



159159

PENCIL CASE WITH PILLOW STAND AND OTHER FUNCTIONS

TECHNICAL FIELD OF THE INVENTION

- 5 The present invention relates to a pillow stand fitted into a pencil case. The pillow stand, either on its own or enclosed inside the pencil case, can be used as a pillow and has additional functions like clock with alarm and torchlight.

BACKGROUND OF THE INVENTION

10

School going children spend more than half a day in school. With the trend of many schools having a single session, the child is likely to spent more than two thirds of a day in school. The child has to get up early to prepare for school. Since the child is still growing, the child must have adequate rest.

- 15 Although the schools recognizes the necessity for children to have rest breaks between classes especially for single session schools, there is insufficient space for children to have proper rest facilities. If the child needs to rest, the child would just rest his head on his hands.

- 20 For schools having two sessions, the children sometimes do not go home after school but are sent to a before and after school care center where they continue their homework or studies.

- 25 Whatever the circumstance faced by a child, a child could rest more comfortably if the child could bring a pillow to the school, for resting purpose. It would be desirable if the pillow could be also used for resting even if the child is in a before and after school care center. However, this would require the child to pack the pillow in the school bag. However, due to the number of books to be packed in a school bag, packing a pillow albeit a small one
30 into the school bag is still not practical.

A pencil case combined with a book rack is known in US Patent 5,690,216. The book rack is in the form of two support arms which set at various angles for a book to be placed against it.

35



G00002

A multi purpose pillow is also described in US 6,438,778. The invention can be used for sleeping, storing personal articles and for beating rugs or household items to remove dust.

5

PROBLEM TO BE SOLVED

A pencil case which could serve as a pillow would be useful to the child and at the same time, would not increase the load of any school bag significantly.

10

If a few more functions could be added to the pencil case such as clock with alarm and torchlight, without any significant increase in weight, such an invention would justify its utility value as well as justify being packed into a school bag.

15

The same pencil case and pillow could also be used by office workers in the office as well as by workers in a factory.

The inventor has invented a pillow stand which can be fitted into a pencil case. The pencil case with the pillow stand enclosed in it can serve as a pillow. The pillow stand has a clock with an alarm at one end and a LED light at the other end. The clock with alarm would wake a sleeping user at the set time. The LED light would enable the user to see in a darkened room or illuminate the path of the user to enable the user to see and walk safely. The pillow stand can be used independently as a pillow stand when taken out from the pencil case allowing the pencil case to be used to contain stationery items.

20

25

MEANS TO SOLVE THE PROBLEM

30

A pencil case which can be converted into a pillow would not take up additional space in a child's school bag, which is normally packed with books and substantially heavy. If the child rests and oversleeps, the alarm would enable the child to wake up on time after the rest period. Even more desirable

35

would be a pencil case cum pillow with additional functions of clock with alarm at one end of the pencil case cum pillow and a torchlight at the other end of the pencil case cum pillow.

- 5 Since the pencil case comes with a waist belt and a hand strap, the pencil case can also be used by workers in the office or in the factory.

SUMMARY OF THE INVENTION

- 10 A first object of the invention is an elongate pencil case, which can be opened and closed with a zipper running along its length, a waist strap connected to a first end and a second end of the elongate pencil case, a hand strap connected to the first end, having a pillow stand fitted inside the elongate pencil case wherein the pencil case can be used as a container
15 for pencils, pens and stationery items and as a pillow for resting the hands and head of a user.

- Preferably, the pillow stand could be taken out of the elongate pencil case and the pillow stand can be used separately for resting the hands and head
20 of a user.

- Alternatively, the pillow stand could be taken out of the elongate pencil case and used separately as a pillow by placing the pillow stand against a wall, for resting the head of a user.

- 25 Preferably the pillow stand consists of a horizontal rectangular resting beam with a first leg at the first end and a second leg at the second end.

- Preferably the pillow stand has a LED light at the outer face of the first
30 leg .

- Preferably the pillow stand has a LED clock and alarm, a switch for the LED alarm clock and a switch for a LED light at its outer face of the second leg.

35

Preferably, the pillow stand has an under side for a compartment for installation of batteries, wherein the batteries are connected by wires to both the LED clock and alarm and LED light and each of the LED clock and alarm and LED light can be separately switched on or off.

5

Preferably, the pillow stand is fitted into a pillow jacket, the pillow jacket made of acrylic, and having a strip of Velcro on each end of the pillow jacket, to close the pillow jacket.

10 Preferably a foam padding is fitted onto the horizontal rectangular rest of the pillow stand and enclosed by the pillow jacket.

