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(12) # EUROPEAN PATENT SPECIFICATION

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(54) **Sweeper head support.**

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Description

This invention relates to a sweeper head support having a length which considerably increases its width and comprising means for securing a sweeper head or the like at the support and a handle attaching means comprising a slide member movable between a central position on the support and at least one position at the side edges of the support.

Conventional sweeper head supports are plate shaped and the handle attaching means are permanently arranged at the centre of the plate which means that the plate is turned about this central point when the handle is turned during use. However, it is often troublesome to clean under low, wide objects with such a device since the plate with its sweeper head does not reach particularly far in under the object when the operator is standing right up. In order to achieve a god cleaning result it is necessary to work in such positions which from an ergonomical point of view is not satisfying.

In order to create a tool making it possible to clean under low, wide objects without considerably deteriarating the working position it has been suggested to move the handle attaching means in the length direction of the support, see German OS 2.731.432. However, the suggested arrangement is troublesome and time consuming to handle and has not become any market success.

According to the present invention a handle attaching means is created which considerably facilitates the movement of this means on the support without touching the dirty mop head. This is achieved by combining the handle attaching means with a spring loaded locking mechanism according to claim 1.

The invention will now be described with the reference to the accompanying drawings where fig. 1 is a plan view of a device according to a first embodiment of the invention and fig. 2 is a section on line II-II in fig. 1, figs. 3-6 show a second embodiment of the invention where fig. 3 is a top view, figs. 4 and 5, respectively are sections on the lines IV-IV and V-V respectively and fig. 6 is a partly broken side elevation view.

The sweeper head support according to fig. 1 and 2 comprises a plate 10 preferably of metal whose underside is covered with an elastic material 11 such as foam rubber. The length-width relation of the plate is comparatively large and its two side edges 12, 13 are inclined so that they together with the front and rear edge 14, 15 respectively form a rhomboid. Parallel to the front and rear edge 14, 15, respectively there are two L-shaped upwardly extending profiles 16 and 17, respectively which are joined to the plate so that a groove 18 and 19, respectively is created on each side of the support. This grooves receive the outer parts of two thread springs 20, 21, respectively which are pivotally fastened to two sockets 22 and 23, respectively being firmly connected to the base plate at each side edge 12 and 13. Each thread spring has a grip means 24 by means of which the springs can be moved out of engagement with the grooves. By loosening the springs a sweeper head can be wrapped about the plate and be fixed by means of the thread springs 20 and 21, which press the sweeper head into the grooves 18 and 19.

Parallel to the front and rear edge 14 and 15 and at the middle of the plate there are two further L-shaped profiles 25 and 26, extending upwards so that a groove 27 is formed. In this groove 27 a slide member 28 preferably of plastics is movable. The slide member 28 comprises a spring holder 29 which pivotally receives a thread spring 30. The thread spring 30 has a first arm 31 which extends mainly parallel to the groove 27 and can be inserted into and kept in the groove since its outer end is shaped as a hook 32. The thread spring 31 also has a second arm 33 which is provided with a 90° bend so that the outer end of the second arm extends perpendicular to the groove and over its width and under the first arm 31. In the shown position the second arm 33 is placed in a recess 34 in the profile 25 thereby locking the slide means against movement in the length direction of the groove 27.

By moving the first arm 31 from the groove 27 and swinging it upwards the second arm 23 disengages the recess 34 and the slide member 28 can be moved along the groove 27. The slide member can thus be moved towards the left in fig. 1 to a position near the end of the groove where the second arm 33 when the thread spring 30 has been depressed into the groove 27 is locked in a recess 35.

The slide member also comprises an upper part 36 which via an universal joint is fastened to a handle socket 37. This universal joint comprises a bent bar the lower end of which is a shaft 38 which is pivotally secured in a hole being parallel to the groove 27 and positioned in the upper part 36. The shaft 38 is secured by means of a locking washer 39. Also the upper part of the bar is shaped as a shaft 40 being fastened to the handle socket 37 so that the shaft 40 is perpendicular to the shaft 38. The handle socket is by means of resilient locking means 41 be fixed to a handle not shown.

