

[SS 8] /IC E03F7/02 or G09F3/00 or G09F3/03

Results in EPODOC **33.735**

[SS 9] safety 1w seal

Results in EPODOC **473**

[SS 10] collar or bolster or ruff or clamp or brace or pinchcock.

Results in EPODOC **628.620**

EPODOC: term 'PINCHCOCK.' not found in index 'BI'. *WARNING(1)*

[SS 11] collar or bolster or ruff or clamp or brace or pinchcock

Results in EPODOC **628.710**

[SS 12] 8 and 9 and 11

Results in EPODOC **0**

[SS 13] 8 and 11

Results in EPODOC **256**

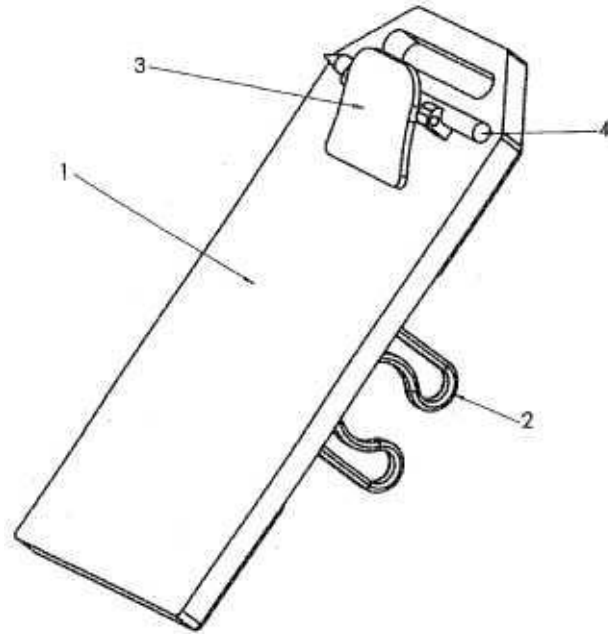
[SS 14] hinge and 13

Results in EPODOC **4**

[SS 15] ..li



PN - [US2004251289](#) A1 20041216
 PNFP - US7219822 B2 20070522
 PR - US20040826759
 20040416; US20030320113P
 20030416
 AP - US20040826759 20040416
 DT - *; Rep
 CT - || STSE (B2)
[US4685701](#) A 19870811 [
] (AMUNDSON ANITA L [US], et al)
[US6299119](#) B1 20011009 [
] (DUNNING DAVID J [US])
 - || R141 (A1)
[US4423888](#) A [];
[US4496058](#) A [];
[US5086960](#) A [];
[US6029380](#) A [];
[US3881267](#) A [];
[US3964134](#) A [];
[US4032164](#) A [];
[US4848117](#) A [];
[US4685701](#) A [];
[US4858353](#) A [];
[US3912291](#) A [];
[US5154330](#) A [];
[US5250789](#) A [];
[US6299119](#) B1 [];
[US4356651](#) A [];
[US6000610](#) A [];
[US6158640](#) A []
 CCI - [B62B3/1428](#) ; [G09F7/12](#) ;
[G09F7/18](#)
 TI - (A1 B2)
 Shopping list organizer
 AB - (A1 B2)
 A shopping list organizer
 includes a rigid substantially
 planar member sized to support
 a shopping list when the
 shopping list is mounted
 thereon. A **clamp** is provided for
 releasably mounting the
 shopping list on a first surface
 of the planar member. Magnets
 are mounted on a second side of
 the planar member, opposite the
 first side, for releasably



mounting the planar member on a flat substrate. At least one clip is hingedly mounted to the second side of the planar member for rotation about the **hinge** between a closed position substantially flush against the second side of the planar member and an open position substantially orthogonal to the second side of the planar member. In the open position, the clip is disposed for releasably mounting onto an elongate handle.

2/4 © EPODOC / EPO

PN - [RU2305214](#) C1 20070827
 PR - RU20060108826 20060321
 AP - RU20060108826 20060321
 DT - I
 PA - SMIRNOVA OKSANA NIKOLAEVNA [RU]
 TI - CLAMPING DEVICE FOR CUTTING OFF CABLE LENGTH
 AB - FIELD: mechanical engineering. ^ SUBSTANCE: invention relates to industry and transport, mainly, for connection and sealing of movable members, such as closure of rail cars, hatches and other elements of rail rolling stock. Proposed clamping device has cylindrical body with flat cover in end face cavity, cable dynamic locking mechanism including part of said cable arranged inside body in radial through hole, spring-loaded solids of revolution with knurling engaging with cable to be secured, rotary cable seal and punch mark. Working surface of said solid of revolution is provided with parabolic convex surface on cross section. Two ellipsoid cavities in body metal are made at height of said hole in plane passing through axis of through hole perpendicular to parabolic surface. Distance between cavities provides deformation of cable at attempts of its back pulling from **clamp**. Cylindrical guide surfaces are made on end faces of solids of revolution. Groove close to body boss is made open from side of through hole in body, is provided with **hinge**-mounted pan for solid of revolution and is spring-loaded by torsional spring arranged on axle of pan. ^ EFFECT: increased degree of cable locking and protection from unauthorized ingress. ^ 2 cl, 4 dwg

3/4 © EPODOC / EPO

PN - [DE4423101](#) C1 19950928
 PR - DE19944423101 19940701
 AP - DE19944423101 19940701
 DT - *
 CT - [DE2533933](#) A1 []
 CTNP - [] DE-Z.: gwf-gas/erdgas, 1983, S. 553-573 Prospekt der Firma