Alternatively, a padding filled with gel is fitted onto the horizontal rectangular rest of the pillow stand and enclosed by the pillow jacket.

15

Alternatively, each leg of the pillow stand can be turned inwards when not in use.

20 Alternatively, the LED light and a battery connected directly to the LED light are installed in the first leg of the pillow stand and the alarm clock and another casing for batteries connected directly to the alarm clock are installed in the second leg of the pillow stand and both the LED light and alarm clock can be separately switched on or off.

25 Alternatively, the outer face of the second leg of the pillow stand is fitted with a torchlight bulb instead of the LED light.

Preferably, the pillow stand is made of Polyethylene (PE) or Polypropylene (PP).

30

BRIEF DESCRIPTION OF DRAWINGS

Fig. 1 shows the pencil case according to this invention. The pencil case is shown in a normal position. The pillow stand is enclosed inside the pencil case and therefore not shown.

35

Fig. 2 shows the pencil case (in normal position and unzipped) and the pillow stand (in normal position) taken out of the pencil case.

5 Fig. 3 shows the pencil case (in an inverted position and unzipped) and the pillow stand (in an inverted position) taken out of the pencil case.

Fig 4 shows a cross sectional view of the pencil case in a normal position. The pillow stand enclosed inside the pencil case is shown in ghosted lines.

10 In this position, the pillow case is shown in an inverted position, enclosed inside the pencil case.

Fig 5 shows a cross sectional view of the pencil case in an inverted position. The pillow stand enclosed inside the pencil case is shown in ghosted lines.

15 In this position, the pillow case is shown standing in normal use, enclosed inside the pencil case.

Fig. 6 shows a perspective view from the first end of the pencil case. The pencil case in an inverted position (the bottom of the pencil case being shown.)

20

Fig. 7 shows a perspective view from the second end of the pencil case. The pencil case in an inverted position (the bottom of the pencil case being shown.)

25

Fig. 8 shows the pencil case (in normal position and unzipped) and the pillow stand (in normal position) taken out of the pencil case. The pillow stand is shown with the pillow cover opened, exposing the pillow stand.

30 Fig. 9 shows the pillow stand with its cover opened, exposing the pillow stand.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

A first embodiment of the present invention will now be described with reference to the accompanying drawings.

35

Referring to FIG. 1, the pencil case (10) has an zipper (11) opening along its entire length. The pencil case (10) can be made of cloth or vinyl or animal skin. The first end (12) of the pencil case (10) has a translucent area (17) to allow the light from a LED light (38) to shine through. The second end (13) of the pencil case (10) has a translucent area (19) in the mid-section to show the clock face of the LED alarm clock (39) and an open area at the top (18) for access to a on/off switch (40) for the LED light (38) and another open area at the bottom (20) for access to a second on/off switch (41) to the LED clock & alarm (39).

In the normal position for the pencil case (10), the waist belt (15) is at the bottom of the pencil case (10). This allows the pencil case (10) to be used and accessed with ease.

The pencil case (10) has a waist belt (15) with buckle and a hand grip (16). The waist belt (15) offers a practical way to an adult user e.g. office worker to carry the pencil case (10) with pillow stand (30). The hand strap (16) would allow a child user to take the pencil case (10) with the pillow stand (30) out of a school bag.

Fig. 2 shows the pencil case (10) (in normal position and unzipped) and the pillow stand (30) taken out of the pencil case (10). The pillow stand (30) is shown in its normal position, for use. When the pillow stand (30) is placed inside the pencil case (10), it is placed upside down i.e. it is in an inverted position. The pillow stand (30) is shown in its normal position, for use.

Fig. 3 shows the pencil case (10) (in an inverted position and unzipped) and the pillow stand (30) in an inverted position and taken out of the pencil case (10).

The pillow stand (30) can be used alone out of the pencil case (10) or could be used when enclosed inside the pencil case (10).

To use the pencil case (10), the user first stores the pillow stand (30) in an

inverted position inside the pencil case (10). The pillow stand (30) consists of a rectangular horizontal rest (31), at the end of which is a first leg (32) and a second leg (35). The first leg (32) of the pillow stand (30) would fit into the first end (12) of the pencil case (10), the LED light (38) of the pillow stand (30) aligned with the translucent window (17) of the pencil case (10). The second leg (35) of the pillow stand (30) would fit into the second end (13) of the pencil case (10), the top (18) and bottom (20) open areas of the pencil case (10) aligned with the switch for the clock (40) and switch for the LED light (42) of the pillow stand (30) and the translucent window (19) of the pencil case (10) aligned with the face of the LED clock (39) on the second leg (35) of the pillow stand (30).

