

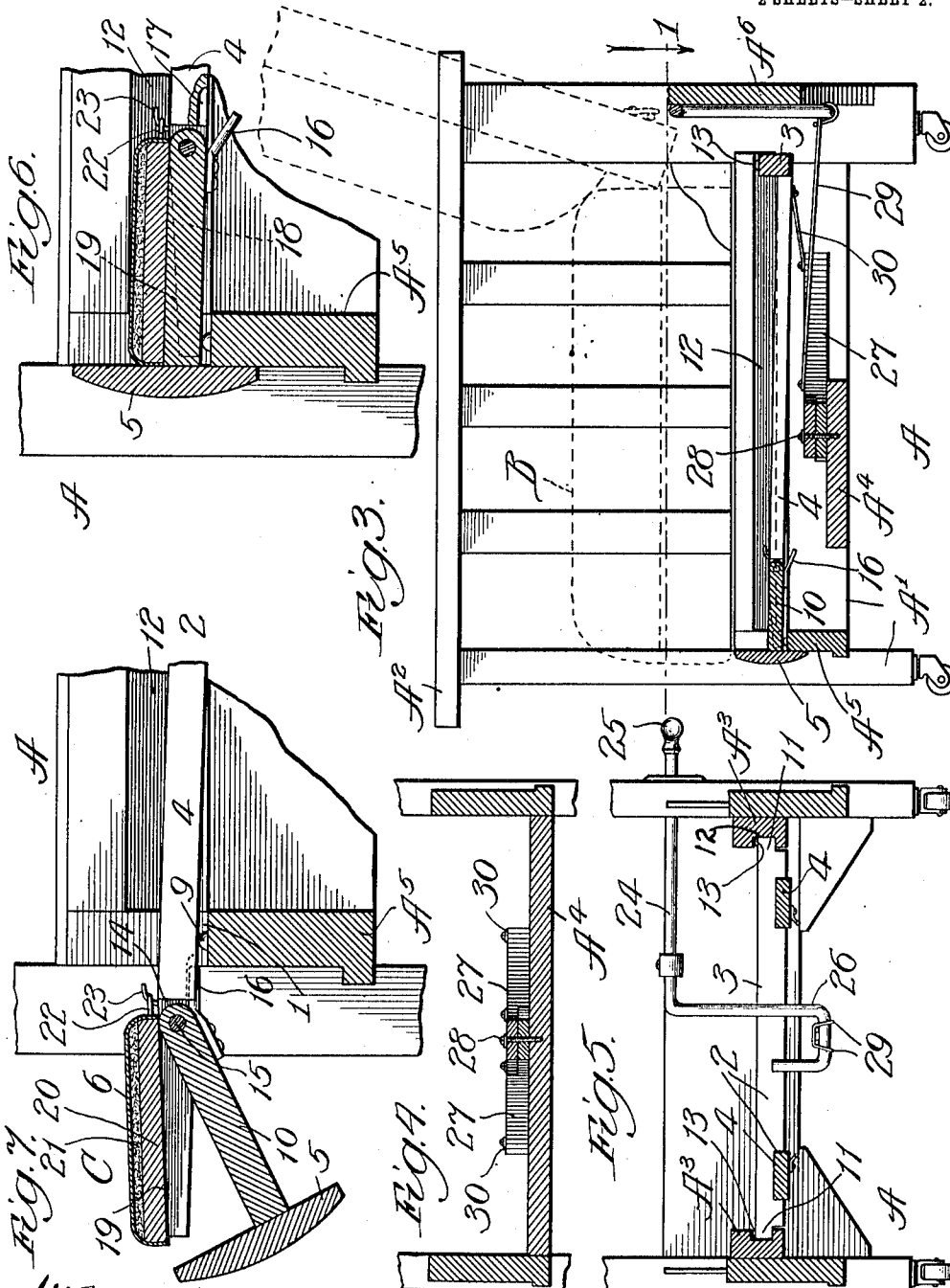
A. G. EYLES.
CHAIR.

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1,020,086.

