

UNITED STATES PATENT OFFICE.

ANTHONY ISKE, OF LANCASTER, PENNSYLVANIA, ASSIGNOR TO ISRAEL L. LANDIS, OF SAME PLACE.

IMPROVEMENT IN INVALID-CHAIRS.

Specification forming part of Letters Patent No. **210,125**, dated November 19, 1878; application filed February 21, 1878.

To all whom it may concern:

Be it known that I, ANTHONY ISKE, of the city of Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements in Invalid or Surgical Chairs, of which the following is a specification:

These improvements relate to a class of reclining or invalid chairs in which leg and foot supports are hinged to the seat, and the seat to the back, so that they are capable of assuming and retaining any required position, from the erect to the prone, by means of sustaining devices consisting of racks and screws.

The improvements consist in additional appliances, and in the arrangement of the adjustable parts with the view to meet contingencies arising, to simplify the operation, and give a more extended range of usefulness.

The accompanying drawings, with the letters of reference marked thereon and a brief description, will enable those skilled in the art to make and use my improvements.

Figure 1 is a perspective view of the chair, to show its several novelties in place; Fig. 2, a perspective view of the side rack and the back-brace, seat, and back of the chair. Fig. 3 shows folding tablets mounted on a rod which connects with the plates in the arm-rest. I also show a portion of the under side of the central foot-rest.

The sides and legs F of the chair, on each side, are formed by gracefully curving ordinary gas-pipe, and are left horizontal centrally on top to receive a plate, V. This plate is centrally cut in so as to bend over and embrace the pipe F, to which it is secured. The ends *v* are allowed to project on a level plane for holding the board X for being upholstered, to form the ordinary arm-rest. The two sides of the chair have the ordinary braces *f*, also a special stout brace, F F, across the rear, partially embracing the legs in a rounded groove, to give the greater strength where most needed.

To facilitate the upholstering I use wooden frames for the seat and back, but attach to the sides and back-frame metal straps A B E, being lighter and stronger; and with the strap A in front I connect a hanger, *a*, which has play in a joint-piece, *e*, connected with the sides of the chair. These hangers are bent inward, and

have the ends below united by a cross bar or rod, R, upon which the several sets of teeth in racks Q and T engage to hold the adjustments of the leg and foot supports. The rear portion of the side strap A is hinged to the strap B, on the back, which is connected by a hinge-plate, D, with the head-plate E. In order to facilitate the upholstering I use a slotted hook-plate, *c*, affixed to the side of the chair-frame, and a headed pin in the strap B, so that the back can be detached from the sides and laid down, giving full access to the rear of the seat and bottom of the back, which is very desirable.

The back is adjusted and held in place by a side rack, W, provided with a guard-plate, *w*, to confine its action, and a headed pin in the seat plate or strap, A, which latter is in connection with strap B on the back. The rack is held by a pivot-bolt in a lug, *y*, connected to the stout back-brace F F, as shown in Fig. 2. The foot and leg rest hinged to the front J of the chair-frame differs in the construction of the adjustable foot-piece, having a hinged piece, N, and arms M. These arms have a series of perforations on the under side and a guide-lug, *m*, on each outer side. These arms slide in square openings made in a vertical cross-piece, *l*, and rest upon a bottom, L, the pin *n* entering the perforations in the arms M. The sides K also have slots or grooves for the lugs or pins *m* in said arms.

To meet certain cases, in combination with the ordinary central foot and leg support, I also employ independent side supports O, hinged to J. The sides of the plates O are notched. A hinged foot-piece, *p* P, is slipped on and under by prolonging the sides P downward at their ends, so that these ends extend beneath the plate O and lock into the notches in the sides K, and are firmly held in place.

Each side support has its own rack Q. In order that the side supports may be operated with the central support jointly or separately, I use a turn-plate, *q*, under the ends or sides K. This plate has two projections; one engages under the plate O and the other over it, and by which they are held in connection for the purpose aforesaid.

It is found that tables connected with such chairs are useful, and I attach a metallic plate,

Y, on the front end of the board X, which plate has a central opening to receive the end of the bent rod Z, which supports the hinged tablets *t* T, which, when laid open, form a table; when folded down, an upholstered cushion for a front arm rest or support, which is readily detached and is very simple.

My hinged head-piece turns down or upward, and is held and adjusted by a hinged rack, *b* *d*, on the top or head piece, and held in a binding-screw, *g*, and angle-plate *r*, on the back and top of the seat-frame, centrally affixed. For a lounge this answers for a head-board to hold a pillow in place. At the same time, for certain operations, it allows the head to fall back.

It is in these minute changes, devised to meet various complications and objections made, that my invention consists, and so to arrange and combine the parts as to meet the demands for more extended usefulness.

The several improvements which I deem novel in their construction, use, and arrangement, in invalid or surgical-operating chairs, and desire to secure, are—

1. An invalid or reclining chair, provided with a central adjustable foot-rest and two independently-adjustable leg and foot rests one on each side the first named, operating substantially as and for the purpose set forth.

2. The combination, as set forth, of the arm-boards X, the perforated front plate, Y, the rod Z, and hinged tablets *t* T, whereby such tablets may be used, when extended, as a book-rest or table, and, when folded, as an upholstering for the arms.

3. The combination of the back pivoted in the slot on the back-standard F, the movable seat provided with strap A, the lever *a*, pivoted to the front standard, F, above the seat and the foot-rest pivoted to the front edge of the seat, and attached by means of the racks Q to the lever *a*, as and for the purpose set forth.

ANTHONY ISKE.

Witnesses:

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