

(No Model.)

G. H. DAVIS.
PILLOW.

No. 470,819.

Patented Mar. 15, 1892.

Fig. 1.

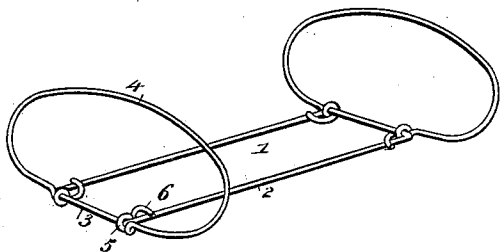


Fig. 2.

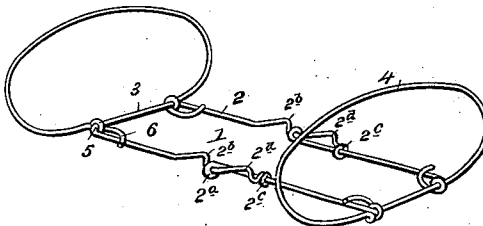


Fig. 3.

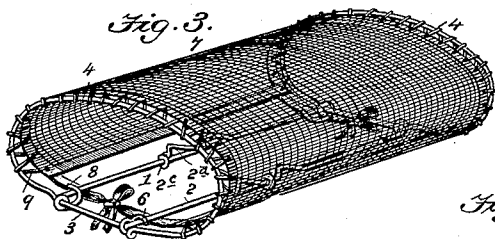


Fig. 4.

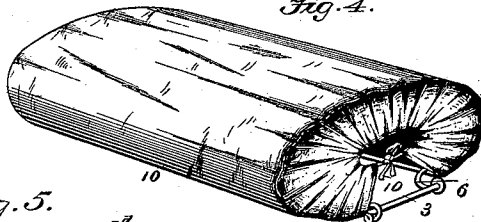


Fig. 5.

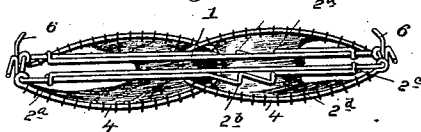


Fig. 7.

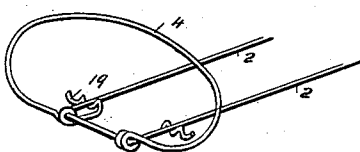


Fig. 6.

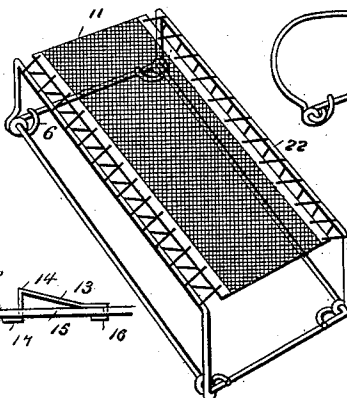


Fig. 8.

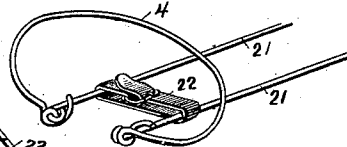


Fig. 10.

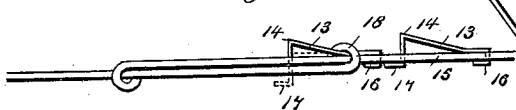


Fig. 9.

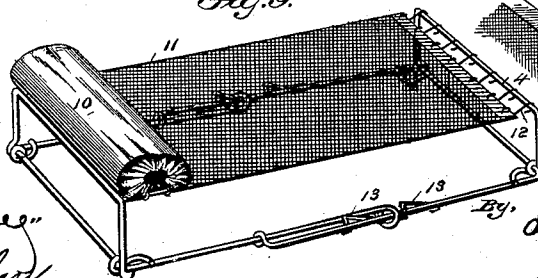
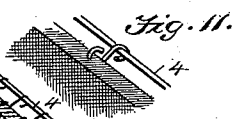


Fig. 11.



