(No Model.)

W. T. SALTER.

FOLDING BEDSTEAD.

No. 303,056. Patented Aug. 5, 1884.

FIG. 4.

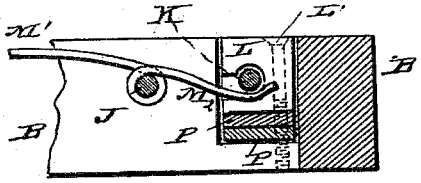


FIG. 1.

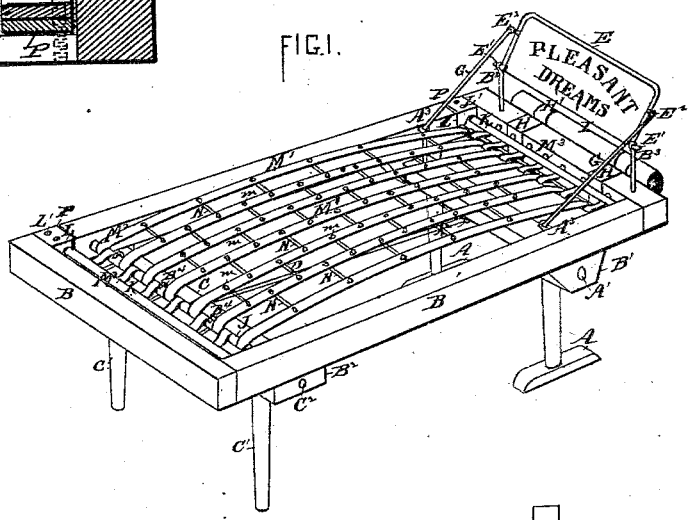


FIG. 2.

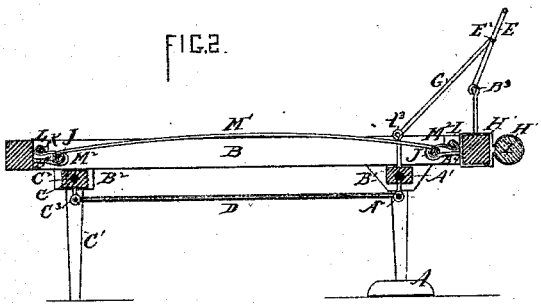
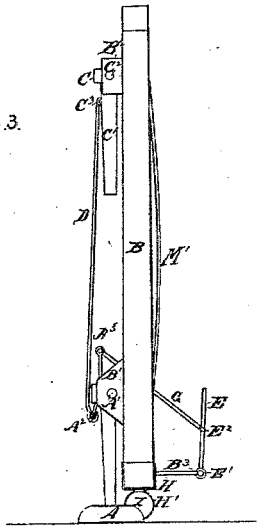


FIG. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM T. SALTER, OF NEW YORK, N. Y.

FOLDING BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 303,056, dated August 5, 1884.

Application filed May 16, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. SALTER, of New York city, in the county and State of New York, have invented certain new and useful Improvements in Bedsteads, of which the following is a specification.

The accompanying drawings form a part of this specification and represent what I consider the best means of carrying out the invention.

Figure 1 is a perspective view of my improved bedstead in condition for use. Fig. 2 shows a central vertical section, and Fig. 3 a side view showing the bedstead in its folded condition. Fig. 4 is a section on a larger scale.

Similar letters of reference indicate corresponding parts in all the figures.

A is a stationary stand, certain portions being designated, when necessary, by additional marks, as A′, A^2, &c. It has a sufficiently wide base to rest firmly on the floor, an overhanging journal, A′, on each side at the top, an eye, A^2, on a bolt or arm reaching downward in the middle, and an eye, A^3, on a bolt or arm reaching upward on each side at the top.

B is the framing of the bedstead, certain portions being designated, when necessary, by additional marks, as B′, B^2, &c.

B′ are bearings which rest on and embrace the journals A′, respectively, and form joints on which the bedstead may be turned up and down, as required.

B^2 are bearings near the opposite end of the framing B, receiving similar, but smaller, journals, C^2, extending from a cross-bar, C, having legs C′. An eye, C^3, on a bolt or arm extending downward from the turning-bar C, is connected by a light but rigid link, D, with the eye A^2. This connecting-link D serves to keep the legs C′ always parallel to the corresponding legs or uprights of the framing B.

B^3 are eyes supported on bolts or arms extending upward from the head of the frame B. They receive journals E′, formed on the turned-out ends of a head-board, E, which may be a light frame of metal, as shown.

E^2 are pivots, welded or otherwise firmly fixed, extending out beyond the sides of the head-board E. They are connected by links G with the eyes A^3. When the frame B is in the horizontal position for use, the links G hold the head-board or head-frame E in a nearly upright position for use. As the frame B is raised, the head-board E is, by the influence of the links G, kept nearly parallel to the upright stand A, and thus folded out of the way.

