

(No Model.)

2 Sheets—Sheet 1.

H. KLINE.

SWINGING AND RECLINING CHAIR.

No. 347,428.

Patented Aug. 17, 1886.

Fig. 1.

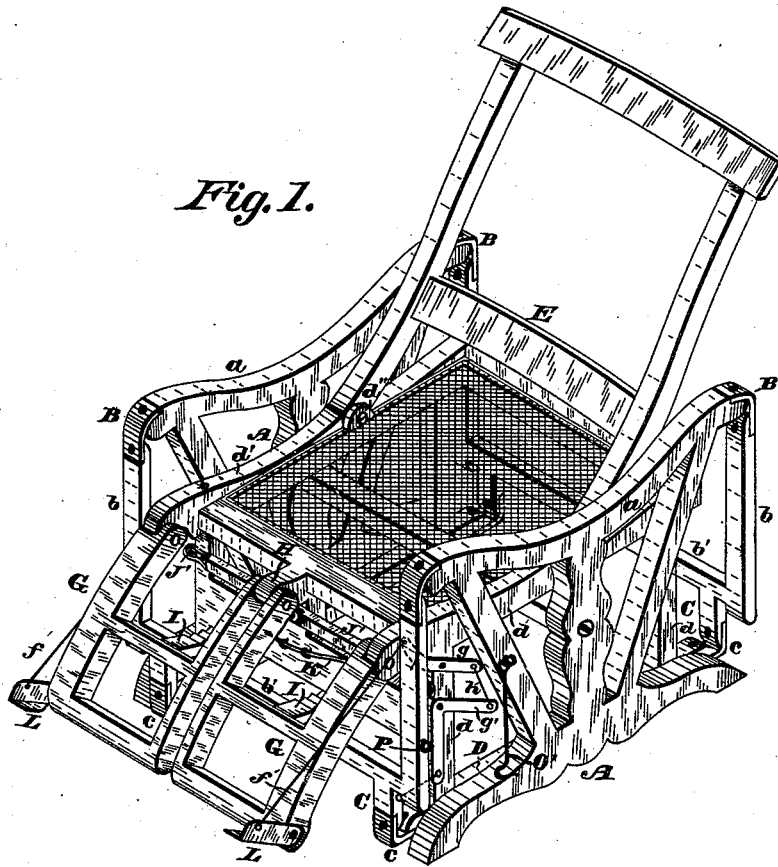


Fig. 2.

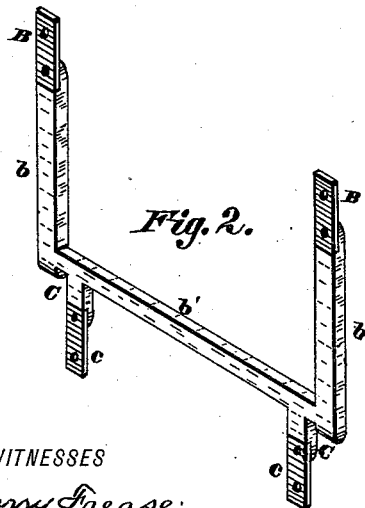
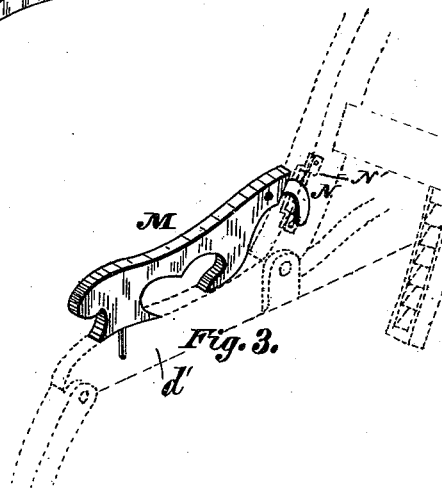


Fig. 3.