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SPECIFICATION forming part of Letters Patent No. 470,819, dated March 15, 1892.

Application filed December 24, 1890. Serial No. 375,729. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HOWLETT DAVIS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented a certain new, useful, and valuable Improvement in Pillows and Couches, of which the following is a full, clear, and exact description.

My invention relates to improvements in pillows; and the leading object is the provision of a pillow which will be yielding or elastic to render the same comfortable and easy to the head of the person reclining and which will have means for ventilating the pillow to cool the head. These oval-shaped head-sections also form a part of the base and prevent the pillow from turning over easily.

A further object of my invention is the provision of a pillow or couch which can be folded so as to occupy a very small space, thereby enabling the same to be easily stored or transported, and thereby rendering it valuable for traveling, camping, &c., as well as for general or domestic use.

A further object of my invention is the provision of a ventilating elastic pillow which will be light in weight and still possess the necessary strength and durability, which will present an attractive appearance, and which can be produced at a very low price.

In order that the construction and advantages of my improved pillow may be readily understood and appreciated, I have illustrated the same in the accompanying drawings, in which—

Figure 1 represents a perspective view of one form of frame of my improved pillow. Fig. 2 represents a perspective view of a modified form of frame. Fig. 3 represents a perspective view of my pillow having a covering of open or porous material. Fig. 4 represents a perspective view of a pillow having a case or covering of light fabric, such as cotton, linen, or the like. Fig. 5 is a view of the pillow as it appears when folded or collapsed. Fig. 6 is a view of a surgical rest or couch constructed in accordance with my folding means, such rest not being claimed independently of such folding means. Figs. 7 and 8 are detail views of parts of the frame of my pillow. Fig. 9 is a view of a form of couch or

bed embodying the principles of my folding and locking means, such form of couch not being claimed independently of such folding and locking means. Figs. 10 and 11 are detail views to more clearly illustrate certain features of my invention as shown at Fig. 9.

Referring by numerals to the drawings, in which similar numerals of reference denote corresponding parts in all the figures of the said drawings, the numeral 1 designates the base or support of the frame of my pillow, which base is composed, preferably, of two parallel sides 2 and two parallel ends 3 and is substantially rectangular or oblong.

In Figs. 1, 6, and 7 the base is preferably made of a single piece of wire bent to form the parallel sides and ends, and in Figs. 2, 3, 5, 9, and 10 the base is formed of two parts, which are adjustable with relation to each other. In Fig. 8 the base is formed of two separate parallel bars adjustably connected at either end by a strap. To the base are connected the end pieces or head-sections 4, which are arched and preferably of substantially oval or elliptical form to give the proper shape to the pillow to render the same comfortable to the user. The head-sections 4 are each made of a single piece of wire or metal having the free ends bent to form loops or eyes 5, which engage or are twisted around the base, and the extreme ends of the wires of the end pieces are formed with hooks or catches 6, which are adapted to engage or interlock with the base of the frame and retain the end pieces perpendicular with relation to the said base, in order that the cover may be properly sustained thereon.

The manner of bending the overlapping ends of the wires forming the base is immaterial, it only being necessary that they be bent so as to slide back and forth one upon the other and be sustained at the desired point.

A cover of any suitable material may be used, and in Fig. 3 I have shown a porous cover of open or screen material 7, laced to the head-sections 4 by means of a cord 9, as shown, and it is obvious that by drawing the cord the cover will be stretched tighter.

I have shown in Fig. 4 a pillow-case applied to my pillow, and while it is preferable to place this case over the porous cover 7, still

it may be applied to the frame alone, and in any case it is held in position by the draw-strings 10, placed at either end.

