

J. V. MEIGS.
School Furniture.

No. 151,898.

Patented June 9, 1874.

Fig 1.

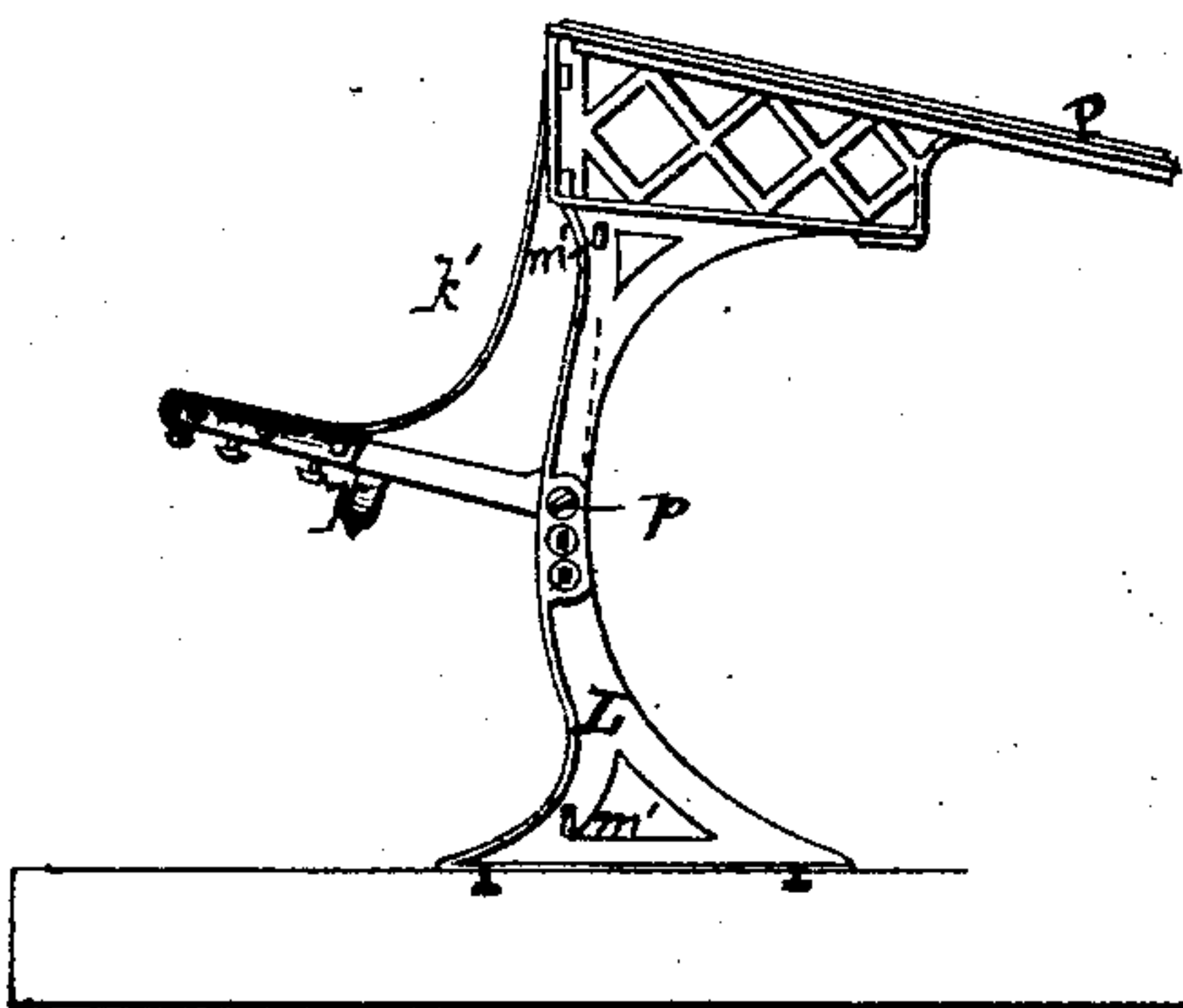


Fig 12.

