C. R. BARKER.

ATTACHMENT FOR SPRINGS.

APPLICATION FILED SEPT. 14, 1908.

949,738.

Patented Feb. 15, 1910.

Fig. 1.

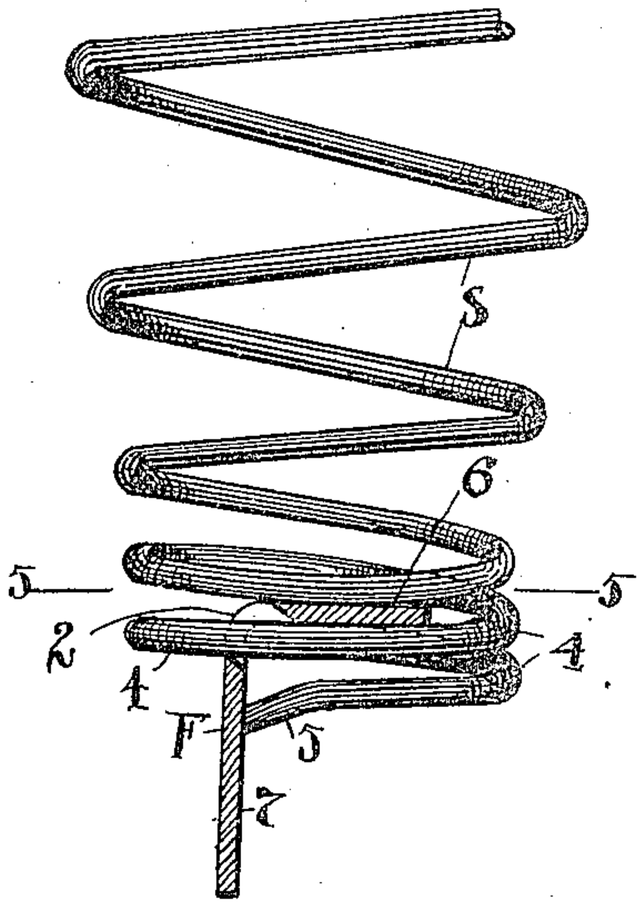


Fig. 2.

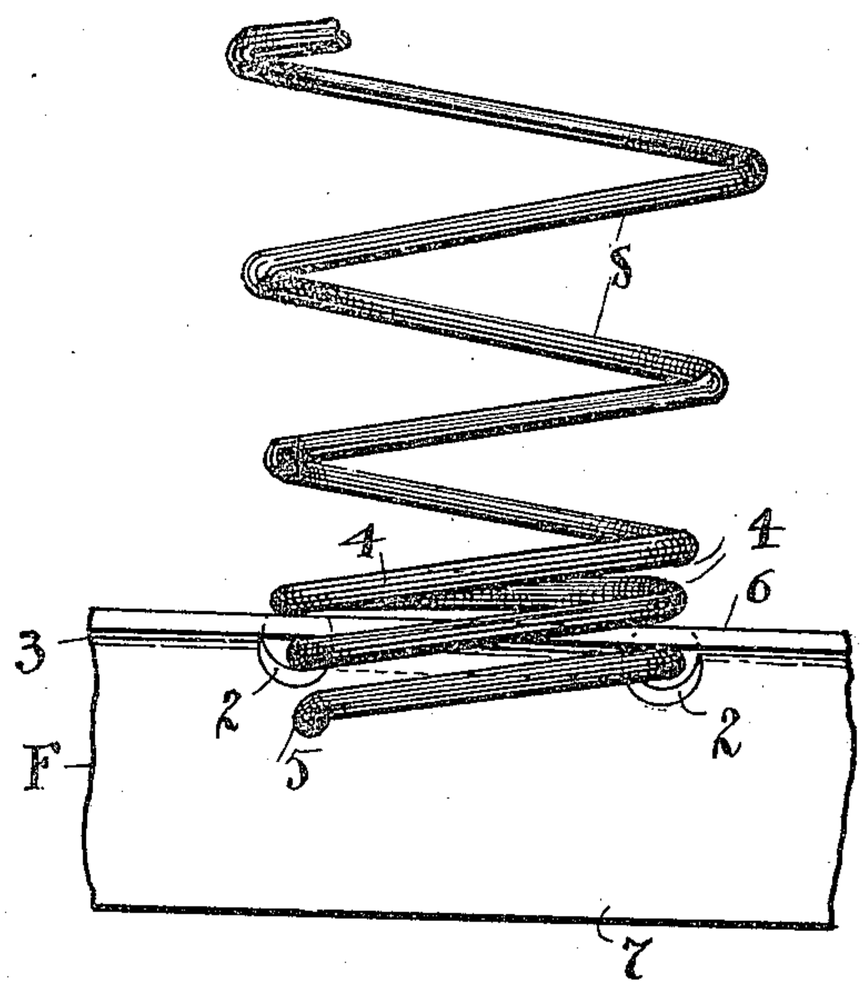


Fig. 4.

