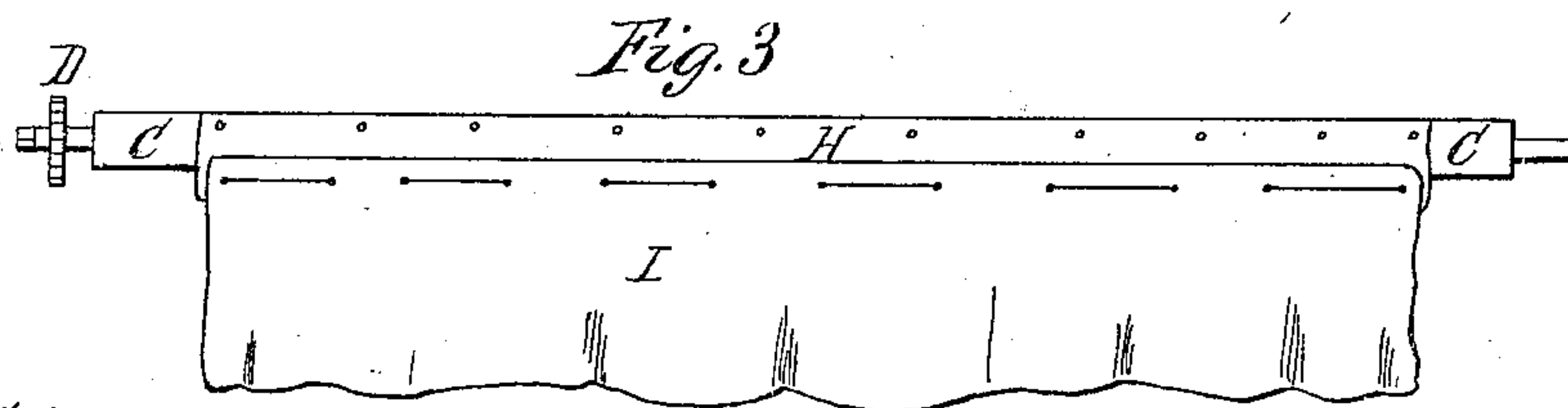
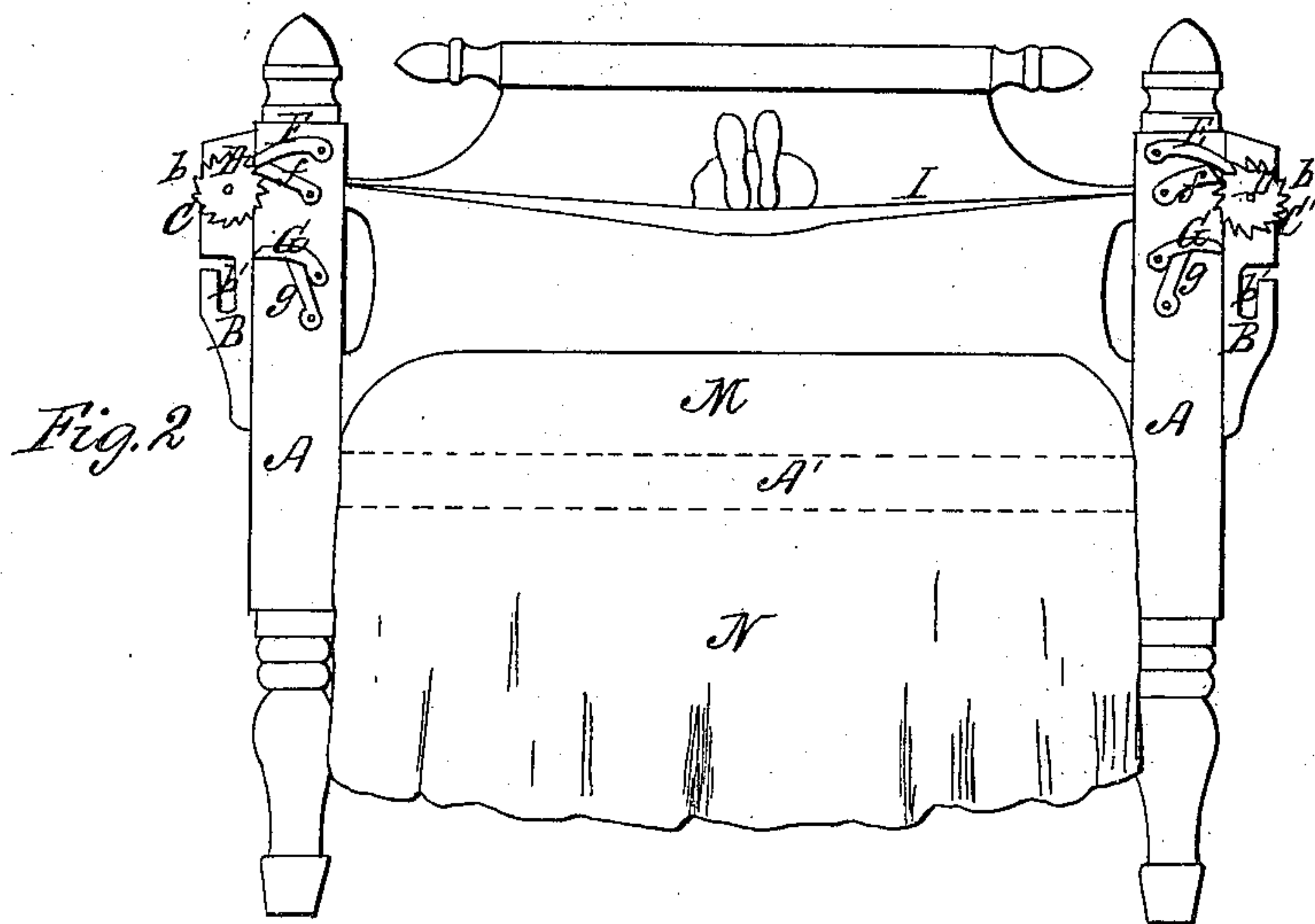