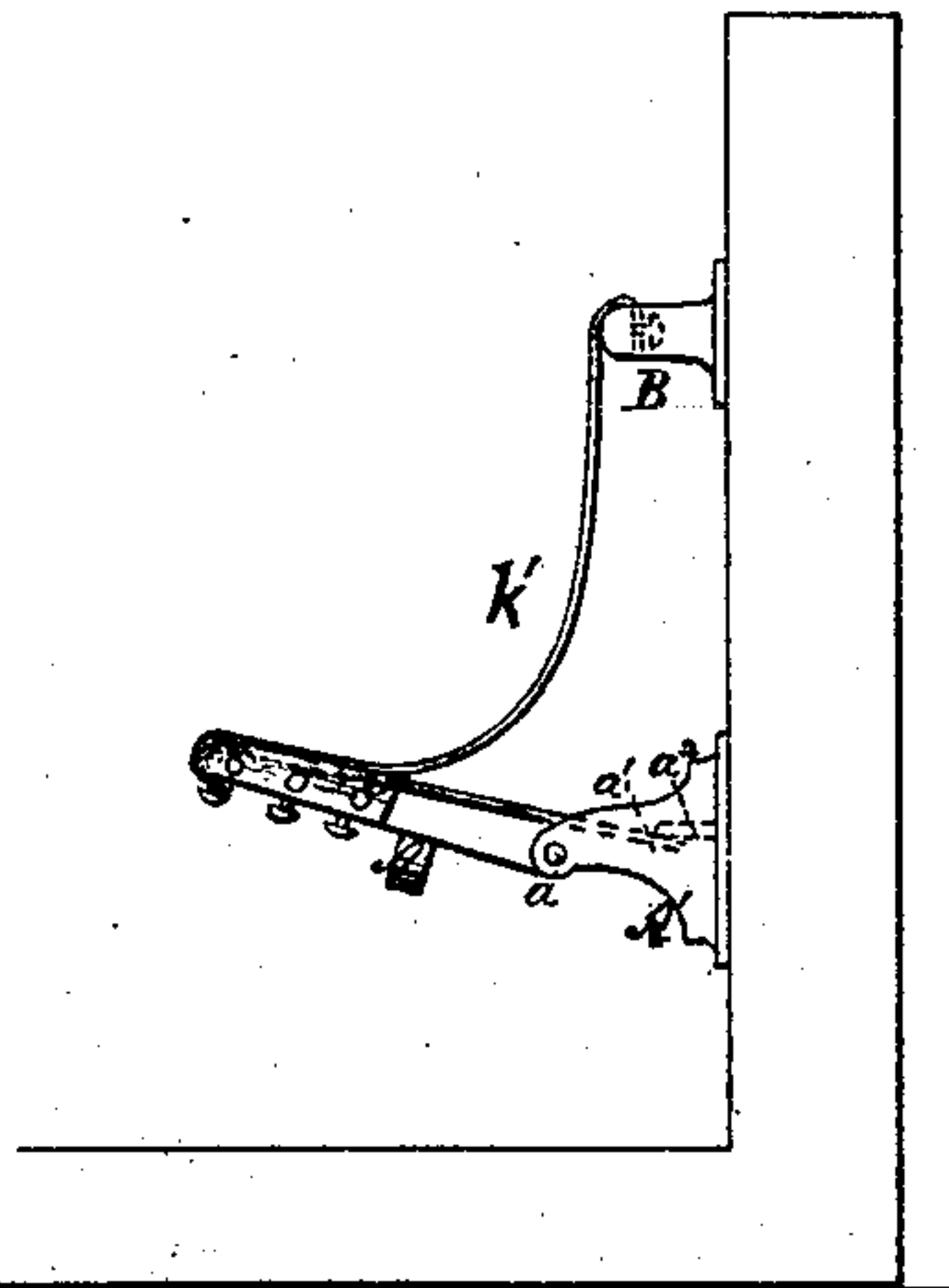


Fig 2.

