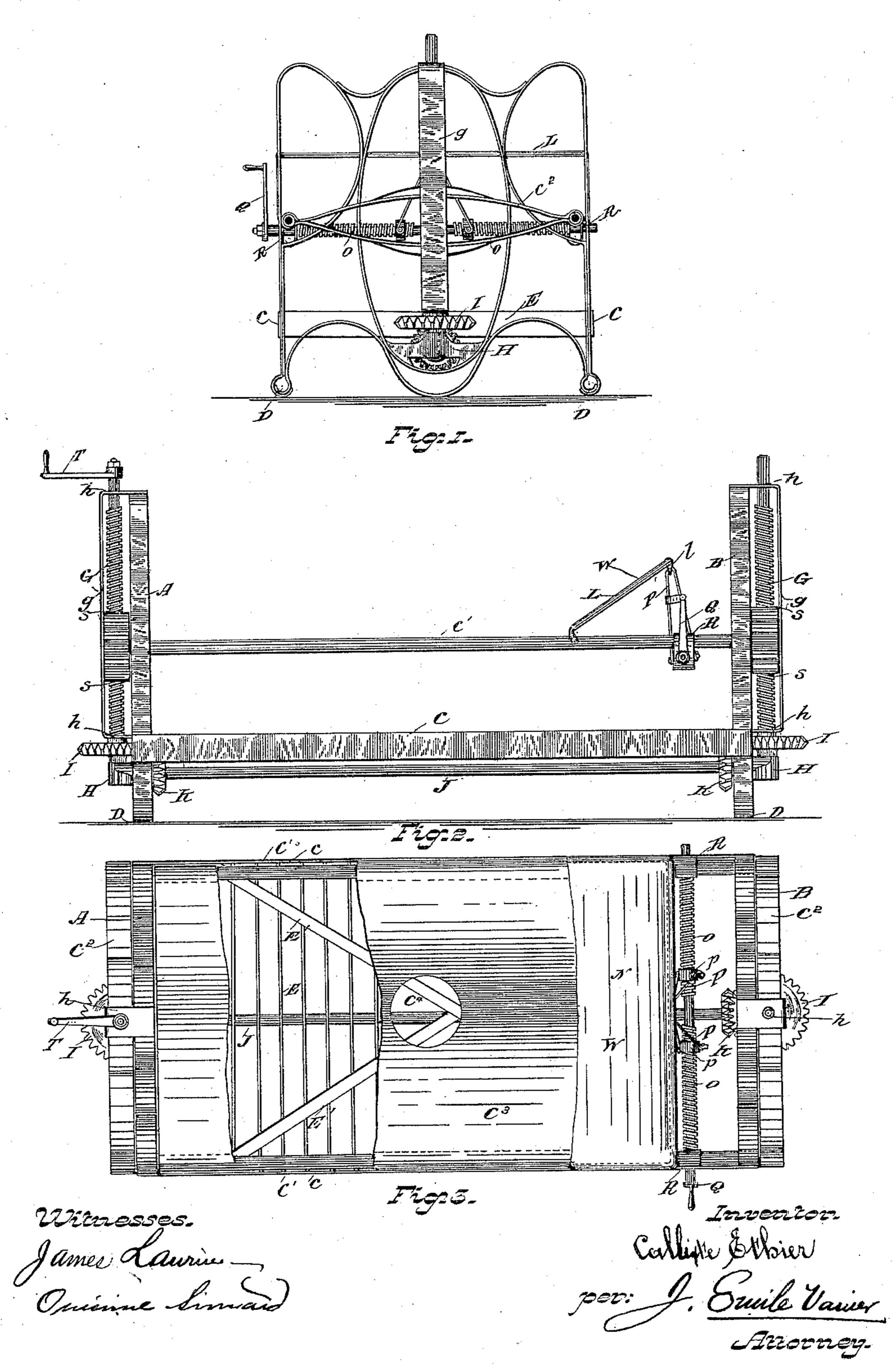
## C. ETHIER. BEDSTEAD.

No. 408,299.

Patented Aug. 6, 1889.



## UNITED STATES PATENT OFFICE.

CALLIXTE ETHIER, OF ST. JÉRÔME, QUEBEC, CANADA.

## BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 408,299, dated August 6, 1889.

Application filed December 17, 1888. Serial No. 293,870. (No model.) Patented in Canada November 7, 1888, No. 30,147.

To all whom it may concern:

Be it known that I, CALLIXTE ETHIER, a citizen of the Dominion of Canada, residing at St. Jérôme, in the county of Terrebonne and Province of Quebec, Canada, have invented certain new and useful Improvements in Bedsteads, (for which I have obtained a patent in Canada, No. 30,147, dated November 7, 1888;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has reference to a bedstead composed of a rigid frame, on which is placed a movable one resting on the former through the medium of two screws, the latter serving to lower or raise the movable frame on the rigid one, the former also being provided with a movable head-rest at one of its extremities.

