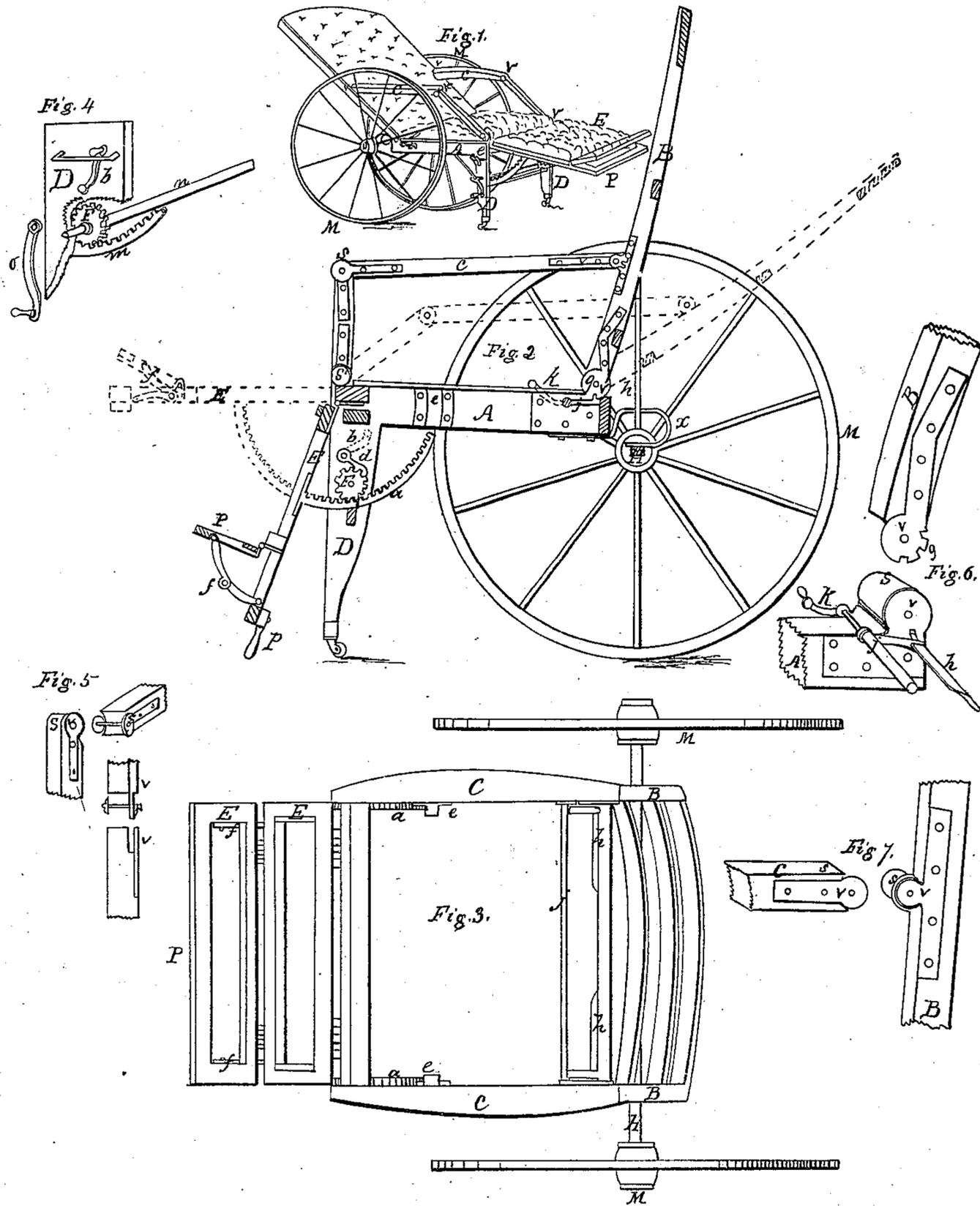


A. P. Blunt & J. S. Smith.

Invalid Chair.

N^o 86,899.

Patented Feb. 16, 1869.



Witnesses

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A. P. BLUNT AND JACOB S. SMITH, OF WASHINGTON, DISTRICT OF COLUMBIA. #

Letters Patent No. 86,899, dated February 16, 1869.

IMPROVED INVALID-CHAIR

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, A. P. BLUNT and JACOB S. SMITH, of Washington city, in the District of Columbia, have invented new and useful Improvements in Adjustable Invalid-Chairs; and we do declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters marked thereon.

The nature of our invention consists in making an upholstered chair, with back that may incline backward to any given point, by means of steel catches in socket-joints at foot of back posts; with having two wheels, instead of back legs, attached to the back part of the seat by means of springs; also, in having a foot-rest, which is elevated and lowered independently of all the rest, by means of a cogged quadrant attached to either side, and worked by two small cog-wheels turned by a small crank, all so adjusted that it may be an upright chair, or a flat lounge, as the occupant may desire.