K. Ullrich GmbH & Co. KG, Speyer, 1984, mit der Bezeichnung
Kanal-, Prüf- & Absperrgeräte

- CCI - [E03F7/02](#) ; [F16L55/18](#)
PA - BECKERHARD [DE]
TI - **Clamp** for drain seal
AB - The **clamp** comprises pressure pads (19) at the end of two arms (7,8) which hold a plug seal (5) in place at the end of the drain (2). The arms are hinged together at the other end and are splayed apart by a threaded adjuster (11). The arms also press pressure grips (18) against the inside wall of the drain to secure the **clamp** in place. The threaded spreader is adjustable in its support by inserting a tubular extension into one end while the **hinge** end has adjustable bracing to spread the **hinge** setting. The grip plates are covered with a grip layer (26).

4/4 © EPODOC / EPO

- PN - [CN200947319Y](#) Y 20070912
PR - CN2006255900U 20060307
AP - CN2006255900U 20060307
DT - I
PA - HE QIUPING [CN]
TI - Roll-type drop
AB - The utility model discloses a coiling hanging-card, which comprises a card **clamp**, a card body and a sending-and-returning case. A sending-and-returning spring and a pulling line coiled in the spring are arranged in the case. The other end of the pulling line extends out of the case and is connected with a connecting head which is connected with the card-body. The card-**clamp** clings to one side of the case. For the coiling hanging-card, the sending-and-returning case is formed by two round casings which can be fastened. And a **hinge**-seat is arranged on the outer face of the round casing, and the card-**clamp** is articulated with the seat by a **hinge**-pin and a twisting-spring. When the card is needed to be checked or brushed, the **clamp** can be preserved in the original position and the card body can be pulled directly outward and the pulling line can be pulled out so the hanging-card can be away from the human body so as to realize the function of distant checking or brushing the card. When the line is set free, the line can be automatically coiled back into the case by the sending-and-returning spring, which is convenient for use.

[SS 15] ..v

[EPODOC: SS 15] ..v

[EPODOC: SS 15] gas 1w meter

Results in EPODOC 10.651

[SS 16] 15 and 10

Results in EPODOC 130

[SS 17] hinge and 16

Results in EPODOC 2

[SS 18] ..li



1/2 © EPODOC / EPO

PN - [CN105025128](#) A 20151104

PR - CN20151446402 20150728

AP - CN20151446402 20150728

DT - I

CT - || STSE (A)

[EP1947734](#) A1 20080723 [A] (PURPLE LABS [FR])

[A] 1-3

* 全文 *;

[CN203180998U](#) U 20130904 [Y] (UNIV DALIAN NATIONALITIES)

[Y] 2

* 说明书第0004-0027段，附图1-5 *;

[CN203353879U](#) U 20131225 [Y] (XU DAOLING)

[Y] 1-3

* 说明书第0003-0009段，附图1 *;

[CN203522273U](#) U 20140402 [Y] (FENG ZEQUAN, et al)

[Y] 1-3

* 说明书第0003-0017段，附图1-3 *;

[CN204810340U](#) U 20151125 [R] (GUILIN LITONG ELECTRONIC TECHNOLOGY CO LTD)

[R] 1-3

* 权利要求1-3 *

PA - GUILIN LITONG ELECTRONIC TECHNOLOGY CO LTD

TI - External hanging device of communication module

AB - The invention discloses an external hanging device of a communication module. The external hanging device comprises a **clamp** for fixing a mobile phone and a shell for mounting a circuit board, wherein the shell is connected at the side part of the **clamp** through a **hinge**, the **clamp** comprises a mobile phone groove and two convex edges mounted at two ends of the mobile phone groove, at least one convex edge is mounted movably, and the side part of each convex edge is provided with a spring for clamping the side part of the mobile phone. According to the invention, by the provided **clamp** and the shell connected at the side part of the **clamp** by the **hinge**, an external circuit module is connected with the mobile phone, as a result, in use of the mobile phone, the mobile phone not only has own functions, but also has the functions of the externally connected external circuit module, such as a wireless **gas meter** reading function and a remote alarm function, and the circuit module just needs to be externally hung at the outside of the mobile phone through the device without being built inside the mobile phone. The external hanging device of the communication module has the characteristics of being simple in structure, low-cost and highly practical.

- PN - [PL331753](#) A1 20000911
- PNFP - PL188952B B1 20050531
- PR - PL19990331753 19990304
- AP - PL19990331753 19990304
- DT - I
- PA - (A1 B1)
MOSCICKA BARBARA [PL]; MOSCICKI JANUSZ [PL]
- TI - (A1 B1)
CLASPING **COLLAR** FOR PROTECTING A WATER OR **GAS METER**
- (B1)
A protective clamping ring, especially for water and gas measuring devices.
- AB - (B1)
1. The protective clamping ring is designed especially for water and gas measuring devices. It consists of two elements, the shape of which is close to cylinder halves with openings in their bases. The first ends of these elements are bent to create two splines, the first and the second one, equipped with means to connect them. The other ends of the elements are connected to each other by means of a **hinge**. It is characterised in that the right spline (4) has at least two lugs (6) at the distance (d), and a blocking tongue (7), protruding above the internal surface of the right spline (4). The left spline (5) has the openings (9) to fit the meshes (6) and the opening (10) to fit the tongue (8). The clamping ring is made of rigid and brittle thermo-plastic material. The other ends of the clamping ring are connected to each other by means of a loose butt **hinge**.

