No. 649,901. Patented May 22, 1900.

C. M. BRENNAN.

MEANS FOR SUPPORTING BEDCLOTHES.

(Application filed Jan. 16, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

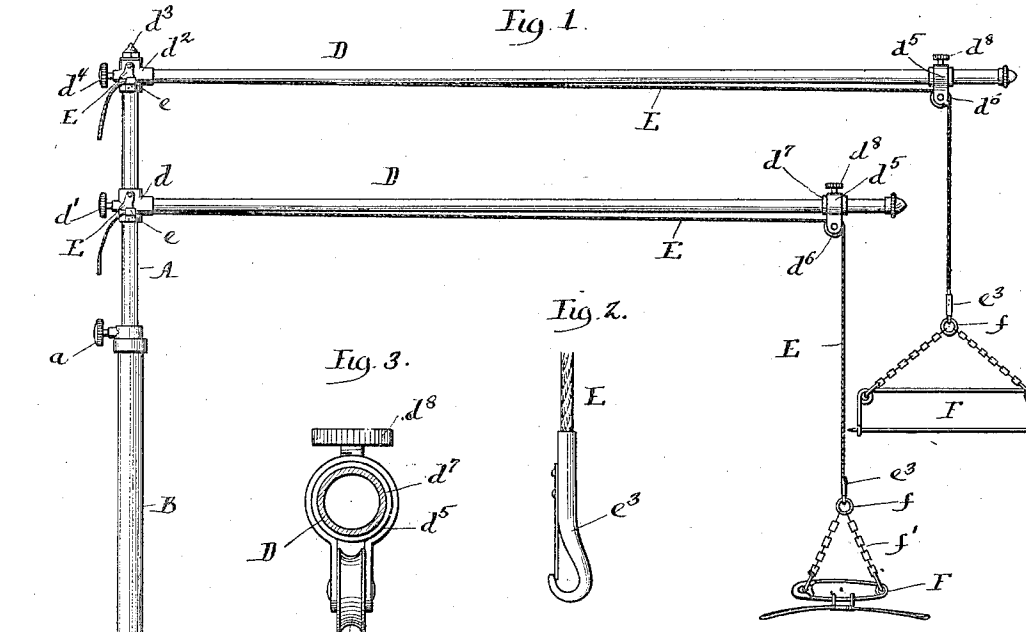


Fig. 2.

Fig. 3.

Fig. 4.

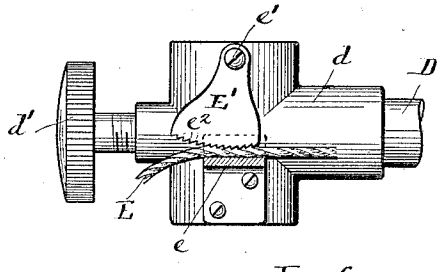


Fig. 5.

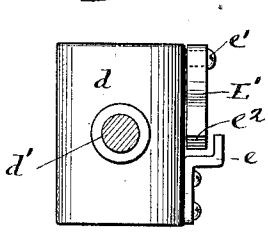


Fig. 6.

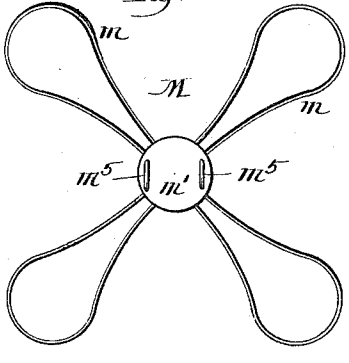
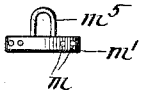


Fig. 7.



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Fig. 8.

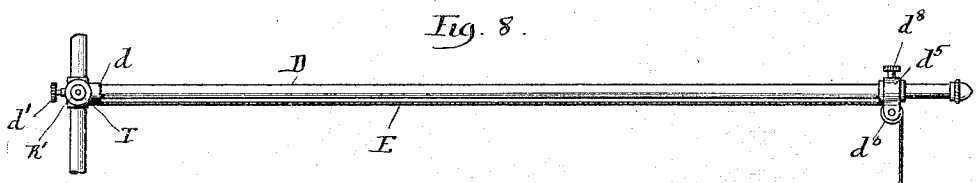


Fig. 10.

