

(19) **DANMARK**

(10) **DK/EP 3893689 T3**



Patent- og
Varemærkestyrelsen

(12) Oversættelse af
europæisk patentskrift

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- (51) Int.Cl.: **A 45 C 11/36 (2006.01)** **A 45 C 11/34 (2006.01)**
- (45) Oversættelsen bekendtgjort den: **2022-11-28**
- (80) Dato for Den Europæiske Patentmyndigheds bekendtgørelse om meddelelse af patentet: **2022-08-31**
- (86) Europæisk ansøgning nr.: **19831972.5**
- (86) Europæisk indleveringsdag: **2019-11-28**
- (87) Den europæiske ansøgnings publiceringsdag: **2021-10-20**
- (86) International ansøgning nr.: **AT2019060406**
- (87) Internationalt publikationsnr.: **WO2020118325**
- (30) Prioritet: **2018-12-12 AT 602352018** **2019-03-20 AT 502402019**
- (84) Designerede stater: **AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR**
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- (54) Benævnelse: **ANORDNING TIL SIKKERT OPTAG AF TEGNEREDSKABER**
- (56) Fremdragne publikationer:
EP-A1- 2 221 187
AT-A1- 501 084
DE-U1-202013 103 074

Description

Technical field

5 [0001] The invention relates to an apparatus for receiving drawing utensils in a secured manner, said apparatus receiving at least one set square between two triangular plates of a triangular base receptacle, wherein the plates are arranged with respect to one another and are connected
10 to one another such that a compartment for the set square is spanned therebetween, wherein the compartment has on one side an insertion opening for the set square and has, in a plate, an insertion slot for a grip piece of the set square, said insertion slot starting from the insertion opening and
15 being in parallel with the insertion direction, and wherein arranged above the triangular plate, having the insertion slot, of the base receptacle for a large set square is at least one further cover plate, which spans an additional compartment for additional drawing utensils and is connected
20 to the base receptacle whilst spanning the additional compartment.

Prior art

25 [0002] One such apparatus is known, for example, from DE 202013103074 U1. An apparatus for receiving rectangular rulers is disclosed in AT 501084 A1. Other apparatuses of the generic type are disclosed in GB 2155406 A, which discloses a receiving apparatus for an eraser, a sharpener
30 and two pencils, CN 103507501 A and DE202004013993 U1.

[0003] Such apparatuses are made of plastic, wood or metal, for example aluminium, and have a high degree of torsional rigidity, as a result of which set squares and/or rulers can
35 be protected against mechanical damage. The apparatuses are intended to enable rulers to be transported in school bags in a manner protected against breakage. Known protective cases have a triangular shape and may be provided with a

scale on the hypotenuse and thus can themselves be used as a measuring tool or as a sliding aid for set squares.

Summary of the invention

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[0004] The problem addressed by the invention is therefore that of receiving at least two set squares, a ruler and optionally drawing pencils, a sharpener and an eraser in a secured and space-saving manner, in order to protect them
10 against damage or breakage. The term "ruler" will also be understood to include lettering stencils. Drawing pencils in a variety of different sizes and with different cross-sections should be able to be received in the apparatus in a secured manner.

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[0005] The invention solves the stated problem by providing an apparatus as claimed in claim 1. In the apparatus, at least one groove-shaped pencil receptacle is provided between the hypotenuse of the base receptacle and the closer
20 cover plate, said pencil receptacle being configured such that it receives a drawing pencil in a clamping manner on the flank side and that the pencil receptacle comprises a T-groove extending in a pencil receptacle longitudinal direction, into which at least one two-limbed clamping
25 spring, which forms a pencil holder for a drawing pencil and protrudes from a guide plate inserted into the T-groove, for receiving the drawing pencil is inserted.

[0006] In order for drawing pencils to be received by the
30 apparatus in a secured manner, at least one groove-shaped pencil receptacle is provided between the hypotenuse of the base receptacle and the closer cover plate, said pencil receptacle being configured such that it receives a drawing pencil in a clamping manner on the flank side. One, two or
35 more groove-shaped pencil receptacles may be provided, which receive a drawing pencil, in particular a lead pencil, in a clamping manner. Round, triangular, hexagonal or arbitrarily shaped drawing pencils are held in a secured manner in the

receiving space preferably by means of studs or lips, which are preferably elastic and are arranged along the longitudinal sides of the pencil receptacles, between which the drawing pencils can be inserted, and project towards the receiving space. Drawing pencils can thus be received in a manner secured against breakage.