Once the pillow stand (30) is fitted into the pencil case (10), the pencil case (10) can be filled with stationery items such as pens and pencils and the like. This is the normal position for the pencil case (10) with its zipper (11) facing upwards. This is shown in Fig 4 where the pillow stand (30) enclosed inside the pencil case (10) is in ghosted lines. The pencil case (10) can be zipped or unzipped for access to the stationery items. In this position, the pillow stand (30) is shown in an inverted position, enclosed inside the pencil case (10). The waist belt (15) would allow the pencil case (10) with pillow stand (30) enclosed, to be strapped to a user, which makes it easier to carry around especially for office or factory workers. A female office worker can carry the pencil case (10) with the pillow stand (30) inside by the hand strap (16), making it convenient and fashionable at the same time.

To use the pencil case (10) as a pillow, the user can invert the pencil case (10) from its normal position. This is shown in Fig 5. In the inverted position, the bottom (14) of the pencil case (10) would be facing upwards. The zipper (11) would not be in the way of the user who would then rest his hands and head on the bottom (14) of the pencil case (10). The waist belt (15) would be unbuckled so that it would not be in the way of the user resting his head on the hands which are placed on the bottom (14) of the pencil case (10).

The pillow stand (30) is shown inside the pencil case (10) and in ghosted

lines. In this position, the pillow stand (30) is shown standing in normal use, enclosed inside the pencil case (10). The pillow stand (30) has a soft foam padding (52) inside the pillow jacket (50), adding more comfort to the user. The battery casing (53) on the pillow stand (30) faces downwards, away from the user. When used in this configuration, stationary items can be kept inside the pencil case (10) and still the pencil case (10) can be used as a pillow.

The user can set the alarm in the LED clock (39) before resting by using the button (43) for setting the clock and alarm. This would ensure the user can be awoken at the set time. Once the alarm goes off, the user can switch off the alarm by pressing the switch (45) at the outer face (36) of the second leg (35). If the user is in a darkened room, the user can press the top button (40) to switch on the LED light (38). The alarm can either be in the form of a bell or a vibrator or both.

Fig. 6 shows a perspective view of the pencil case (10) viewed from the first end (12). The pencil case (10) in an inverted position, the bottom (14) of the pencil case (10) being shown. When the pencil case (10) is in an inverted position, the pillow stand (30) would be in a normal position.

Fig. 7 shows a perspective view of the pencil case (10) viewed from the second end (13). A pillow stand (30) is enclosed inside the pencil case (10). The pencil case (10) is similarly in an inverted position, the bottom (14) of the pencil case (10) being shown. When the pencil case (10) is in an inverted position, the pillow stand (30) would be in a normal position. The second end (13) of the pencil case (10) has two openings (18, 20). There is a first opening at the top (18) for a top switch (40) for a LED light (38), a second opening at the bottom (20) for a bottom switch (41) for the LED clock and alarm (39). The translucent window (19) of the pencil case (10) would enable display of the clock (39). At one side of the second end (13) of the pencil case (10) are two buttons (44, 45), one (44) for control of the LED light and stopwatch functions and clock functions such as changing time and date, and the other button (45) for alarm setting. At the other side of the second end (13) of the pencil case (10) are two other buttons (42, 43). The first button (42) is for cosmetic/decoration purpose and the second button (43) is for

stopwatch function. The user can switch on the LED light (38) to see in the dark, by pressing the switch (44).

Fig. 8 shows the pencil case (10) in its normal position and unzipped. The pillow stand (30) is shown in its normal position, taken out of the pencil case (10). The pillow stand (30) is shown with the pillow jacket (50) opened, exposing the padding (52) on the horizontal rectangular rest (31). The padding could be filled with foam or gel.

The pillow stand (30) consists of a rectangular horizontal rest (31) with a first leg (32) at the first end (12) and a second leg (35) at the second end (13). The pillow stand (30) is made of Polyethylene (PE) or Polypropylene (PP). The outer face (33) of the first leg (32) of the pillow stand (30) has a LED light (38). The outer face (36) of the second leg (35) of the pillow stand (30) has a switch for LED light (40) on top, a LED clock face (39) in the middle section and a switch (41) for the LED clock and alarm (39) at the bottom. The top of the rectangular horizontal rest (31) of the pillow stand (30) is covered with a padding (52), for additional comfort. The underside of the rectangular horizontal rest (31) has a casing (53) for two AA or two AAA batteries, with wires leading to the LED light (38) and LED clock (39) and the corresponding switches (44, 45). The entire pillow stand (30) and padding (52) is fitted with a pillow jacket (50) which opens up at two sides. The edge of both sides of the pillow cover has a Velcro lining (51) for the pillow jacket (50) to enclose the pillow stand (30).

