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TAG PIN

Original Filed June 8, 1922

Fig. 1.

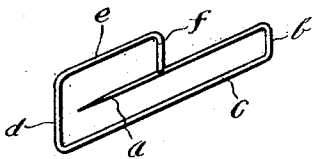


Fig. 4.

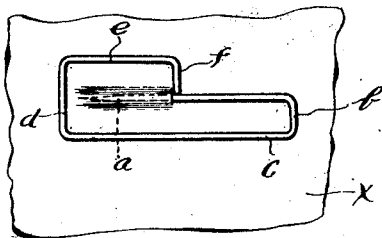


Fig. 5.

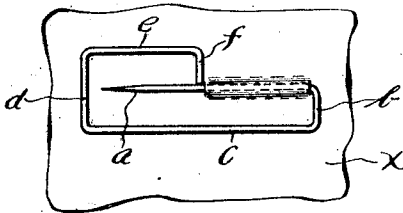


Fig. 8.

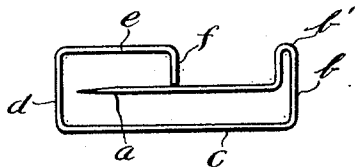


Fig. 2.

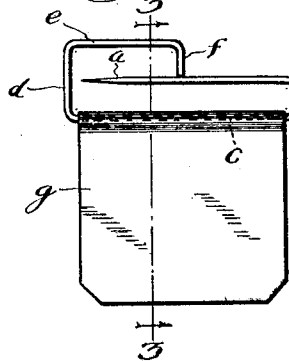


Fig. 3.



Fig. 6.



Fig. 7.



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TAG PIN.

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To all whom it may concern:

Be it known that I, WILLIAM H. SMYTHE, a citizen of the United States, resident of Winthrop, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Tag Pins, of which the following is a specification.

This invention relates to fasteners of the pin type; that is, devices for securing together, by means of a pointed member, a plurality of puncturable articles or things. The invention has particular reference to such devices having means for connecting tags to sheet material such as paper or textile goods.

One of the objects of the invention is to provide an improved point-protected pin for use in fastening together papers for filing or mailing, or fabrics, the pin having no portion liable to break or tear through an envelope.

Another object is to provide a pin which not only has a protected point but will remain in flat relationship to the papers or other sheet material to which the pin is attached.

Another object is to provide a pin of the character mentioned which will automatically lock itself in its holding position.

Another object is to provide a pin having a tag-carrying member in position to permit the tag to swing over and lie substantially flat on and cover the pin.

With these and other objects hereinafter explained, the invention consists in the pin, and in the pin having a tag connected therewith, substantially as hereinafter described and claimed.

Of the accompanying drawings:—

Figure 1 is a perspective view of a preferred form of pin embodying my invention.

Figure 2 is a plan view of the same with a tag hingedly connected to it.

Figure 3 represents a section on line 3—3 of Figure 2.

Figures 4 and 5 are plan views illustrating how the pin, whether carrying a tag or not, is adapted to be engaged with paper or fabric.

Figures 6 and 7 are sectional views similar to Figure 3, illustrating the pin, carrying a tag, engaged with paper or fabric.

Figure 8 illustrates a slight modification in the heel end of the device.

Referring first to Figure 1, the pin as a whole comprises a single length of wire having a puncturing point at one end. Said wire is bent to provide a bar *a* which comprises the pointed member of the device, a short section *b* which may be referred to as the heel or head of the pin, a side bar *c* parallel with and slightly longer than the member *a*, a front bar *d* which extends across and guards the tip or point of the member *a*, a side bar *e* shorter than the members *a* and *c* and substantially parallel therewith, and a short section *f* substantially parallel with the portions *b* and *d* and terminating close to the member *a* to form a lock as hereinafter described.

An important feature of my invention resides in the fact that all portions of the wire normally lie in substantially one uniform plane, for reasons which will be explained.

As illustrated by Figure 8, the head or heel of the pin may be widened by forming it with a loop *b'*.

As illustrated by Figures 2, 3, 6 and 7, the tag, when employed, may consist of a suitably shaped strip of paper *g* folded over the bar *c* and the two layers of paper adhesively connected, the tag as a whole being free to swing on the bar *c*. Then when the pin is secured to paper or fabric *x* the tag can extend out flat on the goods *x* as indicated in Figure 6, or may be swung over onto the pin so as to cover it as indicated in Figure 7. Furthermore this structure enables either surface of the tag, or both surfaces, to be utilized for printed or written data, and so that both surfaces may be examined by simply swinging the tag over. This utility is enhanced by the fact that the pin itself can not swing but always lies flat on the goods, as presently explained.