In the embodiment shown in figs. 3-6 the slide member 28 has a bottom part 42 which is movable in the groove 27 and an upper part 43 in which the shaft 38 is inserted. The upper part also comprises two vertical flanges 44 which by means of a rivet 45 support a rocker arm 46 one end of which is provided with a plate shaped knob 47 being activated by the foot of the operator. The other end of the rocker arm is inserted into a recess 48 which is provided in the upper part 43, the recess having a top wall 49 against which a U-shaped leaf spring 50 abuts with one of its legs. The other leg of the leaf spring abuts the other end of the

rocker arm and has a ridge 51 engaging a recess in the rocker arm, the rocker arm being forced clockwise about the rivet 45. The rocker arm also supports a locking pin 52 extending through a hole 53 in the bottom plate 42 of the slide member. This pin cooperates with several holes 54 in the groove 27. By depressing the knob 47 temporarily the pin 52 disengages the hole 54 whereby it is possible to move the slide member along the groove 27. When the slide member has been moved to a position where the pin reaches the actual hole in the groove 27 the pin is pressed into the hole by means of the spring 50 thereby locking the slide member with respect to the plate 10.

Claims

1. Sweeper head support having a length which considerably increases its width and comprising means for securing a sweeper head or the like at the support and a handle attaching means comprising a slide member (28) movable between a central position on the support and at least one position at the side edges (12, 13) of the support **characterized** in that the slide member (28) is provided with a spring loaded locking mechanism by means of which the slide member can be locked at different positions on the sweeper head support.

2. Sweeper head support according to claim 1, **characterized** in that the sweeper head support is shaped as a plate (10) with a longitudinal groove (27) the locking mechanism comprising a spring (30) which in its locked position rests in the groove (27) and thus presses a locking means (33) against a recess (34) in the plate.

3. Sweeper head support according to claim 2, **characterized** in that said spring has a hook (32) by means of which the spring can be locked in the groove (27).

4. Device according to claim 2 or 3, **characterized** in that the spring (30) is integrated with the locking means (33) and is pivotally fastened to the slide member.

5. Device according to any of claims 1-4, **characterized** in that the groove is formed by two from the plate (10) upwardly extending opposite parallel L-shaped profiles.

6. Device according to claim 1, **characterized** in that the slide member (28) supports a rocker arm (46) which under the influence of a spring (50) presses a locking mean (52) towards movement limiting means (54) in the sweeper head support.

7. Device according to claim 6, **characterized** in that the rocker arm has a free end which when being depressed releases the locking means (52) from the movement limiting means (54).

Ansprüche

1. Halter für einen Wischkopf mit einer Länge, die die Breite beträchtlich überschreitet, und mit Elementen zum Befestigen eines Wischkopfs od.dgl. an dem Halter und einem Element zum Anbringen eines Handgriffs, das ein zwischen einer zentralen Position am Halter und zumindest einer Postion an den Seitenkanten (12, 13) des Halters bewegbares Gleitelement (28) umfaßt, dadurch gekennzeichnet, daß das Gleitelement (28) mit einem federbeaufschlagten Verriegelungsmechanismus versehen ist, mit welchem das Gleitelement in verschiedenen Positionen auf dem Wischkopfhalter verriegelt werden kann.

2. Wischkopfhalter nach Anspruch 1, dadurch gekennzeichnet, daß der Wischkopfhalter als Platte (10) mit einer Längsnut (27) ausgebildet ist, wobei der Verriegelungsmechanismus eine Feder (30) umfaßt, die in ihrer verriegelten Stellung in der Nut (27) ruht und so ein Verriegelungselement (33) gegen eine Vertiefung (34) in der Platte drückt.

