

(No Model.)

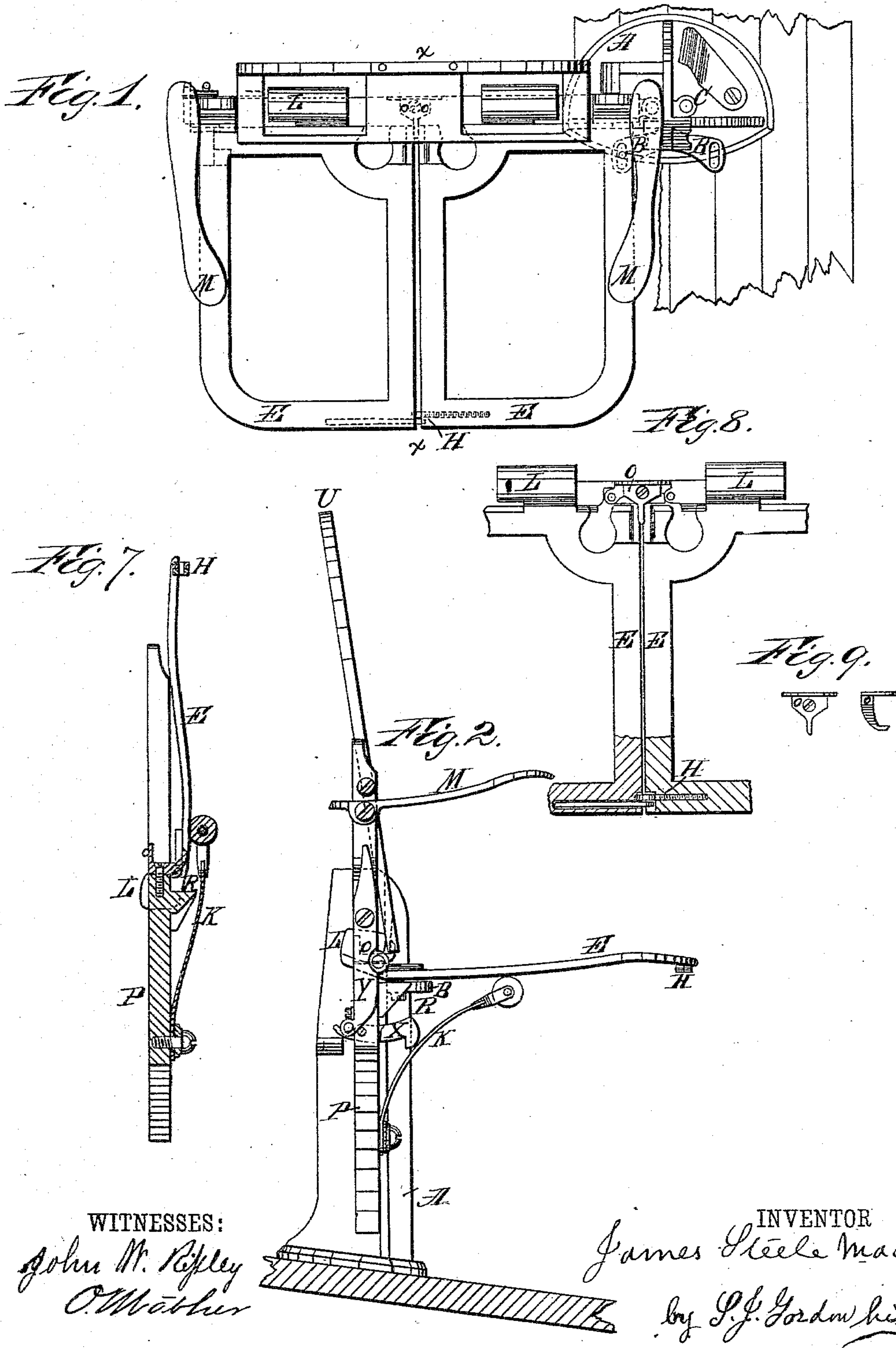
3 Sheets—Sheet 1.

J. S. MACKAYE.

FOLDING CHAIR.

No. 295,261.

Patented Mar. 18, 1884.



(No Model.)

3 Sheets—Sheet 2.

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FOLDING CHAIR.

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Patented Mar. 18, 1884.

Fig. 3.