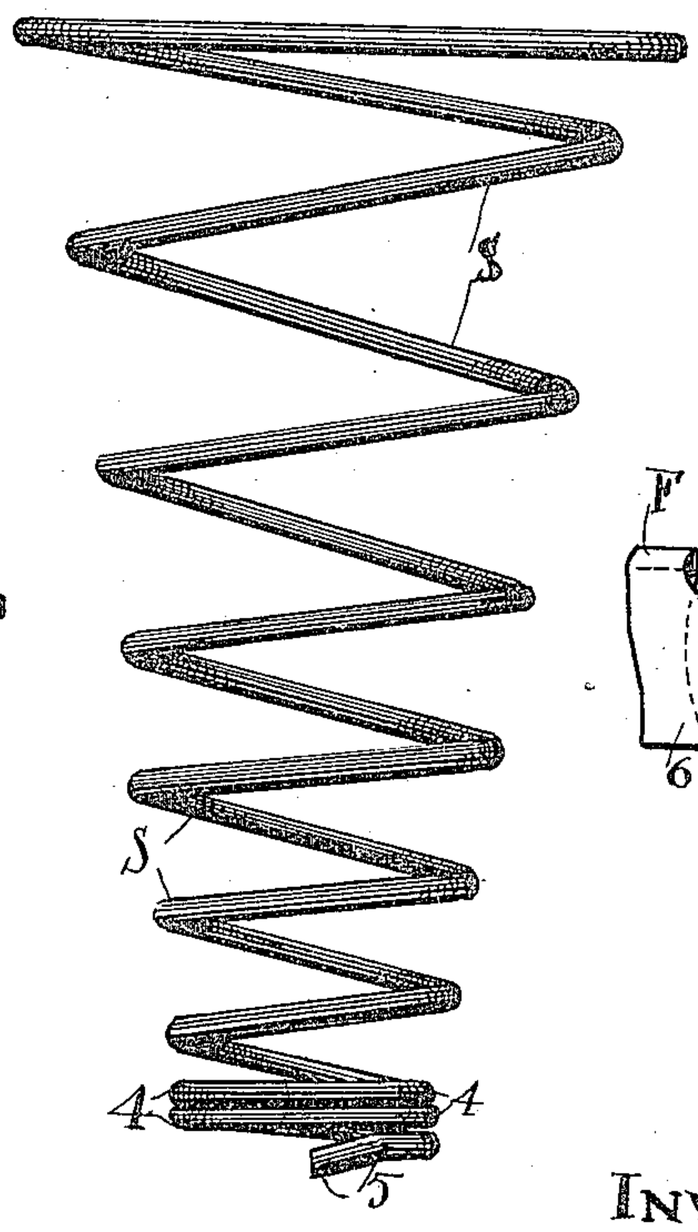


Fig. 3.

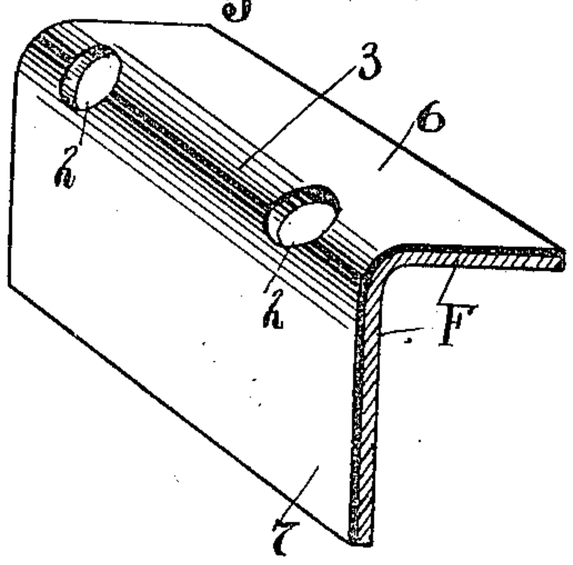
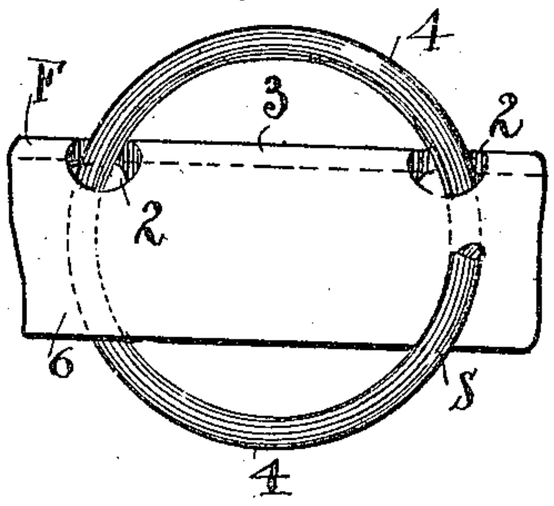


Fig. 5.