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

ANTON G. EYLES, OF CEDAR RAPIDS, IOWA.

CHAIR.

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To all whom it may concern:

Be it known that I, ANTON G. EYLES, a citizen of the United States, residing at Cedar Rapids, in the county of Linn and State of Iowa, have invented a new and useful Improvement in Chairs, of which the following is a specification.

My invention relates particularly to chairs provided with adjustable foot-rests; and my primary object is to provide improvements pertaining to foot-rests and mechanism for adjusting the same.

The invention is illustrated in its preferred embodiment in the accompanying drawings, in which—

Figure 1 represents a plan section of a chair equipped with my improvements (shown brokenly), the section being taken as indicated at line 1 of Fig. 3; Fig. 2, a similar view, but showing the foot-rest in the extended position; Fig. 3, a longitudinal section taken as indicated at line 3 of Fig. 1; Fig. 4, a broken transverse section taken as indicated at line 4 of Fig. 1; Fig. 5, a broken transverse section taken as indicated at line 5 of Fig. 1; Fig. 6, an enlarged broken vertical section taken as indicated at line 6 of Fig. 1 and showing the foot-rest in the sheathed position; and Fig. 7, a similar view, but showing the foot-rest moved outwardly somewhat.

In the construction illustrated, A represents the frame of a chair having side-members A¹ formed with arms A²; A³, seat-supporting and guide-cleats applied to the inner surfaces of the side-members A¹; A⁴, a bottom cross-member connecting the side-members A¹ centrally at their lower portions; A⁵, a front cross-member, or front-piece of the chair-frame; A⁶, a cross-member connecting the rear legs which form a part of the side-members A¹; B, a removably mounted seat (shown in dotted lines); and C, my improved foot-rest.

The frame A of the chair may be of any suitable design and construction. As will be understood from Figs. 2 and 7, the upper edge of the front cross-member A⁵ is recessed between the points 1, 1, to accommodate the frame of the foot-rest.

The foot-rest C comprises a frame 2 having a rear cross-member 3 and side-bars 4 projecting forwardly therefrom; a supplemental front-piece 5 for the chair-frame, which is movably connected with the front

portions of the bars 4; and a foot-cushion 6 detachably mounted on the front portion of the bars 4. The bars 4 contact at their outer edges with rounded bearing-members 7, which may constitute the rounded heads of 60 tacks driven into the vertical walls at the points 1 afforded by the recesses in the upper portion of the front frame-member 5. The bars 4 rest upon similar bearings 8 at the upper edge of the recessed portion of the cross-member A⁵. Bearings 9 are also provided, upon which the shank 10 of the supplemental front-piece 5 may ride when the foot-rest is withdrawn. The cross-bar 3 of the foot-support frame has its ends extended 70 beyond the longitudinal bars 4 and provided with tenons or guide-projections 11 received in guide-slots 12 with which the cleats A³ are provided. The tenons 11 are provided at their upper edges with buttons or bearings 13 which bear against the upper walls of the guide-slots 12 when the foot-rest is projected.

The front ends of the bars 4 are recessed, as indicated at 14, and the bar-form shank 10 of the supplemental front-piece 5 is received in said recessed portions and connected with the bars at some distance from their extremities by a pivot 15. When the foot-rest is projected, the shank 10 which carries the supplemental front-piece 5, is permitted to drop to an inclined position, as shown in Fig. 7, in which position the stop 16, with which the shank 10 is equipped on its lower side and which projects in the rear of the pivot 15, engages a recess 17, with which one of the bars 4 is provided at its lower surface in the rear of the recess 14. The reduced projecting portions 18 of the bars 4 are beveled or tapered at their upper surfaces, as indicated at 19 in Figs. 6 and 7, so that the foot-pad 6 will incline somewhat as shown in Fig. 7.

