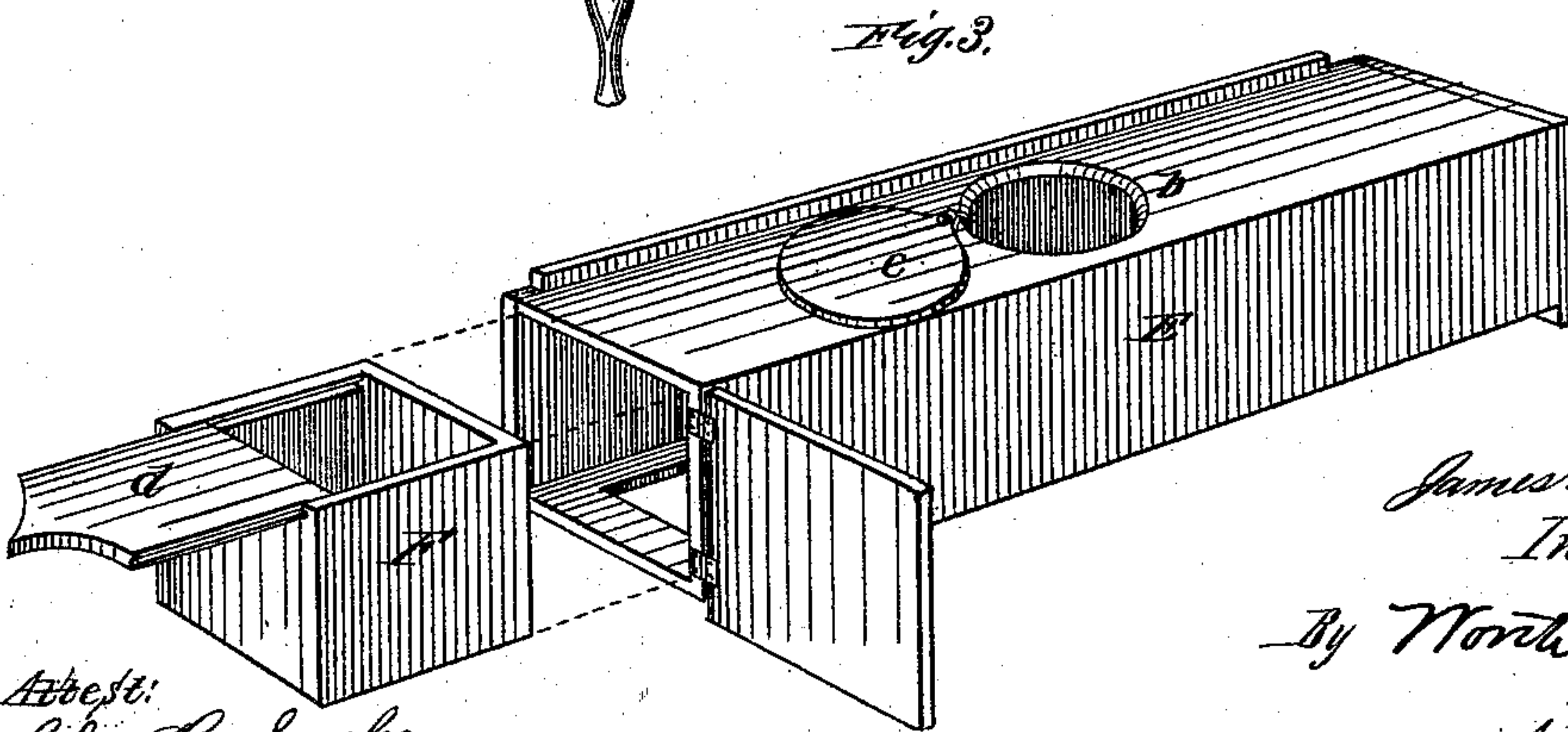