3. Wischkopfhalter nach Anspruch 2, dadurch gekennzeichnet, daß die Feder einen Haken (32) hat, mit dem die Feder in der Nut (27) verriegelt werden kann.

4. Vorrichtung nach Anspruch 2 oder 3, dadurch gekennzeichnet, daß die Feder (30) in das Verriegelungselement (33) integriert und schwenkbar am Gleitelement befestigt ist.

5. Vorrichtung nach einem der Ansprüche 1 bis 4, dadurch gekennzeichnet, daß die Nut von zwei von der Platte (10) aufwärts ragenden, gegenüberliegenden, parallelen, L-förmigen Profilen gebildet ist.

6. Vorrichtung nach Anspruch 1, dadurch gekennzeichnet, daß das Gleitelement (28) einen Kipphebel (46) abstützt, der unter dem Einfluß einer Feder (50) ein Verriegelungselement (52) gegen Bewegungsbegrenzungselemente (54) in Wischkopfhalter preßt.

7. Vorrichtung nach Anspruch 6, dadurch gekennzeichnet, daß der Kipphebel ein freies Ende hat, das, wenn es niedergedrückt wird, das Verriegelungselement (52) aus dem Bewegungsbegrenzungselement (54) ausrückt.

Revendications

1. Support de tête de raclette ayant une longueur qui accroît considérablement sa largeur et comprenant des moyens pour fixer une tête de raclette ou analogue au support et des moyens d'attache de manche comprenant un organe coulissant (28) déplaçable entre une position centrale sur le support et au moins une position située sur les bords latéraux (12, 13) du support, caractérisé en ce que l'organe coulissant (28) est pourvu d'un mécanisme de blocage chargé par ressort au moyen duquel l'organe coulis-

sant peut être bloqué à différentes positions sur le support de tête de raclette.

2. Support de tête de raclette selon la revendication 1, caractérisé en ce que le support de tête de raclette est conformé comme une plaque (10) avec une gorge longitudinale (27), le mécanisme de blocage comprenant un ressort (30) qui, dans sa position bloquée, prend appui dans la gorge (27) et ainsi presse des moyens de blocage (33) contre un évidement (34) situé dans la plaque.

3. Support de tête de raclette selon la revendication 2, caractérisé en ce que ledit ressort a un crochet (32) au moyen duquel le ressort peut être bloqué dans la gorge (27).

4. Dispositif selon la revendication 2 ou 3, caractérisé en ce que le ressort (30) est intégré avec les moyens de blocage (33) et est fixé de façon à pouvoir pivoter à l'organe coulissant.

5. Dispositif selon l'une quelconque des revendications 1 à 4, caractérisé en ce que la gorge est formée par deux profilés conformés en L, parallèles, opposés, s'étendant vers le haut à partir de la plaque (10).

6. Dispositif selon la revendication 1, caractérisé en ce que l'organe coulissant (28) supporte un bras oscillant (46) qui, sous l'influence d'un ressort (50), presse un moyen de blocage (52) vers des moyens (54) limitant le déplacement situés dans le support de tête de raclette.

7. Dispositif selon la revendication 6, caractérisé en ce que le bras oscillant a une extrémité libre qui, lorsqu'elle est pressée, libère les moyens de blocage (52) des moyens (54) de limitation de mouvement.

