

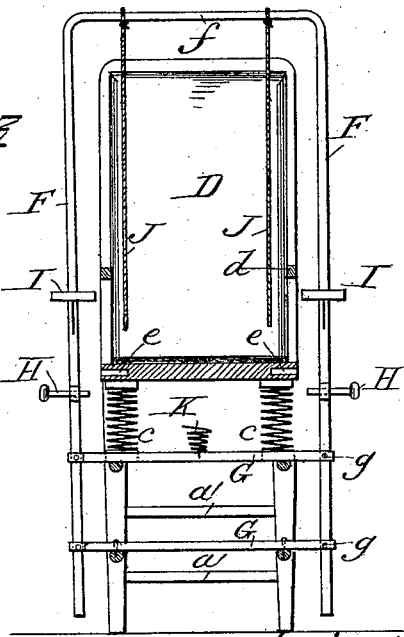
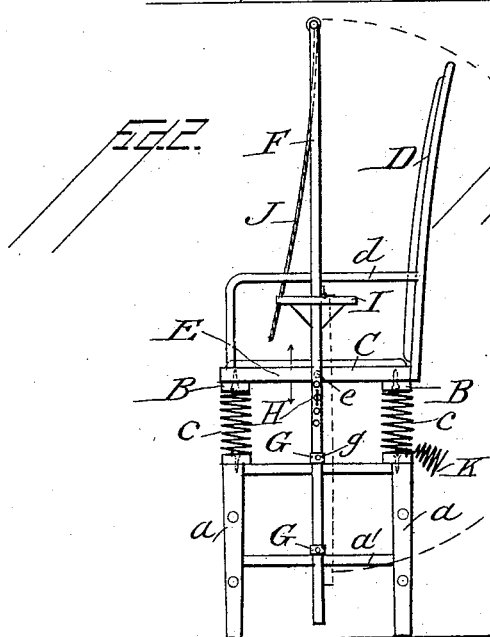
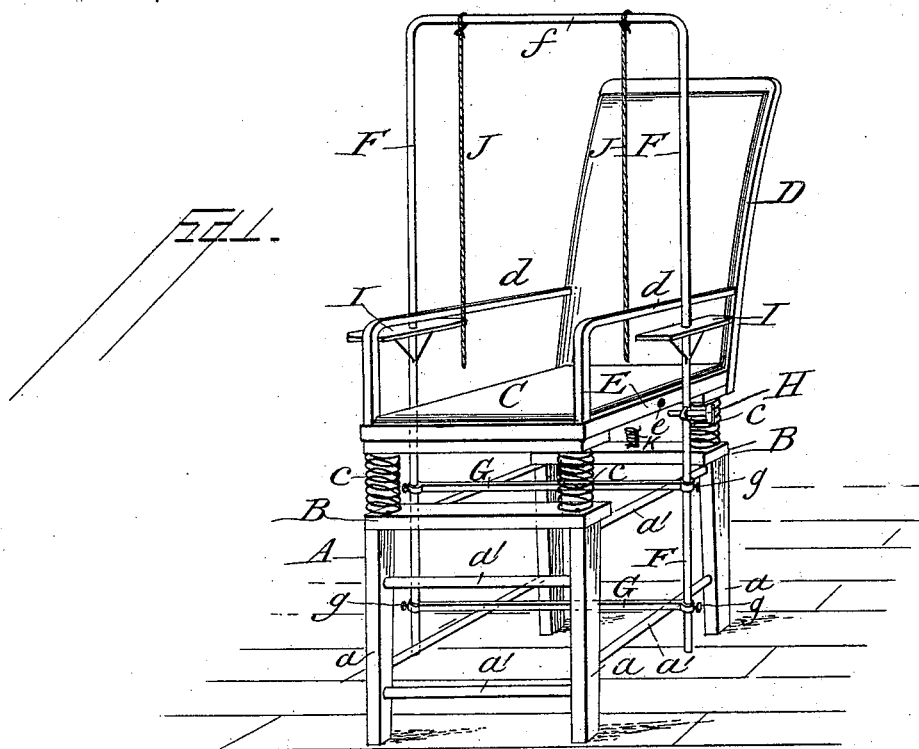
(No Model.)

2 Sheets—Sheet 1.

A. F. CALDWELL.
HYGIENIC CHAIR.

No. 421,045.

Patented Feb. 11, 1890.



Attest:

F. H. Schott
M. Burroughs

Inventor.

Alfred F. Caldwell
by M. T. E. Chandler
att'y.