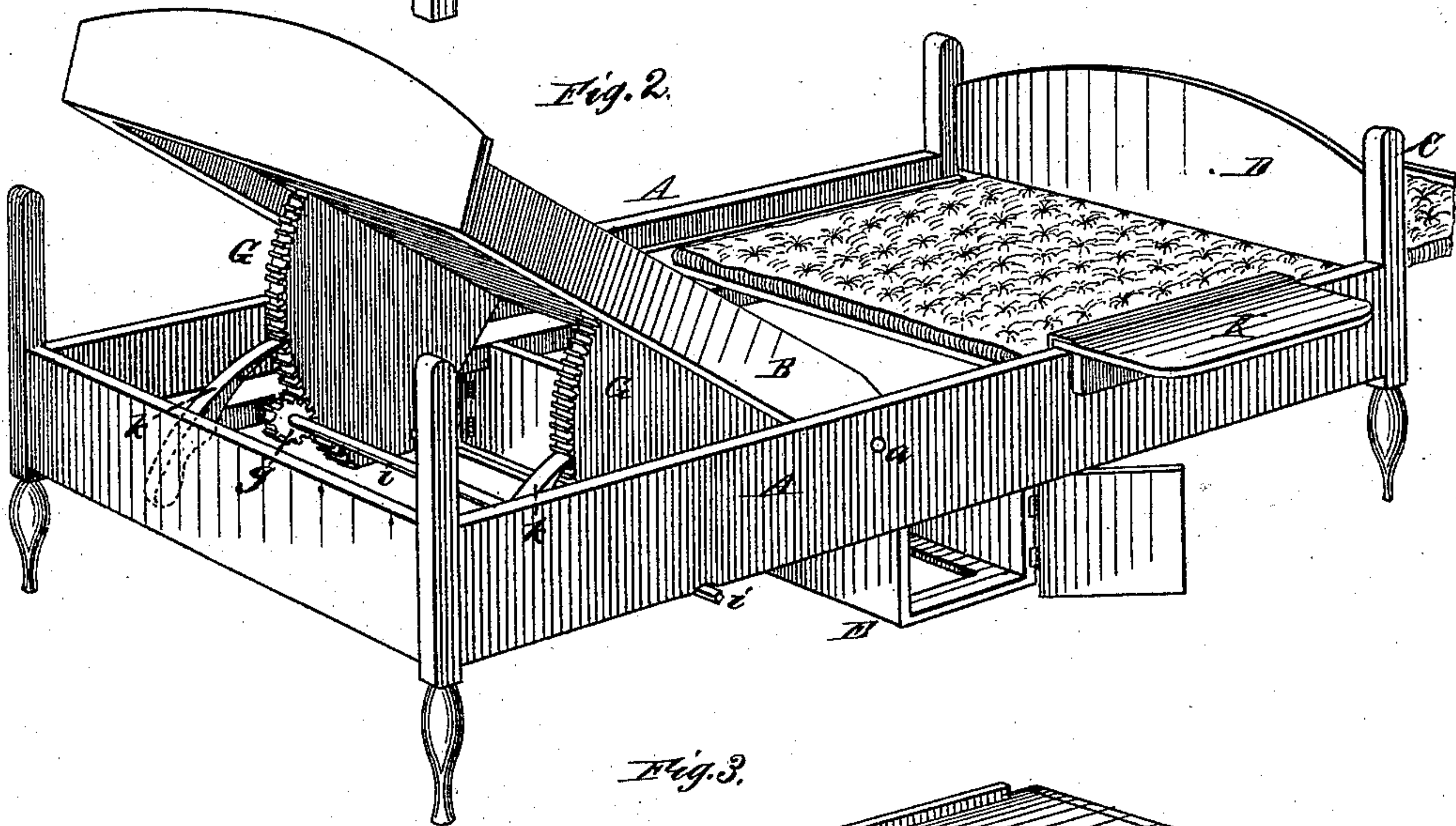
