April 8, 1924. 1,489,515

E. M. ATKINSON

COMPRESSOR FOR CONE SPRINGS

Filed Sept. 19, 1923 2 Sheets-Sheet 1

Fig. I.

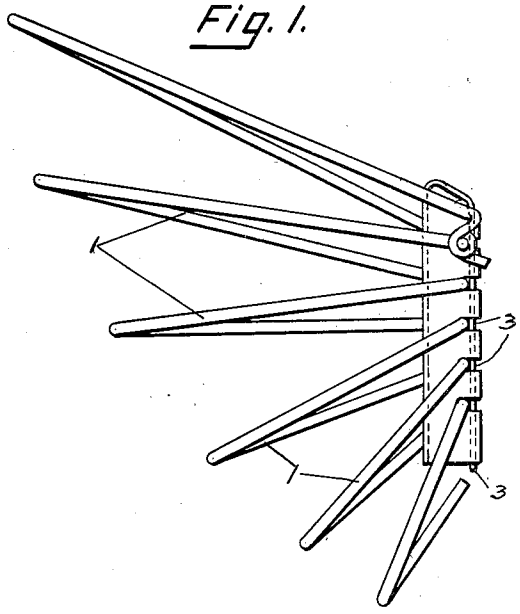


Fig. II.

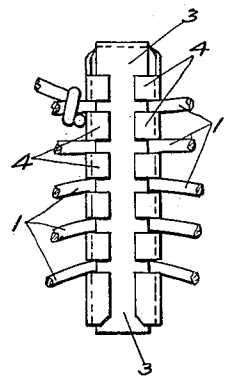
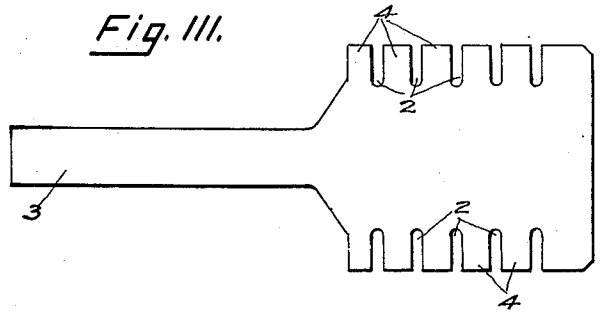


Fig. III.



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Filed Sept. 19, 1923 2 Sheets-Sheet 2

Fig. IV.

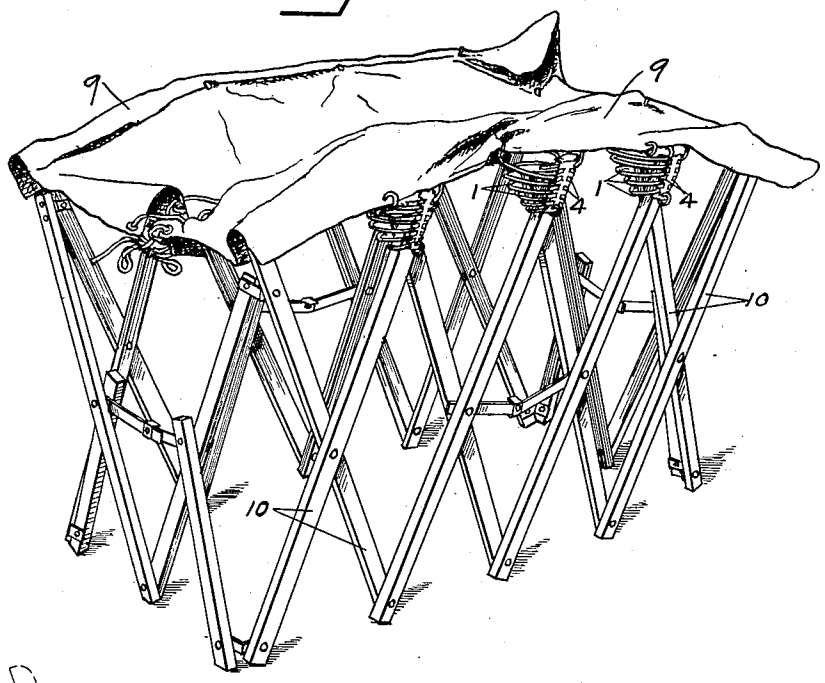
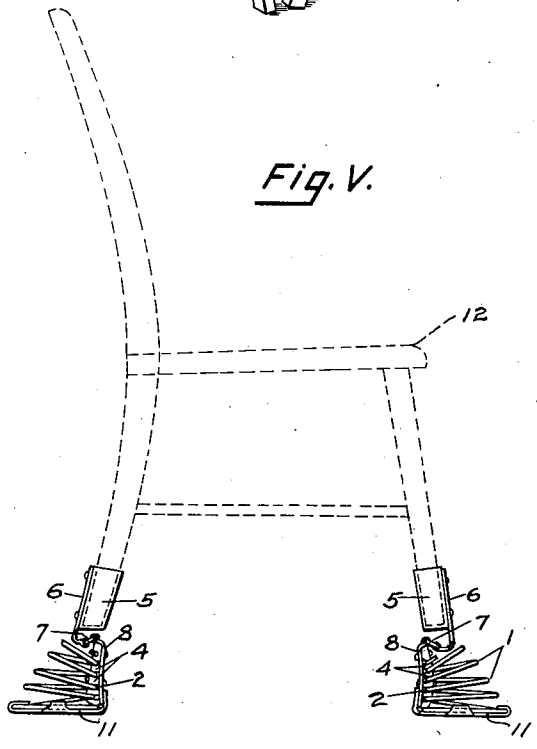


