CABLE SPRING HANDLE CONNECTION

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Fig. 1.

Fig. 2.

Fig. 3.

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CABLE SPRING HANDLE CONNECTION
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4 Claims. (Cl. 306—29)

1 This invention comprises novel and useful improvements in a cable spring handle connection and more specifically pertains to a resilient connecting means for securing the head of a hammer to its handle which shall be extremely tough, strong, and flexible.

The primary object of this invention is to provide a connecting means for securing the head of a hammer to its handle which shall be extremely tough, strong, and flexible.

The invention is particularly characterized by the provision of a connecting sleeve which is detachably connected to the end of a customary wooden handle, which sleeve is provided with a flexible shank such as a braided or twisted metallic cable, which is inserted in the eye of a hammer head and secured thereto by welding.

The invention further contemplates the provision of a reinforcing means for the resilient shank set forth in the preceding paragraph, which reinforcing means preferably comprises a flexible shank composed of one or more layers of wire or the like which tightly surrounds the shank between the connecting sleeve and the hammer head, and is welded to both of these members to provide a more rigid and durable construction.

These, together with various ancillary features and objects of the invention which will later become apparent as the following description proceeds, are attained by this device, a preferred embodiment of which has been illustrated by way of example only in the accompanying drawings, wherein:

Figure 1 is a perspective view of a sledge hammer having the invention applied thereto;

Figure 2 is a fragmentary detail view, chiefly in longitudinal central section, parts being shown in elevation, of the connecting means of Figure 1; and,

Figure 3 is an end view of the hammer head showing the shank of the device applied thereto.

Referring now more specifically to the accompanying drawings, wherein like numerals designate similar parts throughout the various views, the numeral 10 designates a conventional type of hammer handle preferably of wood, which it is desired to connect to the hammer head 12. For this purpose, as shown in Figure 2, the end of the handle 10 is provided with a reduced extension 14 which is receivable in a socket 16 formed at one end of a metallic connecting sleeve 18, whose other end is provided with a similar socket 20 for a purpose to be later set forth.

A pair of telescoping, headed, screw threaded nut and bolt fastening members 22 and 24, extend diametrically through the socket 16 and 26 the reduced portion 14 of the handle seated therein, these headed members being embedded in recesses 26 and 28, respectively, in the circumference of the generally cylindrical sleeve 18.

Fixedly secured in the end of the socket 20 by any suitable means, such as by compressing the walls of the socket upon the member, is a tough, flexible metallic shank 30 preferably formed of a twisted metallic cable, which extends through the eye of the head 12 and is secured thereto as by welding 32 at the outer end or side of the head. It will thus be seen that the head 12 is secured to the handle 10 by a tough, flexible metallic shank which largely obviates the danger of breaking of the handle adjacent the head, and which imparts a flexibility to the handle to render more efficient the strokes of the workman employing the sledge. To further reinforce, strengthen and increase the operating efficiency of the flexible shank 30, the latter is covered by a sheath 34 which is preferably formed of one or more layers of wire tightly wound about the shank 30 between the head 12 and the sleeve 18, this sheathing being secured as by welding 36 and 38 to the head 12 and the sleeve 18, respectively.

As will readily be understood, the inherent flexibility of the twisted cable 30, and its reinforcing metallic sheath 34, renders the stroke of the hammer head 12 more efficient and also serves to render the use of the hammer less tiring in view of the rebound of the head caused by the flexible shank. Further, when the hammer misses its target, and the shank portion strikes the same, there is very little danger of breakage, in view of the metallic, flexible connection between the hammer head and handle.

However, should breakage of the handle at any point occur, the detachable fastening means 22 and 24 permit ready disengagement of the sleeve 18 from the handle 10, whereby the broken part may be readily replaced.

It is to be understood that the principles of this invention are not limited to the use in a hammer since the same may be employed for any other type of tool to which a swinging or driving stroke is to be imparted by the user.

Since numerous modifications will readily occur to those skilled in the art, after a consideration of the foregoing specification and attached drawings, it is not intended to limit the invention to the exact construction shown and described, and accordingly, all suitable modifications and equivalents may be resorted to falling within the scope of the appended claims.
Having thus described the invention, what is claimed as new is:

1. A tool comprising a handle, a head and a connecting member secured thereto and therebetween, said connecting member comprising a flexible metallic cable terminally fastened to said handle and to said head, a flexible reinforcing sheath comprising a wire wound tightly upon and embracing said cable, the ends of said wire being secured to said head and said cable.

2. A tool comprising a handle, a head and a connecting member secured thereto and therebetween, said connecting member comprising a flexible metallic cable terminally secured to said head, a sleeve embracing said cable and secured thereto and to said handle, a flexible reinforcing sheath comprising a wire wound tightly upon and embracing said cable to form abutting convolutions, the said convolution abutting said head and said sleeve.

3. The combination of claim 2 wherein said sleeve and said sheath are of the same diameter and have an exterior surface which forms a flush continuation of the surface of said handle.

4. The combination of claim 2 wherein said sleeve and said sheath are of the same diameter and have an exterior surface which forms a flush continuation of the surface of said handle, said sleeve having recesses in opposite ends, said handle and said cable being secured to said sleeve in said recesses.

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