[SS 18] ..v

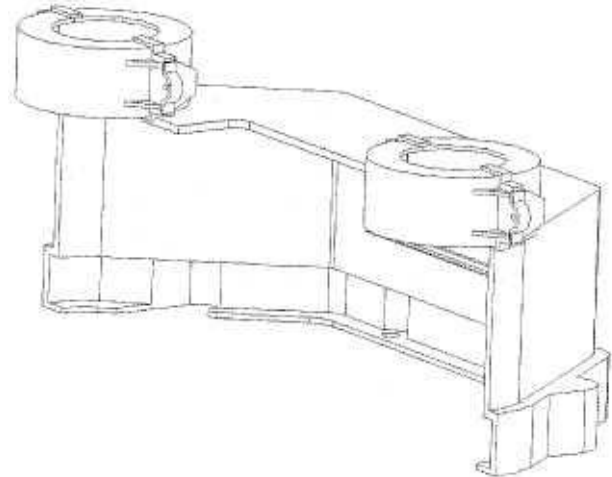
[EPODOC: SS 18] 15 and 8

Results in EPODOC 21

[SS 19] ..li



PN - [MD4396](#) B1 20160131
 PNFP - MD4396 C1 20160831
 PR - MD20150000039 20150427
 AP - MD20150000039 20150427
 DT - I
 CUI - [E05B61/00](#) ; [G01D4/02](#)
 PA - (B1 C1)
 CERBARI SERGHEI [MD];
 LUBENSCHII ALEXANDR [MD];
 BERVITSKIY SERGEY [RU]
 TI - (B1 C1)
Gas meter protection and
 sealing device
 AB - (B1 C1)
 The invention relates to gas
 meters protection and sealing
 devices, which can be used
 by **gas meter** installing
 companies and public **gas meter**
 protection device mounting
 services. The **gas meter**
 protection and sealing device
 comprises a body (1) with
 profiled contour, on the front
 side of which is made a viewing
 window (2). In the upper part of
 the body (1) are made two semi-
 rings (3) and (4) for sealing the
 meter and securing the
 connections between the flanges
 of the gas pipes and the flanges
 of the meter. The device further
 comprises two fastening semi-
 rings (7) and (8), which by means
 of a locking mechanism in the
 shape of a ratchet form fixed
 connections with the semi-rings
 (3) and (4). On the surface of the
 body (1) and on the surface of
 the fastening semi-rings (7) and
 (8) is mechanically inserted a
 sealing number.



2/21 © EPODOC / EPO

PN - [CN203038568U](#) U 20130703
 PR - CN2013229593U 20130118

AP - CN2013229593U 20130118

DT - I

PA - YONGJIA HARBOR SECURITY SEALS CO LTD

TI - Seal device

AB - The utility model provides an improved seal device which is used in measuring devices such as an electricity meter, a water meter, a **gas meter** and a taxi meter. The seal device has the advantages of being easy to mount, firm in structure and good in opening-resistant capacity. The seal device can be made of plastics and comprises a seal device body, a seal clamp handle and a seal rope. The seal device body is in a flat cuboid structure. A containing groove of the seal clamp handle is arranged in the seal device body. Non-return latches are arranged on two sides in the containing groove. A rope penetrating hole is formed in the middle of the body, penetrates through two sides of the body and is communicated with the containing groove. The length of the seal clamp handle corresponds to the depth of the containing groove. Wing-shaped elastic clamp pieces are arranged on two sides of the seal clamp handle and are matched with the non-return latches. One end of the seal rope is fixed on the body. When the seal device is used, the other end of the seal rope penetrates through the rope penetrating hole, the clamp handle is pressed down to the lowest bottom, and a seal process can be completed.

3/21 © EPODOC / EPO

PN - [CN101345004](#) A 20090114

PR - CN2007158095 20070712

AP - CN2007158095 20070712

DT - I

PA - TIANJIN JINNAN KAIDA ELECT CO [CN]

TI - Anti-theft device for electricity, water, **gas meter**

AB - The invention provides an anti-theft device used for the measurement of an electric meter, a water meter and a **gas meter**; a locking screw passes through a through hole which is arranged at the bottom of a sleeve and is connected with a sealed body subsequently; a laser holographic code is marked on the internal wall of one side surface of the sleeve and another laser holographic code is marked outside the side surface of the internal core with the same shape; subsequently, with the bottom surface facing upwards, the internal core is inserted along the internal chamber of the sleeve; the laser holographic code marks can be seen from both the two opposite surfaces of the sleeve; a small convex block on the sleeve is clamped after entering the through hole of a elastic sheet on the sleeve; the locking screw is an inverted-T-shaped flat-ended locking screw; two convex plates on the internal core lead the locking screw to be positioned and not to be rotated. The anti-theft device of the invention has the advantages of disposable operation, and reliable anti-counterfeiting, anti-opening and anti-theft.