Fig. V.



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Patented Apr. 8, 1924. 1,489,515

UNITED STATES PATENT OFFICE.

EDWARD M. ATKINSON, OF PORTLAND, OREGON.

COMPRESSOR FOR CONE SPRINGS.

Application filed September 19, 1923. Serial No. 663,620.

To all whom it may concern:

Be it known that I, EDWARD M. ATKINSON, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented a new and useful Improvement in Compressors for Cone Springs, of which the following is a specification.

This invention relates to an improved type of compressed cone springs of round wire to be used in connection with a couch or reclining rest, or the legs of chairs; and is so constructed as to increase the resiliency of such springs by making a neat and secure clamp for the same.

I attain these objects by the mechanism illustrated in the accompanying drawings in which Fig. I is a vertical view of my compressed cone spring. Fig. II is a plan view of the cone-pressing device, being an end view of portions of Fig. I. Fig. III is a plan view of the compressing device form. Fig. IV is a side and end view of the cone springs compressed as described, and attached to a reclining rest. Fig. V is a side view of such compressed cone springs attached to a chair. 1, 1 represent leaves of a round wire spring, 2, 2 are recesses for such leaves, in the compressing device or form, 3 is a tongue or buffer for folding against leaves when in these recesses or openings, 4, 4 are smaller tongues or projections to lie upon and at nearly right angles to the tongue 3. 5 is a cylinder and 6 is an upright attached thereto, hinged at 7 and rivetted at 8 to provide attachment to a chair, 11 being covering for the base for the compressed spring. 12 is the seat of a chair. 9 is a canvas which covers the base of a compressed cone spring, as is done by 11 in Fig. V. 10, 10 are folding upright collapsible members of a reclining rest.

I provide this series of openings in channel shaped forms for leaves of springs and they can be closed quickly and securely, as also by this construction provide a flat surface for riveting or otherwise fastening cone springs to walls or frames, and also to legs of chairs.

No rivets or other fastenings are needed in the construction of my invention, various sizes of leaves of wire springs being moved into slots or openings and held securely at each insertion by moving a buffer or tongue over each leaf so placed, and tipping smaller projections of the form upon the tongue or buffer.

This is done by blows of a hammer, while this channel formed compressing device is suspended on a tinner's stake or other metal solid. Other attempts to hold leaves of cone springs nearly together involve lashings, are laborious, and slip. My invention combines neatness, strength and speed of construction. The result of present methods is a bowed construction. Such a straight, vertical channel or square tube, gives control in the way of sinking a series of springs to uniform height, increases the resiliency of cone springs in proportion to the amount of compression on one side, and permits each leaf to move without engaging others.

Economy is gained by this device, which is made of waste strips of flat metal, drilled or punched, and slots cut by snips to meet such holes; it is a rapid process and capable of various sized devices to fit any sized wire. Durability is gained, for the leaves of springs so secured cannot wear the device, yet are easily removed.

I claim:

1. A device of the character described comprising a form of flat stock with perforations near its edges and made into slots folded in channel shape.

2. A device of the character described consisting of a form of flat stock with its edges slotted, folded into channel shape, and having an elongated tongue to fit into such channel shape.

3. A device of the character described, consisting of a form of flat stock with its edges slotted, folded into channel form, and having an elongated tongue to fit such channel, and a number of smaller tongues to be folded upon the tongue which fits such channel.

EDWARD M. ATKINSON.