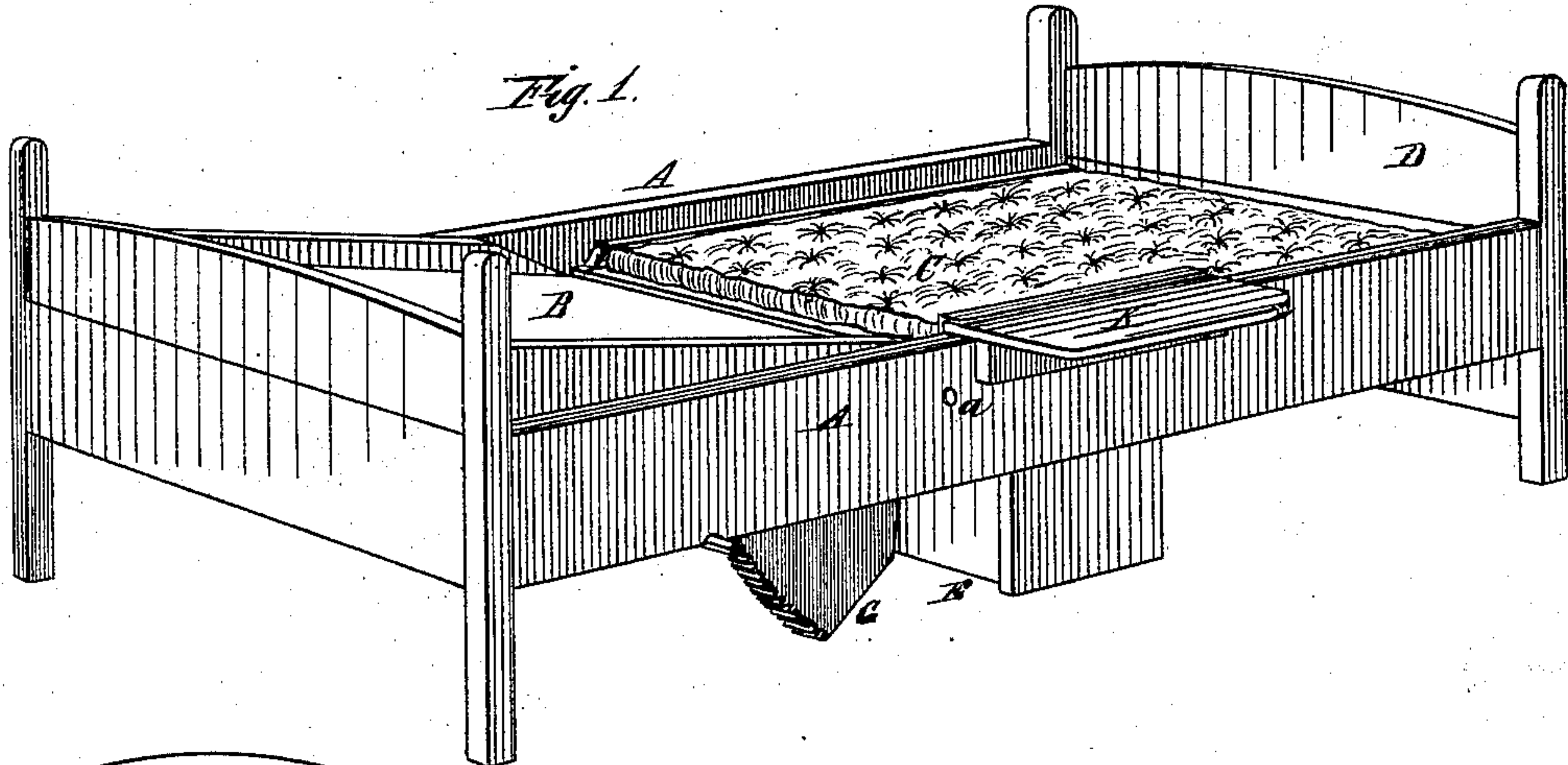


