

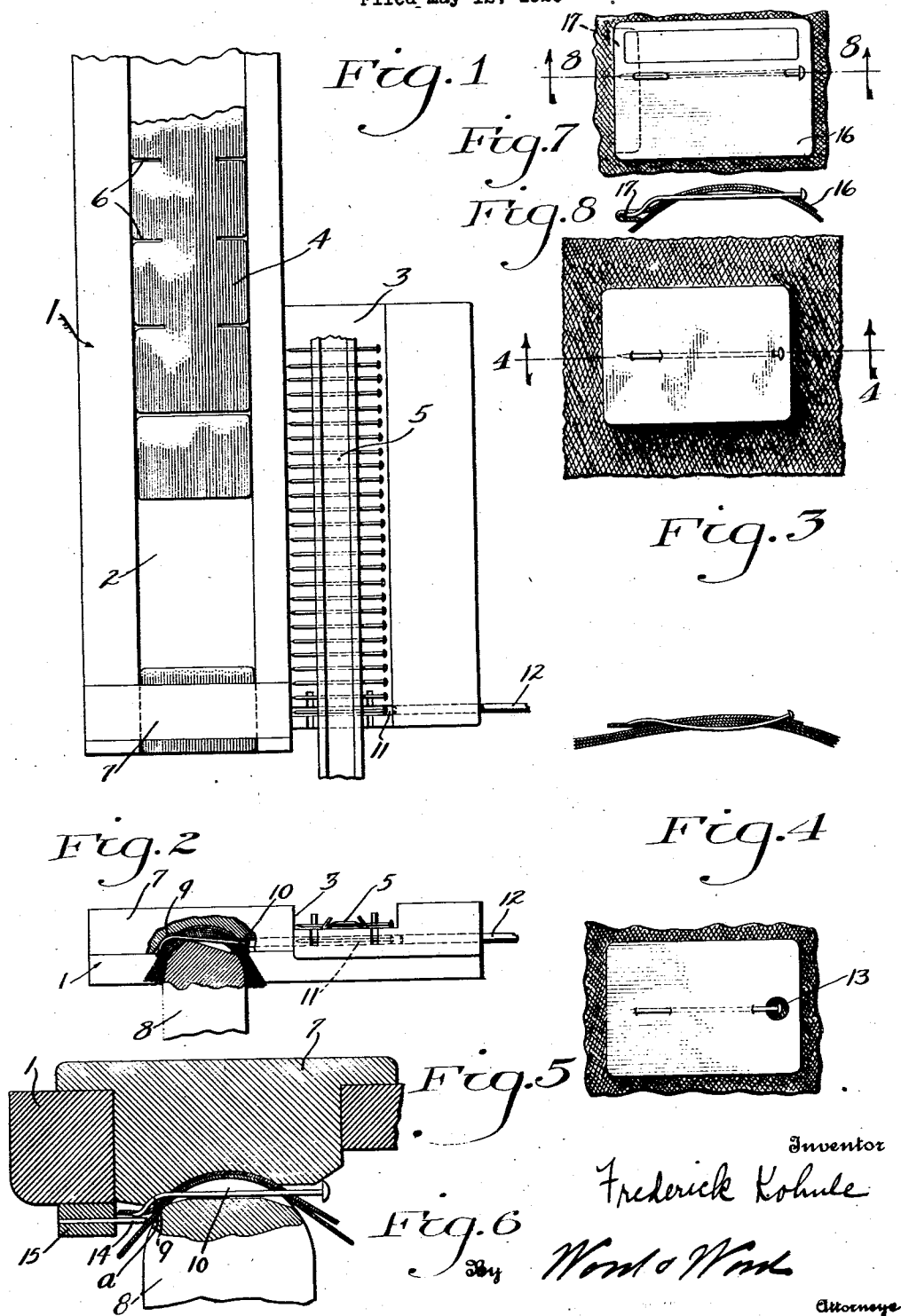
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F. KOHNLE

METHOD OF SECURING PRICE MARKING TAGS

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UNITED STATES PATENT OFFICE.

FREDERICK KOHNLE, OF DAYTON, OHIO, ASSIGNOR TO THE MONARCH MARKING SYSTEM COMPANY, OF DAYTON, OHIO, A CORPORATION OF OHIO.