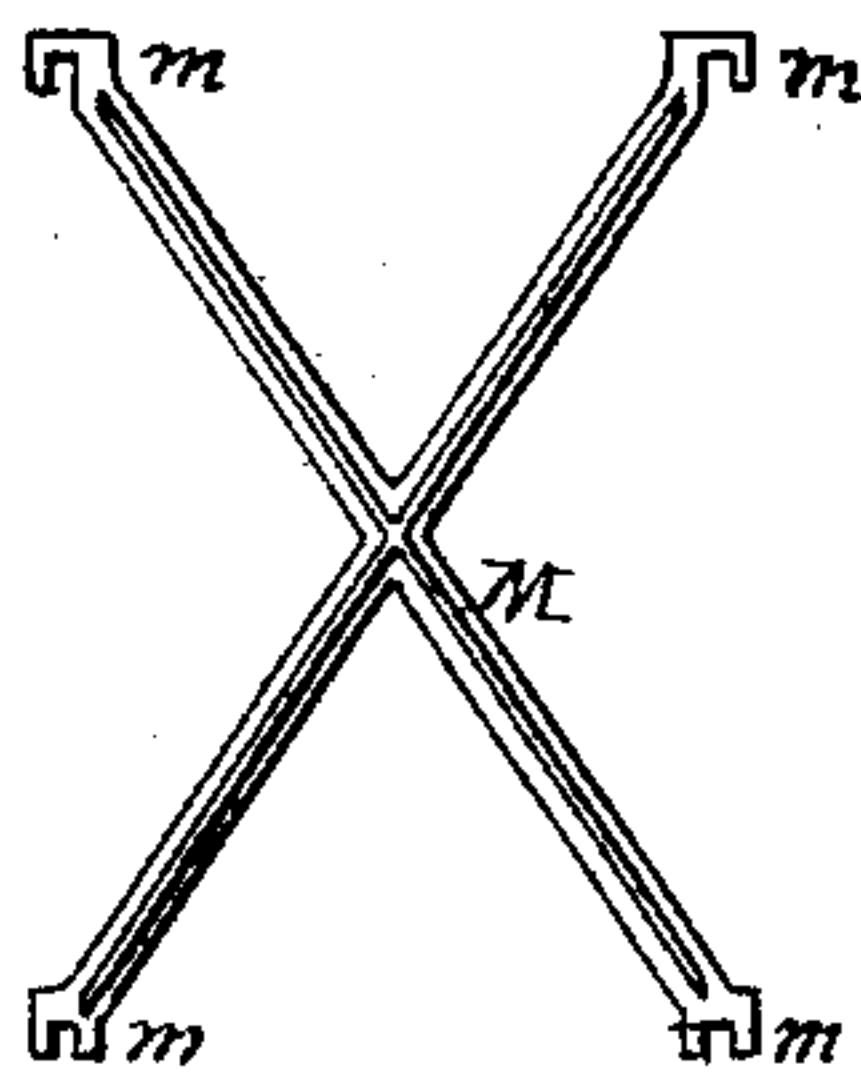


Fig 3.