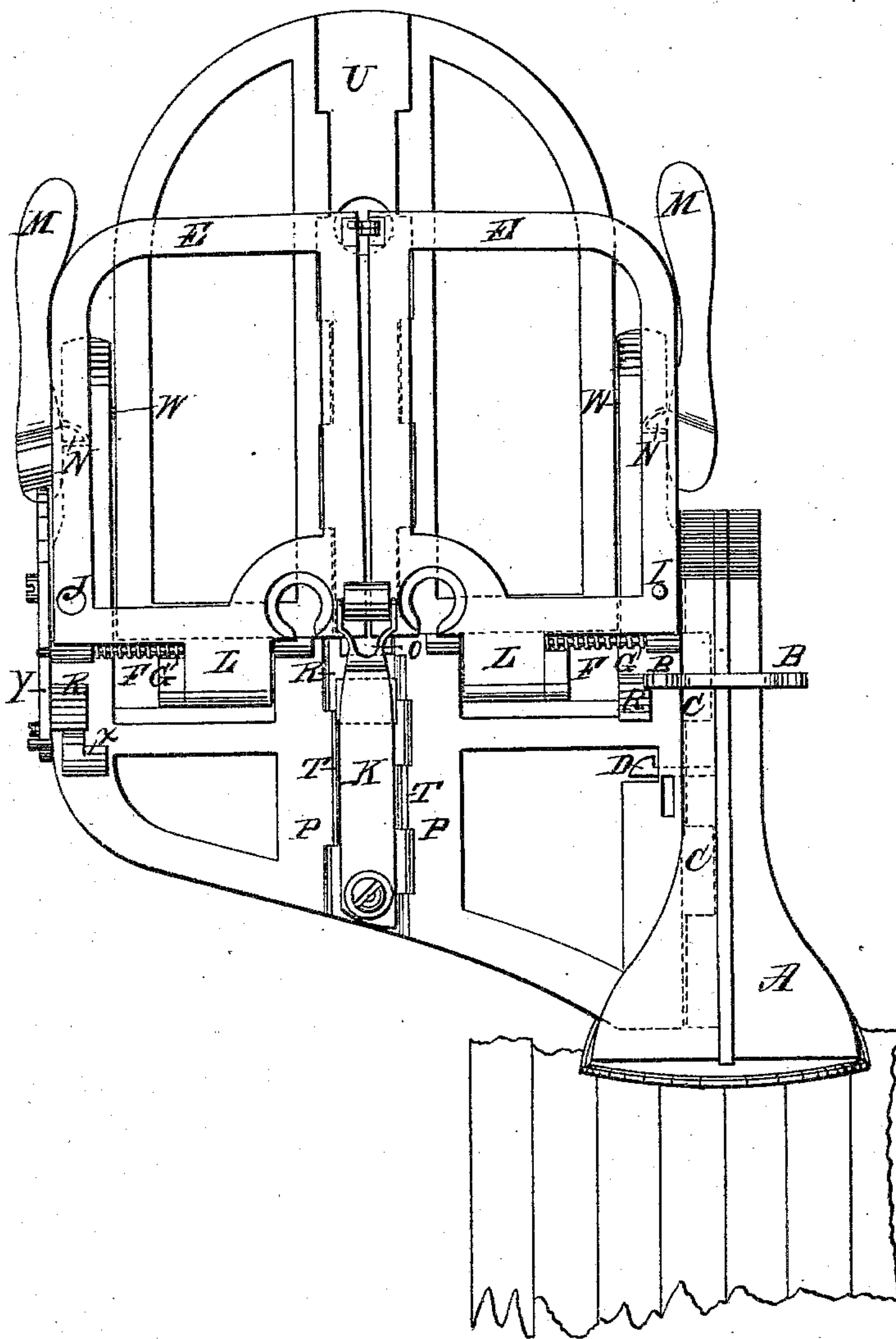
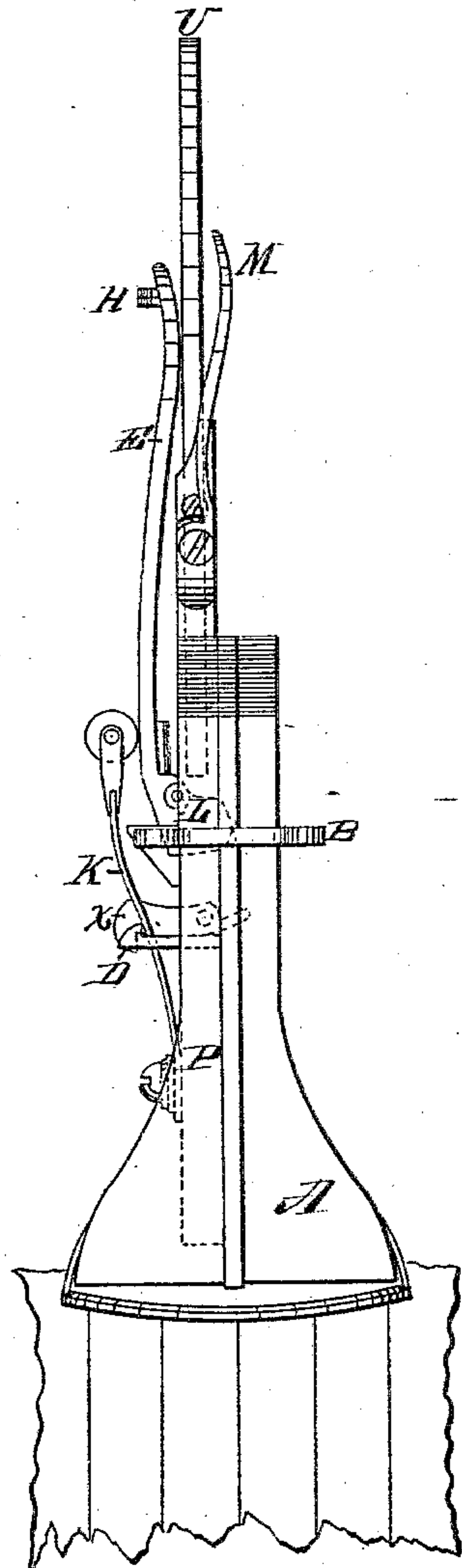


