

W. F. BAIRD.
VEHICLE-SEAT SPRING.

No. 171,757.

Patented Jan. 4, 1876.

Fig 1

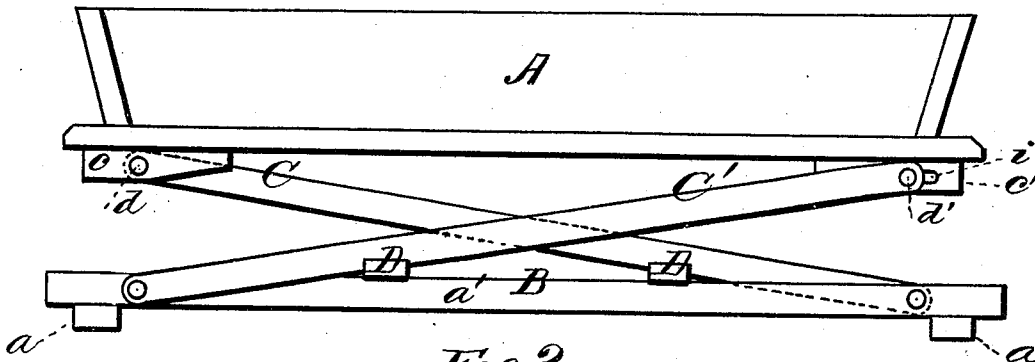


Fig 2

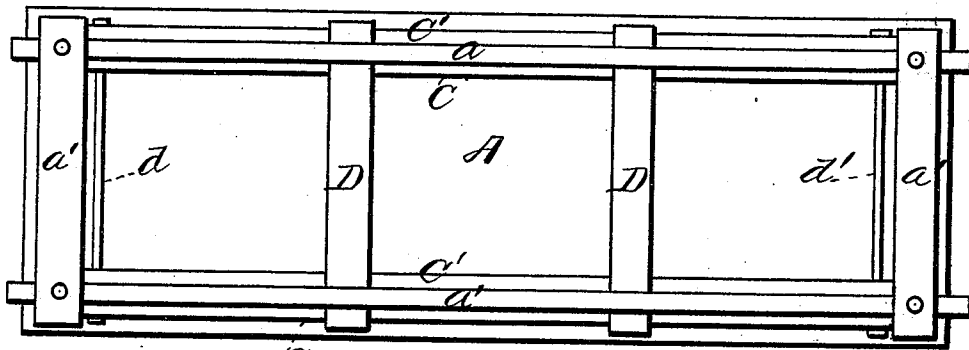


Fig 3

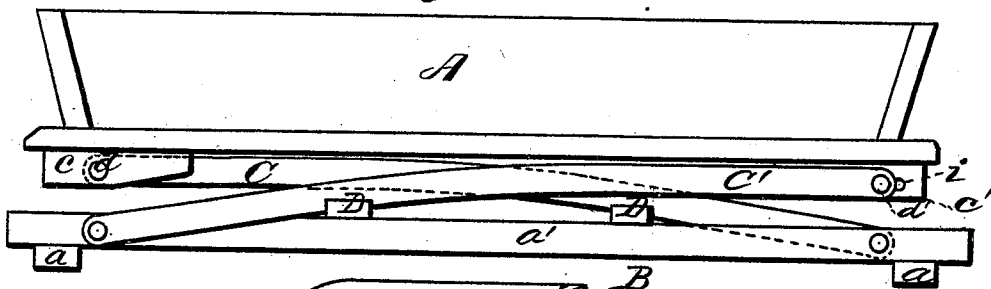
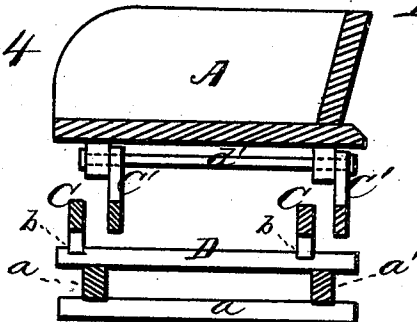


Fig 4



WITNESSES
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WILLIAM F. BAIRD, OF BURLINGTON, IOWA.