4/21 © EPODOC / EPO

PN - [CN101344416](#) A 20090114

PR - CN2007158093 20070712

AP - CN2007158093 20070712

DT - I

PA - TIANJIN JINNAN KAIDA ELECT CO [CN]

TI - Live joint protection apparatus of **gas meter**

AB - The invention discloses a movable joint protecting device of a **gas meter**, an opening that extends to a root part of a left polycyclic crank plate is arranged in the right of the device, an upper lock plate and a lower lock plate are correspondingly and respectively arranged on an outer circle curved surface at the position of the opening, a plug with a flange is arranged on the upper lock plate, the center of the plug has longitudinal intertwining seams, a jack that is matched with the plug is arranged on the lower lock plate, a jack cover that is combined with the lower lock plate into one is arranged at the lower end of the jack and surrounds the jack into a sealed pore space, and an opening end of the jack has an annular front edge that is matched with the flange on the plug in a clamping way. The invention has the following advantages: the movable joint protecting device can conveniently prevent the privately dismounting against regulation of the **gas meter** and the gas stealing, and simultaneously avoid the danger of gas leakage that is caused by private pipe dismounting.

5/21 © EPODOC / EPO

PN - [CN201107074Y](#) Y 20080827

PR - CN20072191780U 20071114

AP - CN20072191780U 20071114

DT - I

PA - ZHEJIANG CANGNAN METER FACTORY [CN]

TI - **Gas meter** head structure for household

AB - The utility model relates to a meter head structure of a fuel **gas meter**, which adopts the separate arrangement of a meter head component and a meter body, and comprises a magnetic piece arranged on the rotary shaft in the meter, and a magneto sensor arranged outside the meter. The upper casing, a meter seat of the meter head, and a fixing plate of the fuel **gas meter** are respectively arranged between the magnetic piece in the meter and the magneto sensor outside the meter under the prerequisite for ensuring the normal magnetic induction distance. The meter seat, a circuit board component, and a meter head transparent casing are assembled together and then arranged on the fixing plate, the fixing plate is fixed above the casing on the fuel **gas meter**, the meter head transparent casing is fixed on the fixing plate through a movable fixing mechanism. Using the connection of the movable fixing mechanism can cause the meter head to realize the arbitrary assembly in the range of 360 degrees according to the assembly requirements. Using only one gas input way design can realize the left gas input or right gas input of the product after changing the display direction of the meter head. When the meter head has a failure, the integral meter does not need to be disassembled, only the meter head needs to be changed. The meter head and the meter body are independently manufactured and then are assembled to a product, the production process can be simplified, being beneficial to the production on a large scale.

6/21 © EPODOC / EPO

PN - [US4552394](#) A 19851112

PR - US19830550546 19831110; US19810274483 19810617

AP - US19830550546 19831110

DT - *; Rep

CT - || STSE (A)
[US1154960](#) A 19150928 [] (BARUCH SAMUEL [US]);
[US1361615](#) A 19201207 [] (REESMAN JOHN S);
[US1626273](#) A 19270426 [] (AMERICAN CASTING AND MFG CORP);
[US1678955](#) A 19280731 [] (OTTO ROCKENBAUER);
[US1814412](#) A 19310714 [] (GOLTZ & BROWN, et al);
[US1870040](#) A 19320802 [] (AMERICAN CASTING AND MFG CORP);
[US1909203](#) A 19330516 [] (MACKLIN FREDERICK T, et al);
[US1944195](#) A 19340123 [] (SALISBURY WILLIAM S);
[US3311396](#) A 19670328 [] (HOTCHKISS KENDALL L, et al);
[US3380267](#) A 19680430 [] (WINCHESTER WILLIAM E);
[US3757031](#) A 19730904 [] (THOMAS & BETTS CORP);
[US3858162](#) A 19741231 [] (PATENT TREUHAND GES FUER ELEKTRISCHE GLUEHLAMPEN MBH);
[US4219693](#) A 19800826 [] (CABLEVISION PRODUCTS CORP);
[US4286640](#) A 19810901 [] (ABBOTT LAB);
[US4326740](#) A 19820427 [] (BROOKS CO E J);
[US4405161](#) A 19830920 [] (YOUNG A STEVEN [US]);
[GB2014680](#) A 19790830 [] (UNITED GAS INDUSTRIES LTD);
[GB1564237](#) A 19800402 [] (HILTI AG)

CCI - [F16B41/00](#) ; [F16L19/005](#) ; [G01F15/007](#) ; [G09F3/0323](#)

CCA - [H01R13/465](#) ; [Y10T292/509](#)

PA - KESSELMAN DAVID A

TI - Tamper indicator

AB - A tamper indicator includes a collar which can be positioned to be circumambient a connection nut on a **gas meter** . The collar includes two portions which are interlocked by snap-catches which are located inside a locked collar. The collar portions are formed of frangible material and can include lines of weakening. Once in place, the collar cannot be removed without breaking it, and once broken cannot be repaired so that an indication is provided that the encircled connection nut may have been tampered with.

