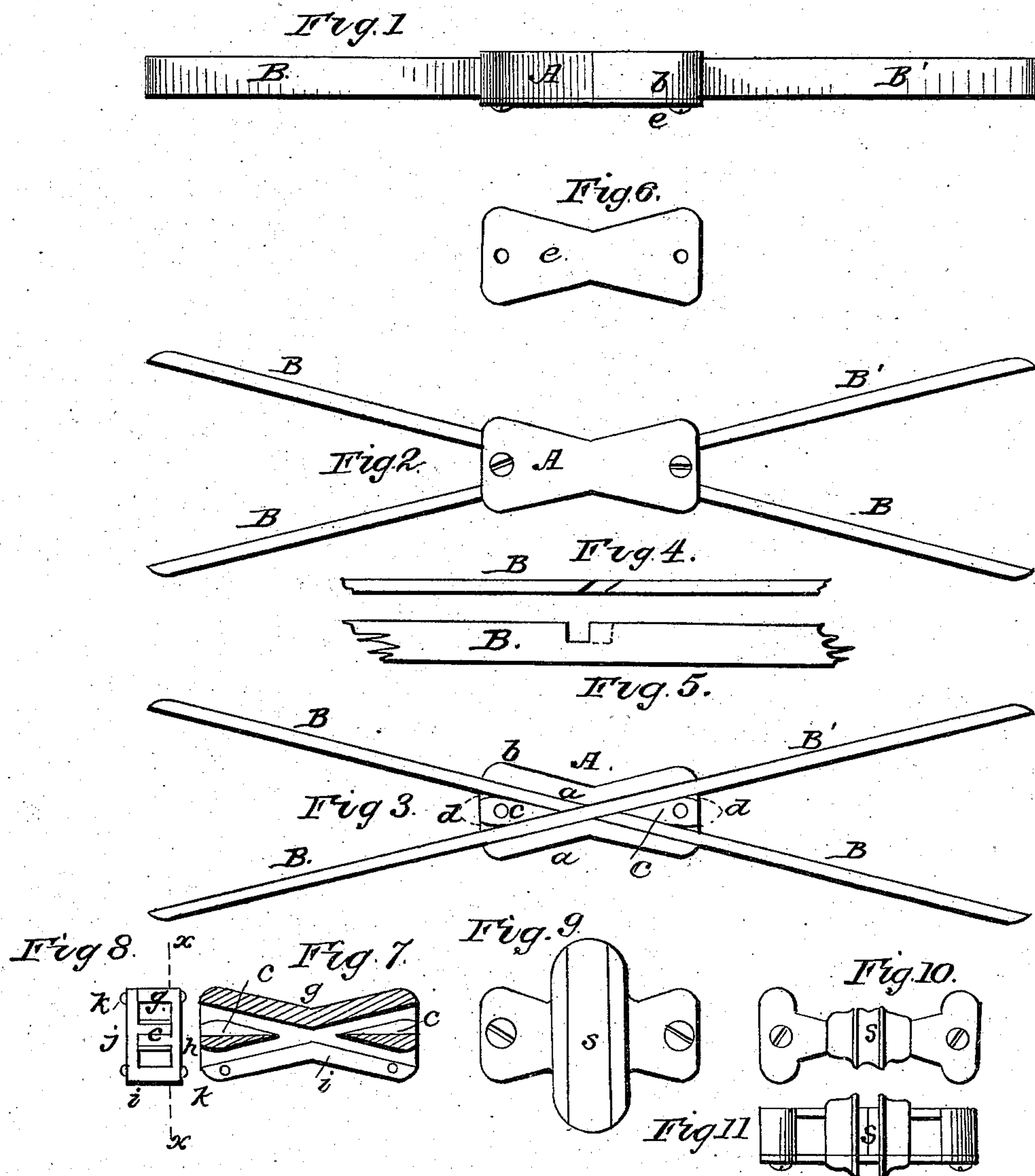


C. H. HUDSON.
Spring Seat for Vehicles.

No. 87,675.

Patented March 9, 1869.



witnesses

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CHARLES H. HUDSON, OF NEW YORK, N. Y.

Letters Patent No. 87,675, dated March 9, 1869.

