No. 780,569. PATENTED JAN. 24, 1905.

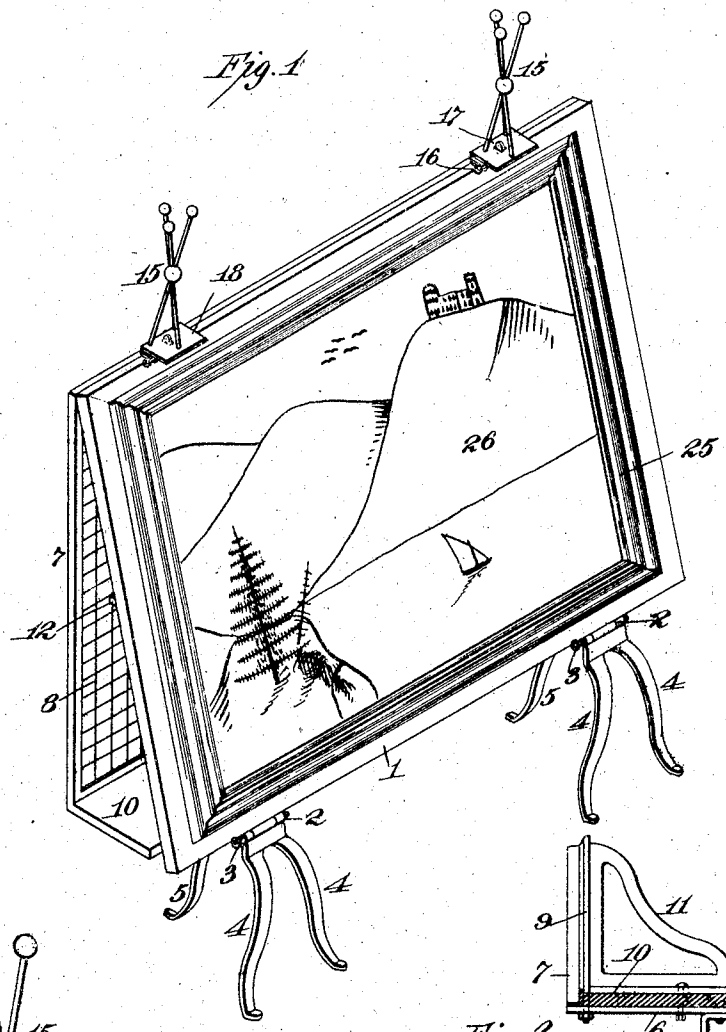
E. MACKENZIE.

FOLDING BED.

APPLICATION FILED MAR. 27, 1903.

2 SHEETS—SHEET 1.

Fig. 1



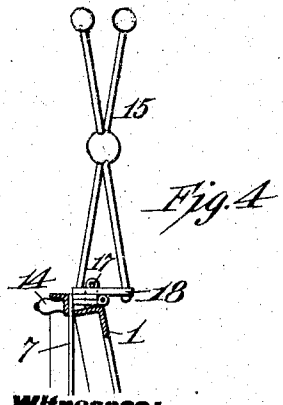


Fig. 4

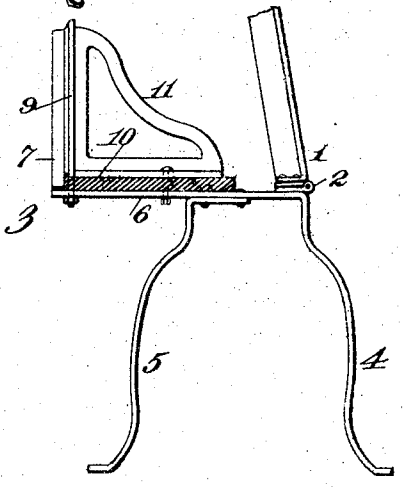


Fig. 3

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APPLICATION FILED MAR. 27, 1903.

