March 29, 1938. F. KOHNLE 2,112,627.

COILED PIN TAG STRIP

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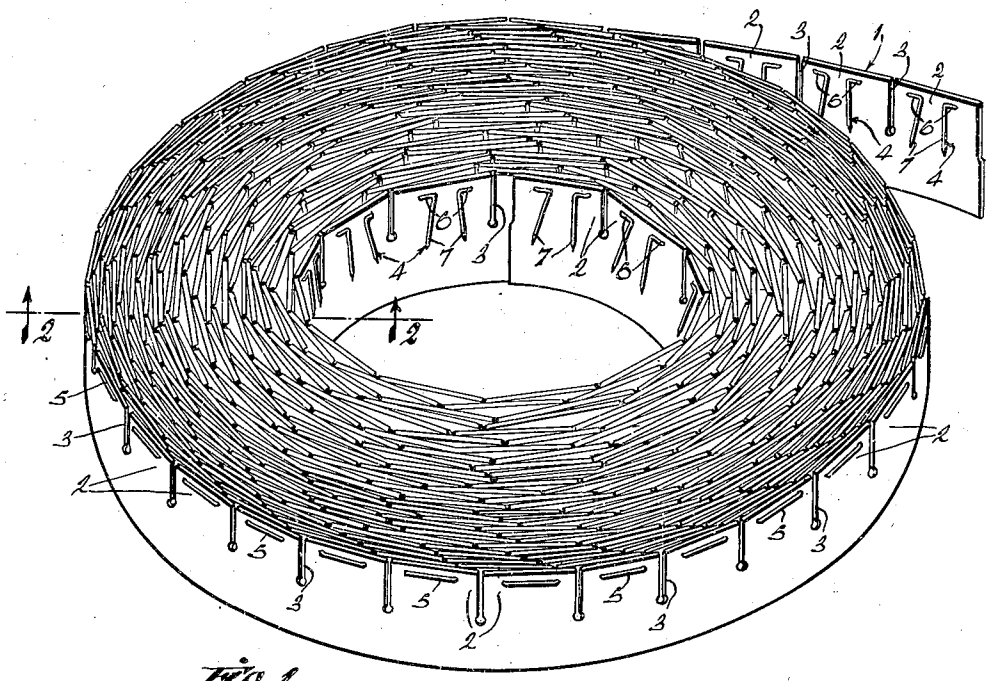

Fig. 1

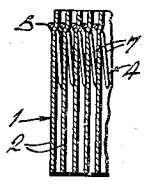

Fig. 2

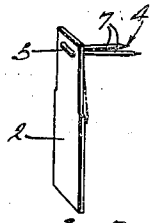

Fig. 3

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COILED PIN TAG STRIP

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3 Claims. (Cl. 40—25)

This invention relates to improvements in packaging a merchandise price marking tag strip composed of a plurality of connected tags, each tag having a wire staple form of fastener secured thereto marginally at one edge, the fastener providing a pair of pointed parallel prongs projecting from one face side of the tag. The prongs conventionally project perpendicularly from the face side of the tag in a most apt position for ready insertion through the goods to be ticketed and thence are clinched or bent down upon the goods for securing the tag.

Price marking tags in strip assembly are extensively used for machine marking. Therefore it is preferable to have the prongs located slightly inward from an edge of the tag to leave the longitudinal edge of the strip unobstructed, so that it can be guided along a track or shoulder to maintain accurate feeding alignment in its advance through the marking machine for appropriately printing the desired marking data upon each tag consecutively, and to sever the tags one from an along a dividing line to individually dispense the tags from the machine.

The strip, at the division line of the tags, is notched or apertured for cooperation with a feed finger of the marking machine to intermittently advance the strip a distance equal to the apertured or notched spacing for consecutively moving the tags of the strip beneath printing devices of the marking machine for imprinting the marking data thereon and for severing each marked tag from the strip, to dispense the same individually for either hand or machine application to the goods.

In machine marking it has been desirable to employ tag strips of great length to furnish an abundant supply of tags, thereby eliminating frequent reloading, particularly when marking a large lot of one kind of merchandise with the same marking data, allowing the marking machine to run at its full capacity for long periods without interruption, thereby effecting a material saving in time and reduction in marking costs.

The conventional method of supplying the wire staple fastener type of tags with double sharp-pointed prongs is with the prongs projecting perpendicularly to a face side of the tag, ready to be pierced through the goods for tag attachment, which method however presents obstacles in packaging long strips, if folded or reeled, as the prongs of one tag readily interlock or entangle with those of others, causing interference against freedom for feeding to the marking machine. As reeling or spirally winding the strip is the most feasible manner of packaging, with the prongs extended perpendicularly from the face side of the tag, it is necessary to offset or displace the longitudinal edges of each convolution of the spiral with respect to the next adjacent convolution in order to compactly bring the convolutions one upon another. Such method, however, produces a convex, concave-sided package, requires an increased size of packing carton, and necessitates mounting within an extended width of reel on the marking machine and an extended strip slacking length from the reel to the feed track or way of the machine, due to the constant disalignment of the strip with the feed track entrance, together with the objections of prong entanglement.

By the present method the prongs are folded inwardly from the edge and downwardly upon the underside of the tag without any perceptible distortion to the structure of the staple fastener, from which position the prongs are easily erected as the tag, in the feed of the strip, approaches the feeding track or guide in the marking machine, and assume and hold their conventional perpendicular position until clinched in fastening the tags to merchandise.

An object of the invention, therefore, is to package a tag strip composed of a plurality of unit-joined tags, each tag having a prong or prongs of a metallic fastener extensible from one face side thereof and folded or turned inwardly against said face side, the strip coiled with the longitudinal opposite edges thereof respectively in alignment or co-planar to provide a flat coil with the prongs hidden or sheathed between the convolutions thereof.