Figures 4 and 5 of the drawings are chiefly relied upon to illustrate the operation of connecting the pin with paper or textile material. Since I do not limit myself to the use of a tag carried by the pin, said two figures do not illustrate any tag. When the pin is to be applied to the goods *x*, the point or tip of the member *a* is flexed far enough out of the plane of the members *c d e* to be thrust through the goods, and the pin is then pushed, by means of its heel or head *b*, toward the left (viewed as in Figure 4). Preferably this pushing action continues un-

til the end of the member *f* reaches the hole where the pin point went through, and then the pin point is allowed to return up through the goods and the pin is pushed along to its full extent as indicated by Figure 5. This operation is not interfered with by the end of the member *f* because the flexing of the pin member during said operation causes the end of said member *f* to stand sufficiently away from the side of the member *a* to permit it to slide over the goods *x* without unduly catching thereupon. But when the device reaches the position indicated by Figure 5 and is released from any further flexing action, the end of the member *f* stands sufficiently close to the side of the member *a* to practically lock the device against accidental return movement.

Owing to the fact that the several members of the pin all lie normally in one plane, the inner member *a* being the one which serves as the direct pin while the two outer members *c* and *e* bear on the goods at both sides of the member *a*, the pin device as a whole can not rock or turn up with the member *a* serving as a pivot. In other words, the device can not rock or tilt laterally as ordinary safety pins do.

It will be readily understood that the device may be employed to connect the edges of several sheets, like ordinary wire clips, without using the point of the member *a* to effect any puncturing. This may be done by slightly flexing the point of the member *a* out of the plane of the member *d* and pushing the device in a direction to cause the member *a* to slide from the edge of the several sheets of material over or down against one surface of said sheets while the member *d* slides over the other surface. Such movement is continued until the member *b* comes to rest against the edges of the several sheets (as does an ordinary wire clip) but since the member *a* will be on one side of the sheets and the member *f* on the other side, the end of said member *f* will then be pressing at a right angle against the ridge of paper caused by the bearing of the member *a* against the other side. This renders it very unlikely that the device, so used as a clip, will accidentally slip off. The presence of the tag *g* does not interfere with the use of the device as a clip. And as a matter of fact, it is frequently desirable to connect a tag to sheet material without puncturing the material or using any adhesive. The device as illustrated in Figures 2, 6 and 7, can be connected to sheet material by simply slipping the members *a* and *d* inward from the edge of said material in contact with opposite surfaces of said material, like a clip as above described.

It is to be particularly noted that whatever may be the use of the device as above described, no permanent change is ever made

in the shape of any part of it. In other words, no bending is ever required to ensure the retention of the device in its position of utility.

The device is simple and easy to manufacture, and in use possesses the following advantages:—Both sides are the same so that the device is reversible in use; that is, it can be used with either side up, since there are no portions which cross each other, all being in substantially a single plane. The point of the pin is protected at all times, it being inside and within the frame of the pin. The bar *d*, by extending straight across the point, must always precede said point when inserting the latter in anything. Furthermore, the device can be handled or carried loosely without liability of the point injuring the hand or catching upon fabric, even if deposited loosely in a pocket.

Having now described my invention, I claim:

1. A point-protected pin comprising three substantially parallel members the outer ones of which are connected at one end by a straight portion integral therewith, the intermediate member having a point inside of and adjacent to the said connection between the outer members, the said pointed member being free to be flexed to either side of the plane of the other portions of the pin whereby the pin may be applied to position for use with either side up.

2. A point-protected pin comprising a single length of wire bent to provide three substantially parallel members and a straight cross bar connecting the two outer members at one end and a bar connecting the other end of one of the outer members with the intermediate member, the free end of said intermediate member having a point inside of and adjacent to the bar which connects the two outer members, the point of said intermediate member being free to be flexed in any direction whereby the pin may be applied to position for use with either side up.

3. A fastener of the character described, comprising three substantially parallel members and connecting cross members all formed from a single length of wire, the inner or intermediate one of the three substantially parallel members having a pointed end inside of and adjacent to one of said cross members, and one of the outer or side members having an inwardly bent portion terminating close to said intermediate member.

4. A combined fastener and tag consisting of a wire having three substantially parallel portions and connecting cross portions in a substantially uniform plane, the middle portion having a pointed end terminating inside of and adjacent to one of the cross portions, said pointed middle portion being

free to be flexed to either side of the plane of the other portions, and a tag connected to one of the outer or side portions.

5 5. A pin fastener comprising a single piece of wire having a point at one end and a locking member at the other end, said wire including two side portions substantially parallel with the pointed member, one of said side portions having an angular
10 bent portion extending toward the side of the pointed member to constitute said locking member.

6. A fastener comprising a pin mem-

ber, two other members at opposite sides thereof and substantially parallel there- 15 with, a guard member extending across the point of the pin member, a heel member at the opposite end of the fastener from the guard member, and a locking member extending from one of the side members, all 20 portions of the fastener being in a single plane and integral with each other.

In testimony whereof I have affixed by signature.

WILLIAM H. SMYTHE.