J. D. SINCLAIR.
Invalid-Bedstead.

No. 211,114.

Patented Jan. 7, 1879.



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Fig. 4.

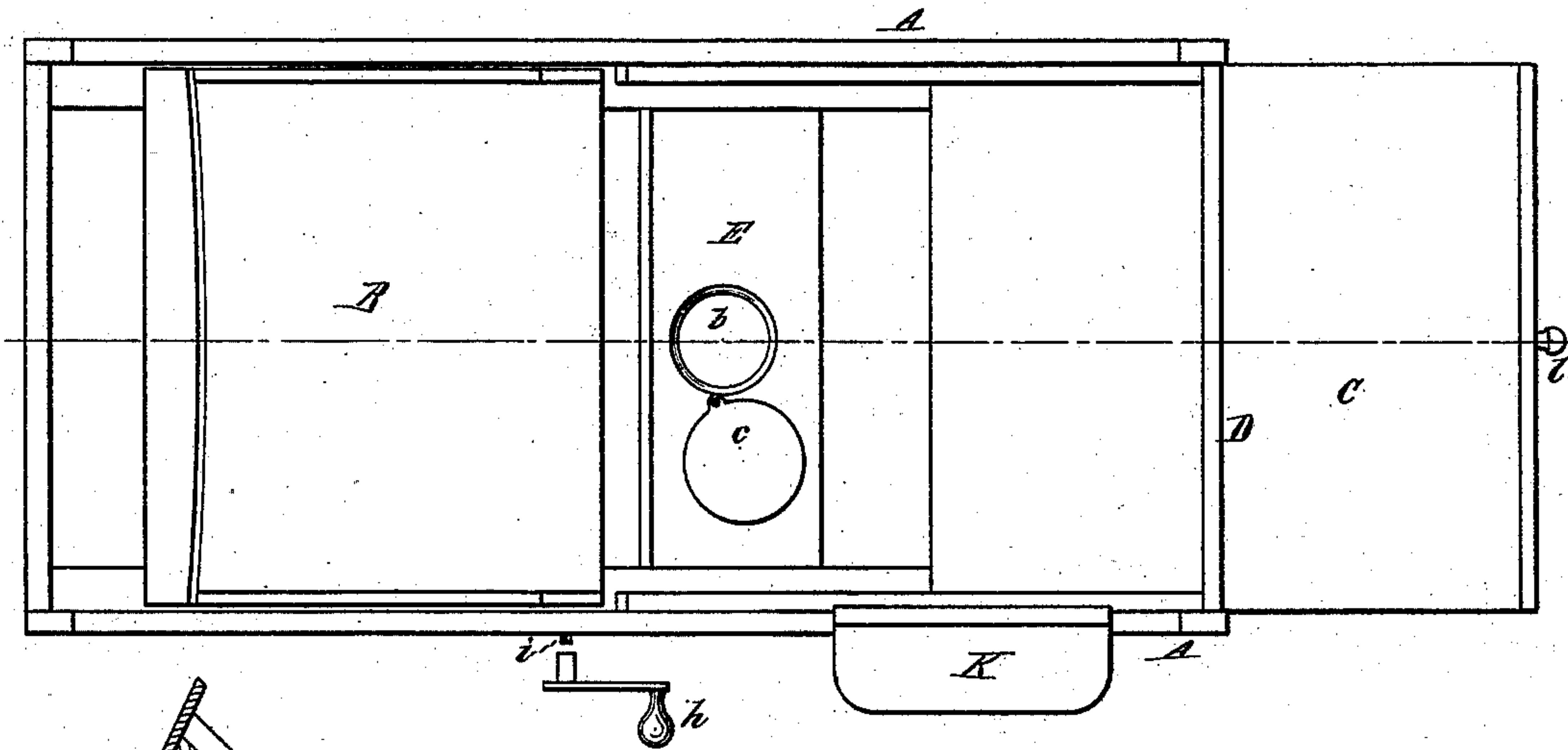


Fig. 5.

