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10 TAG WITH LOCKABLE SHACKLE

The present invention relates to a tag according to the preamble of Claim 1.

Tags of this type are used, for example, as key tags, as price tags, brand name tags, address tags, etc. on pieces of
15 clothing, suitcases, briefcases, bags, umbrellas, sports articles, cameras, shoes, etc., the housing, in each case, as the information carrier, being provided with marking information, identification information or the like, which is glued, printed, embossed or engraved on the surfaces of the housing.

20 Thus, for example, from Swiss Patent Document CH 650 349, a tag of this type is known which can be produced easily and inexpensively and is constructed of a few parts. The locking shackle of this tag is simultaneously constructed as a sliding part which can be displaced in the tag housing and has latching
25 elements which can resiliently lock in corresponding recesses of

5 the tag housing. The locking shackle itself can be bent out in the open position, for example, for receiving keys or the like. In the closed position, it forms a closed eye together with the face of the tag housing, in which eye, for example, the key remains in a securely held manner. The closing position can be
10 released from the outside by pressure onto the latching element against the locking direction, for which an opening is provided in the tag housing which is correspondingly accessible from the outside.

For certain fields of application, after a one-time closing,
15 it should not be possible to open these tags again without destroying them. A tag of the above-mentioned type is suitable only to a limited extent because it can be unlocked from the outside in its originally provided form. A simple covering of the unlocking cover is also no reliable protection against an
20 attempt to open the tag which subsequently can hardly or at least not unambiguously be noticed.

It was an object of the present invention to provide a tag of the above-mentioned type which has a simple construction and a simple operability for a one-time closure which, after the
25 closing operation, can no longer be opened without being destroyed, in which case an attempt to open can clearly be determined.

5 According to the invention, this object is achieved by means
of the characterizing features of Claim 1. The solution
according to the invention is distinguished particularly by the
simple construction and easy operability, while the locking is
reliable. After the tag has been locked once, it can no longer
10 be opened without being destroyed. The further development of
the tag according to the invention has the special advantage that
also an attempt to open the tag is clearly and in an irreversible
manner indicated by the broken-open desired breaking point. As
a result, manipulations on the tag can be detected without its
15 complete destruction.

Preferred embodiments of the invention are found in the
dependent Claims 2 to 8.

In this case, the construction is particularly advantageous
in which the slide as well as the shackle in the locked condition
20 are gripped by the locking element or clicked into it. The
desired breaking point is preferably formed in a very simple
manner by a reduction of the wall thickness in this area of the
housing.

Preferably, a tag according to the invention is used
25 according to Claim 9 as a safety lock or a safety seal.

In the following, an embodiment of the present invention

5 will be explained in greater detail by means of drawings.

Figure 1 is a schematic sectional view of a tag according to the invention in an open position;

Figure 2 is a sectional view according to Figure 1 in the locked position;

10 Figure 3 is a longitudinal sectional view of the tag in the area of the retaining cam;

Figure 4 is a longitudinal sectional view according to Figure 3 during or after a manipulation; and

15 Figure 5 is a sectional view according to Figure 2 after an attempt to open has taken place.

A tag 1 according to the invention has a slide 3 which can be displaced in its housing 2. A shackle 4 is molded on directly at the upper end of the slide 3 and has a hook-shaped construction. In the illustrated open position, the shackle 4
20 forms an open ring with the face of the housing 2, by means of which ring the tag 1 can be hung into the part provided for this purpose.

In the housing 2, a locking element 5 is now arranged which

5 is preferably constructed as an essentially U-shaped locking shackle. On its two legs, the locking shackle 5 has ends 6 and 7 which are each bent to the outside and which are used as locking latches. As a result of this construction of the locking shackle 5, the two legs can be resiliently moved toward the inside. In the position illustrated in Figure 1, the locking latch 7 is locked into a recess 8 of the slide 3 and thereby fixes this slide 3 in the illustrated position. The recess 8 is preferably shaped out in such a trapezoidal shape that it has a lower stop surface 8' aligned perpendicularly to the leg of the locking shackle 5 and an upper stop surface 8'' which extends diagonally thereto in the upward direction. As the result of this further development of the recess 8, the slide 3 cannot be pulled in the upward direction out of the housing 2 because it is blocked by the stop surface 8'. By applying pressure to the shackle 4, the slide can now be pressed into the housing 2 because, as a result of the diagonal stop surface 8'', the leg of the locking shackle 5 is pressed toward the inside and can disengage from the recess 8.

It now also becomes clear that the slide 3 can simply be moved from the outside into the housing 2 into the position illustrated in Figure 1. In that the slide 3, on its lower free end, also has a stop edge 3' constructed diagonally corresponding to the stop surface 8'', when the slide 3 is slid into the housing 2, by means of this stop edge 3', the locking latch 7 is

5 pressed toward the inside until it locks into the recess 8.

Figure 2 now shows the locked position of the tag 1. In this position, the locking latch 7 is clicked into the rectangular recess 9 of the slide 3. Thereby the slide 3 can no longer be displaced without swivelling the leg of the locking shackle 5 with the locking latch 7 out toward the inside. However, this is not possible because of the closed housing 2 without a destructive effect onto the tag 1 from the outside. In order to ensure an additional safety of the lock, preferably another recess 10 is provided in the shackle 4, in which recess 15 10 the locking latch 6 of the second leg of the locking shackle 5 locks in the same manner. This also avoids that, by exercising force from the outside, only the shackle 4 is pulled out of the housing 2 or bent out, and therefore the closed ring formed by the shackle 4 and the face of the housing 2 can be opened.

20 As a result, a reliable tag 1 is formed which can be locked once, has a simple construction and can no longer be opened without being destroyed.