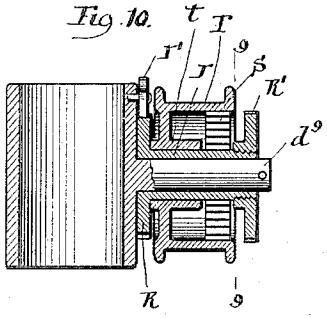


Fig. 9.

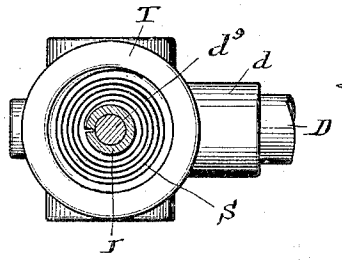


Fig. 11.

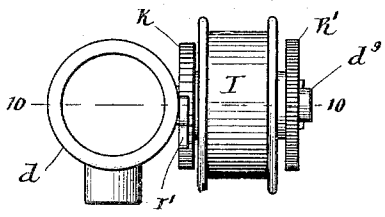


Fig. 12.

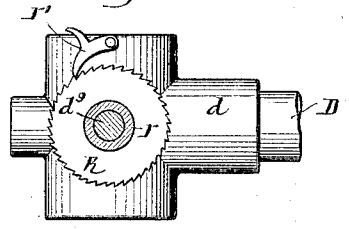
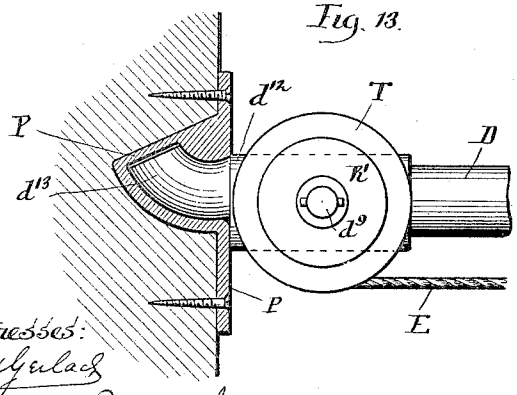


Fig. 13.



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UNITED STATES PATENT OFFICE.

CHARLES M. BRENNAN, OF CHICAGO, ILLINOIS.

MEANS FOR SUPPORTING BEDCLOTHES.

SPECIFICATION forming part of Letters Patent No. 649,901, dated May 22, 1900.

Application filed January 16, 1899. Serial No. 702,213. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. BRENNAN, a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Means for Supporting Bedclothes, &c., of which I do declare the following to be a full, clear, and exact description.

This invention has for its object to provide improved means for firmly supporting the bedclothing in such manner as to relieve the occupant of the bed in great measure from the weight thereof.

The invention consists in the improvements hereinafter described, illustrated in the accompanying drawings, and particularly defined in the claims at the end of this specification.

Figure 1 is a view in side elevation of the bedclothes-supporter embodying my invention. Fig. 2 is a detail view of the snap-hook that connects the suspension-cord with the holder that supports the clothing. Fig. 3 is a view in vertical cross-section through the pulley over which the suspension-cord passes. Figs. 4 and 5 are enlarged detail views of the coupling that connects the horizontal arm to the vertical standard of the supporter. Fig. 6 is a detail plan view of the spreader that extends beneath the bedclothing. Fig. 7 is a detail view, in side elevation, of the central portion of the spreader. Fig. 8 is a view in side elevation, showing a modified form of the invention. Fig. 9 is an enlarged view of the counterbalance mechanism for the suspension-cord, this view being taken upon the section-line 9 9 of Fig. 10. Fig. 10 is a view in vertical section on line 10 10 of Fig. 11. Fig. 11 is a plan view of the counterbalance mechanism for the suspension-cord shown in Fig. 10. Fig. 12 is a view in vertical section through the counterbalance mechanism, the section being taken adjacent the ratchet-wheel. Fig. 13 is a detail view, partly in side elevation, showing a slightly-modified form of the invention.