The manner of operating my improved pillow, as shown at Figs. 2, 3, 4, and 5, is substantially as follows: Supposing the case to be removed and the frame to be set, as shown at Figs. 2 and 3, then in order to fold it up as it appears at Fig. 5 all that is necessary is to 10 turn the pillow over and press on the rods 2 at their centers, whereupon the loops 2^a are forced up over the raised part 2^b, and there being no further obstruction the four loops 2^b 2^b 2^c 2^c are forced to slide rapidly along 15 the rods 2, thus bringing the head-sections close together and leaving the cover 7 loose. After this the lower parts of the oval-shaped head-sections are pressed inward on the ends 3, thus disengaging the catches 6, thus 20 allowing the head-sections to fold inward or toward each other. In order to set the frame or pillow, first press inward on the head-sections, so that the catches 6 will engage the upper part of the wire 2, and then grasp the 25 ends 3, one in each hand, and pull them apart until the loops 2^a pass over the raised points 2^b, and if the cover is not then tight enough then pull the end pieces 3 farther apart until the loops 2^a pass over and lock on the second 30 raised points 2^d. It requires but a few moments to set or fold the pillow, and as the wires which form the head-sections 4 are comparatively light and elastic but little pressure is needed to contract their lower parts so 35 as to disengage the catches 6.

Where the head-sections are made of heavy wire—such as is necessary in constructing a couch or bed, as shown at Fig. 9—I prefer to 40 secure the cover to the head-sections by hooks 12 or other suitable means, which will allow one or both ends of the cover to be readily detached and the head-sections to be pressed apart and folded on the under side of the frame without the necessity of contracting 45 the head-sections so as to disengage the catches 6; but I generally employ this arrangement only in cases where the head-sections are made of heavy stiff wire, such as would require considerable exertion and 50 trouble to contract sufficiently to disengage the catches; but in the case of light head-sections—such as are employed in pillows—it is easier and quicker to disengage the catches 6 than it would be to unfasten a number of 55 hooks. However, I sometimes employ the detachable cover for the pillows as well as for couches.

In the form of couch shown in Fig. 9 a different arrangement is shown for securing the 60 adjustable bases at any desired point. This arrangement is shown in detail at Fig. 10, where two latches 13, similar to those employed in umbrella-handles, are formed by passing the ends of the comparatively fine 65 wires 14, bent as shown, through the thick wire 15, clinching the ends 16, and allowing the ends 17 to work loosely through the holes

made in the wire 15, so that when the loop 18 is moved forward it presses down the latches 13, which latter spring up again immediately 70 the loop has passed and prevents it from moving back until the latches have been pressed down. I prefer to employ two latches, so that if the cover is not stretched tight enough when the base is locked by the first latch it can be 75 made to lock on the second latch, which would of course require the head-sections to be separated farther, thus stretching the cover tighter.

At Fig. 7 I have shown an arrangement for 80 raising the pillow or the cover higher, which is done by simply contracting the head-sections until the outer hooks 19 engage with the rods 2, and this further contraction at the 85 lower part of the head-sections causes the upper part of same to be raised. At Fig. 8 I show that this same result may be produced by means of a strap 20, which serves to draw 90 together both the lower parts of the head-sections as well as the rods 21.

At Fig. 6 I show a modification which may be employed either as a surgical rest for dressing limbs, &c., or as a couch, and in this form 95 the cover 11 is attached to the folding sides 22 instead of to the two end head-sections.

By the use of an ordinary feather pillow a person's head, face, and neck become overheated from reclining thereon all night, and upon going out into cooler or more air in the morning the sudden change sometimes leads 100 to neuralgia, toothache, sore throat, and other disabilities. By the use of my improved pillow these serious results may be avoided, as my pillow can not only be regulated so as to prevent this overheating, but can be regulated to produce a variable degree of coolness. 105 For instance, suppose it were desired to keep the head very cool. Then the head would rest on the porous cover 7 alone and the air circulating underneath would come up through 110 the pores or meshes of the cover and come in contact with the head or face, and during very hot nights or where a patient is suffering from fever this porous cover not only keeps the head cool, but it allows the drops 115 of sweat to fall through the cover without wetting the face, neck, or clothes; but for ordinary uses the porous cover alone is too cool, and then a cotton pillow-case 10 is placed over it, and if this is still too cool a second or heavier case is placed over it, and, in fact, if the case is made of very heavy stuff the pillow 120 will be as warm as an ordinary feather pillow.