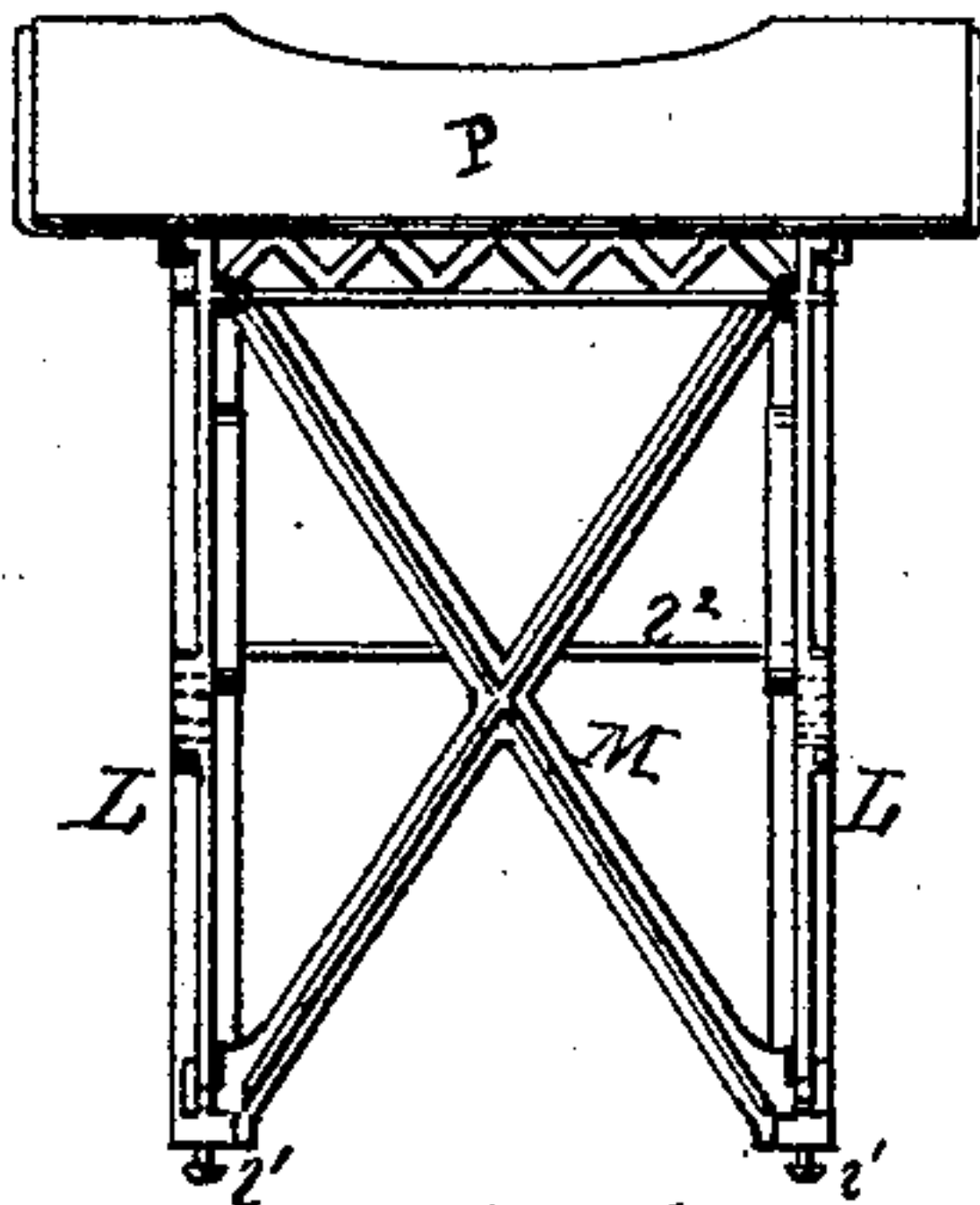


Fig 4.