A designates a vertical standard, the bottom of which is preferably set within a tubular post B, that rises from a base or tripod C of any convenient form. The standard A being telescopically mounted within the post B can be held at any desired elevation by means of a set-screw a, that passes through a threaded opening at the top of the post B. Upon the standard A are mounted the suspension-arms D, (one or more in number,) two of such arms being shown in Fig. 1 of the drawings. The lower suspension-arm is provided at one one end with a coupling d, through which the standard A passes, the coupling being formed with a threaded hole to receive a set-screw d', whereby the arm D can be fixed at any required elevation or position upon the standard A. The inner end of the upper arm D is fitted with a coupling d^2, that is provided with a cap d^3, adapted to rest upon the top of the standard A, and a set-screw d^4, that passes through the coupling, enables the upper arm D to be fixed rigidly with respect to the standard in any desired position. Upon the outer ends of each of the arms D is mounted a loop or like support d^5, that carries a pulley d^6, this loop or support being connected to or formed in piece with a sleeve d^7, that is adjustably mounted upon the arm D, the position of the sleeve upon the arm being determined by a set-screw d^8, that passes through a threaded hole in the sleeve. Over the pulley d^6 passes a suspension-cord E, the inner end of which is passed over an arm or bracket e, attached to the corresponding coupling d or d^2, (see Fig. 4,) and above the bracket e is pivotally hung a gravity-catch E', adapted to permit the easy drawing of the cord E in one direction, but being so mounted upon its pivot e' as to lock the cord against movement in the opposite direction. Preferably the lower edge of the catch E' is formed with teeth e^2 to enable it to better engage the cord. To the outer end of the suspension-cord E is connected the suspension device for engaging the bedclothing, and preferably, although not essentially, this suspension device and the means for connecting it with the cord E are as follows, viz: To the end of the cord E is connected a snap-hook e^3, adapted to engage a ring or eye f, that is connected by a chain f' to the opposite ends of a pin F, that is adapted to pass through the bedclothing. Preferably this pin F is a safety-pin of large size, (such as are commonly used for horse-blankets or the like.) The pin F

shown suspended from the outer end of the lower arm D is somewhat different from the pin F shown suspended from the upper arm D, but these pins are safety-pins of familiar construction and need not be more particularly described.

In order to more effectively sustain the bedclothing in extended position above the occupant of the bed, I prefer to use a spreader-frame M, having extended arms m, and to permit this spreader-frame to be engaged by the pin F when desired the central portion m' of the spreader-frame is formed with one or more eyes or loops m^5, through which the pointed portion of the pin F will pass, as clearly seen in Fig. 1 of the drawings.

From the foregoing description it will be seen that the pin F may be connected with the bedclothing by passing the pointed arm of the pin through the clothing in the usual manner of employing safety-pins, or the pin F may be passed through the clothing and through the loops or eyes m^5 of the spreader-frame M, as shown in Fig. 1, below the lower arm D. The standard A and the supporting arm or arms D will be adjusted at the desired elevation and position, and the suspension-cord E having been drawn backward to bring the pin F to the desired height will be held in such position by means of the catch E'. The arms D, if two be employed, serve to sustain the bedclothing at different points above the body of the occupant of the bed, or if there be two occupants the clothing may be suspended above each.

I deem it important to employ a supporting-arm D adapted to project out over the bed or to be swung away therefrom, as by this means the bedclothing can be raised above the occupant of the bed at any desired point. I deem it preferable, however, to employ a suspension-cord or like flexible connection leading downward from the outer portion of the rod D, since if the occupant of the bed should raise his body the flexible cord would offer no resistance.

In Figs. 8 to 13 of the drawings I have shown my improved supporter mechanism as provided with means whereby the weight of the bedclothing shall be counterbalanced, so that if the occupant of the bed desires to suspend the clothing at a higher point above the body he can do so by merely raising the clothes, and thus permitting the counterbalance mechanism to hold the clothes in the raised position. In the construction shown in Figs. 8 to 12 the supporting-arm D is the same as in the construction hereinbefore described, and the suspension-cord E, the pin F, and the pulley d^6 and its attachments are the same as in the above-described construction. In this form of the invention, however, the inner end of the suspension-cord E is connected with a counterbalance mechanism (preferably spring-actuated) which insures the holding of the bedclothing at any point to which it may be raised. In the form of counterbalance mechanism shown the coupling d, that sets upon the standard A, is provided with a stud d^9, over which fits a sleeve r, carrying at one end a ratchet-wheel R. With the ratchet-wheel R engages a check-pawl r', that is pivoted at one side of the coupling d, (see Fig. 12,) and upon the outer end of the sleeve r is fixed a thumb-wheel R', whereby the sleeve r may be turned. To the sleeve r is fixed one end of a convolute spring S, the opposite end of this spring being fastened to a drum T, the hub t of which drum is mounted upon the sleeve r. The inner end of the suspension-cord E will be fastened to the drum T and a certain amount of the cord will be wound upon the periphery of the drum. By turning the ratchet-wheel R through the medium of the thumb-wheel R' the spring S can be wound, so that as the suspension-cord E is drawn off the drum the spring S will tend to rewind it thereon. Hence it will be seen that if the parts be in the position shown in Fig. 8 of the drawings and it be assumed that the pin F (or other supporting device) is connected to the bedclothing the force of the coil-spring S, tending to wind the cord E upon the drum T, will counterbalance the weight of the bedclothing, so that the clothing will be held raised above the occupant of the bed. If the occupant desires that the bedclothing be held higher above his body, he need only lift the clothing, thereby permitting the suspension-cord E to be wound upon the drum T by the action of the coil-spring S, and, on the other hand, if the occupant desires to draw down the bedclothing this can be done against the force of the coil-spring S, which is not strong enough to entirely overcome the weight of the clothing. By means of the ratchet-wheel R the tension of the coil-spring S can be regulated as desired.