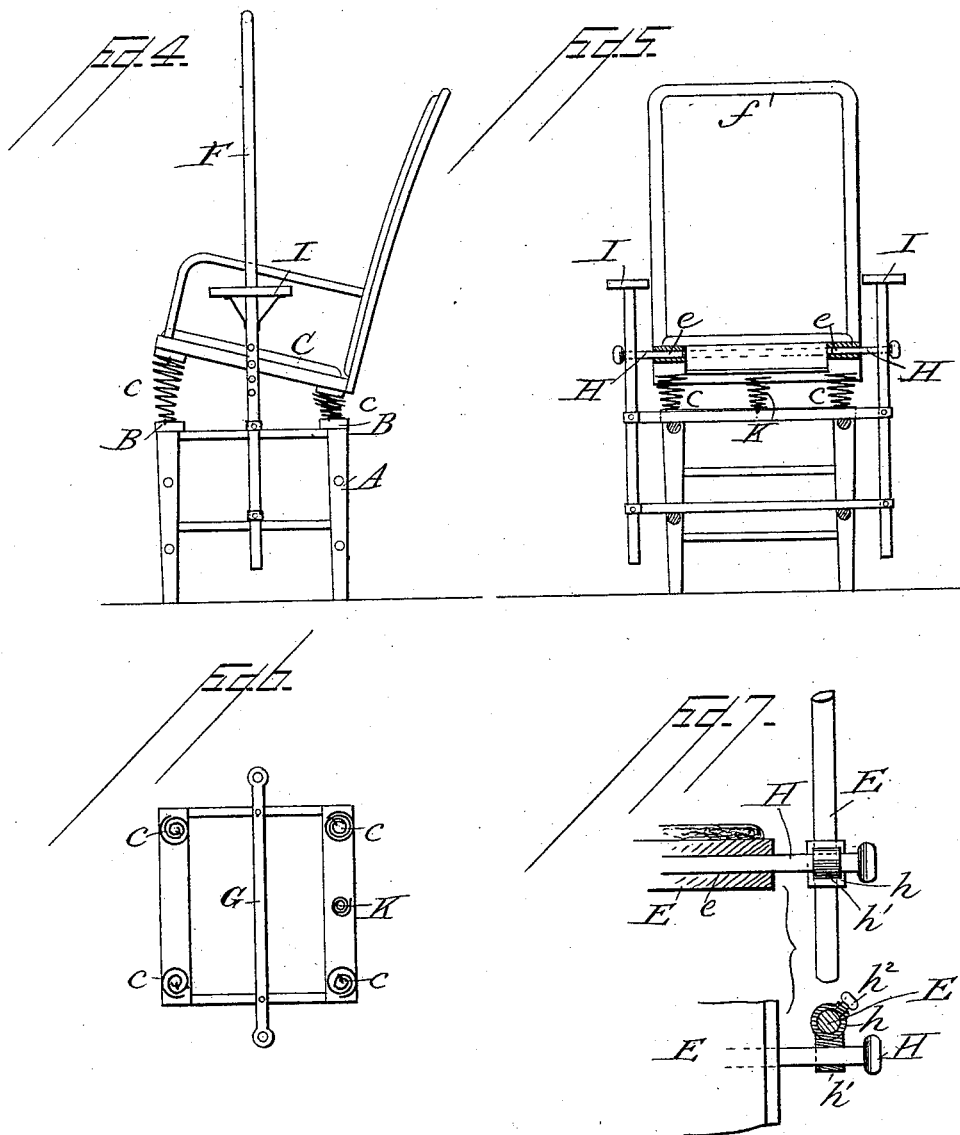
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UNITED STATES PATENT OFFICE.

ALFRED F. CALDWELL, OF NEW YORK, N. Y.

HYGIENIC CHAIR.

SPECIFICATION forming part of Letters Patent No. 421,045, dated February 11, 1890.

Application filed July 6, 1889. Serial No. 316,652. (No model.)

To all whom it may concern:

Be it known that I, ALFRED F. CALDWELL, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Hygienic Chairs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The invention relates to improvements in chairs, the object being to provide a chair that may be used either as an ordinary spring rocking-chair or to obtain an up-and-down or teetering motion and which will be consequently adapted to give the occupant such gentle exercise as is conducive to the cure of imperfect digestion; and it consists in the construction and novel combination of parts hereinafter described, illustrated in the accompanying drawings, and pointed out in claims hereto appended.

In the accompanying drawings, in which similar letters of reference on the several views indicate corresponding parts, Figure 1 is a perspective view of a chair embodying the invention, the chair being arranged for the up-and-down or teetering motion. Fig. 2 is a side view. Fig. 3 is a central vertical section. Fig. 4 is a side view of the chair arranged to be used as a spring-rocker. Fig. 5 is a front view of a modification of the chair similarly arranged. Fig. 6 is a plan view of the base of the chair. Fig. 7 represents detail vertical, sectional, and plan views of one of the standards, the seat, and the attaching screw or pin thereof.

Referring to the drawings by letter, A designates the base-frame of the chair, consisting of the legs *a* at the corners connected by the ordinary chair-rounds *a'* at the front, back, and sides, and the spring-supporting slats B B, respectively, connecting the tops of the front and rear legs.