Fig. 4.



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Fig. 5.

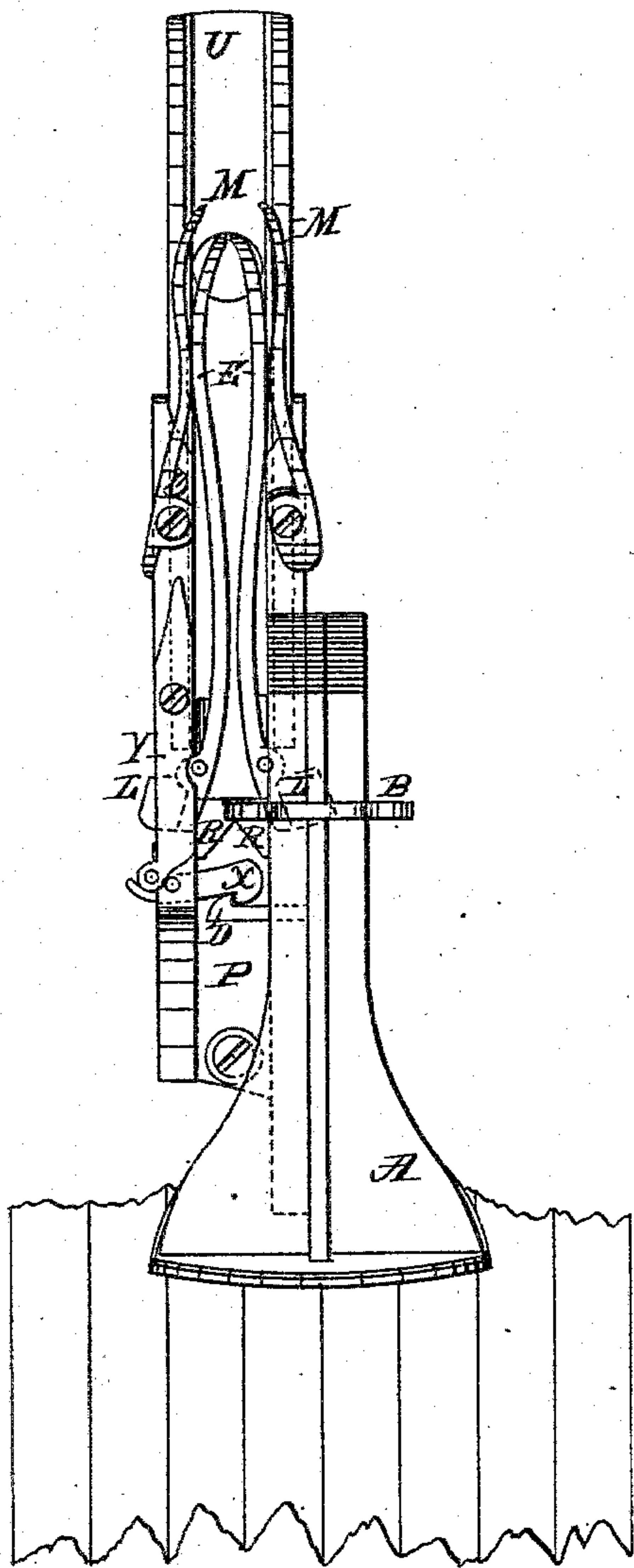
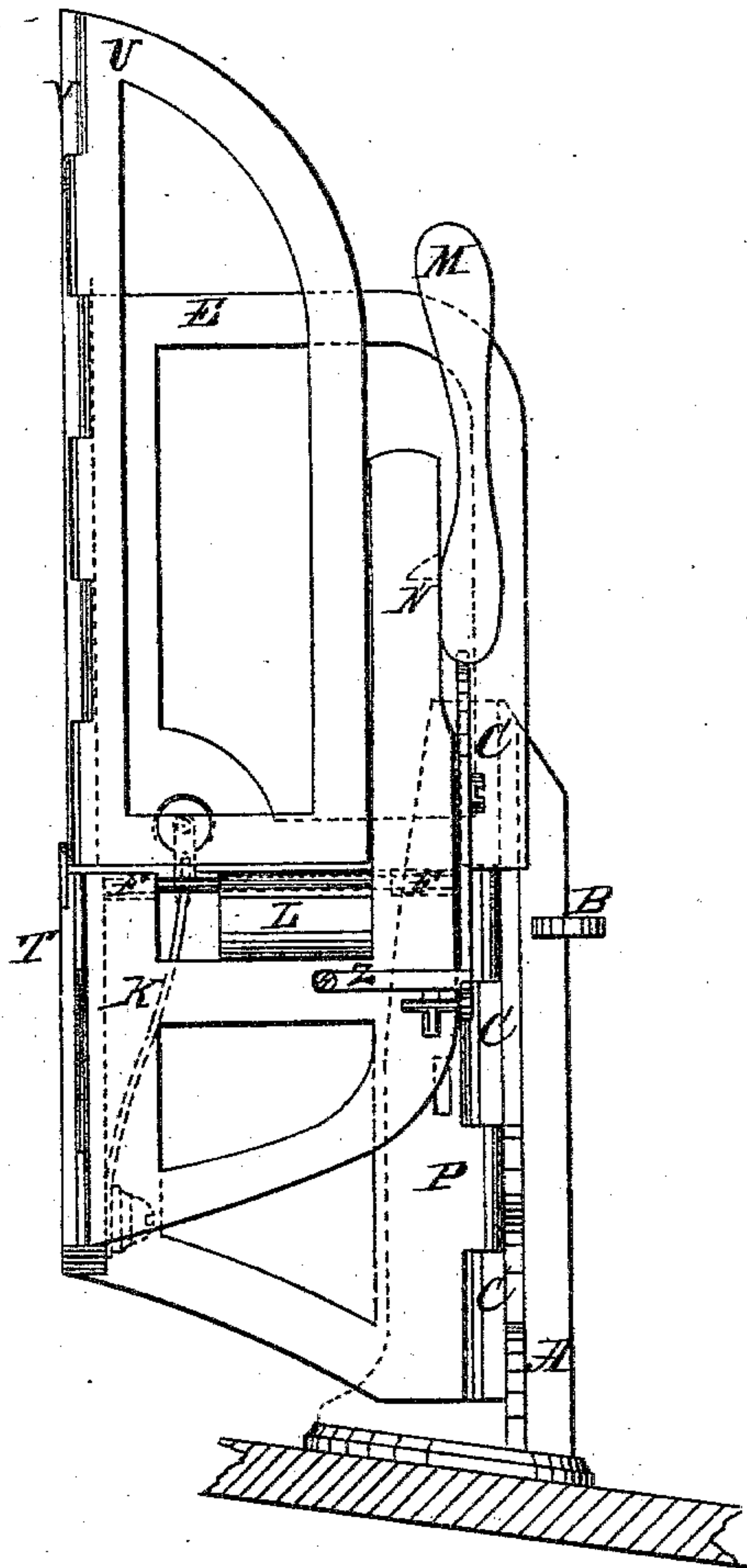


Fig. 6.



