

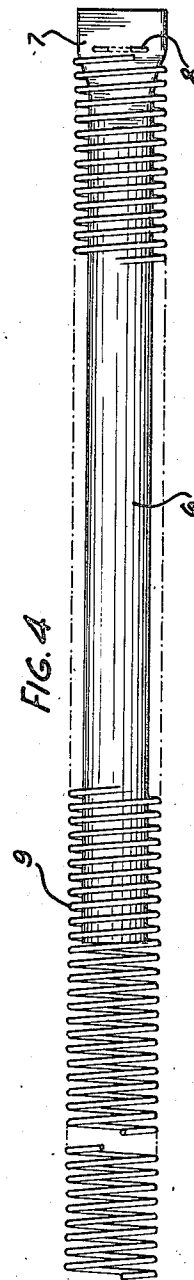
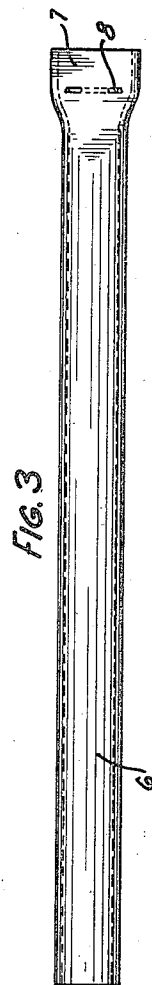
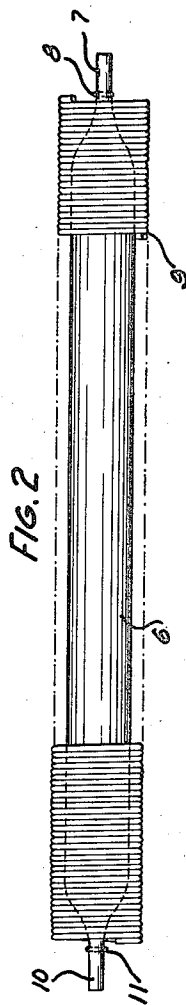
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S. PRICE

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SHIPPING ELEMENT

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SHIPPING ELEMENT

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3 Claims. (Cl. 206—46)

This invention relates to shipping elements and more particularly to a device for supporting coiled springs during the shipment thereof.

It is an object of the present invention to provide a shipping element for coiled springs which will prevent the springs from becoming entangled during their shipment.

In accordance with one embodiment of the invention, a shipping element is provided which comprises a tubular cardboard member of slightly less outside diameter than the inside diameter of the convolutions of the spring. One end of the cardboard tube is flattened and stapled to provide a flat portion of appreciably greater size than the inside diameter of the convolutions of the spring and a spring may then be slipped onto the tube with its forward end abutting the flattened portion of the tube. After the spring is in position on the tube and under compression, the other end of the tube may be flattened and stapled or otherwise held in its flattened position, thereby to hold the spring compressed and prevent it becoming entangled with other springs similarly positioned on tubes.

A better understanding of the invention will be had by reference to the following detailed description when considered in conjunction with the accompanying drawing, wherein

Fig. 1 is a plan view of a shipping element made in accordance with the present invention and having a coiled spring positioned thereon;

Fig. 2 is a side elevational view of the shipping element and spring shown in Fig. 1;

Fig. 3 is a plan view of a tube having one end thereof stapled and the other end in its normal position prior to the assembling of a coiled spring thereof, and

Fig. 4 is a plan view of a tube with a spring surrounding it before the spring is compressed and fixed to the tube.

Referring to the drawing, wherein like reference characters designate the same parts throughout the several views, a cardboard tube 6, as most clearly shown in Fig. 3, has one end of its compressed or flattened, as shown at 7, and is held flattened by means of a staple 8. This tube is in the desired form for receiving a coiled spring 9, which has convolutions formed in it, the inside diameter of which are slightly larger than the outside diameter of the tube.

Referring to Fig. 4, it will be noted that when the tube 6 is placed inside the coiled spring 9, the compressed or flared portion 7 thereof will be wider than the inside diameter of the convolutions of the spring and the right end coil or convolution of the spring will engage the portion 7 and be prevented from slipping over the right end of the tube 6. After a tube 6 has been

inserted in a spring 9, as shown in Fig. 4, the spring may be compressed and the left end of the tube 6 may be flattened to spread it out, as shown at 10 (Figs. 1 and 2), and a staple 11 may be fixed to the portion 10 to retain the walls of the tube in abutting relation to hold it flared, as shown. A spring 9 thus positioned on the tube 6 will be held thereon by the flared ends of the tube and when a plurality of springs are mounted on tubes, they may be shipped together without becoming entangled.

When a plurality of springs 9 mounted on tubes 6, as described hereinbefore, are shipped and arrive at their destination, the springs may be removed from the tubes by either removing the staple, which holds one of the flared ends compressed, or by simply pinching the tube to bend the staple and reduce the size of the flared portion to less than the inside diameter of the coils of the spring, whereupon the compressed spring will expand and may easily be stripped from the tube 6.

Although a specific type of shipping element has been described hereinbefore, it should be understood that adaptations thereof may be made without departing from the invention, which is to be limited only by the scope of the appended claims.

What is claimed is:

1. The combination with a spring of a shipping element therefor comprising a cardboard tube of slightly less outside diameter than the inside diameter of the coils of the spring to be shipped which tube has its ends deformed to provide flat portions longer than the inside diameter of the coils of the spring after the spring has been placed upon the tube.

2. The method of preparing coiled springs for shipment, which consists of flattening one end of a rigid tube having an outside diameter slightly less than the inside diameter of the convolutions of the spring to be shipped thereon, inserting the tube within the coils of the spring while the spring is under slight compression, and thereafter flattening the opposite end of the tube to hold the spring to the tube.

3. The combination with a coiled spring of a shipping element therefor comprising a collapsible tube having an outside diameter slightly less than the inside diameter of the convolutions of the spring to be shipped and having its ends collapsed to provide a flared portion of a width appreciably greater than the inside diameter of the coiled spring to retain the spring under compression around the tube and between the flared ends thereof, said coiled spring being compressed between the flattened portions of said tube.

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