The foot-pad 6 comprises a board or plate 20 and a cushion or upholstered portion 21. The rear edge of the board 20 is equipped with eyes 22 which detachably engage hooks or studs 23 with which the bars 4 are provided on their upper sides near the rear ends of the recesses 14. The board 20 rests on the beveled surface 19 of the bars 4 when the foot-rest is projected, and the front-piece 5 drops to the position shown in Fig. 7, in which position it is supported by the stop 16. The shank 10 which carries the front-

piece 5 is in the form of a board which is of sufficient width to enable the front-piece 5 to hide the foot-pad when the latter is in the retracted position shown in Fig. 6. The member 5 forms a T with the member 10, the front-piece 5 thus constituting the head of the T.

The foot-rest is actuated by mechanism comprising a rock-shaft 24 equipped with an actuating handle 25 and a crank-arm 26, the rock-shaft being suitably journaled in the rear portion of the chair-frame; a pair of levers 27 connected by a pivot 28 with the central portion of the bottom-board A⁴ of the frame; links or rods 29 connecting the levers 27 with the crank 26; and links 30 connecting the front ends of the levers 27 with the rear ends of the bars 4. At their pivotal ends, the levers 27 are provided with complementary recesses or cut-away portions, as will be understood from Figs. 2 and 4, thus enabling both levers to bear or rest upon the bottom member A⁴ of the frame.

When the foot-rest is in the retracted position shown in Figs. 1 and 6, the handle 25, which is located at one side of the rear portion of the chair, points forwardly, while the crank 26 extends downwardly, as shown in Fig. 5. When it is desired to project the foot-rest, the occupant of the chair may raise the handle 25, thus throwing the crank forwardly and actuating the levers 27 and, through the medium thereof, the foot-rest. It will be observed that the arrangement of levers herein employed enables their free ends to be connected by short links to the rear portion of the foot-rest frame, which is a desirable arrangement for several reasons.

When the foot-rest is projected as shown in Fig. 2, the front-piece 5 falls away from the foot-pad, so as not to interfere with the comfortable use of the device. This will be understood by reference to Fig. 7. When the foot-rest is retracted, the shank 10 of the front-piece 5 rides on the bearings 9 with which the front frame-member A⁵ is provided, thereby elevating the front-piece 5 to the position shown in Fig. 6, in which position it serves to hide the foot-rest and its mechanism from view.

The foregoing detailed description has been given for clearness of understanding only, and no undue limitation should be understood therefrom, but the appended claims should be construed as broadly as permissible in view of the prior art.

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

1. The combination with a chair, of a slide, an actuating lever connected with said slide, a foot-piece carried by the front end of the slide, and a front-piece movably connected with the front end of the slide and adapted to be automatically elevated to the sheathing position in front of the foot-piece in the operation of retracting the foot-rest.

2. The combination with a chair, of a slide having forwardly projecting bars, a foot-piece supported on the front end of said bars, a front-piece adapted to hide said foot-piece and having a shank pivotally connected with said bars, and capable of limited movement independently of the foot-piece and means for actuating said slide.

3. The combination with a chair having a frame provided with a front cross-member equipped with bearings, a slide movably mounted on said bearings, a foot-piece mounted on the front-portion of said slide, a front-piece adapted to hide said foot-piece and having a shank pivotally connected with said slide near the rear portion of said foot-piece, and means on the frame for elevating said front-piece through the medium of its shank when the slide is retracted.

4. The combination with a chair, of a slide, actuating means therefor, a foot-piece detachably mounted on the front end of said slide, a front-piece adapted to hide said foot-piece and having a shank pivotally connected with said slide, and a stop serving to limit the drop of said front-piece with relation to said slide.

5. The combination with a chair having a frame provided with side-members equipped on their inner surfaces with longitudinal guides, said frame having a front cross-member provided at its upper portion with a guide, of a slide connected with said guide, a foot-pad detachably mounted on the front portion of said slide, a shank pivotally connected with said slide beneath said foot-pad near the rear edge of the foot-pad, a front piece connected with the front portion of said shank and extending at substantially right-angles thereto, said front-piece adapted to shield the slide and foot-pad when the slide is in the retracted position.

ANTON G. EYLES.

In presence of—

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