PN - [US4426108](#) A 19840117

PR - US19820434550
19821015; US19810274483
19810617

AP - US19820434550 19821015

DT - *; Rep

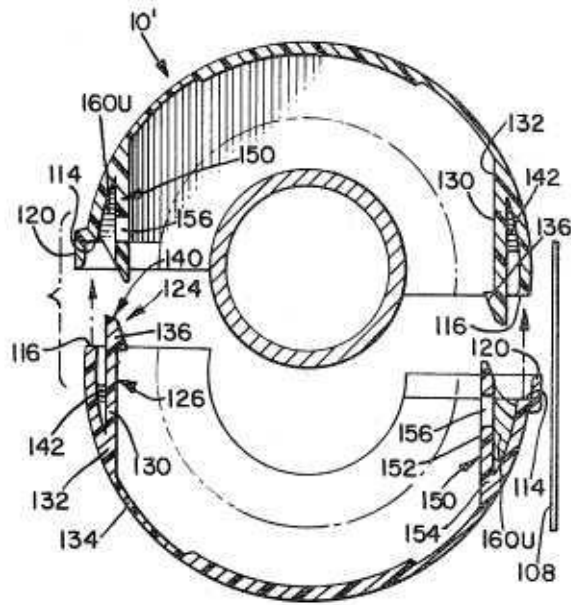
CCI - [F16B41/00](#) ; [F16L19/005](#) ;
[G01F15/007](#) ; [G09F3/0323](#) ;
[G09F3/037](#)

CCA - [H01R13/465](#) ; [Y10S411/91](#) ;
[Y10T292/509](#)

PA - KESSELMAN DAVID A

TI - Tamper indicator

AB - A tamper indicator includes a collar which can be positioned to be circumambient a connection nut on a **gas meter** . The collar includes two portions which are interlocked by snap-catches which are located inside a locked collar. The collar portions are formed of frangible material and can include lines of weakening. Once in place, the collar cannot be removed without breaking it, and once broken cannot be repaired so that an indication is provided that the encircled connection nut may have been tampered with.



8/21 © EPODOC / EPO

PN - [US4407146](#) A 19831004

PR - US19810290079 19810804; US19790098553 19791129

AP - US19810290079 19810804

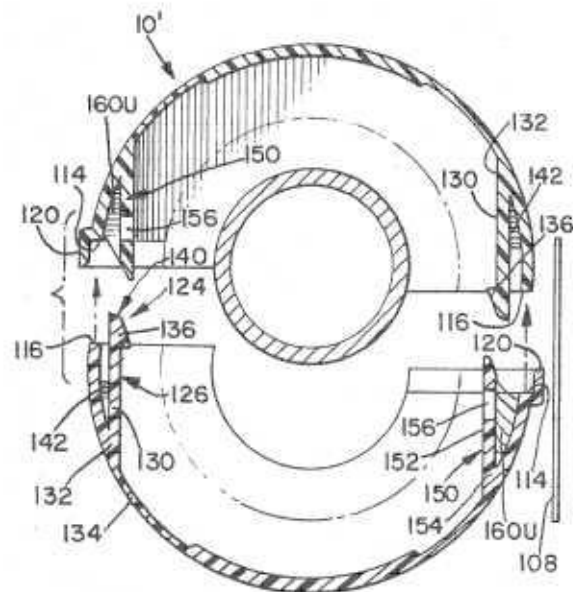
DT - *; Rep

CT - || STSE (A)
[CA203243](#) A 19200824 [] (JENSEN ANTONIUS M G);
[IT584555](#) A 00000000 [] ;
[GB379123](#) A 19320825 [] (FRANZ BREITENWEIMER);
[GB454672](#) A 19361006 [] (FRANK OSCAR SEYD);
[GB854784](#) A 19601123 [] (FRANK HENRY ARTHUR);
[US619795](#) A 18990221 [] ;
[US716204](#) A 19021216 [] (WALDO ALFONSO G DE [US]);
[US1119904](#) A 19141208 [] (HARRY VISSERING AND COMPANY [US]);
[US1579954](#) A 19260406 [] (CHARLES F A HEITKAMP, et al);

- [US1690461](#) A 19281106 [] (HENRY SIEBEN);
[US1762371](#) A 19300610 [] (CHRISTEN WILHELM JOHN);
[US1808969](#) A 19310609 [] (LAWRENCE PORTER JOHN);
[US2603080](#) A 19520715 [] (THEODORE ERICSON);
[US3540468](#) A 19701117 [] (RULETA CO INC);
[US4024740](#) A 19770524 [] (GIOVANNI BERNARD A DI);
[US4144729](#) A 19790320 [] (NIELSEN JR ANKER J)
- CCI - [F16B41/005](#) ; [F16L19/005](#) ; [G09F3/0311](#)
- CCA - [Y10T70/7927](#) ; [Y10T70/5867](#) ; [Y10T70/409](#)
- PA - OMCO INC [US]
- TI - **Gas meter** lock assembly
- AB - A lock assembly for preventing the unauthorized disconnection of a gas line where it is connected to the **gas meter** . The lock assembly has telescoping male and female shrouds, a bolt type lock and an end cap inserted transversely through the side walls of the telescoped shrouds to lock the two shrouds together to securely enclose the gas line threaded connection, and two turned back ears on the male shroud closed end which cover the female shroud open end side edges to prevent the female shroud and the male shroud from being pried apart by a pair of screwdrivers or the like.