H H are straps which embrace the transverse bar at the head-frame B, and are provided with loops H′, adapted to receive and strongly support a weight, I. A series of stout hooks, B^4, are provided, extending inward from the head and foot of the framing B. They support cylindrical transverse bars J. The support for the person or persons using the bed is obtained by long metallic springs M, certain portions of which will be designated, when necessary, by additional marks, as M′ M^2.

M′ is the central and main portion. It extends nearly straight a great portion of the length of the interior of the frame B. Each end is peculiarly secured. It is coiled one or more times around the bar J, as indicated at M^2, and then a considerable projecting end extends farther with a tendency to an upward direction. The springs M are kept at the proper distance apart by transverse wires N, engaged with the springs M. Each wire N connects two springs, M, and allows an easy joint, so that the springs M may each yield independently, the transverse wires N forming flexible and not rigid connections. They serve to maintain the central portions of the springs M at about uniform distances apart under all conditions.

K K are transverse bars of steel or other suitable material, sufficiently thick to afford the requisite rigidity. The ends are received in shallow notches formed on the under side of brackets L, which are secured on the frame B by removable fastenings, as screws L′.

Under the body of each bracket L, and between it and the frame B, I insert one or more shimming-pieces, P, by removing or exchanging which the height of the brackets L, and consequently the height of the rigid transverse bar K, may be changed. The bars K press strongly on the projecting ends M^3 of the springs. The effect is to greatly increase the supporting-power of the springs to sus-

tain the weight of the person or persons occupying the bed. Raising or lowering the cross-bars K modifies the action of the springs M, lowering K, stiffening the springs, and raising K, relaxing the springs. There is a tendency in springs to lose a portion of their elasticity by use. When the bedstead is overhauled after having been some time in use, shimming-pieces P should be put in, or, if some have previously been employed, more or thicker should be applied. The resetting of the screws L′ after the shimming-pieces are inserted or made thicker will hold the cross-bars K lower, and by throwing up the central portions of the springs M higher compensate for the loss of elasticity. These adjustments can be made at first or any time, so as to afford just the desired degree of elasticity.

When there is no load resting on the springs M, the bars K may be readily removed from under the brackets L and replaced again. This is of great convenience in case of repairing or renewing a spring.

To replace a spring which is broken or has otherwise failed, the defective spring may be filed off, and the cross-bars K, being detached from their positions under the brackets L, the entire cross-bar J, with its attached springs, may be raised out of the hooks B^4 and the springs shifted together to take the place of the removed one, a new spring introduced by applying it on the ends of the bars K, and the whole again returned to place. The eyes B^3, by being held up a considerable space above the frame B, allow a considerable thickness for mattress, bed-clothes, pillows, or the like to be retained, if desired. The straps H with their loops H′ avoid the necessity for boring holes or otherwise weakening or marring the appearance of the frame B.

What I have termed the "head-board" is adapted to serve its usual functions of supporting the bolster and pillows. The links D, in addition to their function of supporting the head-board and causing it to fold and unfold as the bed is raised and lowered, serve also a useful end in supporting the pillows and bolster against displacement laterally.

Modifications may be made in the forms and proportions within wide limits. I can use round wires of steel or other suitable material in place of the flat springs M. When round wires are employed, two of the springs M may be conveniently made from the same length of wire, the two being connected at one end, as indicated by *m*. There may be one or more brackets or adjustable supports to hold down the central portions of the transverse bars K. Stops may be provided, one of which should be removable, to prevent the weight I from becoming displaced endwise.

My bed may be used with or without a mattress. In many cases a thick blanket is all that is necessary over the springs.

I claim as my invention—

1. In a folding bedstead, the hinged head-board E, in combination with the frame B, link G, and fixed stand A, all arranged for joint operation, substantially as herein specified.

2. In a folding bedstead, the series of metal springs M, formed in one or more coils at the points M^2, in combination with the frame B, transverse cylindrical bars J, and transverse bars or stops K, arranged to serve as herein specified.

3. The changeable brackets L and suitable fastening means, L′, in combination with the frame B, transverse removable bars J and K, and springs M′ M^2 M^3, arranged to adjust the stiffness of the springs, substantially as herein specified.

4. In a folding bedstead, the transverse connecting-wires N, in combination with the longitudinal metallic springs M, the frame B, and means, as J K L, for holding the springs at the ends, all substantially as herein specified.

In testimony whereof I have hereunto set my hand, at New York city, this 14th day of May, 1883, in the presence of two subscribing witnesses.

WILLIAM T. SALTER.

Witnesses:
W. L. BENNEM,
B. E. D. STAFFORD.