METHOD OF SECURING PRICE-MARKING TAGS.

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To all whom it may concern:

Be it known that I, FREDERICK KOHNLE, a citizen of the United States, and residing at Dayton, in the county of Montgomery and State of Ohio, have invented a new and useful Improvement in Methods of Securing Price-Marking Tags, of which the following specification is a full disclosure.

This invention relates to a method of securing a price marking tag or the like to fabric or goods to be ticketed with a commercial straight shank pin, pointed at one end and headed at its opposite end, consisting in passing and engaging the pin through the tag and goods back and forth several times and crimping or bending the point to pierce into the body of the tag or to lie concealed between the underface of the tag and adjacent face of the goods beneath the tag. The crimped or bent point end anchors the pin to the tag against accidental withdrawal from the tag or detachment of the tag from the goods. The point is imbedded or concealed to guard the same and not be obstructive to prick or scratch the hands or to catch into the threads of or be engaged with another piece of goods not included with or identified by the tag which the pin secures, nor present other objections encountered in the use of metallic tag fasteners with a protruding sharp or dull point.

The invention also relates to the method of applying the commercial pin through the tag and goods and crimping or bending its point end to pierce into the body of the tag, susceptible to machine operation for quickly and efficiently securing price marked tags to the goods to be ticketed.

Many different types of metallic fasteners in the form of wire clips and staples have been employed for securing price tags to goods, all of which in some degree have been found objectionable and in some territories and upon some kinds of goods could not be employed at all. Some forms could not be advantageously employed in tag marking and applying machines, some cannot be conveniently removed by the user without injury to the hands or goods, those with cut ends cannot be employed for fine delicate fiber materials for a blunt edge tears the fiber in forcing the fastener through the material, and such ends are also readily subjected to corrosion especially along sea coast localities.

For machine marking and applying capacities the tag generally is equipped with a fastener as a component thereof, and while it has been recognized that a fastener with highly polished or smooth conoidal ends would increase its utility, feasible methods of manufacturing for large quantity, rapid and commercially economical production are not available. As a substitute, fasteners with pin portions of plural strands of wire bent upon one another to provide a rounded end are employed, but which also possess objections as being difficult to pass through heavy or closely woven material and therefore are not adaptable for universal service. Therefore it has been necessary to manufacture tags with different forms and kinds of fasteners selective and more suitable for different kinds of goods or conditions, which the present invention overcomes.

The common pin is made under very highly developed processes of manufacture and a most susceptible fastener for general and universal use. It represents a very small gauge round wire material with appropriate stability and rigidity having a long tapering and fine pointed end which can be easily passed through any kind of cloth material without injury to weave threads. Its entire surface is highly polished and preserved against corrosion, and its headed end facilitates its insertion and removal to and from the tag and goods either mechanically or manually and also provides for locking the pin in place.

For the purpose of practising the present invention primarily for machine price marking and applying the tags to the goods, the tags are formed in gang or strip lengths and provision made for engaging the strip to feed in step degrees proportionate to the dimension, preferably its width dimension, and in providing the pins in magazine arrangement in spaced consecutive order upon a tape adapting the pins to be progressively engaged, advanced and operated upon for insertion through a price marked tag and goods in securing the tag to the goods, the tag and pin strips being commercialized as separate commodities.

It is therefore an object of the invention to provide a method in which the commercial pin may be utilized and employed as a fastener for machine-applying a price

marking tag to any class of fabric material to be price marked, and provide a very efficiently economical and practical tag fastener very securely holding the tag to the goods and which the ordinary purchaser of the tagged merchandise can remove in an easy and correct manner intuitively and without special instructions to avoid injury to the hands or goods.

Further advantages and features of the invention will be more fully set forth in the description of the accompanying drawings depicting a preferred manner of practising the invention and for comprehensively disclosing the same, in which:

Figure 1 is a plan view of a table or tag and pin strip supporting and guiding platen of a tag marking and applying machine in which the tag and pin strips are disposed in parallel relation.

Figure 2 is an end view of the same, showing a portion of the machine and the goods ticketed and tag in section.

Figure 3 is a plan view of a tag secured by a pin to a piece of fabric material.

Figure 4 is a section on line 4—4, of Figure 3.

Figure 5 is a modification of tag providing an aperture for receiving the head of the pin.