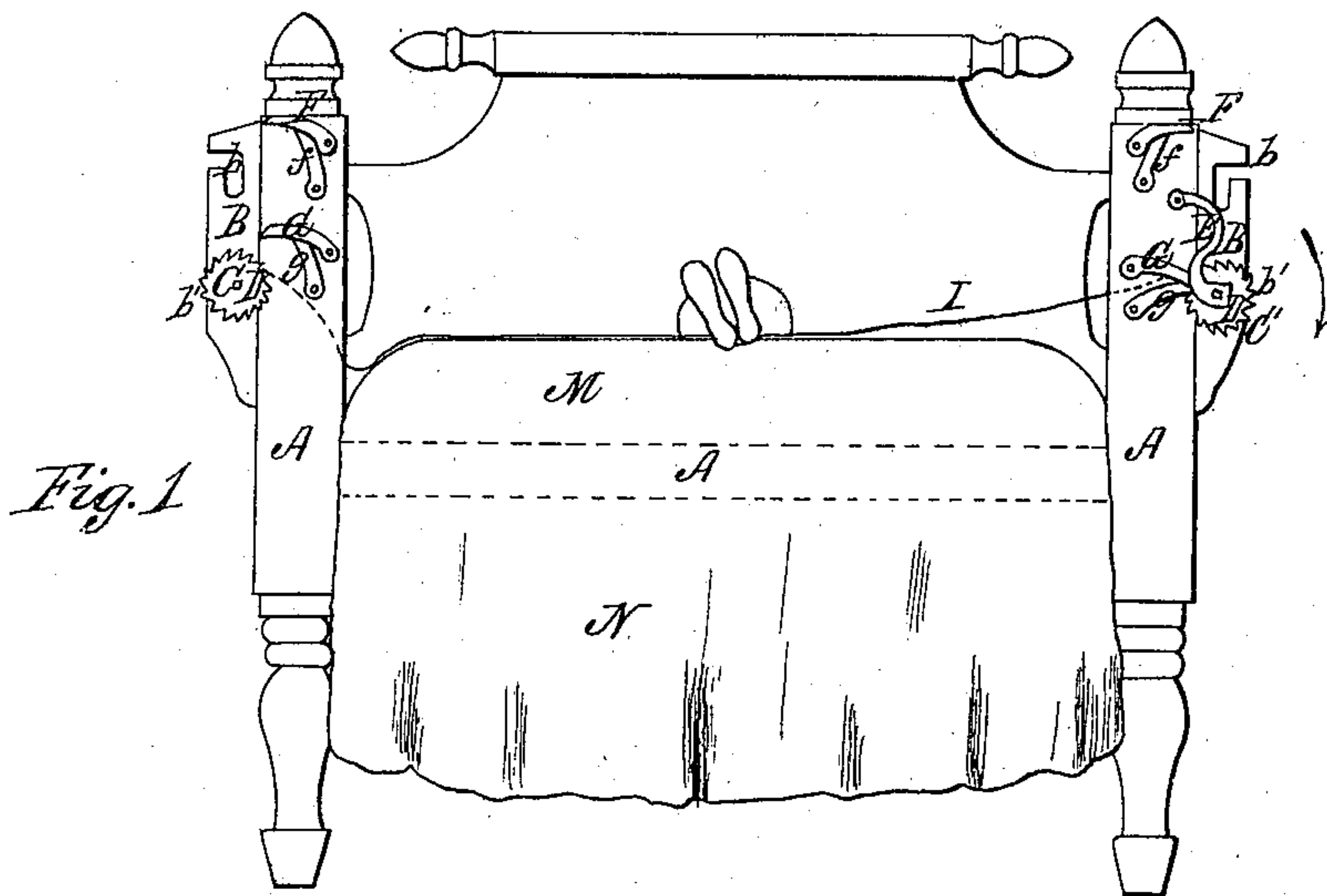