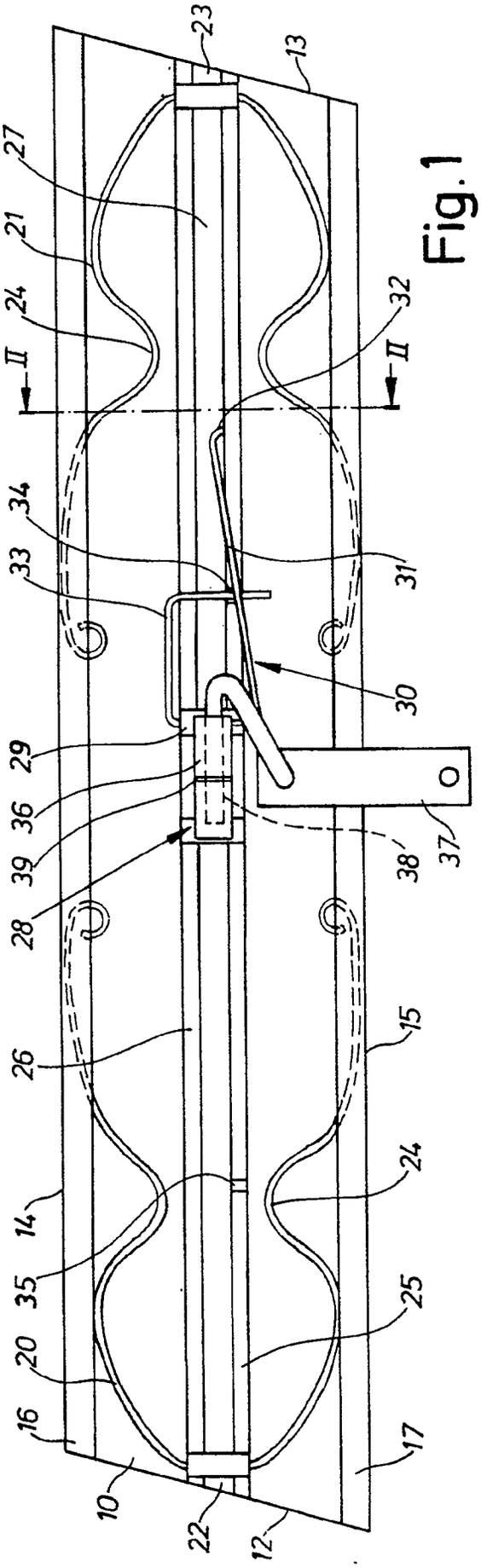
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Fig. 1

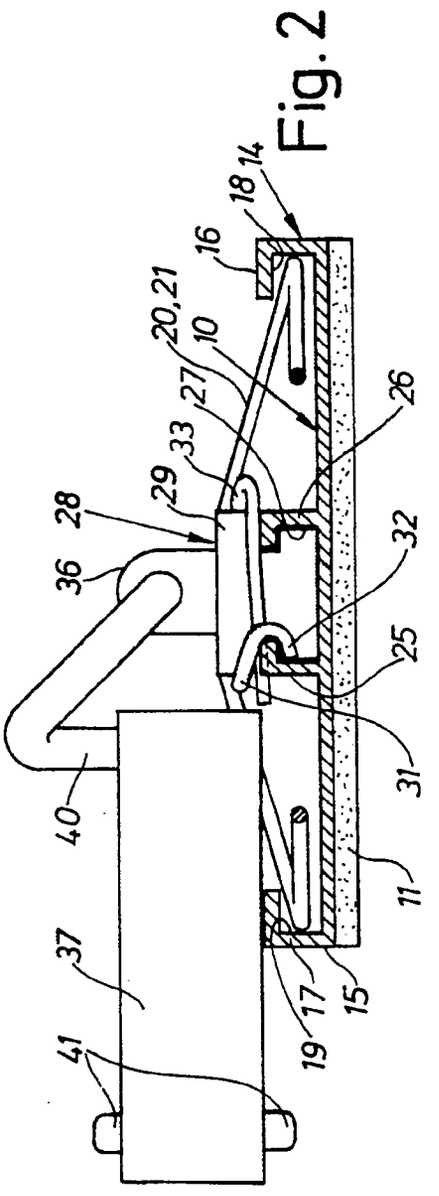
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Fig. 2