[0007] Since drawing pencils in a variety of different sizes and with different cross-sections are nowadays available on the market, it is advantageous to take appropriate measures so as to be able to adjust the pencil receptacle. To this end, the pencil receptacle comprises a T-groove extending in a pencil receptacle longitudinal direction, into which at least one two-limbed clamping spring, which forms a holder for a drawing pencil and protrudes from a guide plate inserted into the T-groove, for receiving the drawing pencil is inserted. The respective drawing pencil is inserted between the two limbs of the clamping spring and is held by the latter in a secured manner. Two or more holders may be inserted next to one another in the T-groove in the pencil receptacle longitudinal direction, optionally in a replaceable manner. The holder may also have a profile length and size accordingly adapted to the drawing pencil to be received. The length can preferably be adjusted by a user himself where necessary.

[0008] At least one further compartment is therefore provided in at least one parallel receiving plane above the triangular base receptacle, having the insertion slot, for the large set square, said further compartment being spanned by the cover plate. The cover plate is connected to the base receptacle, in particular is formed in one piece therewith, whilst spanning the compartment for additional drawing utensils.

[0009] Two or more drawing utensils can thus be received in an apparatus in a secured manner. In particular, the additional compartment may form a receptacle for a smaller

set square, the triangular cover plate of which is inserted between the catheti of the base receptacle, whilst leaving the insertion opening free.

5 [0010] The insertion slots for the smaller and for the larger set square may be assigned to the same or opposite catheti of the base receptacle. In addition, another additional receptacle may be provided, which forms a receptacle for a rectangular ruler, wherein the additional receptacle which
10 forms a receptacle for a rectangular ruler comprises a cover plate, which is arranged above the base receptacle in a manner plane-parallel to the base receptacle and the insertion slot of which is provided in the region of one of the two catheti of the base receptacle. As in the case of
15 the set squares, the insertion slot may be provided in the region of one of the two catheti of the base receptacle. Preferably, the one insertion opening for the large set square is assigned to one cathetus and the insertion openings for the small set square and the ruler are assigned to the
20 other, opposite cathetus of the apparatus. The cover plates may again have insertion slots starting from an insertion opening, or may have the aforementioned apertures, in order to be able to cleanly grip a respective ruler or set square for removal purposes.

25 [0011] If the plates of the base receptacle or the plate of the base receptacle and the cover plate are spaced apart from one another such that they receive the set square therebetween in a clamping manner, optionally with the
30 interposition of a holding element, this ensures that the drawing utensils are securely held in the apparatus using simple means. Holding means may be, for example, plastic layers, fabric layers or the like, which on the one hand are gentle on the drawing utensils and on the other hand have
35 suitable adhesive friction so that the drawing utensils can only be removed from the apparatus intentionally. The securing of drawing utensils, in particular set squares or rulers, in the respective receptacle takes place by clamping

the respective drawing utensil against the top and/or bottom of the respective receptacle. The drawing utensil is inserted between the top and bottom of the receptacle, which is delimited by plates that optionally in part have apertures. The apertures can enable access to the respective drawing utensil for removal thereof.

[0012] A cuboid receiving compartment for an eraser may preferably be provided next to the insertion opening and above the base receptacle between two cover plates which lie in one plane, wherein at least one wall which delimits the receiving compartment optionally comprises clamping studs which protrude into the receiving compartment. An eraser can thus additionally be easily stored in the apparatus. The receptacle for the eraser may comprise clamping studs which protrude from the wall that delimits a receiving compartment, by means of which clamping studs the eraser can be clamped in the receiving compartment. In this case, the clamping studs may belong to one or both walls, in particular opposite walls, which clamp the eraser therebetween. If the clamping studs are assigned to two opposite walls of the receiving compartment, it is advisable for the clamping studs of the two walls to be spaced apart from one another.

[0013] If the intention is to use the apparatus to transfer a measure of length to a compass by simple means, it is advantageous if the base receptacle which has a triangular shape is provided in the region of the hypotenuse with a scale having tick marks and the tick mark of a zero point is provided with a compass starting point. In particular, the apparatus forms a scaled ruler (30 cm) with an insertion point for a compass. Provided along the hypotenuse of the apparatus, therefore, is a length measuring instrument which has a scale in millimetre increments from zero to 30 cm. The scale runs from left to right or from right to left, wherein the measuring range starts at the zero point that has said insertion point for a compass.

[0014] The holder is guided in the T-groove so as to be displaceable in the pencil receptacle longitudinal direction preferably in displacement portions, wherein the displacement portions are delimited by latching elements.

5 This can prevent the holders from being lost when the drawing pencil is removed and the T-groove is open at the end. However, the T-groove may also be closed at the end by a stopper which can be inserted into the T-groove.