A battery casing (53) is located mid way on the underside of the horizontal rectangular rest (31). The batteries in this casing are connected to both the LED light (38) and the LED clock (39) and alarm. The top switch (40) at the outer face (36) of the second leg (35) of the pillow stand (30) would allow the LED light (38) to be switched on or off, as desired. The bottom switch (41) at the outer face (36) of the second end (13) of the pillow stand (30) would allow the LED clock and alarm (39) to be switched on or off, as desired.

The pencil case (10) when in use as a pencil case (10) would have the pillow stand (30) packed inside in an inverted position, the horizontal rectangular rest

pressing against the bottom (14) and the two legs (32,35) of the pillow stand (30) pressing against the two ends (12,13) of the pencil case (10). This would leave sufficient space for pencils, pens and other stationery items to be contained inside the pencil case (10).

5

With the pillow stand (30) inside and the pencil case (10) filled with pencil and pens and other stationery items, the user can rest his or her forehead on his or her hands, the hands lying on the pencil case (10) for sleeping. If
10 desired, the alarm could be set so that the user can be awakened at the set time.

The pillow stand (30) can be used independently as a pillow stand (30). A user can take the pillow stand (30) out of the pencil case (10) and rest on
15 the rectangular horizontal portion which has the foam padding. In this resting position, the user places his head with his hands on the horizontal rectangular rest (31), which is padded and sleep in that position. The user can also rests his head sideways, on the pillow stand (30), his chest facing the pillow stand (30). Alternatively, if the user is seated with his back facing
20 a wall, the user can place the pillow stand (30) against a wall and rest the back of his head against the pillow stand (30) which is propped against the wall.

A user in the office can place the pillow stand (30) on the high back rest of
25 a chair, and with both the top of the high back rest and the pillow stand (30) resting against the wall, the user can rest his head against the pillow stand (30) while his back is resting on the high back rest.

Fig. 9 shows a perspective view of the pillow stand (30) with its pillow jacket
30 (50) partially removed to show the inside of the pillow stand (30). The pillow stand (30) has a horizontal rectangular rest (31) and a leg at each end (32, 35). The horizontal rectangular rest (31) and two legs (32, 35) are made of Polyethylene (PE) or Polypropylene (PP). The second end (13) of the pillow stand (30) has a top switch (40) for a LED light (38), and a bottom switch
35 (41) for a LED clock and alarm (39), all of which matches the positions of the

translucent area (19) and open areas (18, 20) on the second end (13) of the pencil case (10). The use of the switches (40, 41) are to ensure long and economical use of the batteries.

5 One side of the second end (13) of the pillow stand (30) has two buttons (44,45), one (44) for control of the LED light and stopwatch functions and clock functions such as changing time and date, and the other button (45) for alarm setting. At the other side of the second end (13) of the pencil case (10) are two other buttons (42, 43) which are for decoration and stopwatch functions
10 respectively. The user can switch on the LED light (38) to assist the user to see in the dark, by pressing the switch (41).

The pillow stand (30) is wrapped around by a vinyl pillow jacket (50). A Velcro strip (51) on each end of the vinyl jacket enables the vinyl jacket (50)
15 to be removed, say for insertion of batteries into the battery casing (53) located on the underside of the horizontal rectangular rest (31).

The top of the horizontal rectangular rest (31) which is the resting area has a padding (52) for a more comfortable rest. The underside of the beam
20 has a compartment for battery (53) and wires to both the LED light (38) and LED clock and alarm (39). The vinyl pillow jacket (50) also serves to protect the user from the bare wires and batteries. The batteries can be either AA or AAA sizes.

25 In another embodiment, the two legs (32, 35) of the pillow stand (30) can be turned almost 90° inwards when not in use, for packing purpose. When packed in this manner, the pillow stand (30) is compact and slimmer, enabling the pillow stand (30) to be stored easily in the pencil case (10).

30

In another embodiment, the battery casing can be located on either leg of the pillow stand (30), again to make the pillow stand (30) more compact.

In another embodiment, the LED light is replaced by a normal torchlight
35 bulb powered by 2 AA or 2 AAA batteries located on the same leg as the

torchlight bulb. The other leg would contain the alarm clock which is then powered by a slim lithium battery. In this configuration, there is no necessity for wires to be laid underneath the length of the horizontal rectangular rest to connect the batteries to the LED light and to the alarm clock.