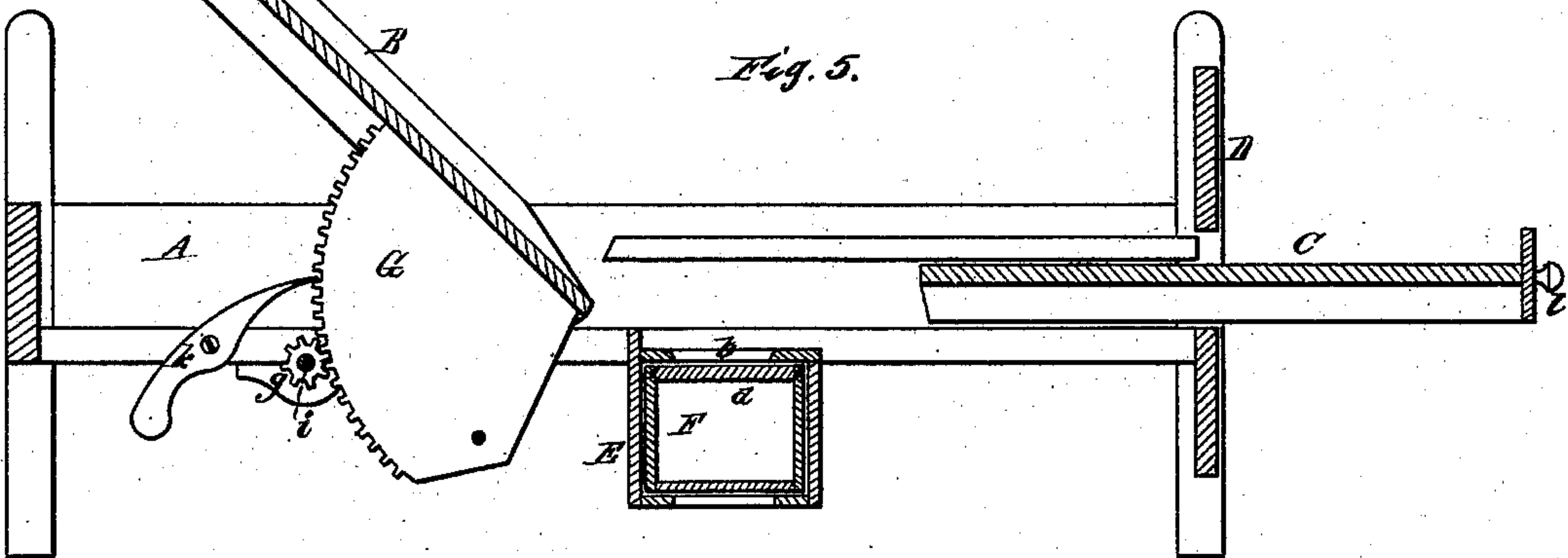
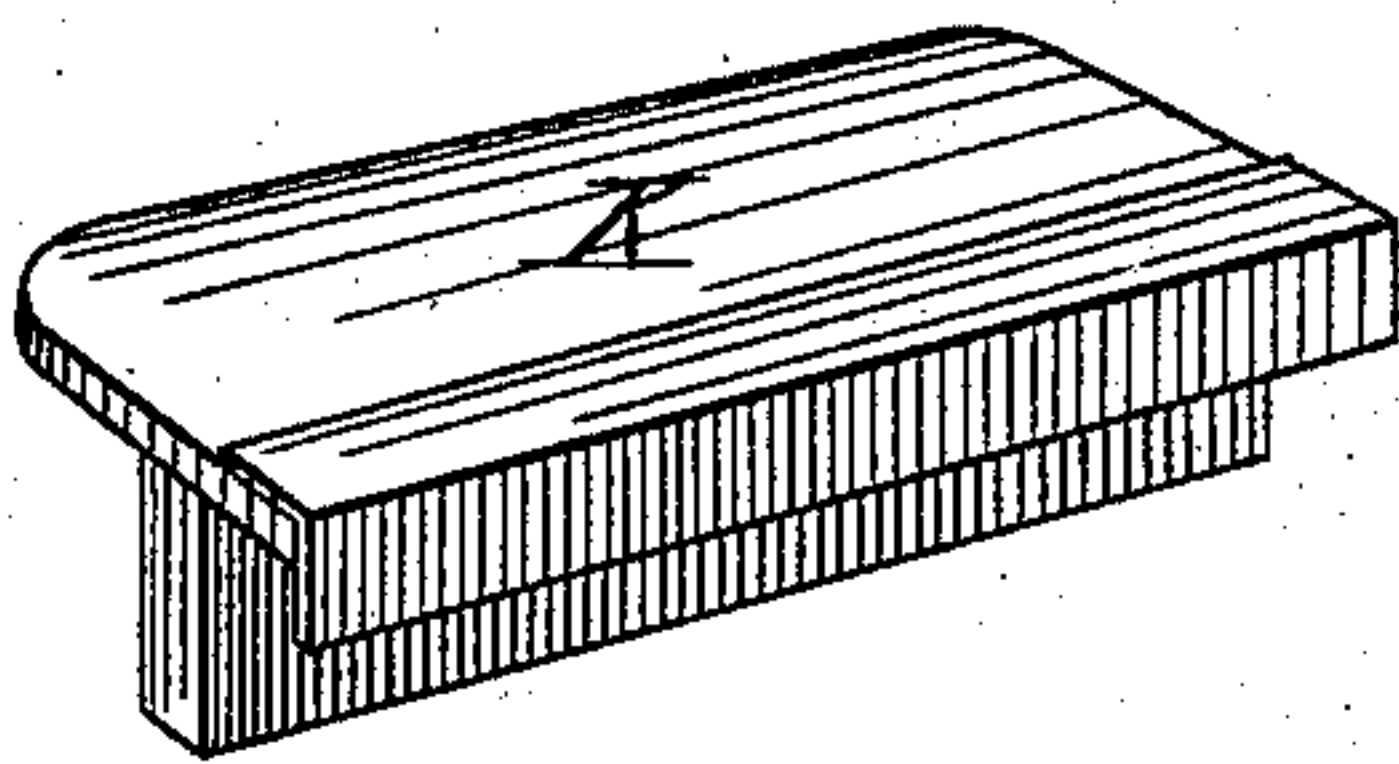


