C. J. PETERSEN.

Adjustable Brace for Reclining-Chairs.

No. 218,769. Patented Aug. 19, 1879.

Fig. 1.

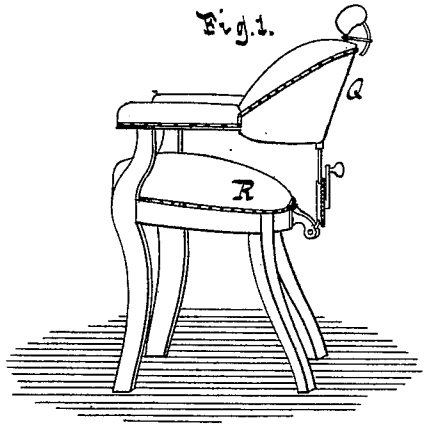

Fig. 2.

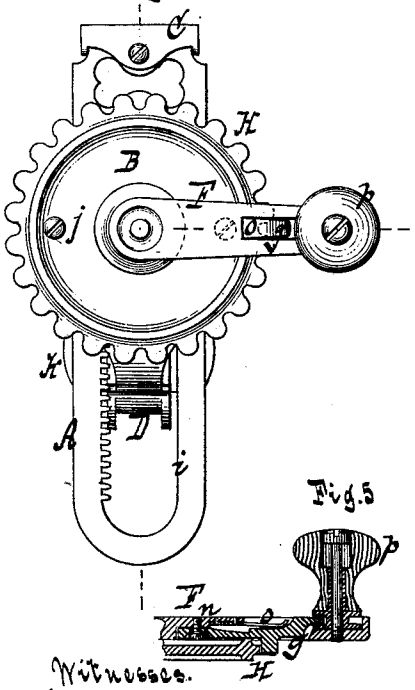

Fig. 3.

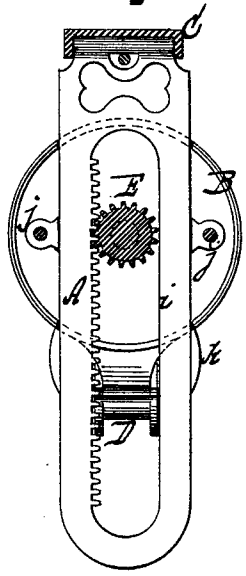

Fig. 4.

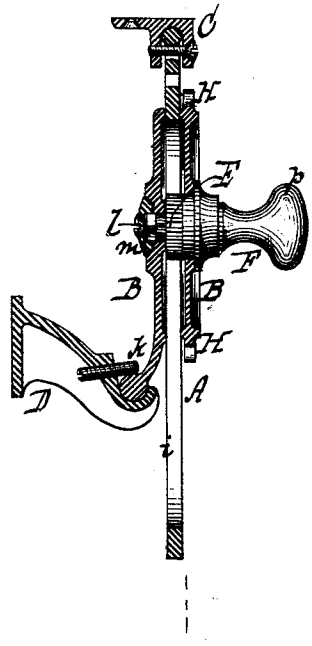

Fig. 5.

Witnesses.
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UNITED STATES PATENT OFFICE.

CHARLES J. PETERSEN, OF PORT CHESTER, NEW YORK.

IMPROVEMENT IN ADJUSTABLE BRACES FOR RECLINING-CHAIRS.

Specification forming part of Letters Patent No. **218,769**, dated August 19, 1879; application filed April 23, 1879.

To all whom it may concern:

Be it known that I, CHARLES J. PETERSEN, of Port Chester, in the county of Westchester and State of New York, have invented a new and Improved Adjustable Brace for Reclining-Chairs, which invention is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 illustrates the manner of applying my invention to a chair. Fig. 2 is a front elevation of the brace detached. Fig. 3 is a similar view thereof, partly in section, the plane of section being indicated by the line *x x*, Fig. 4. Fig. 5 is a detail sectional view, indicated by the line *y y*, Fig. 2.

Similar letters indicate corresponding parts.

My invention relates to braces for sustaining the backs of reclining-chairs; and consists in the combination of the following instrumentalities: a rack carrying a hinged bracket for attachment to the hinged back of a chair, a support or guide for said rack, carrying a hinged bracket for attachment to the chair-seat, a pinion mounted on the support to actuate the rack, a winch or handle for rotating the pinion, carrying a spring dog or stop, and a series of teeth formed on the support to engage the dog or stop, whereby I obtain a brace which can be readily applied to a chair, and readily adjusted to sustain the chair-back at the desired angle, as hereinafter more fully described.

In the drawings, the letter A designates the rack, and B its guide or support, each provided with a hinged bracket, C or D. E is the pinion whence the rack derives its motion; F, a winch or handle for turning the pinion, provided with a dog or stop, *g;* and H are series of teeth for engaging said dog or stop.

The teeth of the rack A are formed on one side of a slot, *i*, formed in a plate which constitutes the body of the rack, the slot being made to embrace the pinion E; but, if desired, a plainer form of rack may be used. The guide or support B consists of a front and back plate, between which the rack A is guided, and which are fastened together by means of screws *j*, while one of them has a projection, *k*, to connect with the bracket D; but it is obvious that the construction of the support may be modified.

The pinion E is secured to an arbor, *l*, which has its bearings in the plates of the support B, and is confined therein at one end by a head, *m*, and at the other end by the winch F. The winch F is secured to the arbor *l*, so that by its means the pinion E may be turned, and the dog *g* is secured to the winch by means of a screw, *n*, (see Fig. 5,) which permits the same to vibrate. Said dog *g*, moreover, is subjected to the action of a spring, *o*, whereby it is caused to engage with the teeth H under normal conditions, and to the same is secured a knob, *p*, which constitutes the handle of the winch.

The teeth H are formed on the front plate of the support B, concentric to the axis of the pinion E, and in this example they are in the edge of said plate; but the same may, if desired, be arranged on the face of the plate.

In applying my invention to a chair I arrange the parts as shown in Fig. 1—that is to say, I fasten the bracket C to the hinged chair-back Q, and the bracket D to the rear portion of the chair-seat R, the parts being thus brought to such a position as to brace or sustain the back.

If it is desired to change the angle of the chair-back thus sustained, the handle *p* is taken hold of and pulled outward, so as to disengage the dog *g* from the teeth H, and the winch F, being thus freed, is turned in one or the other direction, whereby the pinion E is caused to act on the rack A, and the back is moved up or down, as the case may be.

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

The combination of a rack, A, a hinged bracket, C, carried by the same, for attachment to the hinged back of a chair, a pinion, E, engaging the rack, the support B, serving as a guide for the rack, and provided with the teeth H on the front part of the support, concentric to the teeth of the pinion, a hinged bracket, D, at the lower end of the support, for attachment to a chair-seat, a winch, F, connected with the pinion for operating the same, and a vibrating spring dog or stop, *g*, carried

by and moving with the winch, for automatically engaging the teeth on the front part of the support when the winch is rotated to operate the pinion, the whole constructed and arranged to operate substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 14th day of April, 1879.

CHAS. J. PETERSEN. [L. S.]

Witnesses:
W. HAUFF,
E. F. KASTENHUBER.