10 [0015] Furthermore, a receiving container for a sharpener or the like may be provided between the hypotenuse and the closer cover plate.

[0016] The apparatus provides the possibility of being able to store and transport the writing and drawing instruments necessary for teaching in a secured manner in a container, and of easily removing them without having to open lids, flaps, fasteners, etc. The apparatus can be used to transport in a secured manner a small and a large set square, a ruler
15 (15 cm), two drawing pencils, an eraser and a drawing pencil sharpener, optionally with a detachable box to which the sharpener is fastened.
20

[0017] Each individual part can very easily be removed or
25 reinserted using 1 hand (or 2 fingers).

[0018] The apparatus may have, on the front side and/or rear side thereof, data fields for inscriptions, for example a name field, a data field for printing, logo, advertising and
30 the like, and preferably a rewritable timetable on the rear side.

Brief description of the invention

35 [0019] The subject matter of the invention is shown by way of example in the drawing, in which:

Fig. 1 shows an apparatus according to the invention in plan view,

Fig. 2 shows the apparatus of Fig. 1 in section along the line II-II,

5 Fig. 3 shows an enlarged detail from Fig. 1 showing a preferred pencil receptacle, and

Fig. 4 shows the pencil receptacle of Fig. 3 in section along the line IV-IV.

10 Ways of implementing the invention

[0020] The apparatus 1 for receiving drawing utensils in a secured manner receives a large set square 5 between two plates 7, 8 of a base receptacle 4, wherein the plates 7, 8
15 are arranged with respect to one another and are connected to one another such that a compartment for the set square 5 is spanned therebetween, wherein the compartment has on one side an insertion opening E2 for the set square 5 and has, in the plate 7, an insertion slot for a grip piece 6 of the
20 set square 5, said insertion slot starting from the insertion opening E2 and being in parallel with the insertion direction. Arranged above the triangular plate 7, having the insertion slot, of the base receptacle 4 for the large set square 5 is at least one further cover plate 3, which spans
25 an additional compartment for additional drawing utensils, a small set square 2, and is connected to the base receptacle 4 whilst spanning the additional compartment. The triangular cover plate 3 of the additional receptacle is inserted between the catheti of the base receptacle 4.

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[0021] A small set square 2 is inserted into the apparatus 1 at the top left. A lateral insertion slot E1 below the uppermost cover plate 3 enables the set square 2 to be removed by a sliding movement to the left. This uppermost
35 cover plate 3 is arranged at a distance from a base receptacle 4. The receptacle for the small set square 2 is delimited in the downward direction by the base receptacle 4 for a large set square 5 and in the upward direction by

the uppermost cover plate 3. The cover plate 3 is connected to the base receptacle 4 along two of the three sides. The insertion slot E1 for the small set square 2 is provided in the region of the third side.

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[0022] Located at the top right is a name field NAME, a printed frame in which a name can be entered using a permanent drawing pencil 13, or in which a name label can be inserted.

10

[0023] Below this, in the direction of the hypotenuse of the triangular apparatus, it is possible to see in the middle of the apparatus 1, in the base receptacle, the insertion slot E2 for the grip piece of the large set square 5, which is inserted into the base receptacle 4 of the apparatus from the right. By using its handle 6, the large set square 5 can be removed by a sliding movement to the right, or can be pushed back into the base receptacle 4, which is delimited in the upward direction by the middle plate 7 and in the downward direction by a base plate 8. The middle plate 7 and the base plate 8 are connected to one another along two of the three sides. The insertion slot E2 for the large set square 6 is provided in the region of the third side.

25

[0024] In the middle of the apparatus, to the left of the insertion slot E3 and the handle 6, an eraser 9 can be inserted into a receptacle in a clamping manner between the cover plate 3 of the small set square 2 and a cover plate 10 of a ruler 11. Here, clamping studs 13 protrude from the cover plate 3 towards the receiving compartment which receives the eraser 9 in a clamping manner.

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[0025] The cover plate 10 of the ruler 11 is provided in the middle below the receiving compartment, as seen in the direction of the hypotenuse of the apparatus. The ruler 11 is removed from or inserted into the apparatus via an insertion slot E3, which is open to the left. The ruler 11 can be removed by a sliding movement to the left and can be

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reinserted by a sliding movement to the right. The cover plate 10 is connected to the base receptacle 4 along two or three sides. Provided in the region of the fourth side, and optionally also the third side, is an insertion slot for the ruler 11, which might be able to be pushed through its receptacle.