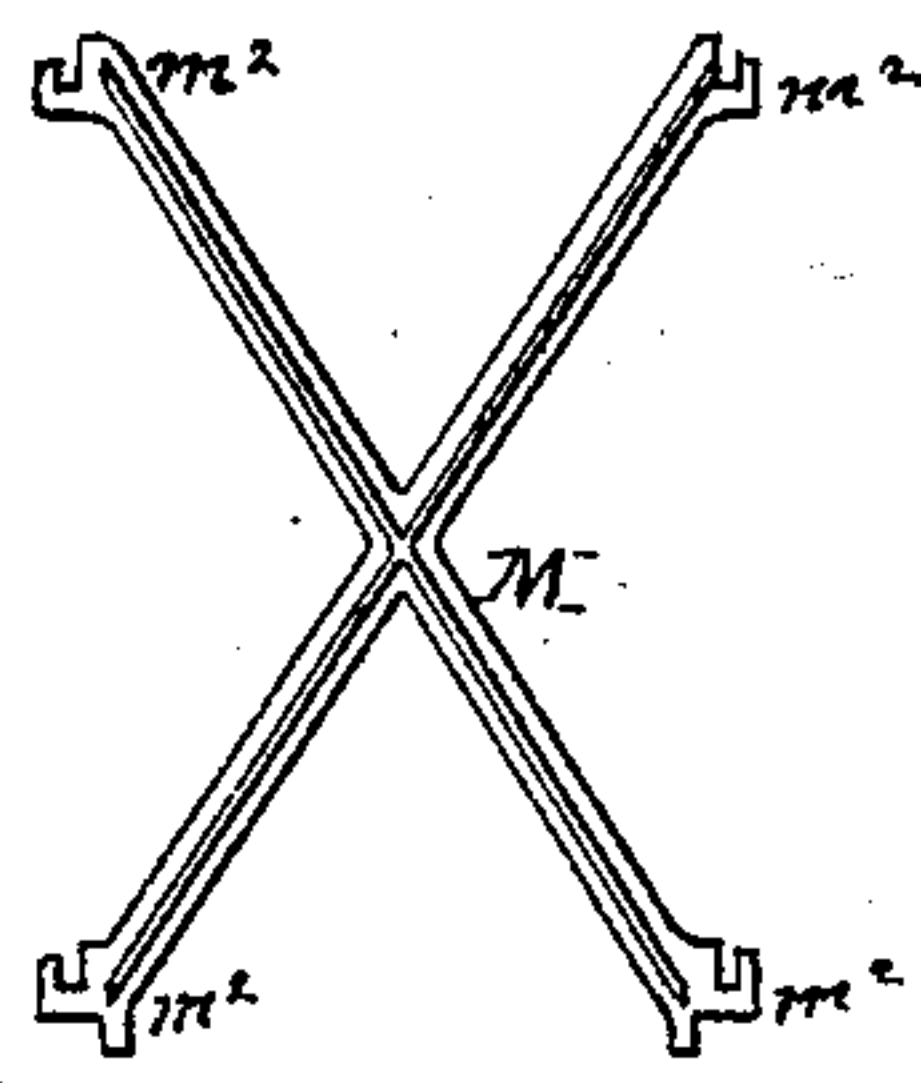


Fig 5.



Fig 6.



Fig 7.

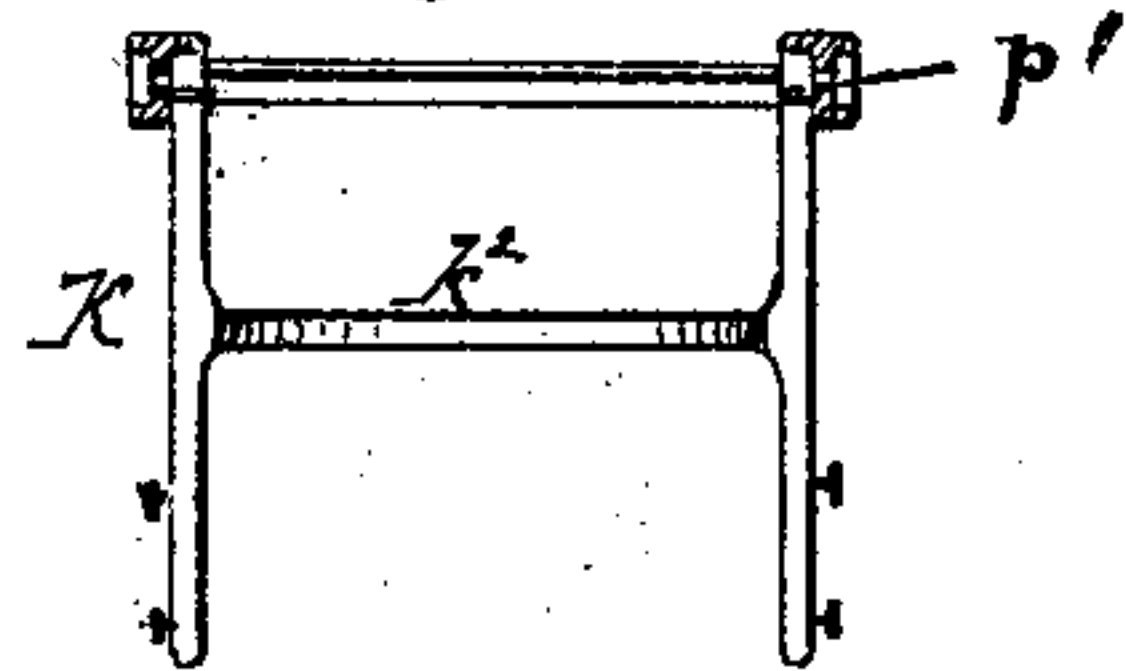


Fig 8.