Figure 6 is an enlarged view similar to Figure 2 showing an enlargement in the manner of crimping or bending the point end of the pin for projecting the pin into the body of the tag from the underside of the tag.

Figure 7 is a plan view of a modified form of tag which provides a flap adapted to be folded upon the tag to conceal and guard the pin point.

Figure 8 is a section on line 8—8, of Figure 7.

As the marking machine for operating upon the tag strip and pin magazine strip represents an invention distinct and separate hereof, only certain elements thereof are herein illustrated and these in a diagrammatic character sufficient for the present purposes and primarily represented as a table or platen 1 having a pair of parallel guide channels 2, 3, as recesses in the upper face of the platen, the channel 2 receiving the tag strip 4 and the channel 3 the pin magazine strip 5. The tag strip comprises a plurality of tags of uniform dimension defined from one another by transverse slots or notches 6 extending inward from one or opposite longitudinal edges of the strip, the notches providing shoulders along one or both edges adapted to be engaged by a feeding finger or device, not shown, for advancing the strip in step degrees to present the forward end tag of the strip in a position to be operated upon for printing the price marking or other data thereon, for severing

the tag from the strip and advancing the tag to a position for applying the fastener and securing the tag to the goods. The tag strip with a definite number of tags in gang constitutes an article of commerce usually sold to the merchant specially form printed, with spacing for printing in the marking data while feeding the strip through the marking machine. Notching the strip at its opposite edges provides for the forming of a tag with rounded or octagon corners, and also permits renewal of the tag strip within the marking machine in which only a single feed finger is employed.

The pins are packed for supply and magazine feed carriage upon a strip or tape of paper, in a determinately spaced parallel arrangement and pierced through longitudinal ridged portions of the tape with the head and point ends of the pins extending beyond the relative opposite edges of the tape, adapting the pins to be successively engaged by feeding devices of the tag marking machine, and to be readily extracted or withdrawn from the tape for applying the pin to the tag and goods. The pins packed in this manner also constitute an article of commerce, so that both tags and pins can be merchandised separately. The manufacture of the tags and their use without fasteners as components of the tags is greatly facilitated and the advantages considerably enlarged, of which detail exemplification will not be made herein, aside from noting that the tag form, except as to dimension, is standardized for general and universal use and complications in the construction and operation of the marking machine are avoided, as no adjustments are required to accommodate for different types of fasteners.

For commodious operation, the tag after price marked is severed from the strip and individually advanced to the delivery end of the machine beneath a die plate 7 and over the goods to be ticketed which is suitably disposed upon an anvil headed plunger 8 reciprocated beneath the die plate 7 and cooperating therewith to clamp the tag and goods between the anvil and die plate appropriately for receiving the pin. The die plate is recessed and the anvil correspondingly rounded to press the tag and goods into bowed or curved form to permit the pin to be passed longitudinally through the tag and goods several times. The pin enters the face side of the tag passing through the tag and goods, and thence from reverse or lower side of the goods again passing through the goods and tag to the face side of the tag and from the face side of the tag the point portion of the pin engages the base of a recess 9 in the die plate for crimping or bending the point of the pin downwardly as the pin is forced forwardly bend-

ing the point for engagement into the body of the tag so as to be concealed and guarded within the ply thickness of the tag or if the tag ply is too thin to imbed the point therein to bring the point between the lower side of the tag and adjacent side of the goods. The downward crimping gives the point end portion a slight hook bend sufficient to anchor the pin against accidental withdrawal in the handling of the ticketed goods. The anvil as shown in Figure 2 is provided with a guide groove 10 and adapted for registry with the feed orifice and guide slot 11 of the machine, through which the pin is pushed by a reciprocating push hammer 12. The pins from the tape are successively disengaged from the tape holder and dropped into the guide slot 11 in position for the hammer to engage the head of the pin for driving the pin through the tag and goods as previously explained. The pin in its driven advance engages into the guide slot or groove 10 of the anvil which has its base upwardly inclined to insure directing the pin through the goods and tag and its point end into the crimping or bending recess 9 of the die plate. The bowing of the tag and goods is to a degree sufficient to enable the pin to pass through the tag and goods several times in a straight line with the head exposed on the face side of the tag and the point imbedded into the tag body either from the face or underside of the tag and which will not permit the pin point to be extracted with any yield of the tag when released from between the anvil and die. The pin preferably is inserted medially of the tag with the head of the pin at the head of the tag as offering the best position for securely fastening the tag to the goods and the tag being slightly bowed is thus reinforced to sustain the opposite side of the tag against upward lapping or flexing, nor does the pin produce a line along which the tag can be readily torn or bent. For removing the tag, the pin head is readily manually accessible for withdrawal without injury to the fingers and in a direction instinctively familiar to every person due to the common usage of a headed pin and unobtrusively followed with no impulse to the person tearing the tag and fastener from the goods which frequently results in injury to the goods.