IMPROVEMENT IN VEHICLE-SEAT SPRINGS.

Specification forming part of Letters Patent No. **171,757**, dated January 4, 1876; application filed December 11, 1875.

To all whom it may concern:

Be it known that I, WM. F. BAIRD, of Burlington, in the county of Des Moines and State of Iowa, have invented a new and valuable Improvement in Wagon-Seats; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a front view of my wagon-seat, and Fig. 2 is a plan view of the same. Fig. 3 is a front elevation thereof, and Fig. 4 is a transverse vertical sectional view.

This invention has relation to improvements in springs for wagon-seats; and it consists in the arrangement and novel construction of crossed lever-springs, pivoted to a rectangular frame, adapted to rest upon the edges of a wagon-body at one end, and at the other to the seat, whereby a very effective spring action is imparted to the seat when the said springs are allowed to enter gains or notches in cross-pieces secured to the foundation-frame, as will be hereinafter more fully set forth.

In the annexed drawings, the letter A designates an ordinary wooden seat, in connection with which I propose to illustrate my invention. B represents a rectangular wooden frame, of sufficient length to reach across the wagon-body, the end bars *a* of which are bolted to the side rails *a'* upon their under sides, so as to form at each end of the said frame a stop which, engaging with the sides of the wagon-body, will hold the said frame against endwise displacement. C C' represent crossed rectangular wooden lever-springs, of suitable dimensions, which are pivoted at their lower ends to the side bars *a'* of frame B. These springs, as shown in Fig. 1, cross each other at or near the center of their lengths, and are fulcrumed in spring-braces D, bolted across the side rails *a'* of the foundation-frame A, gains or notches *b* being cut in the said braces for their reception, and for the purpose of holding them against lateral displacement. The upper ends of lever-springs C are pivoted to blocks *c*, bolted to the under side of the seat at one end by means of a me-

tallic rod, *d*, passing through registering perforations in said levers and blocks, which rod is held to its place by means of nuts applied upon its projecting ends. The upper ends of levers C' are also secured to blocks *c'* by means of a metallic rod, *d'*, which passes through slots *i*, formed in the said blocks, and perforations made in the ends of the said levers, nuts being, as before, applied upon the projecting ends of the said rod, for the purpose of holding it against displacement.

By this means spring-levers C' are allowed a certain play in their attaching-blocks *c'*, the effect of which is to allow them and the levers C to flex freely when the seat is in use, and, by relieving rods *d d'* of the initial strain, to obtain the full spring of the said levers. I thus produce a spring action equal in quality to the most costly steel springs commonly used, which in its incipency is very gradual and easy, and at its final downward flexure equal to bearing up against any pressure to which in the nature of things the said spring-seat will be subjected.

The advantages of using the foundation-frame B are, first, that whatever be the nature of the load—as lumber, cases of goods, sacks of grain, and the like—the seat may be raised upon the top of the load; and, secondly, that there will be no danger of tearing the sacks or bales of goods, the broad, smooth frame B being an effectual guard and protection against such mishaps, for the reason that all the spring mechanism is above the bearing-surface of the said frame.

Attaching-blocks *c c'* are capable of being detached from the seat, and the spring-levers are removably secured to the frame and to the said blocks; hence when, from long use, the said levers become permanently bent, they may be reversed, and the spring action fully restored.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a wagon-seat spring, the combination, with a seat, A, having perforated blocks *c* and slotted blocks *c'*, of the crossed spring-levers C C', secured by rods *d d'* to the said blocks, and pivoted to the foundation-frame A, substantially as specified.

2. In combination with a seat, A, and the

crossed lever-springs C C', the frame B, having braces D, with notches *b*, substantially as specified, and for the purpose set forth.

3. The slotted blocks *c'*, in combination with spring-levers C and an attaching-rod, *d*, substantially as specified.

In testimony that I claim the above I have

hereunto subscribed my name in the presence of two witnesses.

WILLIAM F. BAIRD.

Witnesses:

T. G. CATLETT,

W. E. PILLING.