WITNESSES

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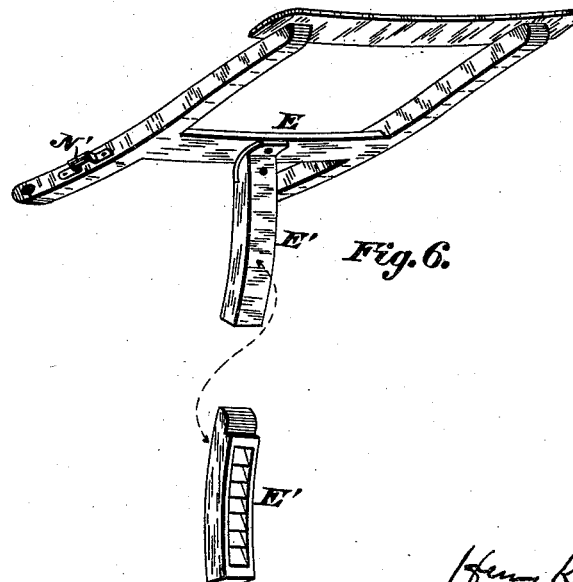
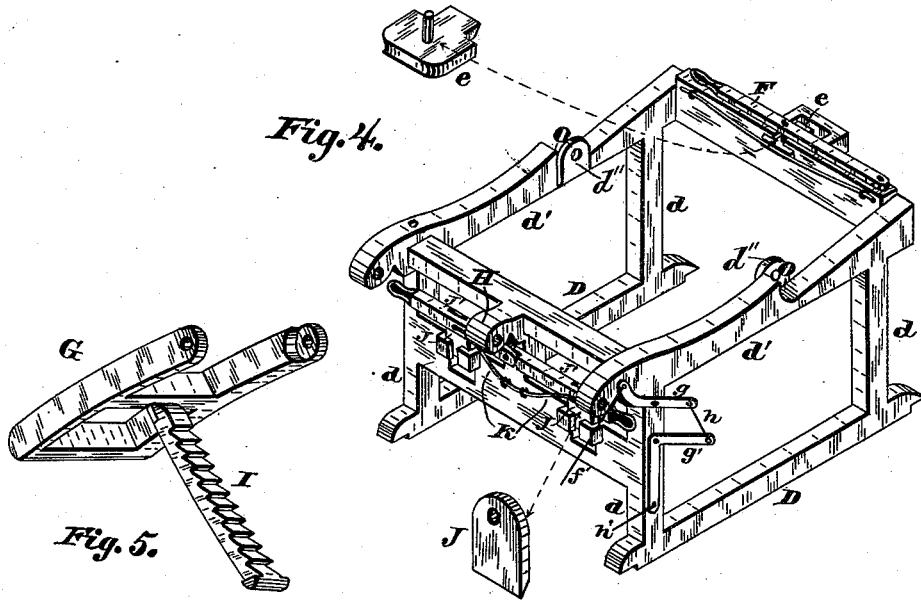
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Harry Freese
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INVENTOR
Henry Kline
By *Frederic W. Bond*
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UNITED STATES PATENT OFFICE.

HENRY KLINE, OF CANTON, OHIO, ASSIGNOR OF ONE-HALF TO JACOB H. SNYDER, OF SAME PLACE.

SWINGING AND RECLINING CHAIR.

SPECIFICATION forming part of Letters Patent No. 347,428, dated August 17, 1886.

Application filed October 29, 1885. Serial No. 181,319. (No model.)

To all whom it may concern:

Be it known that I, HENRY KLINE, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have
5 invented certain new and useful Improvements in Swinging and Reclining Chairs; and I do hereby declare that the following is a full, clear, and exact description of the same, reference
10 being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon, in which—

Figure 1 is a perspective view of the chair. Fig. 2 is a detached view of one of the vibrating or swinging frames or supports. Fig. 3 is
15 a detail perspective view. Fig. 4 is a detached perspective view of the suspended chair-frame. Fig. 5 is a detached view of one section of leg-rest. Fig. 6 is a detached view of the back.

20 The present invention has relation to swinging and reclining chairs; and its nature consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claims.

25 Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, A A represent the side frames of the chair proper, and
30 may be substantially of the form shown, or they may be of any other desired style, and, if desired, casters may be attached, in any well-known manner, to the front or forward portions of these side frames, A A.

35 To the top or upper parts of the frames A A are securely attached, in any well-known manner, the arms or bars *a a*. The ends of these arms or bars *a a* extend a short distance beyond the frames A A, for the purpose hereinafter described.

40 To the ends of the arms or bars *a a* are attached the top or upper ends of the vibrating or swinging frames or supports by means of the flexible straps B, said straps B being
45 securely attached to said arms *a a* and the vibrating or swinging frames or supports, said frames consisting of the arms or bars *b* and the cross-bars *b'*, and are so arranged that their movements will not interfere with the side
50 frames, A A.

To the cross bars or rods *b'* are securely at-

tached, in any well-known manner, the downwardly-projecting arms C, said arms being arranged substantially as shown in the drawings, and to the bottom or lower ends of these downwardly-projecting arms C are securely attached
55 the flexible straps *c*, the opposite ends of these flexible straps *c* being securely attached to the bars D D, as shown in the drawings.

To the bars D D are properly attached the posts or standards *d*, and to the top or upper
60 ends of said posts or standards are attached, in any well-known manner, the side rails or bars, *d'*, said parts being held the desired distance apart by means of suitable cross-bars,
65 which parts compose the frame of the vibrating or swinging chair proper, and are so arranged and adjusted that their movements will not interfere with the supporting-frame of the chair, and at the same time will vibrate or
70 swing back and forth the desired distance.