2 SHEETS—SHEET 2.

Fig. 2

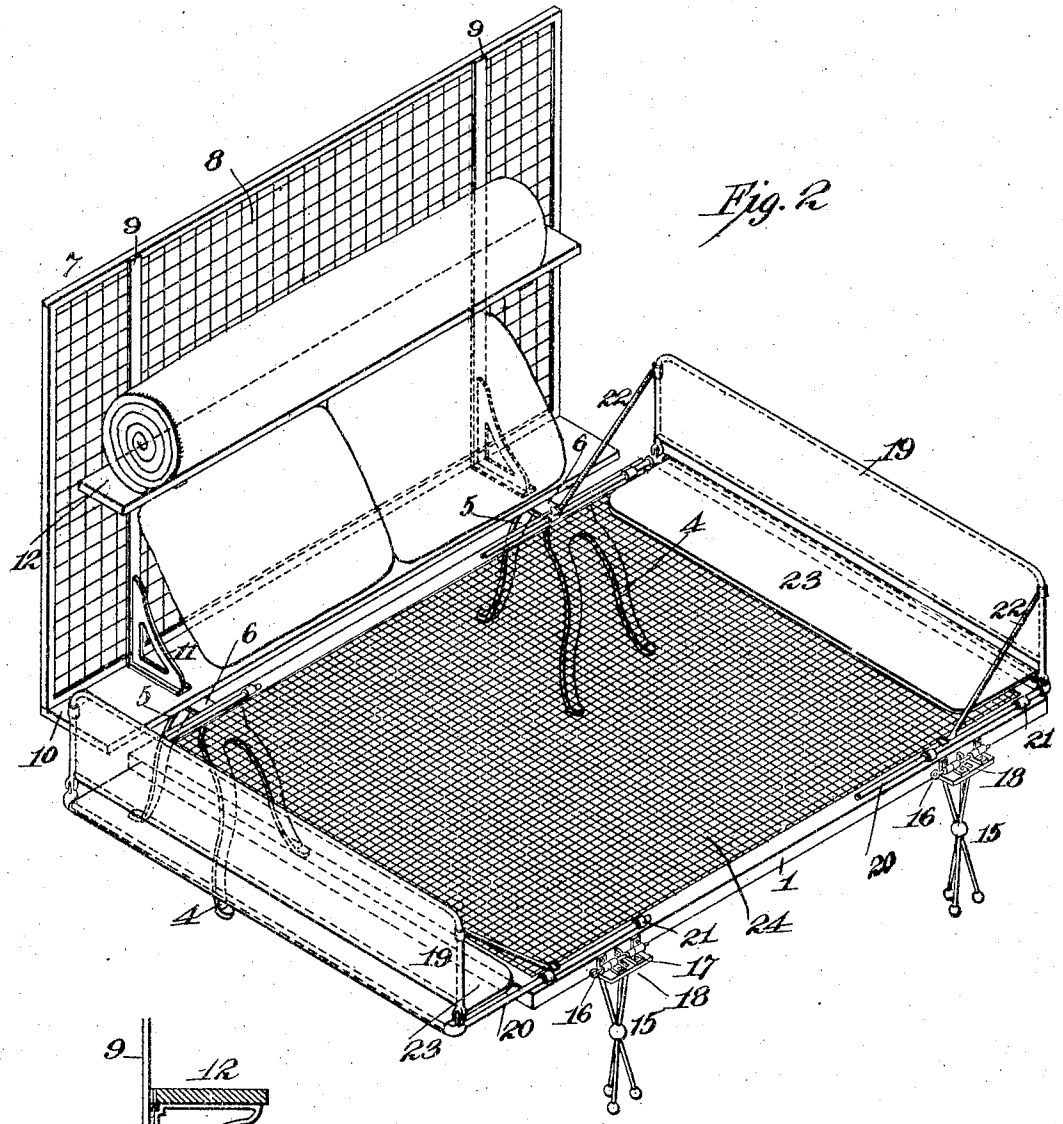


Fig. 6

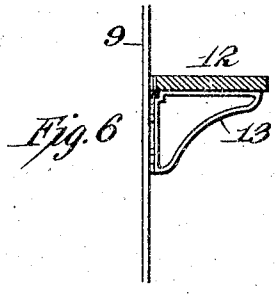
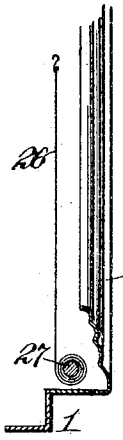


Fig. 5



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PHOTO-LITHOGRAPHED BY SACHETT & WILHELMS LITHO. & PTG. CO. NEW YORK.

No. 780,569. Patented January 24, 1905.

UNITED STATES PATENT OFFICE.

ELIZA MACKENZIE, OF NEW YORK, N. Y.

FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 780,569, dated January 24, 1905.

Application filed March 27, 1903. Serial No. 149,819.

To all whom it may concern:

Be it known that I, ELIZA MACKENZIE, a citizen of the United States of America, residing in the borough of Brooklyn, county of Kings, city and State of New York, have invented a certain new and useful Improvement in Folding Beds, of which the following is a description.

