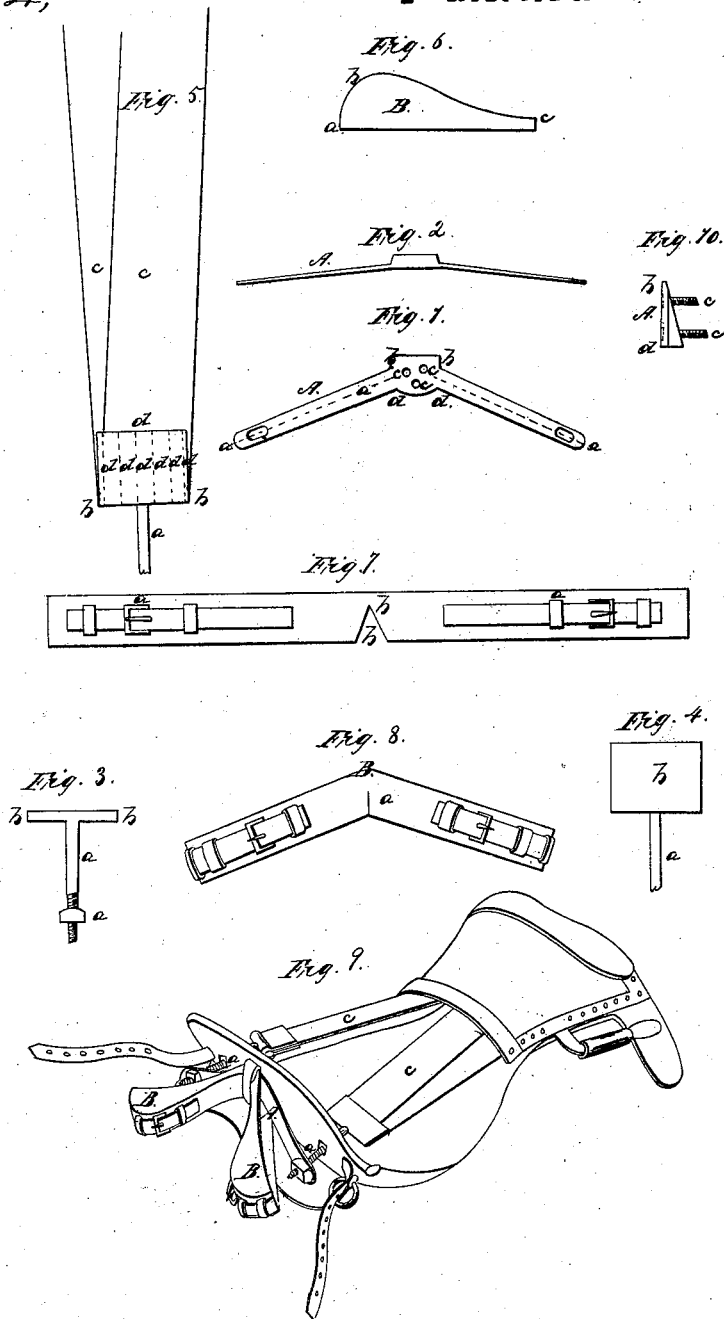


*C.E. King,*  
*Riding Saddle,*

*No. 1,494,*

*Patented Feb. 21, 1840*



# UNITED STATES PATENT OFFICE.

CHARLES E. KING, OF MOUNT PLEASANT, OHIO.

## MODE OF CONSTRUCTING THE ELASTIC SPRING-SEATS OF SADDLES.

Specification of Letters Patent No. 1,494, dated February 21, 1840.

*To all whom it may concern:*

Be it known that I, CHARLES E. KING, of Mount Pleasant, in the county of Jefferson and State of Ohio, have invented a new and  
5 Improved Method of Constructing Saddles, so as to Render the Seats Elastic, and do hereby declare the following is a full and exact description thereof, reference being had to the annexed drawings of the same,  
10 making part of this specification.

To enable those skilled in the art to apply my invention, in the construction of saddles, I will now proceed to describe the method in which it may be done.

15 Figure 1 represents the spring—flat side up; Fig. 2, edge view of ditto; Fig. 3, the screw T bolt and nut; Fig. 4, the T bolt with a leather covering; Fig. 5, parts of the webbing attached to the T bolts; Fig. 6, top  
20 of leather case to cover the spring; Fig. 7, strap of ditto; Fig. 8, angle of the case; Fig. 9, perspective view of the whole saddle; Fig. 10, shows the taper of the bearing of the spring.

25 Similar letters refer to similar parts in the several figures.

I construct my saddles in any of the usual forms. But in order to give the seat the desired elasticity, I take a spring A about ten  
30 inches long, measuring on a line drawn through the middle of its width. It should be full three-fourths of an inch wide; and fully one-eighth of an inch thick, the length however may be varied to suit the size of the  
35 tree; and the strength of the spring to suit the weight of the person for whom the saddle is intended. The ends are to be bent edgewise (from the middle) downward, to correspond with the lower side of the cantle,  
40 as it is formed to adapt it to the horse's back, see Fig. 1. The dotted line *a, a, a*, is that on which its length is measured. It measures 9 inches across from point to point. The  
45 spring is to have a suitable bearing in the middle where it is attached to the cantle: this bearing is about an inch wide at bottom, as shown Fig. 1 *d, d*, and an inch and a half  
50 at top *b b*; the width from bottom to top, *d d* to *b b* is about an inch and a half. Through this bearing three strong screws  
are to pass, two at top, and one at bottom, as shown Fig. 1 *c, c, c*, by which the spring  
is firmly attached to the outside of the cantle, about three-eighths of an inch from its  
55 lower edge, to prevent it from coming in contact with the pad. The bearing of the