The modification of Figure 5 illustrates the manner of imbedding the head of the pin within the tag, the head being engaged in an aperture 13 in the tag forming a lock for the pin.

In the method shown in Figure 6 the pin point after it has been finally engaged through the tag is directed upwardly into or toward the underside of the tag by a guide plate 14 extending laterally from a block 15 depending from the platen or table

1, thus increasing the number of crimps or bends in the pin, which are only engaged in the tag. The tag and the crimped portion of the pin between the points where the pin passes through the tag as at *a*, Figure 6, are bowed in opposing directions and under a counter pressure, resulting in forcibly sustaining the point of the pin in engagement with the adjacent underside portion of the tag so that considerable resistance is exerted to hold the pin against withdrawal. This also tends to make it very difficult to manually reinsert the pin after withdrawal, which is of advantage as it enables detection when attempt has been made to maliciously transfer the tags from one grade of goods to another.

Forming the crimp at the point end of the pin adapts the same to be located at a free end of the tag and formed by forcing the same between stationary dies in the direction of inserting the pin through the tag and goods, and after the pin has been passed through the goods avoids the employment of complicated mechanism for crimping the pin. It however is obvious that the pin could be otherwise crimped or bent if a more permanent anchoring is required.

The drawings show the pin crimp slightly exaggerated for the purpose of illustration. The crimp or corrugations of the pin in the product are of such degree of arc which provide for the pin contact against the tag surfaces, so as not to form too great an obstruction to pin withdrawal, although for some uses the corrugations can be very pronounced.

In Figures 7 and 8 a particular form of tag is employed in which the tag 16 is provided with a flap 17 extending from one end thereof adapted to be folded rearwardly upon the tag to enclose the end of the pin point. This form of tag is particularly advantageous for it permits its manufacture from thin paper which would not permit the point of the pin to be imbedded into the tag without piercing therethrough.

Having described my invention, I claim:

1. A method of securing a tag upon pliable material, consisting in threading and engaging a pin, having pointed and headed opposite ends, through a tag upon the material and through the material to extend the pin upon the face side of the tag and in engagement with the material and crimping the point of the pin toward the tag.
2. A method of securing a tag upon fabric merchandise, consisting in passing a pin through the tag and merchandise medially of the tag with the head end of the pin accessible from the face side of the tag and crimping the pin to anchor the same to the tag.
3. A method of securing a tag upon pliable material, consisting in passing a pin

through the tag and material and crimping the point of the pin into the tag.

4. A method of securing a tag upon fabric merchandise, consisting in passing a pin through the tag and merchandise medially of the tag with the head end of the pin accessible from the face side of the tag and imbedding the point of the pin into the tag.
5. A method of securing a tag upon pliable material, consisting in passing a pin through the tag and material and bending the point end of the pin to resist pin withdrawal and imbed the point into the tag.
6. A method of securing a tag upon material to be ticketed, consisting in threading the pin longitudinally through the tag and material and crimping the pin to restrain pin withdrawal.
7. A method of securing a tag upon ma-

terial to be ticketed, consisting in longitudinally forcing a commercial pin having pointed and headed opposite ends through the tag and material and crimping the pin to restrain pin withdrawal.

8. A method of securing a tag upon material to be ticketed, consisting in longitudinally forcing a commercial pin having pointed and headed opposite ends through the tag and material, crimping the pin to restrain pin withdrawal, and engaging the head of the pin in an aperture in the tag.

In witness whereof, I hereunto subscribe my name, as attested by the two subscribing witnesses.

FREDERICK KOHNLE.

Witnesses:

GORDON C. AREY,
R. KISTNER.