Another object of the invention is to package an extended strip length of gang connected tags into a flat coil, with the prongs of the metallic fasteners of each tag housed or connected between the convolutions.

Further features and advantages of the invention will be more fully set forth in a description of the accompanying drawing, in which:

Figure 1 is a perspective view of the improved package.

Figure 2 is a section on line 2—2, Figure 1.

Figure 3 is a perspective view of an individual tag.

Referring to the drawing, 1 indicates a tape or strip, usually of paper material, composed of a plurality of connected tags 2. In the preferred form the strip, for use in a marking machine, is divided by divisional notches 3 inwardly or laterally extending from one longitudinal edge

and in relatively equal or uniform spaced parallelism, the spacing in the instance illustrated being determinant of the width measurement of the tag. Each tag has a wire or metallic staple type of fastener 4 permanently secured thereto. The structure of the fastener is of a conventional staple type, old in the art, favorable to the trade and extensively used for pinning a price-marked tag upon certain classes of merchandise.

The fastener comprises a length of wire bent to provide a cross-bar portion 5, lying or bearing against one or a face side of the tag. From each of the opposite ends of cross-bar portion 5 the wire is bent or shaped in the form of return bends 6—6 for engagement through the tag, clinched and bearing against the reverse face side of the tag and thence bent at right angles to provide a pair of straight shank parallel prongs 7—7 having sharp pointed ends. The prongs conventionally extend perpendicularly from one or a reverse face of the tag for insertion through the goods to be ticketed and are clinched over upon the goods for securely fastening the tag.

The cross-bar portion 5 of the fastener extends preferably longitudinally parallel with an adjoining edge of the tag or strip, and marginally therefrom with the prongs in line therewith, so that no portion of the fastener forms any obstruction to the straight longitudinal edge of the strip, which, in a marking machine, engages or bears against a guiding track or shoulder for an accurate strip feeding alignment to insure printing the marking data upon the tag within the space allotted therefor.

The staple fasteners for the tags of the strip are in longitudinal alignment, each located between a pair of notches in the strip, facilitating in severing the tags one from another and from the strip. The notches, in their particular arrangement, provide shoulders for cooperation with the feeding devices of the marking machine for feeding or advancing the strip in step degrees. These features and purposes are well known and recognized in the art and constitute a standard from which it is not desirable to deviate.

The prevailing practice has been to supply pack tag strips of the foregoing described character in comparatively short straight strip lengths, each therefore furnishing only a limited supply of tags which are quickly exhausted in a rapidly operating marking machine, requiring under heavy usage almost constant reloading of the machine, which, to some degree, slows down operation.

To package a considerable length of tag strip it is spirally wound about a given diameter coil, from which it is slipped, giving the coil a central opening for engagement over a reel of a marking machine for unreeling the strip. The prongs of the staple are folded or turned inwardly against the underside of the tags to lie between the convolutions of the coil, sheathing or housing the same and adapting the strip to be compactly coiled into a flat-sided coil. The free ends of the strip respectively are adhesively taped or sticker-sealed to relative adjacent convolutions to prevent unravelling.

The structure of the head end of the fastener, for connecting it to the tag, and the flexibility of the paper board tag permit the prongs to be turned or swung to a planar position with the under or rear side of the tag without any distortion thereto, bringing the prongs between the convolutions of the coil, completely housing and sheathing the same with no opportunity of becoming entangled with fastener prongs of the adjoining tags, and allowing the strip to be freely unreeled.

With the prongs concealed except for a small number on the innermost or starting convolution, or exposed within the central opening of the coil, the package can be safely handled by an operator without injury to the hands by being pricked with the sharp points of the prong. The straight or flat sides of the coil allow the strip to be confined upon a reel against lateral displacement, and unreeled in constant alignment with the feed track or loading entrance of the marking machine. As the strip is unreeled, the prongs can be easily erected to a perpendicular position with the advance of the strip by engaging the prongs against a stationary guide and thereafter retain the erected or perpendicular position the same as if they had never been disturbed for strip coiling.

In a coil the strip can be flat packaged to provide a supply of five hundred (500) or more tags, as compared to the straight strip method in which each strip contains twelve or eighteen tags. The coil method also offers advantages in manufacture and packing and practically eliminates any liability to personal injury from the prongs pricking the hands in handling, and this extends both in the manufacture and in use.

Having described my invention, I claim:

1. A coiled tag strip composed of a plurality of connected tags, each tag having a pin secured thereto, providing one or more pointed prongs for projection perpendicular from one face side thereof, marginally from one longitudinal edge of the strip, said tag strip being wound spirally with the prong or prongs of the pins turned inwardly to a planar position with the tag face sides, to sheath the same between the convolutions of the coil, and with the convolutions lying in a common plane to form a compactly wound flat-sided coil.

2. A coiled tag strip composed of a plurality of connected tags, each tag having a pin secured thereto, providing one or more pointed prongs for projection perpendicular from one face side thereof, marginally from one longitudinal edge of the strip, said tag strip being wound spirally with the prong or prongs of the pins turned inwardly to a planar position with the tag face sides to sheath the same between the convolutions of the coil with the convolutions lying in a common plane to form a compactly wound flat-sided coil, and the free end of the strip being taped to a relative adjoining convolution to prevent unravelling.

3. A coiled tag strip composed of a plurality of connected tags, each tag having a pin secured thereto providing one or more pointed prongs for projection perpendicular from one face side thereof, said tag strip compactly wound spirally with the prong or prongs of the pins turned inwardly to a planar position with the tag face sides to sheath the same between the convolutions of the coil and with the convolution lying in a common plane, to form a flat-sided coil.

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