I. F. BAKER.
INVALID BEDSTEAD.

No. 36,332.

Patented Sept. 2, 1862.



Witnesses;
Fred S. Scudder
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UNITED STATES PATENT OFFICE.

ISAIAH F. BAKER, OF WEST YARMOUTH, MASSACHUSETTS.

IMPROVEMENT IN INVALID-BEDSTEADS.

Specification forming part of Letters Patent No. 36,332, dated September 2, 1862.

To all whom it may concern:

Be it known that I, ISAIAH F. BAKER, of West Yarmouth, in the county of Barnstable and State of Massachusetts, have invented certain new and useful Improvements in Invalid-Bedsteads; and I do hereby declare that the following is a full and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, which has been prepared for the purpose of procuring a patent therefor.

In the drawings, Figure 1 is an end view of my improved bedstead as used for the purpose of turning or shifting the position of a helpless patient, the operation being performed by simply turning a crank, as indicated by the arrows. Fig. 2 is a similar view of my invention as used for supporting the patient while the bed is being made or changed, or for the purpose of giving an injection or enema, or for allowing the ejection of fecal matter; and Fig. 3 is a view of a roller detached.

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

A A are the posts, and A' the rail, of an ordinarily-constructed bedstead to which my improvements are attached. B B are two brackets fixed to the posts A A at each corner of the bedstead, and having each two open bearings, *b b'*. In these bearing and running parallel with the side rails of the bedstead are hung two rollers, C C', extending nearly or quite the entire length of the bedstead. On one end of each of these rollers is fixed a ratchet-wheel, D D', and that end of the rollers is squared or otherwise fitted to receive a crank or lever, E. Pawls F f G g are provided for these ratchet-wheels to act in the manner of double retaining-pawls as generally used, and also so formed and arranged relatively one to the other that the pawls f g serve as supports for the pawls F G when it is desired to throw them out of use, as is shown in Fig. 1.

Upon the rollers C C' short aprons H, Fig. 3, are fastened, having at their other edge a series of eyelet-holes, and a sheet or sacking, I, is provided with corresponding holes at its two opposite edges. By means of cords or tapes reeved through the holes in H and I these aprons and sheet form a continuous

apron attached to both the rollers C and C', and capable of being rolled back and forth between them by rotating them in opposite directions, in the obvious manner.

The bed or mattress M is placed upon the bedstead in the ordinary manner, with a sheet or sacking, N, placed over it and secured by strings to the bedstead to prevent it from being moved with the sheet I.

