June 18, 1963 L. R. DUGGER 3,094,151

SPRING BENDING TOOL

Filed Aug. 8, 1961

Fig. 1

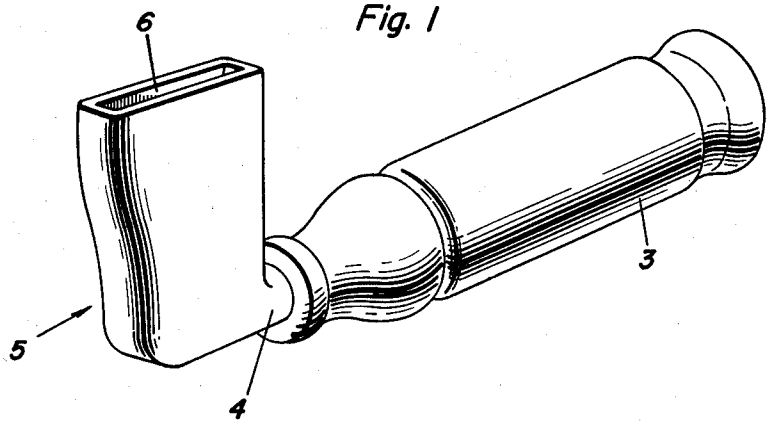
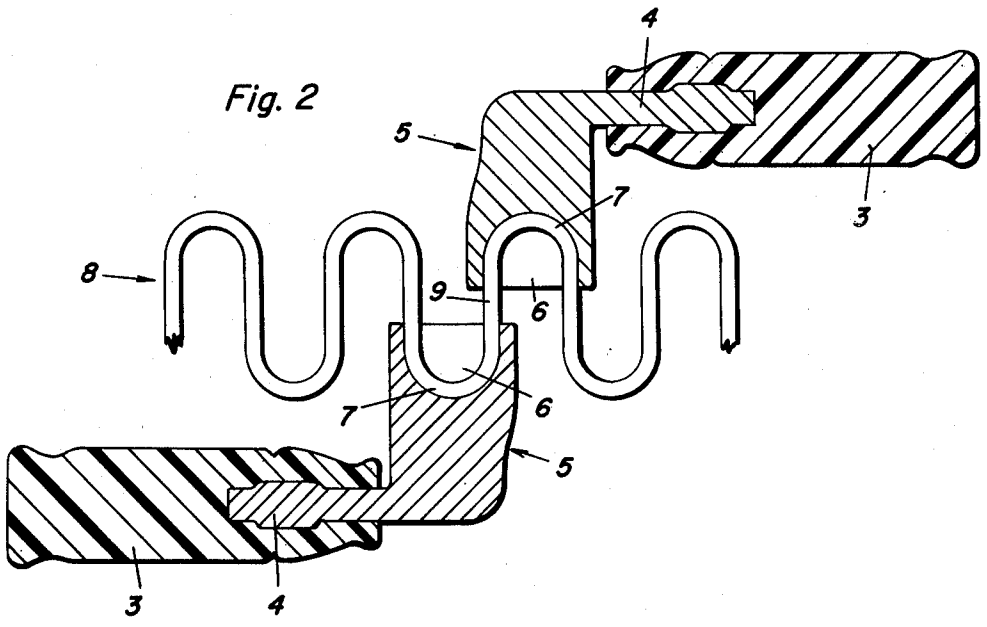


Fig. 2



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SPRING BENDING TOOL

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1 Claim. (Cl. 140—106)

This invention relates to new and useful improvements in spring bending tools and has for its primary object to provide novel means whereby flat, serpentine springs of the "no sag" type in widespread use in automobile seats and furniture, may be expeditiously bent to any desired angularity or straightened with a minimum of effort.

Another important object of the present invention is to provide, in a manner as hereinafter set forth, a hand tool of the character described which is adapted to bend or straighten springs of the type referred to without breaking, marring or otherwise damaging said springs.

Still another important object of the present invention is to provide a hand tool or implement of the aforementioned character which is adapted to bend or straighten a serpentine spring by axially twisting the selected straight portion thereof between the adjacent bights or loops.

Other objects of the invention are to provide a spring bending and straightening tool of the character set forth which will be comparatively simple in construction, strong, durable, compact, of light weight and which may be manufactured at low cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of an improved spring bending and stranghtening tool constructed in accordance with the present invention, and

FIGURE 2 is a view in vertical longitudinal section through a pair of the tools, showing said tools in use.

Referring now to the drawing in detail, it will be seen that the embodiment of the invention which has been illustrated comprises an elongated handle 3 of suitable material, preferably plastic. Of course, the handle 3 may also be of any desired dimensions. Fixed longitudinally in the forward end portion of the handle 3 and projecting forwardly therefrom is a rod or shank 4 of suitable metal. Formed integrally with the forward end portion of the shank 4 and extending substantially at right angles thereto is a head 5.

The head 5 has formed in the free end portion thereof a substantially flat, elongated socket 6. As illustrated to advantage in FIGURE 2 of the drawing, the socket 6 is of a shape and dimensions to snugly receive a loop or bight portion 7 of a flat, serpentine spring 8.

It is thought that the use of the tool will be readily apparent from a consideration of the foregoing. Briefly, to bend the spring 8 a pair of the tools are utilized, as also shown in FIGURE 2 of the drawing. The bends,

loops or bight portions 7 at the ends of the straight portion of the spring 8 to be bent, as indicated at 9, are engaged in the socket 6 of the two tools. The spring 8 is then held stationary with one of the tools and the other of said tools is rotated or turned for bending the spring in the desired direction by axially twisting the straight portion 9 thereof in an obvious manner. Or, the two tools may, if desired, be turned or rotated in opposite directions. In either case the tools are positively connected to the spring and the portion 9 thereof between the loops 7 which are engaged in the sockets 6 is axially twisted. The construction of the tools also is such that the straight portion 9 of the spring may readily be angulated should it be desired to bend said spring in this manner.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

Means for bending a serpentine spring in any direction comprising, in combination, a pair of duplicate hand tools including elongated handles of generally circular transverse section, shanks anchored centrally in one end portion of the handles and projecting longitudinally therefrom, and substantially flat, elongated heads integral with the outer end portions of the shanks and projecting thereform at right angles thereto, said heads including flat free ends having extending thereinto laterally elongated, narrow sockets including coextensive side and end walls and further including arcuate inner walls for seatingly receiving adjacent bight portions of a spring to be bent and including opposed, parallel straight wall portions tangential to said arcuate inner walls, said sockets thereby being of a depth, width and length to receive and snugly embrace said adjacent bight portions and the immediately adjacent straight portions of the spring for preventing circumferential movement and rotation of the heads on said adjacent bight portions of said spring and retaining the handles in spaced parallelism with said spring whereby the straight portion of said spring connecting said adjacent bight portions may be axially twisted and angularly bent in any direction.

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