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UNITED STATES PATENT OFFICE.

JAMES STEELE MACKAYE, OF NEW YORK, N. Y.

FOLDING CHAIR.

SPECIFICATION forming part of Letters Patent No. 295,261, dated March 18, 1884.

Application filed May 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAMES STEELE MACKAYE, of New York, county of New York, State of New York, have invented a new and useful
5 Improvement in Folding Chairs, which is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a top or plan view of my improved folding chair; Fig. 2, a side view of
10 the same; Fig. 3, a front view of the same with the seat raised; Fig. 4, an end view of the same with the seat swung round to show passage-way; Fig. 5, an end view of chair folded up; Fig. 6, a side view of the same; Fig. 7, a
15 section at the line *x x* of Fig. 1; Fig. 8, a portion of the seat broken away to better show the folding mechanism; Fig. 9, a detached view of the separator.

The object of my invention is to provide a
20 chair for places of public meeting which shall secure greater comfort and safety to the audience in entering and leaving the house. I accomplish this by so constructing the chair and its supports as to provide broad aisles in all di-
25 rections when the chairs are folded, and at the same time furnish a seat as comfortable and secure as ordinary chairs.

To this end my invention consists, primarily, of a folding-seat chair hinged at one of its rear
30 corners, or thereabout, so that two chairs may be placed side by side, hinged at their adjacent rear corners, preferably on a single standard.

My improved chair illustrated in the annexed drawings, and exemplifying one form of
35 my invention, exhibits a capacity to fold three times: first, the automatic rise of the seat; second, a lateral swing of the chair on its support; third, a folding up of the seat and back upon themselves.

In the drawings, A represents the standard or support; B B, the supporting-catches; C, the supporting-hinge; D, the securing-catch; E, the seat; F, the seat-supporting rod; G, the spiral spring thereon; H, the folding-hinge; I, the catch-pin; J, its socket; K, the seat-lifting
40 spring; L L, the counter-weights; M M, the inwardly-curved arms; N, the stop thereof; O, the seat-separator and back-stop; P, the supporting-bracket which constitutes the chair-
45 frame; R R, the seat-stops thereon; T T, the

bracket-folding hinges; U, the back; V V, the folding-hinges; W W, the back-sustaining pivots; X, the chair-latch; Y, its lever; Z, the lever-spring.

The standard A is a post-like standard, which
55 occupies but a fraction of the depth of the seat, so that when the seats of a row of my chairs are turned up a broad aisle is formed, practically unobstructed by the standards in front of such row; and when the chairs, with
60 seats folded, are swung back a quarter-turn on their standards, broad aisles are formed across the rows of chairs. I term my standards "post-like standards," as distinguished from
65 frame-like standards or boards practically as wide or wider than the depth of the seat, the use of which frame-like standards renders it impossible to obtain broad unobstructed aisles both in front of and across rows of chairs with-
70 out increasing the space between such rows.

The above parts operate together to promote the objects hereinbefore set forth, as follows: Supposing the chair just vacated, spring K lifts duplex seat E and carries both its sections up against back U. As seat E rises its
75 outer edges strike inwardly-curved arms M M and bring them into a position parallel with back U. The entire chair is now free to swing on bracket-supporting hinge C on standard A, thereby opening an unobstructed floor-space
80 in one direction equal to the width of the chair. The unconfined half of seat E may now be folded inwardly upon the other half by reason of folding-hinge H, made free for that purpose, one of its arms resting in a recess of the un-
85 confined half of the seat, and also by reason of the action of separator O, which pushes the two halves of seat E asunder. At the same time that this is done, back U may be folded inwardly upon itself by means of folding-
90 hinges V V, and bracket P will also similarly fold upon its hinges T T. The roller at the upper extremity of spring K will pass within the curved sockets left in the lower innermost corners of each half of seat E to receive it, and
95 as the two halves come together latch X falls within catch D, and the chair is thereby fastened securely to standard A. An open floor-space equal to half the width of the chair is thus obtained at right angles to the before-
100