C is the chair-seat supported on the vertical coiled springs *c* at the corners, which springs are secured at their lower ends to the slats B and at their upper ends to similar

front and rear slats secured to the lower surface of the seat. The said springs are preferably surrounded by cloth or other suitable material and are separated at their ends by the same from the frame and seat to prevent noise when the chair is in use.

D is the chair back secured to the rear edge of the seat by suitable means, and *dd* are the arms with the rear ends of their horizontal bars secured to the back and the lower ends of their vertical bars secured to the front of the seat. The side bars E of the seat are provided centrally with horizontal recesses *e*, for a purpose hereinafter explained.

F F are the standards rising centrally on each side of the chair to a suitable distance above the back and connected at top by a cross-bar *f*, either integral with the standards or secured at its ends thereto. The standards are about two or three inches outward from the base-frame A, and are secured thereto by the transverse bars G G, which are screwed or otherwise secured to the opposite upper and lower side rounds, and are provided with eyes at their ends, through which the standards pass and in which they may be vertically adjusted by set-screws *g*, that pass through threaded openings in the eyes and impinge on the standards.

H H are horizontal fulcrum-pins that pass through bearings *h'*, standing from sleeves *h*, that surround the standards, and are made adjustable thereon by set-screws *h'*, passing through threaded openings in said sleeves and impinging on the standards. The inner unheaded ends of said fulcrum-pins are arranged to enter the recesses *e* in the side bars of the seat and thereby fulcrum the latter on the base-frames A, and to permit the said pins to register the said recesses the transverse bars G are a little to one side of the middle of said base-frame—that is, a distance equal to the length of the bearings *h'* therefrom.

Upon the standards a sufficient distance above the seat are secured the horizontal hand-rests I, which may be braced to the standards, if desired, and from the cross-bars *f* depend the ropes or cords J, near each side and within easy reach of the occupant's hands.

K is a coiled compression-spring secured to the rear slat B of the base-frame, which

spring is much shorter than the spring *c*, and is loosely connected at its lower end to said slat, so that it can be turned outward out of the way therefrom and has its upper end free.

5 To obtain the up-and-down or teetering motion, the occupant of the chair withdraws the fulcrum-pins from the recesses *e* of the seat, and then by pressing down on the hand-rests at frequent equal intervals the springs
10 *c* are released of a portion of his weight at equal intervals and will regularly raise and lower the seat. Before doing this the spring *K* must be turned outward, else it would be in the way of the chair when descending. The
15 same motion can be produced by alternately pulling on and releasing the ropes or cords *J*.

To use the chair as a spring-rocker, the occupant turns up the spring *K* and inserts the fulcrum-pins in the recesses *e*. Then by rock-
20 ing his body in the usual manner, which may be aided by the ropes or the hand-rests, he will obtain the desired motion. In this case the spring *K* prevents the seat from striking and jarring on the base-frame.

25 By means of the adjustable sleeves *h* the seat may be drawn down and the springs *c* more or less compressed to give a swifter swing to the seat. Instead of said adjustable sleeves, the standards may simply be pro-
30 vided with series of adjusting openings into which the fulcrum-pins fit.

Fig. 5 shows a modification in which the standards do not rise above the hand-rests, and in that respect its construction is simpler
35 than that described.

If desired, the seat may be without arms and the standards may be double on each side, but such modifications are not to be preferred.

40 Having described my invention, I claim—
1. The combination, with the base-frame,

the seat, and the coiled compression-springs, of the standards secured to the base-frame and the fulcrum-pins connected to the stand-
45 ards and arranged to enter recesses in the side bars of the seat, substantially as specified.

2. In a chair, the combination, with the base-frame, the seat, and the coiled compression-springs, of the standards rising a suffi-
50 cient distance above the top of the chair-back and connected at top by a cross-bar, and the ropes or cords depending from said cross-bar, substantially as specified.

3. The combination, with the base-frame, 55 the seat, and the coiled compression-springs, of the transverse bars secured to the rounds of the chair and provided with eyes at their ends, the standards passing through and adjustable in said eyes, the adjustable sleeves 60 on the standards, and the fulcrum-pins passing through bearings on said sleeves and arranged to enter recesses in the side bars of the seat, substantially as specified.

4. The combination, with the base-frame, 65 the seat, the coiled compression-springs, and the spring *K*, secured to the rear of the base-frame, arranged to turn outward therefrom and shorter than the said coiled compression-springs, of the standards secured to the base-
70 frame, and the fulcrum-pins connected to the standard and arranged to enter recesses in the side bars of the seat, substantially as specified.

In testimony whereof I affix my signature in 75 presence of witnesses.

ALFRED F. CALDWELL.

Witnesses:

ROBT. STINSON,
HENRY L. CONKLIN,
LAURA H. CALDWELL,
JENNIE L. CALDWELL.