To the inner side of the side rails or bars, *d'*, are attached the short posts or blocks *d''*, which are for the purpose of pivoting the bottom or lower ends of the arms of the back
75 of the chair proper, said back being formed substantially as shown in Fig. 1, and is so arranged that said back may be adjusted to any desired angle within the limits of its
80 movements.

To the cross bar or rail E is attached by means of a flexible strap or hinge the curved arm E', said curved arm being provided with notches, which are for the purpose of securing
85 the back in any desired position by means of the spring-catch or slide *e*, said spring-catch being operated by means of the lever or handle F. (Best seen in Fig. 4.) The spring may be a straight piece of spring steel wire, as shown, or it may be a coiled spring, as desired. The spring-catch or slide *e* is so
90 arranged and adjusted that it will engage the notches in the curved arm E'.

To the front or forward portion of the vibrating or swinging frame are attached the
95 leg-rest sections G G, which are located substantially as shown in the drawings, the top or upper ends of said sections G G being pivoted to the projection H and the front or forward ends of the side rails, *d'*, substantially as
100 shown in Fig. 1.

To each of the leg-rest sections G G are at-

5 tached by means of flexible straps or hinges the arms or bars I I, said arms or bars I I being provided with notches, which are for the purpose of receiving the bottom or lower ends of the sliding bars or blocks J J. Said sliding bars or blocks are each provided with a handle or lever, J'. These sliding bars or blocks are held in proper position for holding the leg-rest sections G G in the desired position by means of the springs K, which may be located substantially as shown in the drawings.

10 To the bottom or lower corners of the leg-rests G G are pivoted the arms or levers L, which are located substantially as shown, and are provided with the apertures f, and are for the purpose of attaching the wires or cords f', as shown in Fig. 1, the opposite ends of these wires or cords being attached to the outer ends of the levers g. Said levers g may be pivoted to the front or forward posts or standards, d.

20 To the inner ends of the levers g are attached the wires or cords h. The bottom or lower ends of said wires or cords are attached to the inner ends of the L-shaped levers g'. Said L-shaped levers g' are pivoted to the standards d, substantially as shown in the drawings.

30 To the downward-projecting portion of the L-shaped lever g' are attached the wires or cords h', the opposite ends of said wires or cords being properly attached to the lower portion of the vibrating or swinging arms C. It will be seen that by this peculiar arrangement the occupant of the chair can swing himself back and forth by means of the lever L, operated by the feet.

40 The side rails, d', may be provided with removable arms M, the attachment of which is illustrated in Fig. 3, where one of said arms is shown in perspective with one side bar, d', and a portion of the adjustable back in dotted lines. The arms M are attached to the side bars, d', by doweling, and at their rear ends are provided with hooks or curved projections N, which engage loosely with loops or staples N' on the sides of the adjustable back, the arm being thus held from lateral displacement without interfering with the adjustment of the chair-back.

55 It is obvious that in adjusting the chair-back its attached loops N' will move along the hooks N in the arc of a circle without binding on said hooks, while the latter, being always loosely surrounded by the loops, will act in conjunction therewith to prevent lateral displacement of the arms.

The side rails or bars are provided with the

60 sockets or recesses O, which are for the purpose of receiving the bottom or lower ends of the back and assist in holding said back in proper position.

To the front or forward portion of the frame A is attached the hook O', which is for the purpose of engaging the eye P in case it is desired to have the swinging frame held rigid.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

70 1. In a swinging and reclining chair, the combination of the side rails, d', having attached thereto the flexible straps B, the bars or supporting-rails b, the flexible straps c, and the rails or bars D D, all arranged substantially as shown, and for the purpose specified.

2. In a swinging and reclining chair, the combination, with the frames A A, having arms or bars a a, of the depending arms or bars b b, having a flexible connection with said arms a, and connected to each other by cross-bars b', provided with arms C C, and the bars D D, having a flexible connection with the arms C, and provided with posts d' and side rails, d', substantially as described.

3. In a swinging and reclining chair, the combination, with the stationary frames A A, a vibrating frame comprising side rails, d' d', having pivot-blocks d'' and sockets O, and an adjustable back having loops N', of the detachable arms M, having curved projections N, substantially as described.

4. In a swinging and reclining chair, the combination, with a vibrating frame having spring-catch e, lever F, and socketed side rails, d' d', of an adjustable back provided with a cross-bar, E, having a curved ratchet-bar, E', hinged thereto, the lower ends of the back being engaged in the socket of the side rails, substantially as described.

5. In a swinging and reclining chair, the combination of a stationary frame having arms or bars a, a vibrating frame suspended from said arms by flexible connections, said vibrating frame being provided with socketed side rails, d' d', and having a spring-catch and a lever for actuating the same, and an adjustable back pivoted to said rails and having a hinged ratchet-bar for engaging the catch, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY KLINE.

Witnesses:

HARRY FREASE,
FRED W. BOND.