9/21 © EPODOC / EPO

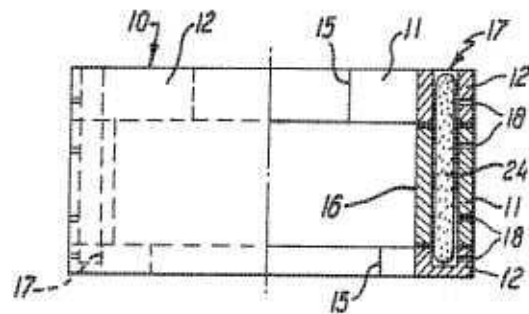
- PN - [US4372593](#) A 19830208
- PR - US19810274483 19810617
- AP - US19810274483 19810617
- DT - **
- CT - || STSE (A)
[US1154960](#) A 19150928 [] (BARUCH SAMUEL [US]);
[US1361615](#) A 19201207 [] (REESMAN JOHN S);
[US1626273](#) A 19270426 [] (AMERICAN CASTING AND MFG CORP);
[US1678955](#) A 19280731 [] (OTTO ROCKENBAUER);
[US1814412](#) A 19310714 [] (GOLTZ & BROWN, et al);
[US1870040](#) A 19320802 [] (AMERICAN CASTING AND MFG CORP);
[US1909203](#) A 19330516 [] (MACKLIN FREDERICK T, et al);
[US1944195](#) A 19340123 [] (SALISBURY WILLIAM S);
[US3311396](#) A 19670328 [] (HOTCHKISS KENDALL L, et al);
[US3380267](#) A 19680430 [] (WINCHESTER WILLIAM E);



- [US4219693](#) A 19800826 [] (CABLEVISION PRODUCTS CORP);
[US4286640](#) A 19810901 [] (ABBOTT LAB);
[US4326740](#) A 19820427 [] (BROOKS CO E J)
- CCI - [F16B41/005](#) ; [F16L19/005](#) ;
[G01F15/007](#) ; [G09F3/0323](#)
- CCA - [H01R13/465](#) ; [Y10S411/91](#) ;
[Y10T292/509](#)
- PA - KESSELMAN DAVID A [US]
- TI - Tamper indicator
- AB - A tamper indicator includes a collar which can be positioned to be circumambient a connection nut on a **gas meter** . The collar includes two portions which are interlocked by snap-catches which are located inside a locked collar. The collar portions are formed of frangible material and can include lines of weakening. Once in place, the collar cannot be removed without breaking it, and once broken cannot be repaired so that an indication is provided that the encircled connection nut may have been tampered with.

10/21 © EPODOC / EPO

- PN - [US4777901](#) A 19881018
- PR - GB19860002086
19860128; GB19860008460
19860407
- AP - US19870007667 19870128
- DT - *
- CT - [US2506806](#) A []; [US2572940](#) A [];
[US2601840](#) A []; [US3463532](#) A [];
[US3799108](#) A []; [US3964299](#) A [];
[US4175813](#) A []; [US4229813](#) A [];
[US4432462](#) A []



- CCI - [G09F3/0305](#) ; [F16B41/005](#) ;
[F16L19/005](#) ; [G01F15/007](#)
- PA - MARSDEN WAYNE M [GB];
MARSDEN WARREN L [GB]
- TI - Security marking fluid device
- AB - A security device for preventing or indicating the tampering with a joint in a supply pipe, e.g. to a **gas meter** , comprises two or more members which fit together around the joint. The members have mutually interdigitating parts through which a blind bore is provided and which houses a glass phial containing a dye. Displacement of the members from the assembled configuration breaks the phial, thereby releasing the dye which stains the members so that the tampering is readily detectable.

11/21 © EPODOC / EPO

- PN - [NL8400802](#) A 19851001
- PR - NL19840000802 19840313
- AP - NL19840000802 19840313
- DT - *; Rep
- CCI - [G09F3/0352](#)
- PA - ADRIANUS MARIA JOSEPHUS BRUIN
- TI - Seal for **gas meter** - has annular disc with opening to receive plumb, both having apertures for chord
- AB - The inspection seal has a plumb (2), with a sealing chord (1), received in the annular opening (4) of an annular disc (3). There are recesses (5,6), for the passage of the sealing chord legs, in the disc and plumb. The disc is manufactured of a material which irreversibly changes in shape or colour when forces are imparted to it for infringing the seal. Two diametrically opposed projections can be provided on the plumb (2) extending its full height, to engage recesses in the disc.

12/21 © EPODOC / EPO

- PN - [NL8302389](#) A 19850201
- PR - NL19830002389 19830705
- AP - NL19830002389 19830705
- DT - *; Rep
- CCI - [G09F3/0352](#)
- PA - ADRIANUS MARIA JOSEPHUS BRUIN

- TI - Seal for **gas meter** - has annular disc with opening to receive plumb, both having apertures for chord
- AB - The inspection seal has a plumb (2), with a sealing chord (1), received in the annular opening (4) of an annular disc (3). There are recesses (5,6), for the passage of the sealing chord legs, in the disc and plumb. The disc is manufactured of a material which irreversibly changes in shape or colour when forces are imparted to it for infringing the seal. Two diametrically opposed projections can be provided on the plumb (2) extending its full height, to engage recesses in the disc.

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- PN - [NL7713783](#) A 19790615
- PR - NL19770013783 19771213
- AP - NL19770013783 19771213
- DT - *; Rep
- CCI - [G09F3/0311](#) ; [G09F3/0323](#)
- PA - KROMSCHROEDER AG G
- TI - Security seal for **gas meter** casing - using oval disc with spring arms having retaining hooks at free ends
- AB - The security seal, for sealing a **gas meter** casing employs an oval seal (10) in the form of a disc, carrying spring arms (34) extending perpendicular to the plane of the seal (10). The arms having retaining hooks at their free ends, with a rupture point provided between the arms (34) and the seal (10). The arms are carried by a circular disc (30) at the centre of the seal (10) and secured to the latter by a neck (32) forming the rupture point. The front face of the seal (10) may carry two raised faces (20, 22) each having a printed symbol.

