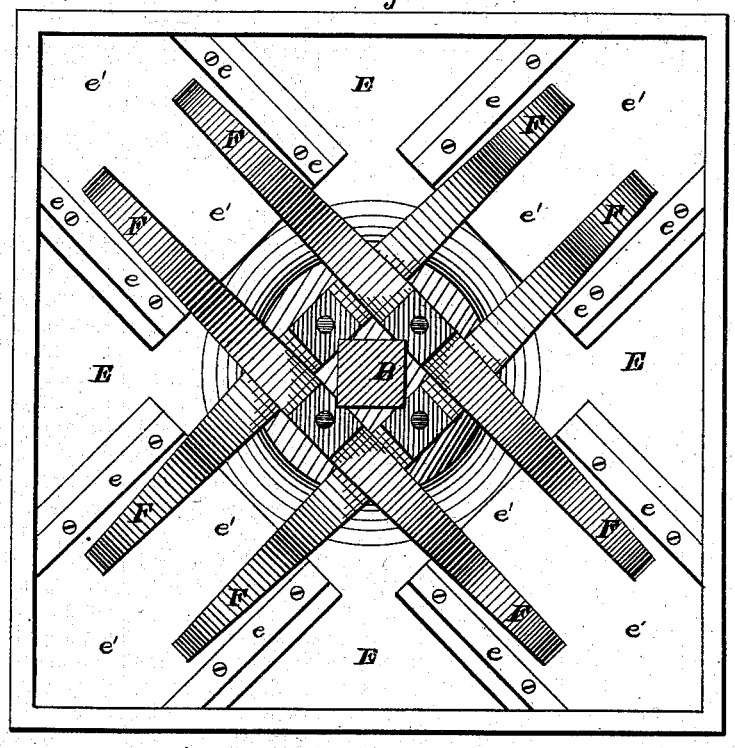
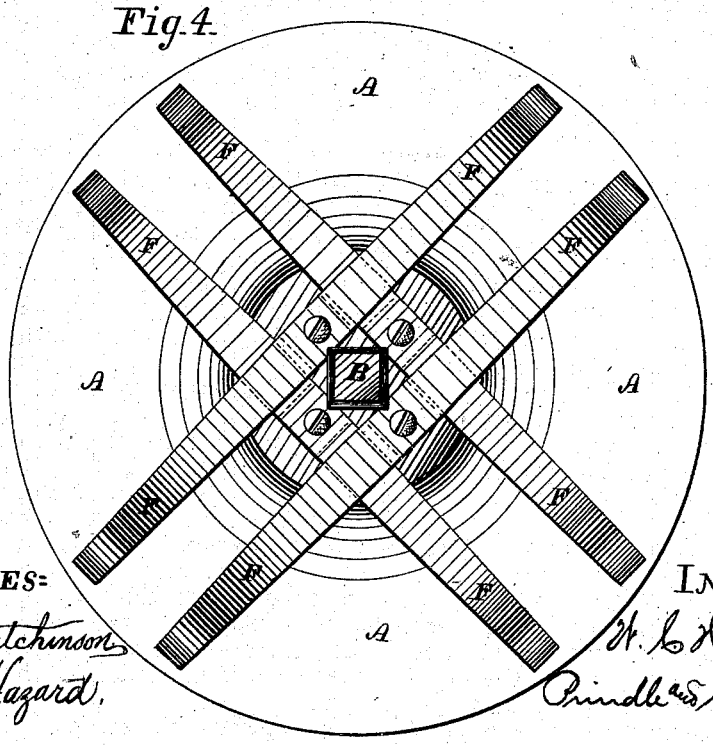


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM C. HUFFMAN, OF TOLEDO, OHIO.

IMPROVEMENT IN SPRING-SUPPORTED STOOLS.

Specification forming part of Letters Patent No. **186,570**, dated January 23, 1877; application filed June 19, 1876.

To all whom it may concern:

Be it known that I, WM. C. HUFFMAN, of Toledo, in the county of Lucas, and in the State of Ohio, have invented certain new and useful Improvements in Mail-Cars; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation of my improved platform and seat arranged for use. Fig. 2 is a vertical central section of the same upon line *x x* of Fig. 1. Fig. 3 is a plan view of the lower side of the platform and springs, and Fig. 4 is a like view of the upper side of the base-plate and said springs.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to relieve railway travel from the disagreeable and injurious effects occasioned by the vertical jarring motion of the cars; to which end it consists, principally, in the construction of the springs and their combination with the platform, substantially as and for the purpose hereinafter shown.

It consists, further, in the means employed for combining the sleeve and standard or guide, substantially as and for the purpose hereinafter set forth.

It consists, finally, in the device as a whole, its several parts being constructed and combined to operate in the manner and for the purpose substantially as hereinafter shown and described.

In the annexed drawings, A represents the base of my device, constructed of or from metal, and having such shape and dimensions as to enable it to be readily and firmly secured to or upon a floor. From the center of the base A a standard, B, projects vertically upward, and is constructed, preferably, with a square form, although, if desired, any other transverse shape which will furnish a number of plain faces may be used. Fitted loosely upon the standard B is a correspondingly-shaped sleeve, C, which, at its upper end, supports a seat, D, and at its lower end is secured within a platform, E, that has any desired horizontal shape and dimensions, said parts being capable of vertical motion upon said standard. Secured upon the base A, at each side of the standard B, is a half-elliptic spring, F, which extends laterally outward to equal distances from said standard, and is arranged with its concave side upward. The springs F and F, upon opposite sides of the standard B, are parallel with each other, and are arranged at a right angle to the remaining springs, as shown by Figs. 3 and 4. Upon the lower side of the platform E are placed suitable guides, *e* and *e*, which confine in lateral position the ends of each pair of springs, F and F, and if said platform is constructed of wood, the space between said guides is covered with sheet metal, *e'*, for the purpose of preventing wear and furnishing a smooth bearing for said spring ends. As thus arranged, it will be seen that the weight of the seat and platform, and of a person resting thereon, will be entirely sustained by the springs, and that from the arrangement of the latter any vertical shock or jolt received by the floor upon which the base was secured would have its force broken, and would be transmitted to said seat or platform in but a slight degree.

In order that the side motion of a car or an unequal distribution of weight with reference to the center of the platform may not create undue friction between the sleeve C and standard B, two or more friction-rollers, G and G, are journaled within corresponding openings formed in each side of said sleeve, and, projecting inward beyond the inner face of the said side, prevent the latter from coming into contact with said standard, the result being a perfect rolling bearing upon all sides of the latter.

If desired, a table may be substituted for the seat D, and the platform E may have such dimensions as to enable two or four chairs to be placed at suitable points around said table.

This invention is applicable to the use of mail-agents, express-agents, baggage-masters, &c., or for parlor and sleeping cars, and will enable a person to write or attend to other like occupations with nearly the same ease when a car is in motion as when the same is at rest.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. In combination with the platform E, ar-

ranged to move vertically, the semi-elliptic springs F and F, arranged in pairs, which have relative right angles, substantially as and for the purpose shown.

2. In combination with the standard B and sleeve C, the rollers G and G, journaled within the latter and bearing upon the former, substantially as and for the purpose set forth.

3. The standard B, the sleeve C, provided with the rollers G and G, the seat D, the platform E, and the semi-elliptic springs F and F, combined with each other in the manner and for the purposes substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of January, 1876.

WM. C. HUFFMAN.

Witnesses:
CHARLES KENT,
GILBERT HARMON.