From the foregoing it will be seen that I provide a pillow which will insure ease and 125 comfort to the user, as well as be beneficial to health. It will also be seen that I produce a pillow which can be manufactured at a very small cost, which is attractive in appearance, which is light and durable, which can be readily 130 and cheaply transported, and when not in use can be folded up and stored away, so as to occupy but little space. It will also be understood that the structure admits of use

either as a pillow or a couch or a bed and serves the purpose in both instances in a perfect manner.

One of the leading and most important features of my invention is the oval-shaped head-sections shown at Figs. 1 to 8, inclusive. These oval-shaped head-sections not only give the pillow the best possible shape to afford ease and comfort to the person using the same, but their under parts form a part of the base and prevent the pillow from rolling over, which would frequently occur if the frame rested on the parallel bars 2 alone. If the base were made wider by separating the bars, then the shoulder of the person reclining would come in contact therewith. It will be noticed that the head-sections are adapted to spring downward as well as inward and that they give a shape to the pillow which very much resembles that of an ordinary pillow, and, in fact, an ordinary pillow-case can be used to advantage for inclosing my improved frame.

Having thus fully described my invention, I claim—

1. A pillow-frame constructed to be expanded longitudinally and to be collapsed and folded, having two head-sections of approximately oval shape, said sections having back and forward bearing ends which respectively are adapted to connect with the base-support inside the edges of the pillow-frame, whereby either edge of the pillow may be employed opposite the shoulders of the person reclining on it without liability of his shoulders coming in contact with the base-support, substantially as described.

2. A pillow-frame constructed to be longitudinally expanded and to be collapsed and folded, having two head-sections of approximately oval shape, said sections having back and forward bearing ends which are respectively adapted to connect with the base-support inside the edges of the pillow-frame, and one or more covers stretched between said sections, whereby either edge of the pillow may be employed opposite the shoulders of a person reclining on it without liability of his shoulders coming in contact with the base-support, substantially as described.

3. In a pillow-frame, in combination, a longitudinal supporting-base lying inside the upper and lower edges of the pillow and two arched or approximately oval-shaped open head-sections allowing air to circulate longitudinally through the frame and having back and forward bearing portions, the lower extremities of said bearing portions connecting, respectively, with the said base-support inside the edges of the pillow-frame, the whole forming a pillow-frame which supports itself at both its back and forward portions and prevents the shoulders of a reclining person coming in contact with the base-support whether the back or forward edge of the pillow-frame be opposite his shoulders, substantially as described.

4. In a pillow, in combination, a longitudinal supporting-base lying inside of the upper and lower edges of the pillow and two arched or approximately oval-shaped open head-sections allowing air to circulate longitudinally through the pillow and having backward and forward bearing portions, the lower extremities of said bearing portions connecting, respectively, with the said base-support inside of the edges of the pillow, and one or more covers stretched between said sections, the whole forming a pillow which supports itself at both its back and forward portions and prevents the shoulders of a reclining person coming in contact with the base-support whether the back or forward edge of the pillow be opposite his shoulders, substantially as described.

5. In a pillow-frame for a pillow or rest, in combination, a longitudinal supporting-base and two open head-sections allowing air to circulate through them, said sections provided, respectively, with a means for connecting and locking them with the base and holding them from turning downward on the same when in use as a rest, substantially as described.

6. In a pillow or rest, in combination, a longitudinal supporting-base, two open head-sections allowing air to circulate through them, said sections provided, respectively, with a means for connecting and locking them with the base and holding them from turning downward on the same when in use as a rest, and one or more covers stretched between the sections, substantially as described.