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- PN - [JPH10232145](#) A 19980902
- PNFP - JP3620618B B2 20050216
- PR - JP19970036040 19970220
- AP - JP19970036040 19970220
- DT - I
- FI - G01D11/24&Z; G01D11/26; G01F3/22&Z; G09F3/03&N
- FT - 2F030/CC13; 2F030/CE21
- PA - (A)
TOKYO GAS CO LTD; KIMMON MFG CO LTD; TAKENAKA SEISAKUSHO CO LTD; AICHI TOKEI DENKI KK
- TI - (A)
EVIDENTIAL-SEAL BRACKET AND **GAS METER** HAVING BRACKET THEREOF
- AB - (A)
PROBLEM TO BE SOLVED: To provide an evidential-seal bracket and a **gas meter** using the bracket thereof, which can achieve the automation of the attaching work of an evidential-seal body and facilitate the sealing work for the evidential-seal body at the same time. SOLUTION: An evidential-seal bracket 15 is attached to the main body of a

meter together with a display-part cover 13 by a screw 14. The evidential- seal bracket 15 has a bracket main body 15a, and an attaching part 15b, wherein a screw hole is formed at the base-end part, is provided. At the same time, an inserting part 15c is provided at the tip part. The inserting part 15c of the bracket main body 15 is inserted into a holding hole 16a of an evidential-seal body 16. The width and the height of the holding hole 16a provided in the evidential-seal body 16 are approximately same as those of the inserting part 15c of the bracket main body 15a. When the inserting part 15c of the bracket main body 15a is inserted, the mutually engaged state is obtained. Thus, the evidential-seal body 16 is strongly held with the evidential-seal bracket 15.

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PN - [GB2274871](#) A 19940810

PNFP - GB2274871 B 19951122

PR - GB19930001334 19930123

AP - GB19930001334 19930123

DT - *

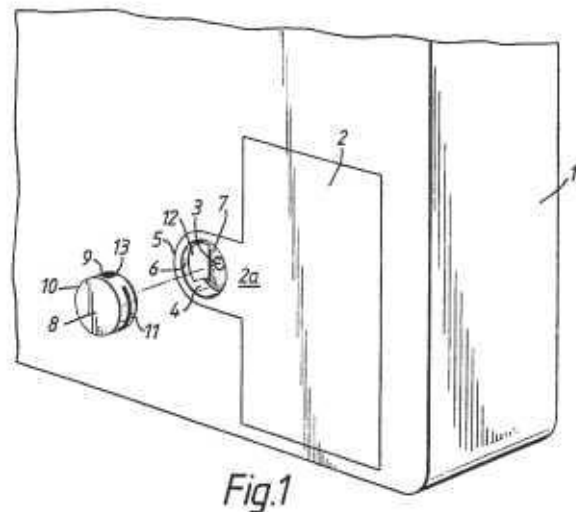
CT - (A B)
[US4262946](#) A []

CCI - [G09F3/0323](#) ; [G01F15/00](#) ;
[G01F15/007](#) ; [G01F15/06](#)

PA - (A B)
SIEMENS MEASUREMENTS LTD
[GB]

TI - (A B)
Improvements in or relating to
utility supply meters

AB - (A)
An electrically operated **gas meter**, or other supply meter having a housing 1 which includes a battery compartment having a closure cover 2 held in a closed position by locking 3 means normally obscured from sight and rendered inaccessible by means of a tamper proof cover seal 8, the cover seal being colour coded to indicate the approximate date of battery installation in the meter.
<IMAGE>



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PN - [GB2113616](#) A 19830810

PNFP - GB2113616 B 19860508

PR - GB19820001177 19820115

AP - GB19820001177 19820115

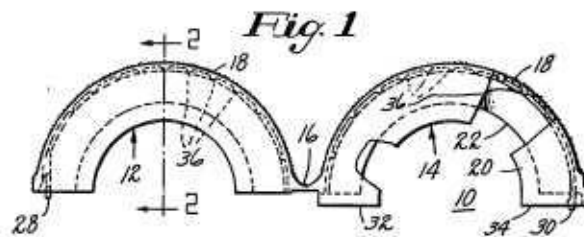
DT - *

CCI - [F16B41/007](#)

PA - (A B)
BROOKS COMPANY EJ

TI - (A B)
Sealing device for a pipe
coupling nut

AB - (A)
A sealing device 10 for a pipe
coupling nut, such as is used to
connect a **gas meter** to a gas
supply line, is made in two
portions 12, 14, which may be
connected by a flexible web 16,
and the portions have integral
means for locking together
around the nut. Each portion has
an outer shell with internal
protrusions 36 on its inner
surface. The portions are made
of pigmented plastics material,
for example polypropylene, such
as to form a white blush on the
surface when permanently
deformed. Thus, if an attempt is
made to remove the sealing
device by a wrench or the like,
the internal protrusions are
forced against the nut, forming
white blushes on the outer
surface opposite the position of
the ribs, giving visual evidence
of tampering. <IMAGE>



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PN - [FR2412056](#) A1 19790713

PR - FR19770037976 19771216

AP - FR19770037976 19771216

DT - *; Rep

CCI - [G01D11/00](#) ; [G01D11/24](#) ; [G01F15/007](#) ; [G01F15/14](#) ; [G09F3/0311](#) ; [G09F3/0323](#)

PA - KROMSCHROEDER AG G [DE]

- TI - Security seal for **gas meter** casing - using oval disc with spring arms having retaining hooks at free ends
- AB - The security seal, for sealing a **gas meter** casing employs an oval seal (10) in the form of a disc, carrying spring arms (34) extending perpendicular to the plane of the seal (10). The arms having retaining hooks at their free ends, with a rupture point provided between the arms (34) and the seal (10). The arms are carried by a circular disc (30) at the centre of the seal (10) and secured to the latter by a neck (32) forming the rupture point. The front face of the seal (10) may carry two raised faces (20, 22) each having a printed symbol.