The object I have in view is to produce a folding bed which will be light, cheap, and compact in construction, can be readily kept clean, can be easily taken apart and put together for movement from room to room, and will be ornamental in appearance.

Particularly my object is to so construct such a bed that when folded it will represent a picture supported by an easel, its utilitarian purpose being concealed to the casual observer.

In the drawings, Figure 1 is a perspective view of my folding bed closed. Fig. 2 is a perspective view of the bed opened. Fig. 3 is a sectional view illustrating one of the rear or main supports for the bed, the parts being in a closed position. Fig. 4 is a sectional view illustrating one of the front legs of the bed in a closed position. Fig. 5 is a sectional view through one side of the main frame of the bed and the picture-frame, showing the picture supported by a spring-roller; and Fig. 6 is a sectional view illustrating the hinging of the shelf on the upright back-frame.

The main frame 1 is made of angle-iron like an ordinary iron bedstead. It is a rectangular frame of the usual shape, but preferably not of the full length of an ordinary bedstead. This frame is hinged on one of its longer sides to standards by means of hinges 2, the pintles 3 of which are preferably removable, so that the bed can be readily taken apart. These standards are preferably composed each of two front legs 4 and a rear leg 5 to give a firm support for the bed and for the back-frame about to be described. The hinges 2 are so applied to the frame that when the bed is folded the frame will occupy the inclined position illustrated. Upon rearward extensions 6 from the standards is secured, preferably removably, the upright back-frame 7, which is a rectangular metallic frame filled, preferably, with wire-netting 8 and strengthened by vertical metal strips 9. At the bottom of the frame 7 and resting upon the extensions 6 from the standards is a horizontal shelf 10, brackets 11 being preferably placed between the shelf 10 and the strips 9 to hold the frame and shelf together. Hinged to the strips 9 at an intermediate point of the frame 7 is a shelf 12, supported by brackets 13, which may be turned to one side and allow the shelf 12 to be folded against the frame 7.

When the bed is folded, the main frame 1 rests against the top of the frame 7. (See Fig. 4.) The whole structure may be moved up against the wall, in which case rubber-tipped knobs 14, secured to the frame 7, may be used to prevent injury to the wall. The bedding may be placed on the shelves 10 and 12 when the bed is not in use. (See Fig. 2.) Pivoted to the outer side of the main frame 1 are the front legs 15. The hinges of these legs preferably have a removable pintle 16, so that the legs can be detached from the bed. When the bed is folded, the legs 15 will be turned to an upright position and be secured by pins passing through staples 17. When the bed is opened, these front legs will be released and will turn down by their weight, the plates 18, to which the legs are attached, extending beyond the hinges, so as to turn against the under side of the frame 1 and support the bed.

To increase the length of the bed when opened, I provide head and foot end frames 19, pivoted on side rods 20, which slide through loops 21, secured to the main frame 1 on its upper side. Springs 22 connect the tops of the frames 19 with the side rods 20, this connection being removable at one end, so that these springs 22 may be folded in with the frames 19. The springs 22 prevent the frames 19 from being opened beyond a vertical position, while permitting them to give without breaking under any strain to which they may be subjected. The side rods 20 are connected by plates 23, which form supports for the bedding beyond the ends of the frame 1. When the bed is opened, the frames 19 are pulled

out and the bedding placed upon the spring-bottom 24, with which the main frame is provided and extending over onto the plates 23.

When the bed is not in use, the bedding is put upon the shelves 10 and 12, the frames 19 are folded and pushed inwardly, when the main frame may be lifted to the folded or closed position of the bed. I prefer to use a very thin felt mattress or a thick strip of felt for covering the spring bed-bottom instead of the ordinary mattress, and this may be rolled up and placed with the bedding upon the shelves 10 and 12. Attached to the main frame 1 on the side opposite the spring bed-bottom is a picture-frame 25, made of light sheet metal and having any suitable ornamental form. Within this frame is placed a picture 26, which is preferably wound upon a spring-roller 27, so that when the bed is in use the picture can be rolled up to prevent it from being broken or injured by the depression of the spring bed-bottom.

The bed when folded will present the appearance of a picture supported by an easel, this appearance being due not only to the presence of the picture-frame and picture, but also to the inclined position of the frame and to the support of the bed by the main standards entirely above the floor, nothing appearing below the frame except the supports, which have the appearance of the extensions of the easel below the picture-frame. The front legs also add to this deception and serve to represent the extensions of the easel above the picture-frame.