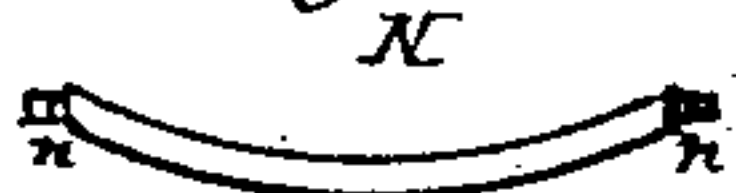


Fig 9.



Fig 10.

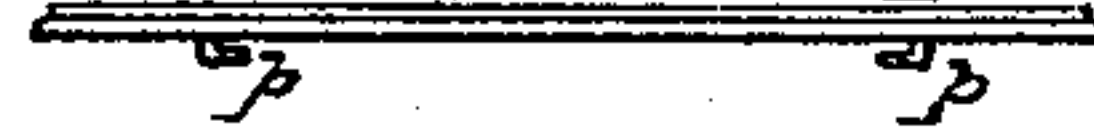


Fig 11.



Witnesses:

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by his atty
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UNITED STATES PATENT OFFICE.

JOE V. MEIGS, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN SCHOOL FURNITURE.

Specification forming part of Letters Patent No. 151,898, dated June 9, 1874; application filed May 16, 1873.

To all whom it may concern:

Be it known that I, JOE V. MEIGS, of Lowell, Massachusetts, have invented Improved School Furniture, of which the following is a specification:

The object of my invention is to provide comfortable seats and desks, based on correct physiological principles, so as to avoid fatigue and distortion of the body, which tend to produce undue pressure on particular parts of the body, thereby inducing disease; the seat being so constructed that it will adapt itself to its occupant, whatever may be his conformation, affording due support to the pelvis and vertebræ, without pressure upon the covering-muscles, stoppage of the arterial or venous circulation, or of the nerve-currents, no matter what may be the position assumed by the occupant.

The subject-matter claimed is hereinafter specified.

In the accompanying drawings, Figure 1 shows a combined arrangement of desk-seat and desk. Fig. 2 shows the details of the main cross-brace of the desk-frame. Fig. 3 shows a front elevation of the desk. Fig. 4 shows another form of locking cross-brace. Fig. 5 shows the back rail of the desk; Fig. 6, an edge view thereof, and of the bottom piece; Fig. 7, a view of the seat-frame; Fig. 8, an edge view of Fig. 5; Fig. 9, a vertical section of the bottom board of the desk; Fig. 10, a front view of the sliding top of the desk, and Fig. 11, details of the locks which fasten the desk to the floor. Fig. 12 shows my flexible seat attached to a wall.

The desk-seat frame K, Fig. 1, is provided, like the wall-seat hereinafter described, with a locking-stop, to limit its descent. The stop in this instance is formed by the abutting of that part of the seat-frame which projects beyond the hinge against the desk-frame itself. The seat-frame is connected to the desk by pivots or hinges, the seat-frame being provided with lugs, which in one position pass into narrow slots in the desk-legs, but when in another position, the lugs cross the slots and lock the seat-frame in place. Such a mode of fastening is shown in Figs. 1 and 7, at p' , and being well known in other connections, need not be more particularly described here. The

