No. 718,301. PATENTED JAN. 13, 1903.

W. J. BAKER.

METAL CLIP.

APPLICATION FILED MAR. 18, 1902.

NO MODEL.

Fig. 1.

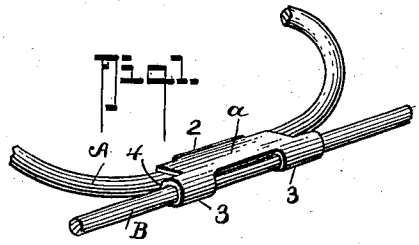


Fig. 2.

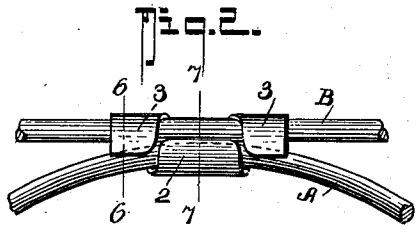


Fig. 3.

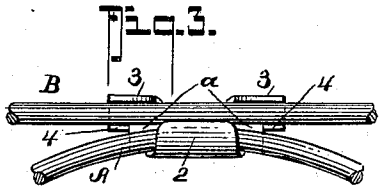


Fig. 4.

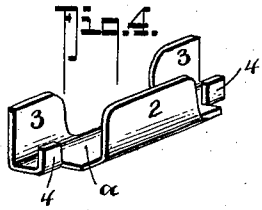


Fig. 5

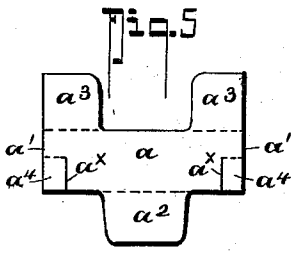


Fig. 6

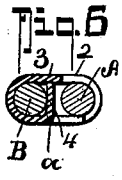
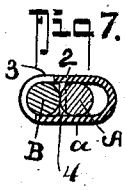


Fig. 7.



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UNITED STATES PATENT OFFICE.

WILLIAM J. BAKER, OF NEWPORT, KENTUCKY.

METAL CLIP.

SPECIFICATION forming part of Letters Patent No. 718,301, dated January 13, 1903.

Application filed March 18, 1902. Serial No. 98,868. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. BAKER, residing at Newport, in the county of Campbell and State of Kentucky, have invented a new and Improved Metal Clip, of which the following is a specification.

My invention is in the nature of an improved sheet-metal clip device adapted for connecting bed-spring wires; and it primarily seeks to provide a device of this character of a very simple construction, capable of being economically stamped out of sheet metal, which can be readily applied for use and which will effectively serve for its intended purposes.

My invention comprehends in its generic nature a sheet-metal clip having at one side a plurality of right-angle prongs adapted to be bent up over one of the two wires to be joined, a prong at the other side adapted to be bent over the other wire in an opposite direction and to close down in a plane with and between the bent-over ends of the opposing prongs or tongues.

In its more complete nature my invention includes, in addition to the oppositely-disposed prongs or tongues adapted to close over the two wire strands, as before stated, supplemental prongs struck up from the body midway the prongs at the opposite edges adapted to project up between the opposing surfaces of the two wire strands and act as a supplemental clamp and as a means for holding the two wires properly separated and in their place while they are being clamped together; and in its more subordinate features my invention consists in certain details of construction and peculiar combination of parts, all of which will hereinafter be fully described, and specifically pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view illustrating my improved clip device in an operative condition. Fig. 2 is an inverted plan view of the same. Fig. 3 is a similar view showing the outer prongs for engaging the straight wire member not clinched and the preferred position of the intermediate prongs being shown. Fig. 4 is a perspective view of the preferred form of my clip. Fig. 5 is a plan view of the cut blank with the prongs or tongues unbent. Figs. 6 and 7 are cross-sections on the lines 6 6 and 7 7 of Fig. 1.

In the practical use of my invention the same, while especially adapted for joining bed-springs together and the stiffener wire or frame that usually surrounds the nest of springs, it can also be conveniently utilized for connecting two straight wire strands.

In the drawings I have illustrated the upper coil-section of a bed-spring in connection with a stiffener or straight wire section, the two being designated by A and B, respectively.

I deem it proper to here state that I am aware that clip members struck up from sheet metal having tongues to engage the opposing wire strands have heretofore been provided; but such devices, so far as I know, have failed to give all the results desired, for the reason that no special means has been provided for keeping the two opposing wires in their proper place while being clamped together and for holding the wires apart and from rubbing against each other, and by reason of such faulty joining of the two wires the pressing down of one spring and the twisting and working of its clamped portion will soon loosen the outside prongs and tongues and render the same defective.

In my construction of wire clip or fastener device the same consists of a body stamped up from sheet metal into a blank form which has the shape shown in Fig. 5, by reference to which it will be noticed the same includes a rectangular portion a, whose opposite edges (indicated by a') are in parallel planes. At one side the portion a merges with a central prong or tongue member a^2, and at the other side it merges with two prongs or extensions $a^3\,a^3$, one at each end, whereby a central space is provided to admit of the opposite member a^2 folding down between the members $a^3\,a^3$ when the clip member is in use, as will presently be more fully explained. At each end the side having the single extension or prong a^2 is slitted, as at $a^\times$, to provide bendable members a^4, the purpose of which will presently appear.

In the completed form my clip has the shape best shown in Fig. 4, by reference to which it will be noticed at one side it has a single right-angle bent prong or tongue 2 and the

opposite side two end prongs 3 3, also bent up at right-angles from the body portion *a*, and at each end it also has short vertical prongs 4, disposed parallel to the prongs 2 and 3 and positioned about midway thereof in a transverse direction.

In the practical application of my improved clip the same is fitted on the two adjacent wire portions with the prongs or tongues 4 4 projected up between the wires A and B, as clearly shown in Figs. 3 and 10. The members 2 and 3 are then bent over the wires A and B, the member 2 closing over the wire A and the members 3 over the wire B, (see Fig. 2,) the prongs 4 4 acting as bearings for each wire strand to oppose the pressure in opposite directions exerted on the wire strands by their respective clamping-prongs 2 and 3.

By reason of the peculiar correlation of the prongs or tongues 2, 3, and 4 the wires A and B are securely held in their proper position relatively to each other while being clamped and from contact with each other, thereby reducing the danger of the two wires during unequal strain thereon from pulling apart from their clamping-tongues. Further, a larger bearing-surface is provided for the wires than would be the case were the prongs 4 4 omitted. Furthermore, by having the prongs 4 4, that hold the wires apart, arranged in connection with the clamping members 3 2, as shown, the clip can be readily applied either with the two prong sides over the curved or straight wire or the one prong side thereover, as may be most convenient. This latter feature I deem a very advantageous one, in that considerable time is saved in putting on the clips, as no special care is required to specially apply either side.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. As a new article; a clip-blank, comprising a flat sheet-metal body formed with a central bendable extension at one edge, a bendable extension at each end projecting from the opposite edge, the edge having the central bendable extension also having a slit at each end parallel with the ends and at a point opposite the end extensions on the opposing edge, all being arranged substantially as shown and for the purposes described.

2. A fastening means of the character described, comprising in combination with a curved wire strand and a straight wire strand; a clip member consisting of a sheet-metal body having a central extension at one edge bendable over the curved wire strand, a pair of extensions on the other edge, one at each end adapted to bend over the straight wire strand, the said body also having turned-up members, one at each end, at the edge having the central extension and adapted to extend up between the two wire strands and against the straight wire strand, all being arranged substantially as shown and for the purposes described.

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