Fig. 6.



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UNITED STATES PATENT OFFICE.

JAMES D. SINCLAIR, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN INVALID-BEDSTEADS.

Specification forming part of Letters Patent No. 211,114, dated January 7, 1879; application filed May 3, 1878.

To all whom it may concern:

Be it known that I, JAMES D. SINCLAIR, of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Bedsteads, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a perspective view of a bedstead embodying my several improvements, the head and foot sections being shown in their closed positions. Fig. 2 is a perspective view, showing the head-section elevated and the foot-section drawn out. Fig. 3 is a perspective view of the commode-chamber as it appears when detached from the bedstead, the commode-box being shown as withdrawn from its containing-chamber. Fig. 4 is a plan, and Fig. 5 a longitudinal section, of the improved bedstead, the operating parts being shown in both figures in a position similar to the one indicated at Fig. 2. Fig. 6 is a perspective view of the sliding table detached from the side rails.

Like letters in all the figures indicate corresponding parts.

The object of my invention is to arrange a bedstead for the use of invalids so that the person need not leave the bed in order to occupy a seat upon the commode, and so that the attendants may easily and quickly lift the patient to an upright position without the necessity of bending over the bed and raising him with the hands; and to accomplish this it (the invention) consists in dividing the bed-bottom into two parts, the upper one of which is hinged and movable vertically, while the other one is made to slide horizontally through an opening beneath the stationary foot-board and between the side rails of the bed, the several parts being suitably constructed and arranged, and provided with certain peculiar operating mechanisms, as will be hereinafter first fully described, and then pointed out in the claims.

A A are the side rails of the bed, supported in the usual manner by the uprights. Between these side rails I hinge the upper section, B, of the bed-bottom, as at *a*, which hinge is located at about the longitudinal center of the structure. The section C, which forms the re-

maining portion of the bottom, slides upon ways upon the side rails, and is removable in whole or in part through the aperture formed beneath the foot-board D.

Connected with the bed-frame, below the bed-bottom, is the commode-chamber E, located just below the point of hinge *a*. This is provided with two doors, one at each end, and with an aperture, *b*, closed by a lid, *c*, which is hung upon a vertical pivot or hinge, so that its motions shall be in a practically horizontal plane.

