T. Mardock,

Riding Saddle,

No. 2,229, Patented Aug. 28, 1841.

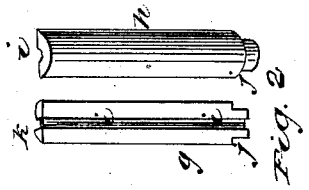

Fig. 2.

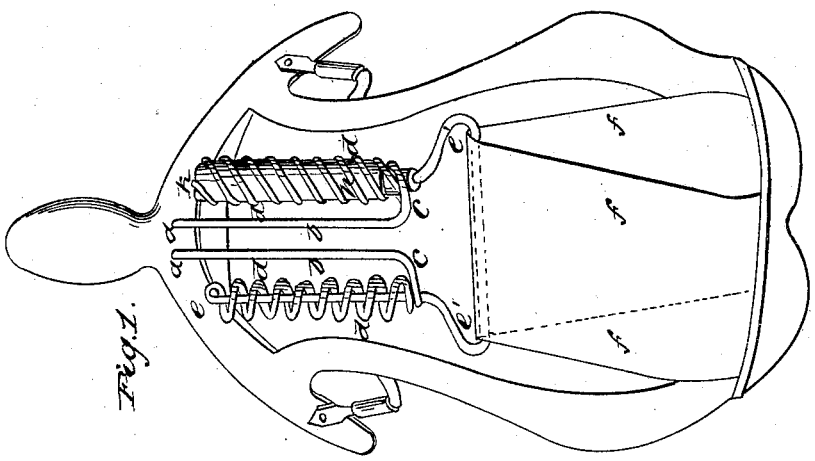

Fig. 1.

UNITED STATES PATENT OFFICE.

THOMAS MARDOCK, OF LIBERTY, INDIANA.

CONSTRUCTION OF SPRING-SADDLES.

Specification of Letters Patent No. 2,229, dated August 28, 1841.

To all whom it may concern:

Be it known that I, THOMAS MARDOCK, of the town of Liberty, in the county of Union and State of Indiana, have invented a new and useful Improvement in the Manner of Constructing Spring-Seat Riding-Saddles; and I do hereby declare that the following is a full and exact description thereof.

I denominate the spring which I use, the Jews' harp, spiral spring, and this spring I make of iron wire, the whole being formed of one piece of such wire, about six feet in length, and an eighth of an inch in diameter; this wire I bend into the peculiar form adopted by me, in a manner to be presently described. The two ends of the wire, after forming the spring, are driven into, and firmly secured to the pommel of the saddle, and the middle portion of it is embraced by a fold of the webbing, which is nailed to the cantle in the ordinary way; the main portion of the wire constitutes two spiral springs, which when affixed to the saddle stand parallel to each other.

In Figure 1, in the accompanying drawing, the spring is shown as attached to the saddle, the leather or other cover being removed for the purpose of exhibiting the form of it, and the manner of attaching it to the saddle. In the drawings, I have also shown the apparatus around which I coil the wire in forming the spiral portion of my springs, and in one of the spirals in Fig. 1, this apparatus is represented as inclosed, which is done for the purpose of explaining its use, as will by and by appear. *a*, *a*, are the two ends of the wire which are driven into the pommel of the saddle; from the points of insertion of these wires, the portions toward their ends extend along parallel to each other to the distance of four or five inches, more or less, in the direction of the cantle, as shown at *b*, *b*; the wire then bends outward as shown at *c*, *c*, and is then coiled so as to form the two spiral springs *d*, *d*, *d*, *d*, which extend from *c*, *c*, forward, until the coils are nearly in contact with that portion of the tree which constitutes the pommel. The wire is then bent back, and returns as shown at *e*, *e*, through the centers of each of the coils, and then forms the bow *e'*, *e'*, which is embraced by the webbing *f*, *f*, the ends of which webbing are nailed to the cantle, in the usual manner. It will be seen, that a spring so constructed and affixed, will by the weight of the rider which is principally thrown on the fore part of the webbing readily yield to the action of this weight, the coils being made to approach each other without any danger of over straining, so as to lessen the elastic action, and without that liability to fracture so frequent in springs as usually made.

I will now, for the information of the workman, describe the manner in which I bend the wire so as to form the above described springs. By means of pliers, or any other suitable instrument, I form the bow part, or rear end, of the spring *e'*, *e'*, from the middle portion of the wire, the remainder of said wire then standing in the direction of the part *e*, *e*, which is shown as passing through the middle of the spiral springs *d*, *d*. To form the spiral springs, I use two semi-cylindrical pieces of iron of suitable size, as shown at *g*, and *h*, Fig. 2. These may be about three and a half, or four, inches long, and when put together they should form a cylinder of about three fourths of an inch in diameter; they have each a groove *i*, *i*, along them of such form as that when put together they will constitute a cylindrical hole through the axis of the cylinder, of such size as to admit the wire. On what I will denominate the lower end of these semi-cylinders, there is a shoulder, as at *j*, *j*, formed by reducing the metal, so that when put together there shall be a shank, or neck, which may be about one fourth of an inch long, and three eighths of an inch in diameter. On the upper end of one of the semi-cylinders there is a groove, or notch, as seen at *k*, *k*, to aid in bending the wire when the spiral springs are to be formed.

When the semi-cylinders are to be used, they are made to embrace one of the wires, the shank, or shouldered end, being placed toward the bow *e'*, *e'*, previously formed on the wire. The wire is then bent over into the groove *k*, and is thence coiled spirally around the cylinder, each convolution being at the distance of about a fourth of an inch from that preceding it, and the coiling is so continued until the wire reaches down to the shank, around which it is made to pass once; it is then bent, as shown in the drawing, so that the end shall pass up parallel to the spring, and be ready to be attached to the pommel; both spirals are, of course, formed in the same way. After completing

the bending of the spirals, that portion of the cylinder which has not the notch, or groove, *k*, in it may be readily pushed out; that having the notch may then be depressed a little, turned around, and in like manner removed. In Fig. 1, the portion *h*, of the iron cylinder is seen as occupying the interior of one of the spiral springs, with the wire bent around it in the manner described.

In forming the ground seat, or leather covering, of my saddle I usually cut, or leave, out that portion of the leather that is immediately over the spring, and form a loose leather cover to lie upon this part, stitching it down at its back end, next to the webbing, so that it can be raised up at any time; the spring will thus be allowed to act unobstructedly. Instead of stuffing and making the seat, and the part denominated the jockeys so as to be permanently attached to the other parts of the saddle I prefer to make these parts in the form of a loose cover, which may be held in place by straps and buckles, and may be removed and replaced at pleasure. This cover may be made of leather, or of cloth, cut into proper form, according to fashion, or fancy, and is to be stuffed and quilted, in a manner well understood by saddlers, such loose covers not being peculiar to my saddle, but being well adapted to the leaving the action of the spring perfectly free, while it is in itself an economical and convenient mode of forming a saddle seat.

Having thus, fully described the nature of my improvement in spring seat saddles, what I claim therein as constituting my invention, and desire to secure by Letters Patent, is—

The particular form and manner of constructing and affixing the Jew's harp, spiral spring; the same being made out of a single piece of wire and being bent, and operating in the manner herein described and set forth.

THOMAS MARDOCK.

Witnesses:
JOHN ASHFORD,
J. C. LUDLOW.