To enable those skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

Figure 1 is our chair finished, ready for use, showing the cranks by which the foot-rest is adjusted, and the one by which the back also is adjusted.

Figure 2 is a bisectonal view of the chair, ready for upholstering.

Figure 3 is a top view of our chair, showing spring-catches at foot of back posts, and the armed lever which works them.

Figure 4 represents one cog-wheel and part of shaft with cogged quadrant, crank for turning shaft, and crank to raise the ratchet.

Figure 5 represents one of the socket-joints of our chair disconnected.

Figure 6 represents socket-joint for the back posts, showing the spring for holding the back in position, with the catches to receive the springs, with one end of arm, shaft, and crank, to work the same.

Figure 7 is another socket-joint, to connect arm with back posts.

A is frame of seat.

B B are posts of the back.

C C, the arms.

D D, the legs.

E, the foot-rest.

F, cog-wheel that works the cogged quadrant.

a, cogged quadrant.

b, crank that lifts the ratchet.

d, the ratchet.

e e, sockets to receive the ends of the quadrant when the foot-rest is down against the legs.

f f, jointed braces to support the lower part of the foot-rest, when turned up to meet the bottom of the feet.

g, notched joint, to regulate the inclination of the back.

h, spring-catch, which shuts into the notched joint g, to hold the back in the given position.

j, armed lever, with crank to work the spring h.

S, socket-joint.

V, steel hinges for socket-joints.

X, springs which hold the axle to the chair.

The object of our invention is to secure a tilting chair for invalids, which shall be a perfect chair, and be capable of being moved about out of doors, as a carriage; also to have a chair whose back may be inclined to any given point, independently of any other part, and which may be adjusted at any elevation desired.

In order to accomplish this, we construct our chair in the following manner, to wit:

We make the seat-frame, A, of black walnut, or any other suitable wood, as shown. To forward end attach ordinary legs or posts, made broad, to receive the machinery which works the foot-rest.

To the back part of the seat are attached the steel-springs X, to which the axle H is attached, so that the wheels M M are in the place of legs or posts behind.

The arm and back posts are attached to the seat by means of socket-joints S S S S, held in place by steel circular hinges V V V V, which socket-joints and circular hinges are fully shown in fig. 5.

The arm C is joined to posts by like socket-joints, and circular hinges.

The socket-joints allow the back to fall to any position desired, and leave no open joint, like any other hinge, to catch the clothing, and no opening in the upholstering, as with all other joints.

At the foot of both back posts is a notched hinge, g, shown in fig. 6, (which represents the joint detached.)

Into the notches shuts the spring h, to hold the back at any inclination desired.

By raising the crank upward, the arm j is borne downward, and the spring pushed out of the notch, when the back may be inclined, as shown in fig. 2.

To the forward part of the seat, in front of posts, is attached the adjustable foot-rest E. To it are attached the cogged quadrants a, which hold it at any elevation desired.

Running from post to post, is a shaft, n, on which are two cog-wheels, F F, which work the quadrant, and elevate or depress the rest E.

The shaft n is turned by a crank, o, as seen in fig. 4.

We have, on one of the posts, a ratchet, d, as seen in fig. 2, which drops between the cogs of the cog-wheel, and holds the foot-rest when desired.

On the outside of part D is a small handle, b, which is attached to a small shaft, which passes through post D, and to which the ratchet d is attached. By this handle the ratchet is raised or dropped, as seen in fig. 4.

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At the lower end of the foot-rest is a drop, P, which may be raised at pleasure, to meet the bottom of the feet, and is supported by the jointed braces *f f*.

As will be seen by fig. 5, our socket-joints are circular hinges, attached and applied in such manner as not to be easily deranged. The two halves of the hinge are on the post and arm, and the pin fastening them passes through the whole joint, so that no opening is made by moving the frame backward and forward.

The same principle is shown in figs. 6 and 7, so that, by the socket-joints, no inconvenience is experienced in upholstering, and the joints are all covered, and the chair worked with no show of open joints.

When the chair is in use, the foot-rest E may be raised level with the seat, as shown in fig. 2 by red lines, and, by means of handles *p p*, the forward part may be raised, and the chair used as a carriage.

Having thus fully described our chair,

What we claim as new, and desire to secure by Letters Patent, is—

A chair, constructed with wheels *m m*, attached by means of springs *X X*, arms and back united by socket-joints *S S S S*, foot-rest E, drop P, cogged quadrants *a a*, shaft *n*, with cog-wheels *F F*, ratchet *d*, crank *b*, armed shaft *j*, springs *h h*, crank *k*, and notched joint *g*, as arranged, for the use and purpose as specified and herein set forth.

In testimony whereof, we have signed our names to this specification, in the presence of two subscribing witnesses.

A. P. BLUNT.
J. S. SMITH.

Witnesses as to A. P. BLUNT:

THEODORE SPANGLER,
GEO. S. ROBERTS.

Witnesses as to J. S. SMITH:

JOHN DAVIS,
M. T. JEFFERIS.