ATTEST
E. M. Fisher.
F. C. Mussun.

INVENTOR
Charles R. Barker
BY Fisher & Moser ATTYS.

UNITED STATES PATENT OFFICE.

CHARLES R. BARKER, OF CLEVELAND, OHIO, ASSIGNOR TO THE CLEVELAND WIRE SPRING COMPANY, OF CLEVELAND, OHIO, A CORPORATION.

ATTACHMENT FOR SPRINGS.

949,738. Specification of Letters Patent. **Patented Feb. 15, 1910.**

Application filed September 14, 1908. Serial No. 452,896.

To all whom it may concern:

Be it known that I, CHARLES R. BARKER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Attachments for Springs, and do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention has reference to improvements in springs for beds and couches and frames therefor, and the invention consists, first, in a new and original construction of spring as an article of manufacture and sale, and in a special construction of frame in which the spring is adapted to be engaged by rotating or turning it to its seat thereon through holes in said frame, all substantially as shown and described and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of the spring and a cross section of the frame, or a part thereof, on which the spring is seated, and Fig. 2 is a view of said parts at right angles to Fig. 1. Fig. 3 is a perspective view of a section of the frame or rail provided with a pair of engaging holes for the spring. Fig. 4 is an elevation of the spring alone, and Fig. 5 is a plan view of a section of the rail and the spring on line 5—5, Fig. 1.

As thus shown the parts consist in the spring S and the frame F in which the spring is removably seated. The said frame, so-called, is to be understood as constituting the support for the springs whether it be the outer portion of a bed or a couch frame on the inner cross bars, or slats, or both, it being understood that in any case the frame, bar, or slat is of the angle iron pattern and provided with holes 2 in pairs in angle 3 of said part F adapted to have the spiral wire S threaded through the same and turned therein to its seat, Figs. 1, 2 and 5. Now, it will be noticed that said spring is shown as a spirally wound member largest at its top or upper end on which rests the mattress and gradually reduced to its lower end or base where it engages rail or frame F. In these general features the spring is not new, but in addition to these and as an original and novel feature I wind the small end or apex of the spring with a plurality of coils or convolutions 4 of the same cross section, substantially, and with spring tension one upon the other as tightly as can be, and the extremity or end 5 of the said coil is bent or deflected downward somewhat to facilitate engagement with the frame. The distinct novelty of the spring therefore is focused in this peculiar and original construction of the smaller end thereof, whereby a construction is produced which makes a gripping or bending engagement with the bars or the frame F without other means for making attachment. The said frame is constructed throughout its spring supporting portion with angle bars of the shape shown whether of iron or steel, and to this end both the side-bars and the cross-bars or rails of the frame alike are of the said angle iron pattern. This style of bar affords a flat top seating surface 6 for the spring and a strengthening side or flange portion 7, and the holes 2 are formed through angle 3 in pairs or groups of two at all points where a spring is to be set. These holes are spaced apart in pairs to correspond with the arc of the coils of the wire or spring at 4, so that when the extremity 5 is inserted in one hole 2 and the spring is rotated by hand it will carry the said extremity around to and thread it into the other hole by simply continuing the rotation. In doing this the coils 4 are forced open against their tension according to the thickness of the metal that comes between, and at last the end 5 is carried around to stop against the inner side of down flange 5 of the rail just below the hole it first entered, thus throwing practically one and a half of the said coils beneath the horizontal seating portion 6 of the rail or frame and causing a very firm grip or hold to be taken upon both sides on said seating portion of the bar.

The operation of attaching the springs becomes easy and rapid after a little practice, and a novice can soon learn to do the assembling. Then when the other end of the springs are bound together in all directions as usual to receive the mattress, the springs are prevented from turning loose from the rails and the bed bottom is completed.

The term "angle-iron" as used herein means any frame piece or part of right angled form like that shown whether of iron,

steel or other metal and is to be so understood in the claims, and though an entire bed frame is not shown, it will be understood that the entire frame is like the portions shown, the springs being interlocked therewith and detachable for replacement if necessary.

What I claim is:—

1. In bed and couch bottoms, a right angled rail having holes in pairs through the angles thereof, in combination with springs engaged through said holes and locked on said rail.

2. A couch or bed frame constructed of angle iron pieces with one side arranged horizontally and provided with holes in pairs through the angles thereof, in combination with spirally wound springs having open coils, and the coils at one end engaged through said holes and the said springs seated upon said horizontal sides of said pieces.

3. A bed or couch frame consisting of angle iron frame pieces having holes in pairs through their angles and the sides of the said pieces arranged horizontally and vertically, in combination with spirally wound springs having coils of substantially the same cross section threaded through said holes and the lower coil of each spring having its end resting against the vertical side of the frame piece carrying the same.

In testimony whereof I sign this specification in the presence of two witnesses.

CHARLES R. BARKER.

Witnesses:
E. FARROW,
J. W. CAMPBELL.