IMPROVEMENT IN SPRING-SEAT.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, CHARLES H. HUDSON, of the city, county, and State of New York, have invented a certain new and useful "Improved Spring;" and I 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.

The object of my invention is to produce a cheap, light, and effective spring, which, while peculiarly adapted for use in clothes-wringers and similar articles, may yet be advantageously applied in many other ways, and to many other articles.

It consists in the combination of two or more bars, of wood or other suitable elastic material, with a seat, or bearing, of metal, in which the said rods or bars are firmly set, in such a manner as to allow one or both ends of each bar to project outwardly a sufficient distance to give, or allow the requisite motion to the spring, as hereinafter more fully set forth.

Also, in the peculiar arrangement and construction of the said seat, whereby it is made light and strong, and the said bars or rods are prevented from breaking off at the point where they emerge from the said seat, while the latter may be readily taken apart, to replace a broken bar, or for any other purpose, as hereinafter more fully described.

In the accompanying drawings—

Figure 1 is a top view of a spring constructed according to my invention, and suitable to be applied to a clothes-wringer.

Figure 2 is a side elevation of the same.

Figure 3 is a side elevation of the same, with the top plate, which secures the bars in place, removed.

Figure 4 is an edge view, in detail, of a portion of one of the bars, showing the manner in which they are halved together in the centre, and thus prevented from slipping endwise out of the grooves or channels in the seat A.

Figure 5 is a side view, in detail, of the same.

Figure 6 is a side view, in detail, of the top plate, which secures the bars in place.

Figure 7 is a sectional elevation, in detail, of another form of seat than that shown in fig. 3, the section being taken on the line *x x*, fig. 8.

Figure 8 is an end view of the seat shown in fig. 7.

Figure 9 is another modification of the seat.

Figures 10 and 11 are still another form of the same.

A is the seat, or centre-piece, in which the bars B are snugly fitted, between the flanges or walls *a a* and the bearings *c c*, the latter being curved on their exterior, so as to allow the said bars to bend inward, without danger of breaking, as clearly seen in fig. 3.

The seat A is formed in two parts, one part, *b*, being furnished with grooves, or channels, *d*, and correspond-

ing projecting portions *a a* and *c c*, into and between which the bars B are received and firmly held; the other part, *e*, consisting of a plate, shown in fig. 6, which fits over and secures the bars B in position. This plate may be readily removed at any time, to replace a broken bar, or for any other purpose, by removing the screws which secure it to the part *b*.

In the drawings, the bars B are represented as formed of wood, and are secured from coming out of the seat A, by being halved together in the centre, as shown in figs. 3, 4, and 5.

If metallic bars are used, they may be bent at a proper angle, and riveted together without crossing, being then secured in the seat in the manner substantially as shown. They may also be made to terminate in the centre of the seat, and secured therein by a key, or a projection on the bar, made to fit into a corresponding depression in the seat. The ends of the bars B are curved, so as to slide freely on their bearings without catching.

In figs. 7 and 8, a modification in the form of the seat A is shown, whereby the pressure of the springs in their bearings is made to press the parts together more firmly, instead of thrusting them apart.

The bearings in the centre are made in two parts, one of which, and one of the flanges, *g*, are cast on the plate *h*, and the other, with the flange *i*, is cast on the plate *j*. Screws, *k*, secure the two parts of this seat in place.

In fig. 9 is shown a form of the seat, having channels, or grooves, *s*, formed on its sides, to furnish a bearing for guide-posts, on or between which the said seat may be made to slide as the spring is operated.

Another form of the same device is shown in figs. 10 and 11, the amount of metal being much reduced, while leaving the seat almost, if not quite, as strong as in the forms shown in the other figures.

It is obvious that many changes in the details of form, construction, and arrangement of the parts of my improved spring may be made, without in any wise departing from the substantial nature and character of the invention. I do not, therefore, confine myself to the exact construction shown.

I claim—

1. The combination, with the bars B, of the centrally-located seat A, substantially as and for the purpose set forth.

2. Forming the outer surfaces of the bearings *c c*, against which the bars B bear, of a curved form in the spring, constructed substantially as set forth, as hereinabove described.

CHAS. H. HUDSON.

Witnesses:

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