7. In a pillow-frame, a longitudinal supporting-base and two endwise-yielding head-sections provided with sliding connecting-eyes and locking-catches, whereby the ready locking or unlocking of the head-sections, as occasion requires, can be effected by simply applying pressure to the ends of the sections and withdrawing said pressure, substantially as described.

8. In a pillow-frame comprising a longitudinally-collapsible supporting-base, means for holding it extended, and two endwise-yielding head-sections provided with connecting and locking means, whereby the pillow-frame can by endwise pressure of the head-sections be placed in condition for being unfolded or folded, the said means serving for holding the pillow-frame unfolded, substantially as described.

9. The within-described pillow, comprising the longitudinally-collapsible supporting-base provided with latching means, the endwise-compressible approximately oval-shaped head-sections, on which eyes and catches are provided and which form back and forward bearing portions inside the edges of the pillow, and one or more covers stretched upon the same, the frame of said pillow being constructed to have its head-sections pressed out of interlocking condition with the supporting-base and to fold down horizontally upon

said base and the supporting-base to be collapsed or shortened on a plane nearly level with the folded head-sections, substantially as described.

- 5 10. In a frame for a pillow or rest, in combination, two open head-sections and a longitudinally-collapsible, extensible, and automatically-locking base supporting said head-sections.
- 10 11. In a pillow or rest, in combination, two open head-sections, and a longitudinally-collapsible, extensible, and automatically-locking base supporting said head-sections, and one or more covers adapted to be stretched
- 15 between said head-sections.
12. In a frame for a pillow or rest, in combination, two head-sections of a construction to be folded and to interlock with a supporting-base and a collapsible, expansible, and
- 20 locking base supporting said head-sections.
13. In a pillow or rest, in combination, two head-sections of a construction to be folded and to interlock with a supporting-base, a collapsible, expansible, and locking base, and
- 25 one or more covers stretched between said head-sections.
14. In a frame for a pillow or rest, in combination, a longitudinal supporting-base and two head-sections pivotally connected to said
- 30 base and having their extreme ends formed with hooks for interlocking with said base.
15. In a pillow or rest, in combination, a longitudinal supporting-base, two head-sections pivotally connected to said base and having
- 35 their extreme ends formed with hooks for interlocking with said base, and one or more covers adapted to be stretched between said head-sections.
16. In a frame for a pillow or rest, in combination, a collapsible, expansible, and locking
- 40 base and two head-sections pivotally connected to said base and having their extreme ends formed with hooks for interlocking with said base.
- 45 17. In a pillow or rest, in combination, a collapsible, expansible, and locking base, two head-sections pivotally connected to said base

and having their extreme ends formed with hooks for interlocking with said base, and one or more covers adapted to be stretched 50 between said base.

18. In a frame for a pillow or rest, in combination, two head-sections of a construction to be folded and to interlock with a supporting-base and a collapsible base, said bases being formed in two parts, each having parallel 55 bars, and the loops made at the ends of the bars of one part being adapted to lock against projections made in the parallel bars of the corresponding part. 60

19. In a pillow or rest, in combination, two folding and interlocking head-sections and a collapsible base, said base being formed in two parts, each part having parallel bars, and the loops made at the ends of the bars of one 65 part locking against projections made in the parallel bars of the corresponding part, and one or more covers stretched between said head-sections.

20. Open head-sections of a pillow-frame, 70 formed of pieces of wire bent into arched or approximately elliptical form and with the lower portions of the wire extending downwardly and inwardly and terminated with connecting ends connecting with the supporting-base of the pillow-frame inside the edges 75 of the pillow, substantially as described.

21. A pillow-frame comprising a base-support and two bent-wire open head-sections of arched or approximately oval form and with 80 the lower portions of the wire extending downwardly and inwardly and terminated with connecting ends connecting with the supporting-base of the pillow-frame inside the edges of the pillow, and one or more head-supporting stretchers or covers, substantially as described. 85

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE HOWLETT DAVIS.

Witnesses:

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