spring, is about half an inch thick at bottom, from which it should taper like a wedge, to an edge at the top as at Fig. 10, from this bearing the spring is reduced to  
60 its proper thickness, leaving the shoulders and the side to go next to the cantle. The ends of the spring when fixed in its place, should be about an inch and a half from the  
65 cantle. Fig. 2 shows the edge of the spring, and the thickness of the bearing at the bottom edge. Through each end of the spring, and about three-eighths of an inch from the  
70 end there must be a hole about three-eighths of an inch diameter to receive the bolts, to which the webbing is attached see Fig. 1 *a, a*. Put the spring in its place, and guided by the holes in the ends, mark the cantle, directing the instrument in a line that will  
75 pass about two inches, outside and as much below the center of the pad: then remove the spring, and at each of these points bore a hole through the cantle, in the direction  
80 aforesaid. Enlarge it by boring with a suitable instrument, to the size of about half an inch wire, and three quarters of an inch long in a perpendicular direction. The exact  
85 dimensions however are not material, the object being to let the bolts pass freely through. I then take two bolts in the form of a T see Fig. 3. The top and stem may be  
90 about a quarter of an inch in diameter; the top or cross should be about as long as the webbing is wide, and the stem or body about 4 inches long. On about one half of this  
95 length a screw is to be cut, to receive a bar about five-eighths of an inch square, and a quarter of an inch thick, the corners and the under side, or that next the head of the bolt  
100 to be rounded off as shown at *a*, Fig. 3. Take for each bolt a piece of leather as wide as the webbing designed to be used, and five or six inches long. Cut a hole of a suitable  
105 size in the middle of it, through which pass the stem *a* of the bolt *b* the leather doubled. To each bolt attach two pieces of webbing each about as long as the bars; inserting one end of each between the doubles  
110 of leather, and securing all together by five or six rows of stitching: see Fig. 5.

*a* represents the stem of the bolt, *b, b, b, b*, the leather above described, *c c* the two pieces of webbing with their back ends inserted between the doubles of the leather, and their forward ends spread so as to part  
about an inch. The spring being fixed in its place, put the bolts through the holes in the

cantle and spring push them back until the tops of the T T come in contact with the cantle. Mark the point to which each is carried back and then move them forward about half an inch, which is the allowance I make for the probable stretching of the webbing: screw up the burs to the spring, and cut off any surplus length of the points of the bolts. The two inner branches of the webbing are then to be carried forward to the head of the tree; drawn tight, and nailed fast; the two outer branches of the web are next to be drawn evenly forward: and if it be a man's saddle, nail them just below the edges of the other branches. If it be a woman's saddle nail immediately below the horns.

Nail one edge of the straining linen on the inside of the cantle about an inch above the bolts. Draw the opposite edge forward moderately tight to the head as usual and make it fast. Draw or strain down the sides till the webbing shall be from three quarters of an inch to one inch from the inner edges of the bars, at the middle of their length. The linen is to be nailed on the upper sides of the outer edges of the bars, observing not to nail it immediately opposite to the corners formed by the attachment of the web to the T T. Observe also, that it would be an advantage to strengthen the cantle before the spring is put on, by covering it both on the inner and outer side with leather or canvas glued on. The saddle is to be furnished in the usual way or according to the fancy of the workman.

The spring may be covered with a leather case B made in the following or any other mode the workman may choose. Take four pieces of leather, each half an inch longer than half the length of the spring on its upper edge. They should be about half an inch wide at one end and two inches at the other. One corner of each broad end should be rounded off. Then take a strap an inch and eighth wide and twice as long as one of the pieces above described on its crooked

edge, as seen in Fig. 6, *b, a, b, c* the edge just referred to. At a suitable distance from each end of this strap fix a buckle with a loop on each side of it as shown in Fig. 7, *a a*. Sew this strap evenly between the crooked edges of the four pieces above described two with the narrow ends together being put on each side of the strap. The sewing should be performed on a block of the width of the strap, and its upper side cut by one of the four pieces of leather, which are to form the top and bottom of the case. In the middle of this case and in the side intended for the bottom or that which goes next to the horse's back, cut an inverted V (leaving the upper edge of the strap not cut). This cut must be wide enough to bend the case to an angle, to suit the form of the spring. The edges of this cut are then to be sewed together, as in Fig. 8 at *a*. The ends of the four pieces of leather (forming the top and bottom of the case) are not to be sewed together; that the case may open at each end like a hinge. When the case is thus prepared, fit the open or straight side to the saddle, so as that the spring may be covered. Apply a strap of leather about an inch wide across the middle of the case and nail it fast at each end. Nail a suitable strap on the saddle at each end of the case and pass them through the buckles on the ends of the case.

The tension of the webbing and the elasticity of the seat are regulated by turning the burs on the ends of the T bolts.

What I claim as my invention and desire to secure by Letters Patent is—

The particular mode of connecting the springs behind the cantle with the webbing within it and regulating the tension of the same by means of the T bolts passing through the cantle and spring with the nuts on the ends thereof as set forth.

CHARLES E. KING.

Witnesses: •

JOS. KITHCART,  
DAVID McFARLAND.