The commode-box F has a sliding cover, *d*, and is intended to contain the earthenware or other vessel. The projecting end of cover *d* has finger-notches upon its under side, so that it may be withdrawn from over box F when the latter is located within its chamber E; and the box F is made to slide in suitable ways formed in the chamber E, and is removable through either end of said chamber.

The upper section, B, is provided with two ratchet-arms, G G, one upon each side, to balance the strain, and these are moved by means of the pinions *g g*, through the medium of the hand-crank *h*, attached to or coupled with the connecting-shaft *i*. Suitable pawls *k k* are hinged to the side rails, and serve to engage with the ratchet-arms G, so as to retain the section B at any desired elevation. These pawls are so formed that they may be reached conveniently from beneath the bed-frame in order that they may be brought to bear against the ratchets, although the section be not elevated sufficiently to enable the arm to be passed through the aperture beneath said section.

The lower section, C, as is plainly shown, is made removable through the aperture beneath the foot-board D, for which purpose it is provided with any convenient form of handle or loop, *l*, at the end.

The two sections may be upholstered, if desired; or, if a divided mattress be preferred, the two divisions thereof should be suitably connected with the movable parts, so as not to be disturbed during their movements.

The operation of the bedstead is substantially as follows: Whenever it becomes desirable to elevate the patient, it is only necessary to move the sheet up or down (in case the ordinary full-length sheet be used) past the di-

vision in the bed-bottom, then to pull out the section C as far as may be necessary to permit his feet to touch the floor at a convenient distance beyond the case E, and, finally, to gradually bring him to a sitting posture by elevating section B, through the medium of the crank and its connected mechanism. This may be done very easily and quickly, and by the exertion of far less power than would be required to raise him up with the hands. The sheet may most conveniently be divided across the bed, the lower section thereof moving with the part C whenever the bed is opened.

In particular cases, the handling of the patient may require that he be not exposed to drafts of air, in which event it is only necessary to surround the bedstead with a curtain or by clothing of any kind. The upper clothing upon the bed need not be removed or very much disturbed during the manipulations, and thus the patient may at all times be completely protected.

The improved bed may be used as are ordinary invalid-bedsteads, the patient being elevated and sustained in any desired position.

From the construction and operation indicated it will be observed that by reason of withdrawing the sliding section through the aperture beneath the foot-board, and locating it with respect to the head or hinged section, as shown, the mattress need only be divided into two parts, and the entire lower part is moved along with the sliding section.

In former constructions of invalid-bedsteads, the mattress has been made in a number of pieces, difficult or inconvenient to manipulate properly.

Previous constructions also show the lower section of mattress and its supports as sliding upon the bed-frame, together with the movable foot-board, from which my invention differs in drawing the mattress through an aperture beneath the foot-board, which latter remains stationary, as in the ordinary forms of bedsteads.

The uses and purposes of the lids *c* and *d*, as well as the end doors of the chamber E, are very well understood, and need not be herein explained.

As thus constructed and arranged, the improved bedstead will be found quite convenient and easy for the patient, while it is simple in its several parts and capable of being operated by very little exertion upon the part of the attendant.

I am aware of several forms of bedsteads in which the bottom, or a portion thereof, is made adjustable in order to elevate the head of the occupant. To these forms I desire it understood that I lay no claim; but,

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

1. In an invalid-bedstead, the combination of the hinged upper section, operated through the medium of the pinions and ratchets, the entire lower section sliding horizontally through the aperture beneath the stationary foot-board and between the side rails of the bed, and the commode-chamber, located beneath the end of the lower section, and adapted to be uncovered thereby, the whole arranged substantially as shown and described.

2. The combination of the upper section, B, hinged at *a*, and provided with ratchet-arms G G, operated through the medium of the pinions *g g* and pawls *k*, the lower section, C, made removable through the aperture beneath the foot-board, and the commode-chamber E, having the horizontally-moving lid *c* and the end doors, said chamber containing the sliding box F, the whole being arranged substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

JAMES D. SINCLAIR.

Witnesses:

DANIEL P. VAN COTT,
JOSEPH McCANN.