In ordinary use the rollers C C' lie in the lowermost bearings, *b'*, and the sheet I is slackened and lies upon the sheet N, the patient resting upon the sheet I, as represented. In this condition the apparatus performs only the functions of an ordinary bedstead; but when it is desired to turn the patient in bed one of the rollers, C or C', according to the side to which it is wished to turn the patient, is rotated by means of the crank. This action draws the sheet I under the patient and upward on an angle, as shown in Fig. 1, which tends to roll the patient, and aided by the depression in the mattress caused by the weight of the patient it does turn him in so gentle a manner as to cause him little or no pain, even under the worst conditions. By rotating the other roller the patient is turned in the opposite direction, these operations requiring but one attendant. The patient may also be shifted from one side to the other of the bed by the same means.

When it is desired to rearrange the bed, the rollers C C' are lifted into the bearings *b b*, and by turning one or both of them, as the circumstances may require, the patient is lifted upon the sheet or apron I into the position shown in Fig. 2, entirely clear from the mattress M, which may then be changed or removed and beaten up and rearranged without disturbing the patient, who is then carefully lowered again, so as to rest in any desired position upon the bed.

When it is desired to substitute a clean sheet for the sheet I, or when it is desired to substitute therefor one having a hole for facilitating the giving an injection or enema or for allowing the removal of fecal matter, the patient is first raised into the position shown in Fig. 2, and the clean sheet, or the one having the aperture, as the case may be, is spread smoothly upon the bed underneath. The patient is then

lowered again and one edge of the sheet I detached from the apron H. The edge of the new sheet is then attached to this apron, and by rotating the roller C or C', to which I remains connected, and supporting the patient slightly, the old sheet I is removed from under the patient, leaving him upon the new sheet. The sheet I is then detached from the other roller and the other edge of the new sheet secured thereto, which then operates precisely in the same manner as the sheet I.

In administering an injection the patient is lifted by the mechanism into the position shown in Fig. 2 and the instrument inserted through a hole made in the sheet for that purpose. This hole should be large enough to allow of the passage through it of all matter evacuated from the bowels into a vessel placed beneath.

When it is desired to feed the patient, or for any other cause to get nearer than is convenient with the rollers C C' in place, they may be removed from their bearings and dropped by the side of the bed, entirely out of the way.

I have represented my invention in the drawings as attached to an ordinary bedstead with posts, and this is the manner in which I prefer to construct it in practice; but it may also be made in a frame adapted to fit upon a bedstead, which will be necessary to adapt it to use upon ordinary hospital-bedsteads, which have no posts above the rail. Its application in this manner is obvious, and requires no specific description.

I am aware that it is not new to turn a patient in bed or to raise him for making the bed by mechanical means; but I believe my apparatus for that purpose to possess advantages over any heretofore known, among which advantages may be enumerated the ease with which it may be operated both as regards the

comfort of the patient and the convenience of the attendant. By shifting the windlasses or rollers C C' from the bearings *b* to *b'*, or vice versa, as the kind of operation requires, the apparatus is more out of the way in the most common application of rolling the patient or shifting his position in bed, and that operation is performed in a more gentle manner than if the rollers were always in their higher position, where they are required to be when making the bed or giving an enema, &c. By the arrangement of the pawls F *f* G *g* they not only perform the usual functions of double pawls, so as to hold the smaller increments of motion, but are self-supporting when raised or thrown out of use, thus greatly adding to the facility and ease of operation.

I have practically tested my invention for some months in my own family and find it to be a very great help, besides exerting a very beneficial effect upon the patient, who there is no reason to believe could have survived the ordinary handling where no such apparatus is employed.

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

1. The arrangement of the rollers C C', sheet I, ratchets D and D', and the interchangeable bearings *b b'*, operating together substantially in the manner and for the purpose herein described.

2. The double pawls F *f*, so arranged as to be self-supporting, substantially as and for the purpose herein set forth.

ISAIAH F. BAKER.

Witnesses:

FREDK. SCUDDER,
EDWD. W. EWER.