[0026] Located therebelow are two groove-shaped pencil holders 12 for drawing pencils 13. By tilting the drawing pencils 13 as a result of pressing the pencil tips towards the middle plate 7, each drawing pencil 13 can be lifted out of the recess. Drawing pencils 13 are held in a secured manner in the respective pencil holder 12 by means of preferably elastic studs 14 which are arranged along the longitudinal sides of the receptacles, between which the drawing pencils 13 can be inserted, and protrude towards the receiving space. The drawing pencils 13 may have a thickness, a cross-sectional diameter, of 2 to 14 mm.

[0027] The pencil holder 12 has a T-groove 16 extending in the pencil receptacle longitudinal direction, into which at least one two-limbed clamping spring 18, which forms a holder 15 for a drawing pencil 13 and protrudes from a guide plate 17 inserted into the T-groove 16, for receiving the drawing pencil 13 is inserted. The holders 15 are guided in the T-groove 16 so as to be displaceable in the pencil receptacle longitudinal direction in displacement portions, wherein the displacement portions are delimited by latching elements, the studs 14.

[0028] Located to the right thereof is a receptacle 19 for a pencil sharpener 20 (Fig. 1). Inserted into the receptacle is a container 21, which bears the pencil sharpener 20 on an end face, inside the container. A drawing pencil 13 can thus be sharpened while the container 21 is inserted in the receptacle 19, and the shavings are stored in the container until the time of disposal.

[0029] A ruler scale from 0 to 30 cm is applied (printed) at the bottom end in the region of the hypotenuse of the apparatus. Graduated in mm increments, each cm point is provided with a number. This is therefore a fully fledged
5 "ruler". The tick mark assigned to the 0 point of the scale is provided with an insertion point 0 for a compass.

Patentkrav

1. Anordning (1) til sikkert optag af tegneredskaber, som mindst optager en tegnetrekant (5, 2) mellem to trekantede plader (7, 8) af et trekantet basisoptag (4),
5 hvor pladerne (7, 8) er anbragt på en sådan måde i forhold til hinanden og forbundet med hinanden på en sådan måde, at der dannes et rum til tegnetrekanten (5), hvor rummet på en side har en indskubningsåbning (E2) til tegnetrekanten (5) og i en plade (7) startende fra indskubningsåbningen (E1) har en indskubningsretningsparallel indskubningsslids til et gribestykke (6) af tegnetrekanten (5), og hvor
10 der over basisoptagets (4) trekantede plade (7) med indskubningsslidsen (E3) til en stor tegnetrekant (5) er anbragt mindst en yderligere dækplade (3), der danner et ekstrarum til yderligere tegneredskaber, som ved dannelse af ekstrarummet er forbundet med basisoptaget (4), **kendetegnet ved, at** der mellem hypotenusen af basisoptaget (4) og den tættere liggende dækplade (10) er tilvejebragt mindst et
15 rilleformet blyantsoptag, som er udformet på en sådan måde, at det på klemmende vis på flankesiden optager en tegneblyant (13), og at blyantsoptaget omfatter en T-rille i blyantsoptagslængderetningen, i hvilken der er indsat mindst en tobenet klemfjeder (18), som udgør en blyantsholder (12) til en tegneblyant (13) og stikker ud fra en føringsplade (17) indsat i T-rillen (16), til optag af tegneblyanten (13).
20
2. Anordning (1) ifølge krav 1, **kendetegnet ved, at** ekstraoptaget udgør et optag til en mindre tegnetrekant (2), hvis trekantede dækplade (3) er indsat mellem basisoptagets (4) kateter.
- 25 3. Anordning (1) ifølge krav 1 eller 2, **kendetegnet ved, at** ekstraoptaget udgør et optag til en rektangulær lineal (11), hvis dækplade (10) er anbragt over basisoptaget (4), og hvis indskubningsslids (E3) er tilvejebragt i området med en af de to kateter af basisoptaget (4).
- 30 4. Anordning (1) ifølge et af kravene 1 til 3, **kendetegnet ved, at** basisoptagets (4) plader (7, 8) har en sådan afstand til hinanden, at de på klemmende vis optager tegnetrekanten (5) mellem sig, eventuelt ved indlægning af et holdeelement.
- 35 5. Anordning (1) ifølge et af kravene 2 til 4, **kendetegnet ved, at** basisoptagets (4) plade (7) og dækpladen (3) har en sådan afstand til hinanden, at de på klemmende vis optager den lille tegnetrekant (2) og/eller en lineal (11), eventuelt ved indlægning af et holdeelement.

6. Anordning (1) ifølge et af kravene 1 til 5, **kendetegnet ved, at** der over basisoptaget (4) mellem to dækplader (3, 10), der ligger i et plan, er tilvejebragt et blokformet optagsrum til et viskelæder (9), hvor mindst en væg, der begrænser rummet, omfatter klemknopper (13), der stikker ind i optagsrummet.

