(No Model.)

C. H. YARRINGTON.

SPRING.

No. 490,938. Patented Jan. 31, 1893.

Fig. I

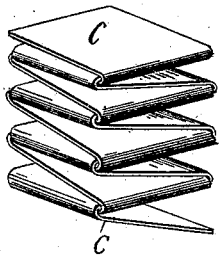
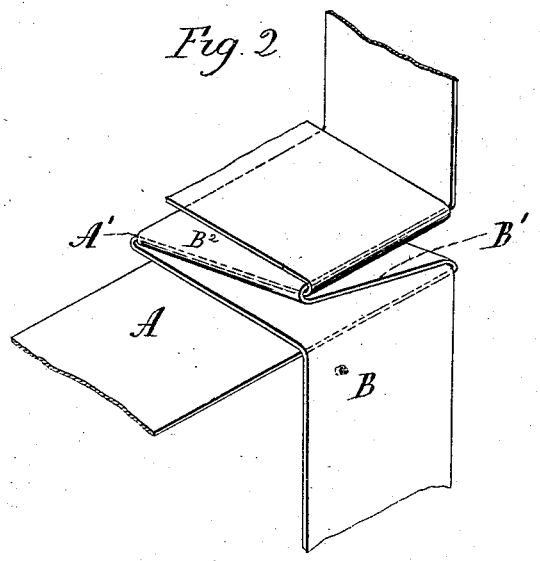


Fig. 2



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UNITED STATES PATENT OFFICE.

CHARLS H. YARRINGTON, OF TORRINGTON, ASSIGNOR OF ONE-HALF TO CARLOS FRENCH, OF SEYMOUR, CONNECTICUT.

SPRING.

SPECIFICATION forming part of Letters Patent No. 490,938, dated January 31, 1893.

Application filed October 27, 1892. Serial No. 450,173. (No model.)

To all whom it may concern:

Be it known that I, CHARLS H. YARRINGTON, of Torrington, in the county of Litchfield and State of Connecticut, have invented a new Improvement in Springs; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 a perspective view of a spring constructed in accordance with my invention. Fig. 2, a similar view showing one of my improved springs in process of formation.

My invention relates to an improvement in springs, particularly designed for use as car-springs, the object being to produce a simple, light, cheap, durable and effective spring.

With these ends in view, my invention consists in a car-spring composed of two strips of sheet-metal bent together to form a double series of inclined steps, of which those of one strip alternate with those of the other, the said steps crossing each other at a right angle in their alternations.

In carrying out my invention I take two strips A, and B, of sheet-metal, and by preference of corresponding width, placing one end of the strip B, across the corresponding end of the strip A, at a right angle. The strip A, is then bent over the strip B, to form the inclined step B′. The strip B, is then bent over the step B′, to form the step A′, after which the strip A, is bent over the step A′, to form the step B^2, and so on, until a spring C of the required length has been produced. Preferably, as herein shown, the bends of the strips will be of corresponding length, so that the completed spring will be uniform in its cross section. It will be seen that a spring formed as described, is composed of a double series of inclined steps, of which those of one strip alternate with those of the other strip, the said alternating steps crossing each other at a right angle.

In forming my improved springs, I shall probably prefer to temper them after the strips have been bent, as described.

A spring constructed in accordance with my invention is light and cheap, and for the weight of metal employed has very great resiliency, and when subjected to endwise pressure will yield uniformly.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:—

A spring composed of two strips of sheet-metal bent together to form a double series of inclined steps of which those of one strip alternate with those of the other strip, the said steps crossing each other at right angles in their alternations, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHARLS H. YARRINGTON.

Witnesses:

FRANK W. HUBBARD,

JOHN REINDERS.