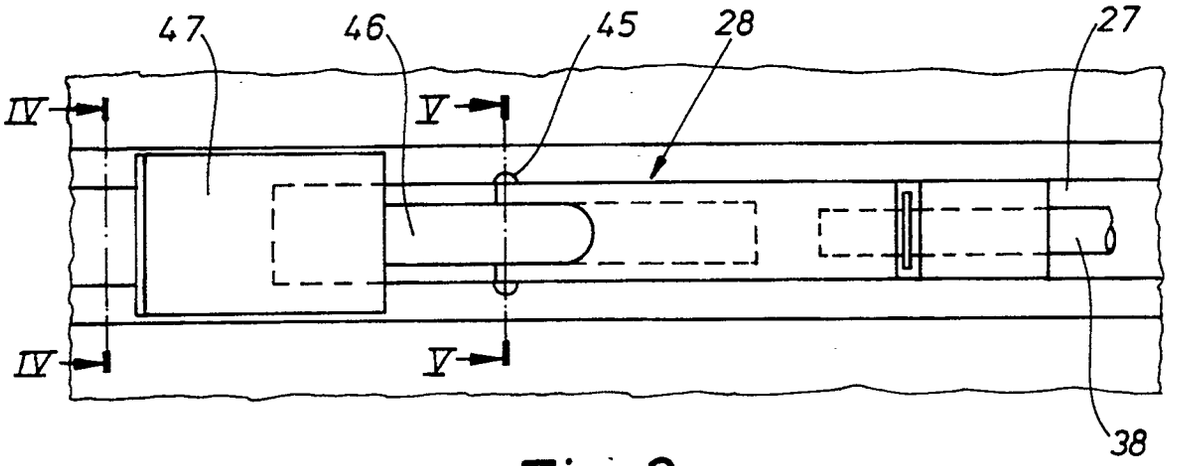

Fig. 3

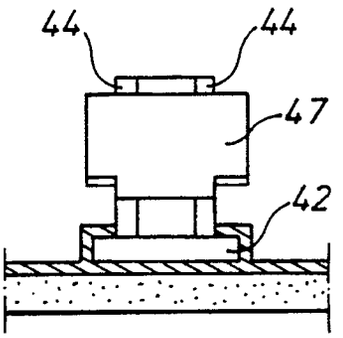

Fig. 4

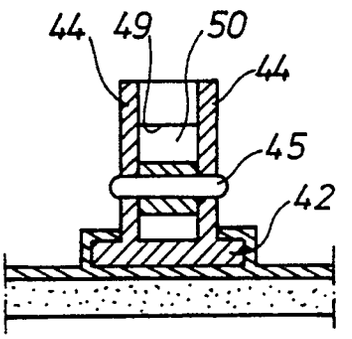

Fig. 5

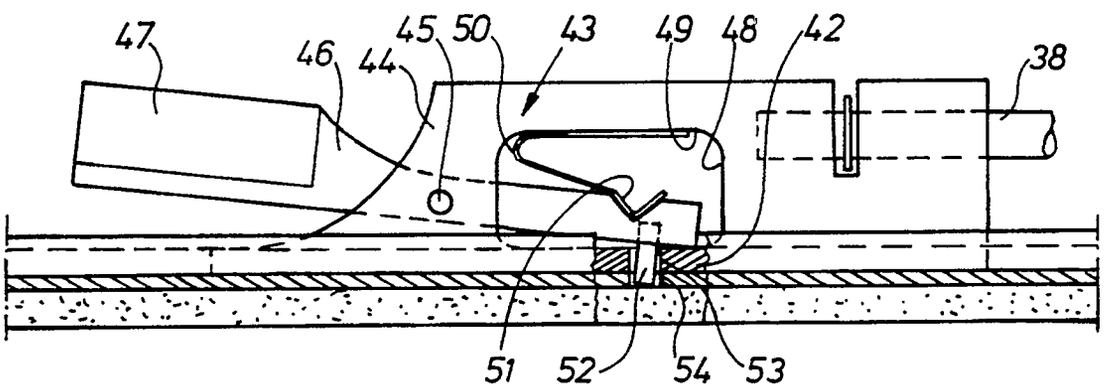

Fig. 6