According to the invention, the locking shackle 5 is arranged in the housing 2 such that its curved portion 5' is 25 fixed between the lower housing wall 2' and a retaining cam 11, which is illustrated particularly clearly in the sectional view of Figure 3. If a pull force is now exercised on the shackle 4

5 or the slide 3 with respect to the housing 2, this force is transmitted by way of the locking latches 6, 7 to the locking shackle 5 and thus directly by way of the curved portion 5' to the retaining cam 11. According to the invention, this retaining cam 11 is molded directly to the housing 2 and here directly to
10 the bottom surface of the housing 2. In the transition area from the housing 2 to the retaining cam 11, according to the invention, a desired breaking point 12 is provided; in this case, preferably in the form of a very thin wall on one side of the retaining cam 11. If a pull force is now exercised on the
15 shackle 4 or the slide 3 in the direction of the arrow, as illustrated in Figure 4, this desired breaking point 12 tears when the correspondingly dimensioned or desired force value is exceeded, because of the bending of the retaining cam 11, as illustrated. This tear now remains permanently in the surface
20 of the housing 2 and can be easily and rapidly recognized from the outside. As a result, an attempt to open the tag 1 can be recognized in a reliable and simple manner. Advantageously, this characteristic, specifically the tearing of the desired breaking point, can no longer be extinguished or covered up.

- 25 Preferably, a desired breaking point is provided not only on one side of the housing 2 but, for example, also on the front side, as also illustrated in Figure 3. Here, for example, the retaining cam 11 projects into an opening 13 of a cover plate 14 forming the upper housing surface. This cover plate 14 is

5 fixedly connected, for example, glued or welded to the housing
2 in the edge area. An area of the cover plate 14 around this
opening 13 also has a desired breaking point 15, in that there
a wall thickness is selected which is very narrow in comparison
to the normal wall thickness. If now, as described above, the
10 retaining cam 11 is bent out because of a pull force acting upon
the shackle 4 or the slide 3, as illustrated in Figure 4, this
causes a breaking of the corresponding desired breaking point 15.
This can be easily recognized from the outside and cannot be
reversed.

15 Should an attempt to open nevertheless have been made, which
has caused the desired breaking points 12, 15 to tear, a blocking
web 16 is preferably arranged inside the housing 2 as an
additional locking protection. This blocking web 16 preferably
has the form of the end of the corresponding leg of the locking
20 shackle 5 with the locking cam 7. Thus, a lateral bending-out
of the locking shackle 5 is made impossible in this position, as
illustrated in Figure 5. Although the retaining cam 11 is very
bent as the result of the tensile force and the corresponding
desired breaking points 12 and 15 have torn, the locking cams 6
25 and 7 are still clicked into the corresponding recesses 9 and 10,
which is why the slider 3 and thus also the shackle 4 can no
longer be pulled out of the housing 2 and therefore remain
locked. Even a destructive manipulation taking place from the
outside can therefore no longer result in a clicking-out of the

5 locking cam 6 or 7. A clicking-out of the locking cam 6 is
caused here, for example, by the corresponding shape of the outer
wall of the housing which prevents a lateral swivelling of the
corresponding leg of the locking shackle 5. Even if, in this
case, the retaining cam 11 were completely separated from its
10 wall of the housing 2, a reliable locking of the slide 3 and the
shackle 4 would thereby be ensured.

For these reasons, the tag according to the invention
introduced here can be used particularly well as a safety lock
or safety seal which is locked only once and cannot be opened up
15 again without being destroyed. The advantage is that it can
easily and unambiguously be checked whether or not any
manipulation has taken place in an attempt to open the tag.

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CLAIMS:

1. Tag (1) comprising a shackle (4) which projects on the face of a flat housing (2) and is molded to a sliding part (3) which is displaceable from an open into a locked position
10 arranged in the housing (2), in the locked position, the housing (2) closing the shackle opening,
characterized in that a locking element (5) is arranged in the housing, which locking element (5), in the open and in the locked position, being resiliently clickable into the sliding part (3),
15 the locking element (5) being stopped in the direction of the shackle (4) on a retaining cam (11) projecting from a housing wall, in the transition area from the housing wall to the holding cam (11) at least one area of the housing wall being constructed as a desired breaking point (12; 15).

20 2. Tag according to Claim 1,
characterized in that, in the locked position, the locking element (5) can also be clicked into the free end of the shackle (4).

3. Tag according to Claim 1 or 2,
25 characterized in that the locking element (5) is constructed as a U-shaped shackle and preferably has outwardly bent click-in



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5 elements (6;7) on its two free legs.

4. Tag according to one of Claims 1 to 3,
characterized in that the locking element (5) clicked in in the
open position, when a locking force is applied, can be clicked
out only in the direction of the locked position.

10 5. Tag according to one of Claims 1 to 4,
characterized in that the desired breaking point (12) is
constructed as a wall area which is reduced several times with
respect to the remaining wall thickness of the housing (2),
preferably directly adjoining the retaining cam (11).

15 6. Tag according to one of Claims 1 to 5,
characterized in that the retaining cam (11) is molded directly
to a wall of the housing (1) and projects into a corresponding
recess (13) of the opposite wall side.

20 7. Tag according to Claim 6,
characterized in that another desired breaking point (15),
preferably in the form of a reduced wall thickness, is arranged
adjoining the recess (13).

8. Tag according to one of Claims 1 to 7,
characterized in that, in the housing¹, at least one blocking web
25 (16) is arranged adjoining the locking element (5), which



5 blocking web (16) prevents a bending-out of the locking element (5) or an unlocking of this element (5) in the locked condition if the locking element (5) has been displaced within the housing (2) in the direction of the shackle (3).

9. Use of the tag according to one of Claims 1 to 8 as a
10 safety lock or safety seal.



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