By reason of the lightness of the construction and the fact that the bed-frame is hinged on one side (instead of at one end) to the supporting-standards the bed-frame can be readily lifted to the folded position without the necessity of using counterweights to counterbalance the weight of the frame, and since the bed-frame when folded is swung into a rearwardly-inclined position no counterweights are needed and no locking device is required to prevent the bed-frame from falling to the horizontal position. The bed-frame is preferably made in narrow widths, as for a single or a three-quarters bed. If the bed-frame were made of full length, the proportions would not be those of the usual style of picture-frame. To give the proper proportions, the bed-frame is made shorter than usual, and the extension end frames are employed to give the required length for the bedding. These extension end frames also make the construction lighter and give the bed a more compact form when folded.

What I claim is—

1. A folding bed, having in combination, supporting-standards, and a bed-frame pivoted at one of its sides to said standard and supported in a position inclined beyond the point of pivoting when the bed is folded, the said bed-frame being shorter than the bedding and having end extension-frames, substantially as set forth.

2. A folding bed, having in combination, supporting-standards, and a bed-frame pivoted at one of its sides to said standards and supported in a position inclined beyond the point of pivoting when the bed is folded, the said bed-frame being shorter than the bedding and having end extension-frames, and an upright back-frame against which the bed is folded, substantially as set forth.

3. In a folding bed, the combination with supporting-standards, of the bed-frame pivoted at one of its sides to such standards and supported in a rearwardly-inclined position when the bed is folded, such bed-frame being shorter than the bedding to correspond in proportions to a picture-frame, whereby a picture-frame and picture of usual proportions can be attached to the bed-frame and will coincide in outline therewith, substantially as set forth.

4. In a folding bed, the combination with supporting-standards, of the bed-frame pivoted at one of its sides to such standards and supported in a rearwardly-inclined position when the bed is folded, such bed-frame being shorter than the bedding to correspond in proportions with a picture-frame, whereby a picture-frame and picture of usual proportions can be attached to the bed-frame and will coincide in outline therewith, and end extension-frames on the bed-frame for giving the required length when the bed is opened, substantially as set forth.

5. In a folding bed, the combination with the supporting-standards and the bed-frame pivoted thereon and supported in a rearwardly-inclined position when the bed is folded, of a flexible picture-supporting web on the under side of the bed-frame and a spring-roller upon which said web is wound when the bed is in use, substantially as set forth.

6. In a folding bed, the combination with main supporting-standards, of the bed-frame hinged to such standards so as to be supported in a rearwardly-inclined position when the bed is folded, an upright back-frame against which the bed-frame is folded and shelves on such back-frame to carry the bedding, substantially as set forth.

7. In a folding bed, the combination of the supporting-standards, the bed-frame removably hinged at one of its sides to such standards, the upright back-frame removably secured to such standards, and the front legs removably hinged to the outer side edge of the bed-frame, substantially as set forth.

8. A folding bed having in combination, supporting-standards, and a bed-frame pivoted at one of its sides to said standards the said bed-frame being shorter than the bedding and having end extension-frames, substantially as set forth.

9. A folding bed having in combination, supporting-standards, and a bed-frame pivoted at one of its sides to said standards, the said bed-frame being shorter than the bedding and having end extension-frames, and an upright back-frame against which the bed is folded, substantially as set forth.

10. A folding bed having in combination, supporting-standards, and a bed-frame pivoted at one of its sides to said standards, the said bed-frame being shorter than the bedding and having end extension-frames, and an upright back-frame, supported by the standards and against which the bed is folded, substantially as set forth.

11. In a folding bed, the combination with supporting-standards, of the bed-frame pivoted at one of its sides to such standards, such bed-frame being shorter than the bedding to correspond in proportion to a picture-frame, whereby a picture-frame and picture of usual proportions can be attached to the bed-frame and will coincide in outline therewith, substantially as set forth.

12. In a folding bed, the combination with supporting-standards, of the bed-frame pivoted at one of its sides to such standards, such bed-frame being shorter than the bedding to correspond in proportion to a picture-frame, whereby a picture-frame and picture of usual proportions can be attached to the bed-frame and will coincide in outline therewith, and end extension-frames on the bed-frame for giving the required length when the bed is opened, substantially as set forth.

13. In a folding bed, the combination with the folding-bed frame, of the main supporting-standards, pivoted to one side of such bed-frame and front legs pivoted to the opposite side of the bed-frame, and forming apparent continuations of the standards, when the bed is folded.

This specification signed and witnessed this 24th day of March, 1903.

ELIZA MACKENZIE.

Witnesses:

JNO. ROBT. TAYLOR,

REBECCA P. WOOD.