5

Having described preferred embodiments of the invention with reference to the accompanying drawings, it is to be understood that the invention is not limited to those precise embodiments, and that various changes and modifications may be effected therein by one skilled in the art without departing from the scope or spirit of the invention as defined in the appended claims.

10

ADVANTAGEOUS EFFECTS OF THE INVENTION

A pencil case which could be converted into a pillow would enable a child to pack a pillow into the school bag without significant increase in weight of the school bag. Such a pencil case cum pillow would be useful to the child when the child needs a rest in between classes. The pillow stand can be used independently as a pillow thus allowing the pencil case to continue to be used to keep stationery items.

20

The same pencil case can be carried around the waist by office workers, and the pillow stand can be used in the office, too.

The pencil case has a waist strap and a hand strap for ease of carrying.

25

In addition, with a clock with alarm fitted into one end of the pencil case cum pillow, the user no longer fear sleeping beyond the allocated resting time. A torchlight fitted into the other end of the pencil case cum pillow would also be useful in case there is a blackout or when the user works late and goes home at night.

30

The pillow case can also be used as a weapon for self defence in view of its handy grip and size and its weight.

35

CLAIMS:

1. An elongate pencil case (10), which can be opened and closed with a zipper (11), a waist belt (15) connected to a first end (12) and a second
5 end (13) of the elongate pencil case (10), a hand strap (16) connected to the second end (13),

characterized by the fitting of a pillow stand (30) inside the elongate pencil case (10) wherein the pencil case (10) can be used as a container for pencils,
10 pens and stationery items and as a pillow for resting the hands and head of a user.

2. A pillow stand (30) as claimed in Claim 1 wherein the pillow stand (30) could be taken out of the elongate pencil case (10) and used separately
15 for resting the hands and head of a user.

3. A pillow stand (30) as claimed in Claim 1 wherein the pillow stand (30) could be taken out of the elongate pencil case (10) and used separately as a pillow by placing the pillow stand (30) against a wall, for resting the
20 head of a user.

4. A pillow stand (30) as claimed in claim 1 wherein the pillow stand (30) consists of a horizontal rectangular rest (31) with a first leg (32) with an outer face (33) at the first end (12) and a second leg (35) with an outer face
25 (36) at the second end (13).

5. A pillow stand (30) as claimed in Claim 3 wherein the outer face (33) of the first leg (32) of the pillow stand (30) has a LED light (38).

30 6. A pillow stand (30) as claimed in Claim 3 wherein the outer face (36) of the second leg (35) of the pillow stand (30) has a LED clock (30) with an alarm, a switch for the LED alarm clock (39) and a switch for a LED light (38).

35 7. A pillow stand (30) as claimed in Claim 3 wherein the under side (54)

of the pillow stand (30) has a battery case (53) for installation of batteries, wherein the batteries are connected by wires to both the LED clock and alarm (39) and LED light (38) and each of the LED Clock and alarm (39) and LED light (38) can be separately switched on or off.

5

8. A pillow stand (30) as claimed in Claim 3 fitted into a pillow jacket (50), the pillow jacket (50) made of acrylic, and having a strip of Velcro on each end of the jacket, to close the jacket after fitting the pillow stand (30) into the pillow jacket (50).

10

9. A pillow stand (30) as claimed in Claim 3 fitted with a foam padding (52) onto the horizontal rectangular rest (31) and enclosed by the pillow jacket (50).

15

10. A pillow stand (30) as claimed in Claim 3 fitted with a gel padding (52) onto the horizontal rectangular rest (31) and enclosed by the pillow jacket (50).

20

11. A pillow stand (30) as claimed in Claim 3 wherein each leg (32, 35) of the pillow stand (30) can be turned inwards when not in use.

25

12. A pillow stand (30) as claimed in Claim 3 wherein the LED light (38) and a battery connected directly to the LED light (38) are installed in the first leg (32) of the pillow stand (30) and the alarm clock (39) and another casing for batteries connected directly to the alarm clock (39) are installed in the second leg (35) of the pillow stand (30) and both the LED light (38) and alarm clock (39) can be separately switched on or off.

30

13. A pillow stand (30) as claimed in Claim 3 wherein the outer face of the first leg (32) of the pillow stand (30) has a torchlight bulb fitted at the first end (12).

35

14. A pillow stand (30) as claimed in Claim 3 wherein the battery connected directly to the alarm clock (39) is a lithium battery.

15. A pillow stand (39) as claimed in Claim 3 made of Polyethylene (PE) or Polypropylene (PP).

5

10

15

20

25

30

35

40

45

50