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7. Anordning (1) ifølge et af kravene 1 til 6, **kendetegnet ved, at** basisoptaget (4), som har en trekantet form, i området med hypotenusen er forsynet med en måleinddeling med skalastreger, og skalastregen for et nulpunkt er udstyret med et cirkelstartpunkt (0).

10

8. Anordning (1) ifølge et af kravene 1 til 7, **kendetegnet ved, at** blyantsholderen (12) føres i T-rillen (16), så den kan forskydes i forskydningsafsnit i blyantsoptagslængderetningen, hvor forskydningsafsnittene er begrænset af indgrebselementer (14).

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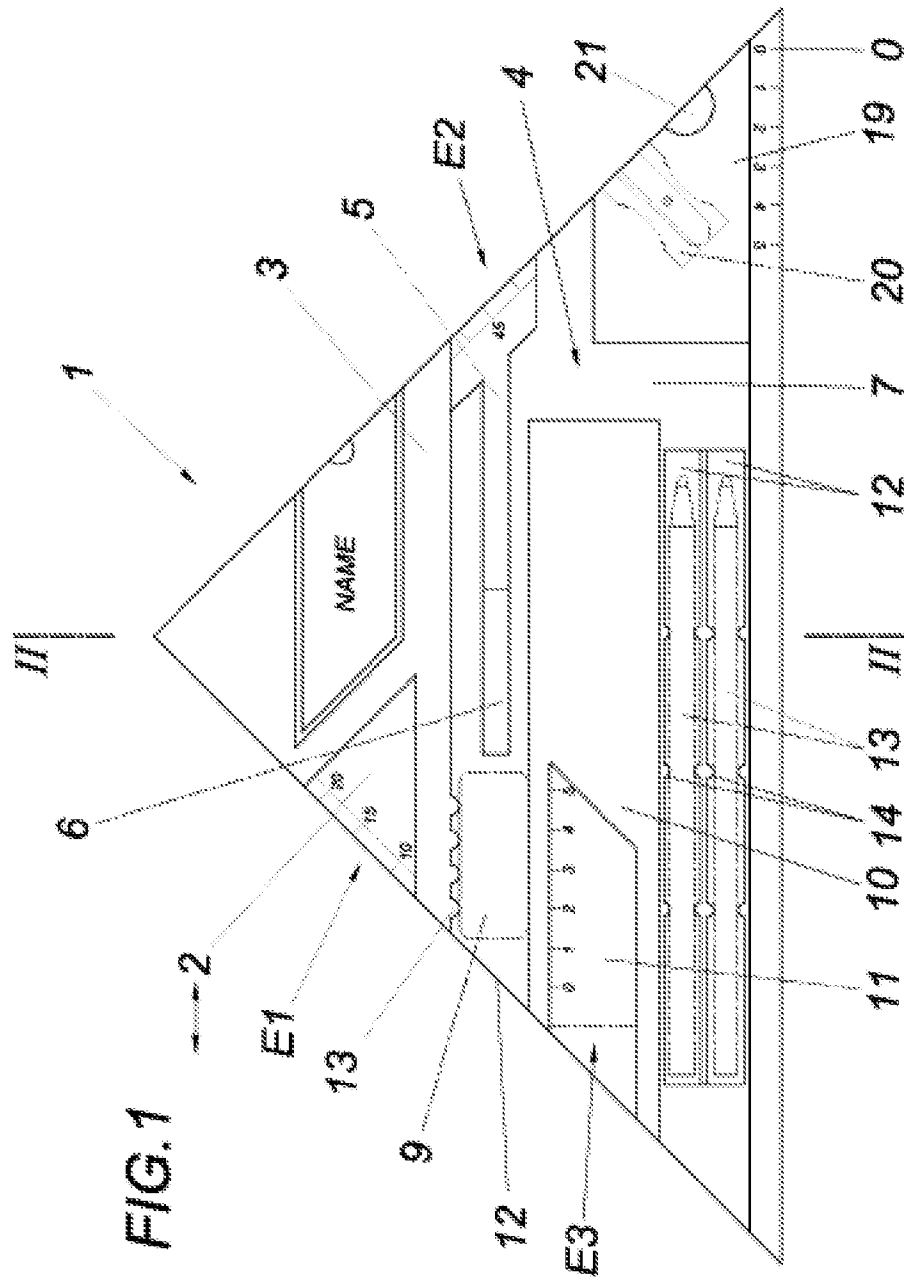


FIG.2