My invention has for its object to provide a bedstead for invalids who have to be handled with the greatest care and as much as possible not touched at all—a thing which can be perfectly well accomplished by its aid.

Referring to the drawings, the same letters refer to the same parts throughout the several views. Figure 1 is an end elevation, Fig. 2 a side elevation, and Fig. 3 a plan view.

The two end pieces A and B of my bedstead are alike and made out of any suitable
material adapted to form an open or skeleton
frame, curved bands of metal being preferred,
and are joined to the side pieces C C in a suit35 able manner. The legs of my bedstead are
provided with the feet D, so as to make it easy
to push along on the floor. To form a bearing
for the mattresses, I use the ordinary slats E,
which can be made out of metal or any other
40 suitable material, and joined to the side
pieces C C in any suitable manner, the whole
firmly secured by the pieces E' E'.

The two end pieces A and B are provided with the guard-pieces g g, joined to them in a convenient way, and also with the pieces H H, which serve as a support for the screws G G and the shaft J, the latter being provided with the bevel-pinions K K, which are exact duplicates of each other and couple onto the two bevel-pinions I I, which are fixed onto the screws G G at their lower extremity, the bevel-pinions I I also being duplicate.

The screws G G are held in position at their upper end by means of the guards g g, consisting of vertical flat metal bars secured to 55 the end frames by their horizontally-bent ends h h, and the said screws are put in motion by means of the crank T, which can be attached to either of them.

This finishes the description of the immov- 60 able portion of my bedstead, and I will now refer to a very important part—that is, the movable frame composed of the side pieces C' C', which project through the open frames A B, and the cross-pieces C<sup>2</sup> C<sup>2</sup>, which are 65 joined to the projecting ends of said side pieces in any suitable way. Moreover, they have the shape shown in Fig. 1—that is, double the center of each portion being strengthened and provided with threaded openings at S for the 70 passage of the screws G G, the whole to be made out of any material found suitable. On this movable frame is stretched a strong piece of canvas C3, (only shown in Fig. 3,) firmly attached to the pieces C' C'. This canvas is 75 also provided with an opening C4, placed opposite the posterior part of the patient and for the purpose of satisfying the wants of nature.

On one end of the movable frame is attached 80 a movable head-rest, composed of the piece L, which is joined at both extremities with the pieces C' C' in a suitable way, and on which is attached a strong piece of canvas N. To move this head-rest up and down I make use 85 of the screw O, which is threaded in opposite direction at each extremity, and which is held in position by means of the pieces R, secured to the pieces C' C' in a suitable way. One of its extremities is provided with a crank Q, 90 so as to put it in motion when necessary. The head-rest is put in communication with the screw O by means of the pieces P P, joined at one end to the frame L at l in a suitable way, and at the other to the nuts pp, so that 95 when the screw O is put in motion the headrest will rise or descend according to the way in which the screw O is turned. The pieces P P necessarily oscillate freely at l and at their attachment to the nuts p p.

As can be seen from the above description, the patient lying on the canvas C<sup>3</sup>, which rests on the mattresses placed underneath it, can be lifted up on this canvas by simply

turning the crank T in the proper direction, this permitting the change of the bed-clothes and a thorough ventilation, so necessary in certain cases; and, moreover, by inserting a night-vessel under and opposite the opening C<sup>4</sup>, he can easily satisfy nature's wants. The lowering of the movable frame is done simply by turning the crank T in the opposite direction previously done.

• The patient can also be brought into a sitting position by means of the head-rest set in motion by means of the crank Q, screw O, and

pieces P P.

I am aware that it is not broadly new to construct a bedstead with a vertically-movable frame operated by right and left hand screws at the head and foot of the bed, and I confine myself to the specific arrangement of the apparatus as shown in the drawings, which is simpler and more conveniently operated and pushed about than those heretofore in use.

Having described my invention, what I claim, and desire to secure by Letters Patent,

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In a bedstead, the combination, with the 25 stationary bed-frame, provided with legs and with end pieces A and B, of the guard-pieces g, secured to the end pieces, the revoluble screws G, journaled in said guard-pieces and provided with bevel-toothed wheels I, the 30 pieces H, secured to the said end pieces and supporting the lower ends of the said screws, the shaft J, journaled in said pieces H and provided with beveled-toothed wheels K, gearing with said wheels I, and a vertically-mov- 35 able frame for supporting the patient, provided with cross-pieces  $c^2$ , engaging with the said revoluble screws, the whole being supported by the said bedstead legs and adapted to be moved about to any part of the sick- 40 room, substantially as set forth.

In testimony whereof I have affixed my signature in presence of the two subscribing

witnesses.

v 'æ'

CALLIXTE ETHIER:

Witnesses:

J. EMILE VANIER,

J. D. DUCHARME.