18/21 © EPODOC / EPO

- PN - [CN2707660Y](#) Y 20050706
- PR - CN2004246995U 20040610
- AP - CN2004246995U 20040610
- DT - I
- PA - WANG YUANBIN [CN]
- TI - Environmental protection hasp device
- AB - The utility model provides an environmental protection hasp device, comprising metal wires, a plastic hasp body, a hasp core and a bottom cap. The hasp body is provided with an inner cavity with both ends opened; a bottom opening on the inner wall of the hasp body is provided with an inner convex ring; positioning teeth and a guide hole are arranged near an upper opening. The bottom cap is fused on the bottom opening end of the hasp body. The hasp core is positioned in the inner cavity of the hasp body, and provided with a locking groove and a guide hole. The upper flange of the groove is provided with external teeth; the top of the upper flange is provided a cover plate with a handle; at least two elastic locking hang arms are arranged at the bottom of the lower flange of the groove; the outer surface of the free ends of the elastic locking hang arms are provided with an upper and a lower convex rings used for hasping with the inner convex ring of the hasp body. The hasp body and the hasp core are locked by adopting the mode of the elastic locking hang arms to hook and the inner and the outer teeth to engage without the need to use any tools. The utility model has the advantages of convenient operation, safety and reliability, and is widely applicable to seal a price-marking weigher of the taxi, an electric meter, a **gas meter**, goods, a shipping container, etc.

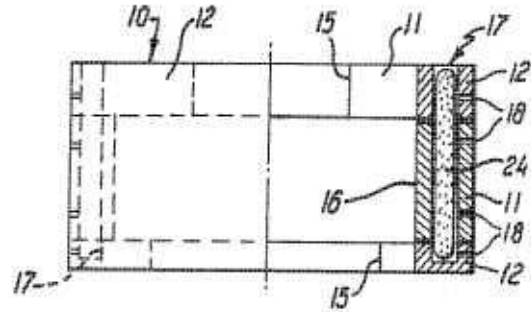
19/21 © EPODOC / EPO

- PN - [CN1149166](#) A 19970507
- PR - CN1996115561 19960828
- AP - CN1996115561 19960828
- DT - I
- PA - LIN HONGJIN [CN]
- TI - Seal for preventing thieves
- AB - An anti-theft encrypted sealing suitable for kilowater-hour meter, metering box, **gas meter** and water meter has a sealing label in polygonal, square or circular shape with numerals representing year and holes uniformly distributed on its edge, toothed sealing

wire, sealing lock connected to one end of sealing wire and with conic square hole and toothed clamp, and thin plat representing month. The aboved mentioned sealing wire, sealing lock and thin plat are connected together.

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PN - [CA1277873](#) C 19901218
 PR - GB19860002086
 19860128; GB19860008460
 19860407
 AP - CA19870528249 19870127
 DT - I
 CCI - [G09F3/0305](#) ; [F16B41/005](#) ;
[F16L19/005](#) ; [G01F15/007](#)
 PA - MARSDEN WAYNE M [GB];
 MARSDEN WARREN L [GB]
 TI - SECURITY DEVICES
 AB - SECURITY DEVICE A security
 device for preventing or
 indicating the tampering with a
 joint in a supply pipe, e.g. to
 a **gas meter** , comprises two or
 more members which fit together
 around the joint. The members
 have mutually interdigitating
 parts through which a blind bore
 is provided and which houses a
 glass phial containing a dye.
 Displacement of the members
 from-the assembled
 configuration breaks the phial,
 thereby releasing the dye which
 stains the members so that the
 tampering is readily detectable.



21/21 © EPODOC / EPO

PN - [CA1177650](#) A 19841113
 PR - US19810274483 19810617
 AP - CA19810387788 19811013
 DT - I
 CCI - [F16B41/005](#) ; [F16L19/005](#) ; [G01F15/007](#) ; [G09F3/0323](#)
 CCA - [H01R13/465](#) ; [Y10S411/91](#) ; [Y10T292/509](#)
 PA - KESSELMAN DAVID A
 TI - TAMPER INDICATOR
 AB - 13 A tamper indicator includes a collar (10, 10') which can be positioned to be
 circumambient a connection nut (N) on a **gas meter** (M). The collar (10) includes two

portions (12, 14) which are interlocked by snapcatches (42, 44) which are located inside a locked collar. The collar portions (12, 14) are formed of frangible material and can include lines of weakening (40). Once in place, the collar (10, 10') cannot be removed without breaking it, and once broken cannot be repaired so that an indication is provided that the encircled connection nut (N) may have been tampered with.

[SS 19] ..v

[EPODOC: SS 19]