

UNITED STATES PATENT OFFICE.

STEPHEN PUFFER, OF OXFORD, NEW YORK, ASSIGNOR TO HIMSELF AND WM. H. LYON, OF SAME PLACE.

IMPROVEMENT IN INVALID-BEDSTEADS.

Specification forming part of Letters Patent No. 53,041, dated March 6, 1866.

To all whom it may concern:

Be it known that I, STEPHEN PUFFER, of Oxford, in the county of Chenango and State of New York, have invented certain new and useful Improvements in Invalid-Bedsteads; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a top or plan view of my improved invalid-bedstead complete in all its parts; Fig. 2, a side elevation of the same; Fig. 3, a perspective view, illustrating my improved sliding lever combined with a notched or ratchet wheel, attached to which is shown a portion of a roller or windlass; and Fig. 4, a front elevation of the sliding lever as attached to a ratchet and notched wheel combined.

Similar letters indicate like parts in all of the figures.

The nature of my invention consists in the use of a sliding lever having a longitudinal slot and a suitable pin or projection, and combining the same with a notched or ratchet wheel and pawl, whereby the required adjustment of the inner frame or rack of invalid-bedsteads is placed within the control of the occupant of the bed.

Figures 1 and 2 of the accompanying drawings represent an ordinary bedstead, the outer frame of which consists of four posts or up-rights, A, two longitudinal bars, B, and two transverse bars C, with a simple head-board, D and foot-brace E. Within the square of the outer frame, B C, is fitted the inner frame or rack on which the bed is designed to rest. This rack is divided longitudinally, on both sides thereof, into three bars—viz., F G H, the same being connected one to the other by means of suitable hinges *a b*. This simple arrangement, when combined with two rollers and connected thereto by straps or cords, constitutes a rack capable of being converted into a chair, as illustrated in Fig. 2, or admits of the adjustment of either the head or foot part thereof to any angle desired.

The center pieces, G, of the inner rack are shown in the drawings supported by cleats *c* on the inner sides of the longitudinal bars B; but as they are designed to be stationary it

will be observed that they may be secured to the bars B and the cleats *c* dispensed with.

Two rollers, K L, are arranged transversely at the head and foot portions of the frame, said rollers having their bearings in the two bars B, as shown by dotted lines Fig. 1.

Each of the two upper sections, F, of the rack are provided with two semicircular cleats, *d*, (shown in dotted lines, Fig. 2,) to which are attached straps *e*, connecting with roller K. The roller L is also provided with straps *f*, connecting with the lower sections of the rack H. One end of each of the rollers passes through the longitudinal bars B sufficiently far to receive the notched wheels M, which are designed to rotate said rollers. The notched wheels subserve the purpose of a ratchet-wheel by having the notches arranged to be acted on by both the pawls *g* and the pins *j* on the levers, as shown in Figs. 1, 2, and 3, or they may be arranged as shown in Fig. 4, having the ratchet on the outer, and the notches to be operated upon by the lever on the inner, periphery thereof.

The sliding levers N are employed to rotate the rollers and thereby adjust the rack, and at the same time obviate the necessity on the part of the operator to stoop or be otherwise inconvenienced, as is the case where cranks or other similar devices are used.

Lever N is provided with a longitudinal slot, *i*, through which is passed a screw or bolt, *h*, thus admitting of the upward and downward movement of the lever, which is further provided on its upper inner face with a pin or projection, *j*, which, catching into the notches on wheels M, (when the lever is moved in the required direction,) revolves said wheels. It will therefore be seen that the lever N, by reason of the slot *i* and pin *j*, is brought to bear on each notch of the wheels M by a simple movement of the arm back and forth.

The simplicity of this device, and the fact that it may be applied to any ordinary bedstead at a trifling cost, thus rendering the same in every respect a complete invalid-bedstead, are advantages of great importance. Added to these, however, is the great advantage of placing the adjustment of the inner frame or rack within the control of the occu-

pant of the bed by means of my improved sliding lever when arranged and combined as above described.

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

1. The sliding lever N, provided with slot *i* and pin *j*, in combination with notched wheels M and rollers K and L, substantially in the manner and for the purpose herein set forth.

2. The construction and arrangement of the

inner frame or rack, F G H, in combination with lever N, rollers K L, cleats *d*, and connecting-straps *e* and *f*, substantially in the manner and for the purpose herein set forth.

The foregoing specification of my improvements in invalid-bedsteads signed by me this 10th day of January, A. D. 1866.

STEPHEN PUFFER.

In presence—

R. T. DAVIDSON,

GEO. W. CUNNINGHAM.