mentioned aisle. The arm corresponding to the outer or unconfined half of seat E bears at its inner end against lever Y, pivoted to bracket P. Drawing this arm outwardly, lever Y, bearing upon the outer end of latch X, also pivoted to bracket P, releases latch X from catch D, and the chair is free to be unfolded at pleasure, spring Z returning lever Y to its place. As seat E falls into position, catch-pin I drops into recessed catch B on standard A, thereby locking seat E securely to standard A. The seat is supported by stops R R and rods F F. Spiral springs G G on rods F F hold the two halves of seat E together, and counter-weights L L, while aiding to lift seat E, also bring forward the lower end of back U, producing comfortable inclination. When the chair is folded, catch-pin I is received within socket J, and folding-hinge H within a similar socket in back U.

It will be observed that arms M M are of peculiar formation, inclining inwardly over seat E, thereby increasing both the comfort and safety of the chair by providing a larger bearing-surface for the arm to rest upon, and widening the space between the arms of adjoining chairs, so that the arm of one, when falling, will be less likely to strike the hand of the occupant of the adjoining chair if resting upon the arm thereof. Separator O also serves as a stop to back U and determines the inclination thereof. By these means spacious aisles are instantly obtainable in all directions for the exit of an audience.

The leading feature of my invention consists in hinging two chairs at their adjacent rear corners to a post-like standard, the chairs being constructed with a seat adapted to fold up against the back. This feature may be used independently; but I prefer to use in all cases an automatically-folding seat. An obvious modification would be to use two chairs, each hung at one of its rear corners to a separate standard, one chair being hung at the right-hand corner, the other at the left-hand corner, and then placing the standards close together. Thus my invention is not limited to a chair which contains, in addition, the feature of a chair-frame, seat, and back, each constructed in two sections adapted to be folded upon each other, and other features described and claimed.

I desire it to be understood that in some of the ensuing claims I do not limit myself to a chair having a self-folding seat, or a seat composed of two sections, or a back composed of two sections, or a chair constructed with folding arms. These features of construction may be omitted in some cases. The details of construction may also be greatly varied without departing from the principle of my invention.

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

1. The combination, substantially as before set forth, of a single post-like standard, substantially such as described, a pair of chair-frames, both hinged at their adjacent rear corners by vertical hinges to said standard, and a folding seat for each chair-frame.

2. The combination, substantially as before set forth, of the post-like standard, substantially such as described, the chair-frame, hinged at one of its rear corners by a vertical hinge to said standard, the pivoted seat, and a spring for automatically folding the seat.

3. A chair-standard constructed substantially as described, provided with double hinge-sockets, double seat-supporting catches B B, and double chair-fastening catches D D, whereby two chairs may be supported by, folded upon, and secured to a single standard.

4. In a folding chair, bracket P, made in three parts, with hinges, admitting the folding of one section thereof upon another, and forming a support for the back and seat of the chair, substantially as described.

5. The duplex seat E, provided with free hinge H, counter-weights L L, catch-pin I, socket J, spring K, supporting-rods F F, closing-springs G G, and separator O, operating together substantially as described.

6. The combination, substantially as before set forth, of the self-folding seat and the pivoted arms, the outer ends of which are curved inward and also reach over the edges of the seat, whereby the folding of the seat causes the folding of the arms.

7. The combination of arm M on the outer section of the back, lever Y, and latch X, pivoted to such section, and catch D on the standard, all operating together substantially as set forth.

8. The combination, substantially as before set forth, of the swinging back U, provided with hinges V V, and supporting-bolts W W, and the folding seat constructed with rearward projections or weights, whereby the back is automatically inclined on turning the seat down.

9. In a folding chair, seat-separator and back-supporter O on the bracket P, constructed and operating substantially as described.

10. The combination of a standard, two supporting bars or frames pivoted vertically and independently thereto, and two folding chairs hinged to said supporting bars or frames, substantially as described, whereby said chairs may, when folded, be turned back to back and leave a passage-way between adjacent rows of double seats.

JAMES STEELE MACKAYE.

Witnesses:

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J. W. RIPLEY.