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2,775,416

COIL HOLDER

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Fig. 1

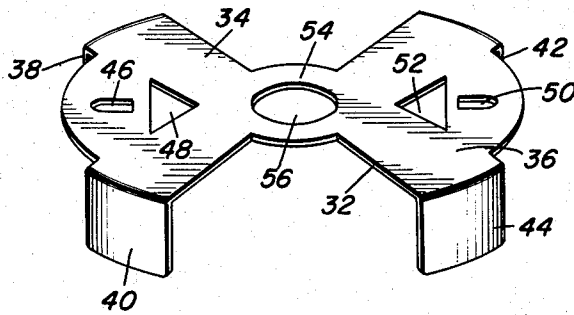


Fig. 2

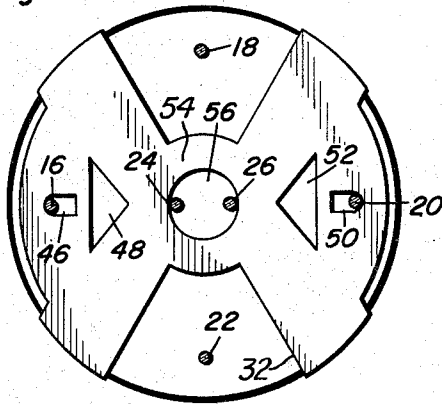


Fig. 4

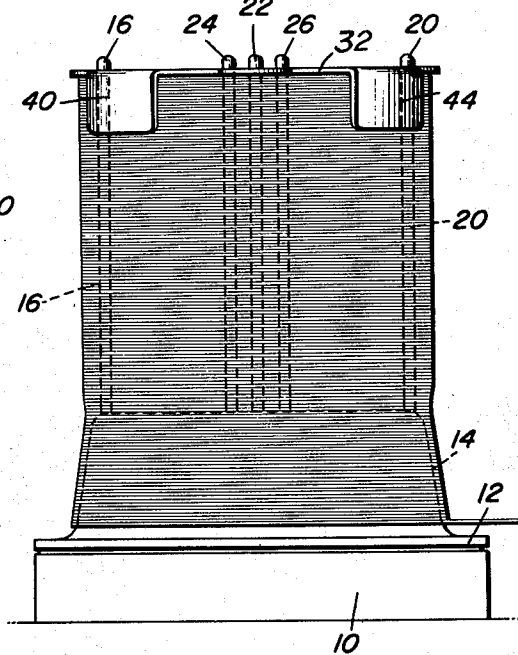
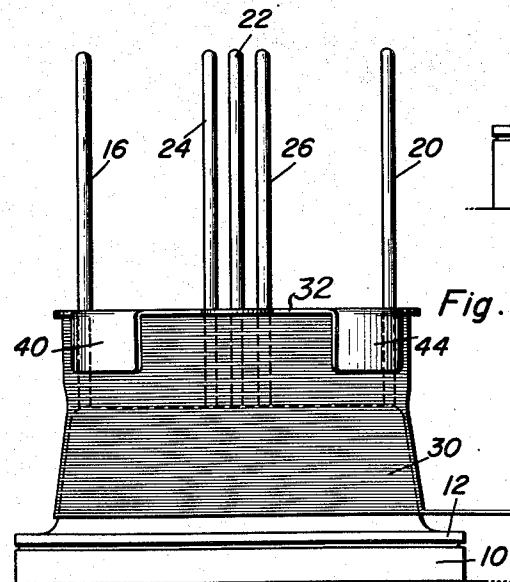


Fig. 3



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COIL HOLDER

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2 Claims. (Cl. 242—78)

This invention relates to a device adapted to be positioned on the block of a high speed wire drawing apparatus so as to hold the strands or coil of wire in place during wire drawing operations.

A primary object of the invention resides in the provision of a coil hold-down device which is adapted to cooperate with a rapidly rotating block of a wire drawing apparatus during wire drawing operations so as to engage the strands of wire around on the block during the operation by riding upwardly with the coils or strands of wires as they move upwardly along the block extension pins and adapted to receive the ends of the block extension pins in apertures provided therefor so as to prevent the coil holder from being thrown off the block due to the rotation of the coil while also enabling the coil holder to ride above the coil in a non-rotating manner when the coils have reached above the extension pins, thus always maintaining the coils in a manner so as to prevent the strands thereof spreading during wire drawing operations.

Still further objects and features of this invention reside in the provision of a coil holder that is simple in construction, capable of being stamped or otherwise formed from suitable lightweight plate material, and which is inexpensive to manufacture, thereby permitting wide distribution and utilization.

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

Figure 1 is a perspective view of the coil holder comprising the present invention;

Figure 2 is a plan view of the coil holder shown positioned above the block of a wire drawing apparatus;

Figure 3 is a side elevational view of the coil holder shown positioned on the coil during the early stages of the winding of a coil on the block; and

Figure 4 is a side elevational view of the invention shown in position above the coils during a later stage of the winding of the coils on the wire drawing apparatus.

With continuing reference to the accompanying drawings wherein like reference numerals designate similar parts throughout the various views, reference numeral 10 generally designates the block of a conventional wire drawing apparatus which is provided with a flange 12 of substantially horizontal shape and having an integrally formed tapered upright portion 14 to which a plurality of wire drawing pins, as indicated at 16, 18, 20, 22, 24 and 26, are attached. Wire is pulled through a wire

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drawing guide by the rapidly spinning block 10 and the coils, as are indicated at 30, are wound on the tapered portion 14 and about the extension rods in the manner shown in Figures 3 and 4. In order to maintain the strands of the coil in position, there is provided the coil holder 32 which comprises the essence of the present invention. This coil holder 32 includes a pair of sector-shaped portions 34 and 36 conforming in general to the configuration of a pie slice and having arcuate downwardly extending flanges 38, 40, 42 and 44 secured thereto and arranged at the remote portions of the periphery of the sector portions 34 and 36. The sector portions 34 and 36 are each provided with suitably shaped apertures 46 and 48, 50 and 52 therethrough for enabling the coil holder to be utilized with various sizes and types of coils, the difference in construction of the coil holder being the position at which the flanges 38, 40, 42 and 44 are bent downwardly from the sector portions 34 and 36. Interconnecting the sector portions 34 and 36 is a centrally disposed ring portion 54 having an aperture 56 therethrough. The aperture 56 is designed to receive the rods 24 and 26 while rods 18 and 22 may extend between the sector portions 34 and 36 and the rods 16 and 20 may extend through suitable of the apertures 44, 46, 48, 50 and 52. Hence, the coaction between the rods and the coil holder, as well as between the flanges and the coil will serve to maintain the coils from spreading while also preventing the coil holder from flying off and thereby causing injury or destruction.

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:

1. A wire retaining device for use with a high speed wire drawing apparatus comprising a plate having two circular sector portions interconnected by a central ring portion, and spaced pairs of flanges secured to said sector portions and extending downwardly normal thereto, said flanges being contoured to conform to the exterior configuration of a spool of wire on the wire drawing apparatus, said ring portion having a centrally disposed aperture therethrough, each of said sector portions having at least one aperture therethrough, said apertures receiving upper ends of block tension pins of the wire drawing apparatus.

2. A wire retaining device for use with a high speed wire drawing apparatus comprising a plate having two circular sector portions interconnected by a central ring portion, and spaced pairs of flanges secured to said sector portions and extending downwardly normal thereto, said ring portion having a centrally disposed aperture therethrough, each of said sector portions having at least one aperture therethrough, said apertures receiving upper ends of block extension pins of the wire drawing apparatus.

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