In Fig. 13 of the drawings I have illustrated a simple modification adapting my invention for use in sleeping-cars or like situations. The suspension-arm D in this form of the invention will be provided at its inner end with a coupling or sleeve d^{12}, that will be furnished with a suitable stem d^{13}, adapted to engage a socket P, attached to the side wall of the car or like structure. The sleeve d^{12} will be provided with counterbalance mechanism like that illustrated in Figs. 8 to 12 of the drawings, and the arm D will be furnished at its outer end with suitable means for holding the suspension-cord E, which cord will be provided also with a pin F or like suspension device adapted to engage the bedclothing. It will be readily seen that when the arm D is not in use it can be disengaged from the socket P.

It is manifest that the precise details of construction above set out may be varied without departing from the spirit of the invention. Thus, for example, instead of a suspension-

cord E a suitable wire, cable, chain, or other flexible suspension device might be employed.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A supporter for bedclothes comprising a suitable standard, a suspension-arm mounted upon said standard and rigidly held thereby in lateral position and against vertical movement and a suspension device depending vertically from the outer end of said suspension-arm and provided at its lower end with means adapted to sustain the bedclothing.

2. A supporter for bedclothes comprising a suitable standard, a suspension-arm and means for adjustably holding the same in position on said standard, and a suspension device extending from the outer end of said suspension-arm and provided at its lower end with means adapted to engage the bedclothing.

3. A supporter for bedclothes comprising a suitable standard and means for holding the same in position, a suspension-arm extending at an angle to said standard, a suspension device for engaging the bedclothing and suitable means adjustably connecting said suspension device to said suspension-arm whereby said suspension device can be raised and lowered in order to hold the clothing at the desired height.

4. A supporter for bedclothes comprising a vertically-adjustable standard and means for holding said standard in vertical position, a suspension-arm extending at an angle to said standard, a suspension device adapted to engage the bedclothing, and means adjustable lengthwise of said suspension-arm for connecting the suspension device thereto, and suitable means whereby said suspension device may be raised or lowered.

5. A supporter for bedclothes comprising a vertical standard and means for holding it in upright position, a suspension-arm extending at an angle to said standard, a suspension device for engaging the bedclothing, a cord or like flexible connection attached to said suspension device and means for connecting said cord with the outer end portions of said suspension-arm.

6. A supporter for bedclothes comprising a suspension-arm and suitable means for holding the same in lateral position, a suspension device for engaging the bedclothing, a suspension-cord or like flexible connection connected to said suspension device and to said suspension-arm and counterbalance mechanism connected to said suspension-cord.

7. A supporter for bedclothes comprising a suspension-arm and suitable means for holding the same in lateral position, a suspension device for engaging the bedclothing, a suspension-cord or like flexible connection attached to said suspension device and a loop adjustably attached to said suspension-arm through which said cord passes.

8. A supporter for bedclothes comprising a suspension-arm and suitable means for holding the same in lateral position, a suspension device for engaging the bedclothing, a suspension-cord or like flexible connection connected to said suspension device and to said suspension-arm, counterbalance mechanism connected to said suspension-cord, said counterbalance mechanism comprising a spring-actuated winding-drum to which said suspension-cord is connected.

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