seat-frame is made of sufficient width at the points of pivot to require the sides of the seat or desk frame to be sprung slightly, thus producing friction enough to hold the seat at any point it may be placed by the hand when unoccupied, preventing noise by accidental falling of the seat, and making the whole frame and interlocking braces, hereinafter mentioned, firm and solid. As shown in Fig. 7, the seat-frame has no front cross-bar, the seat-cover k^1 being stretched tightly across that part in front of the curved cross-bar k^2 of the seat-frame. The cover may be made of woven wire, leather, canvas, carpeting, or other fibrous or flexible material. I have found canvas or carpeting, however, preferable in practice. Holes are bored into the floor, into which holes locks l , Fig. 11, are screwed. Buttons or lugs l^1 , on the under side of the side pieces or legs L of the desk, are slipped into the larger parts of the key-holes of these locks, and are shoved forward until they fit tightly, when they are secured by wedges slipped into the key-holes behind the lugs, or by nails driven into the floor. The legs are thus firmly secured to the floor. The bottoms of the side pieces of the desk or chair cover the screws or screw-heads of the pieces attached to the floor, and thus it is impossible for the occupant of the desk to work it loose from its fastening. When thus fastened an interlocking cross-brace, M, is held up in its place by the floor, and thus is firmly secured. The side pieces may be secured by a connecting-bolt, l^2 . A better plan, however, is to secure them by a self-locking cross-brace, M, above referred to, provided either with hooks and catches $m m^1$, as in Figs. 1 and 2, or with catches and lugs m^2 , as in Fig. 4, which interlock with corresponding parts of the side pieces, and thus brace the desk firmly. The back piece or rail N, Figs. 5, 6, and 8, is also provided with hooks and lugs $n n'$, as shown, which interlock with the side pieces. The bottom piece O of the desk, Figs. 6 and 9, slides by side grooves on flanges on the side pieces; or the flanges may be on the bottom piece, and the grooves on the side pieces. The bottom piece has a lug, S, on its back edge, which, when put in place, slides under the back rail N, holding it in place, passing over and holding

down the interlocking cross-brace when it is made, as shown at m^2 , thus locking the whole desk together without screws or costly fitting. The bottom piece O may be made of cast metal, with reticulated openings. A pen-trough, o, may also be formed in its front edge. The top P of the desk, Figs. 1, 3, and 10, has hooks p or flanges on its under side, hooking over flanges or moving in grooves on the side pieces, so as to allow the top to slide forward when desired to bring its front edge closer to the occupant, enabling him to sit back in his seat, which firmly and gently supports his whole spine, without danger from compressions of muscles, the nerves, veins, arteries, or lymphatics, enabling him to use his arms as braces resting upon the correctly-proportioned desk-top, assisting in the support of the superincumbent weight of the head and contents of the chest, and to shove back the top when desiring to leave the seat or change position. The back edge of the top is concave to accommodate the occupant of the desk-seat.

My improved desk, it will thus be seen, while rigid when in position, can readily be taken apart, thus affording great facilities for transportation. The desk, it will be observed, extends well back of its supports, thus leaving room for the feet of the pupil. My mode of constructing desks is exceedingly simple, and as no screws are necessary to hold the desk together rigidly, it is a very cheap method of putting them up. I propose to make the tops of my desks of iron or of wood, as desirable; if made of iron, to japan, enamel, or marbleize them.

The seat-frame A, Fig. 1, is pivoted at a to a wall-bracket, A'. A projecting lug, a^1 , on the seat-frame abuts against a stop, a^2 , on the bracket or wall, and limits the descent of the seat below a proper level. This lug and stop are shown in dotted lines. A shoulder bracket or rail, B, is secured to the wall above the seat-bracket, its connecting cross-bar being, by preference, made concave, to accommodate the natural curvature of the back. A flexible seat and back piece, K', connects the shoulder bracket or rail with the seat-frame. This seat and back piece may be made of any suitable material, similar to that used for the cover k^1 , before described. The seat-frame may have a connecting cross-bar in front, if desired. I deem it better, however, to dispense with this front cross-bar, preferring to brace the side

pieces of the seat-frame back of the seat portion, and to connect them in front solely by the flexible seat-piece.

The seat-piece can be securely held by hooks or buttons on the under side of the front of the side pieces, and on their tops or sides. I prefer to have these fastenings so arranged as to stretch the front portion of the seat tightly from the front backward—say, from one-third to two-thirds the depth of the seat-frame—leaving the back part loose and free to conform to the shape, position, or movement of the sitter, except at the point of attachment at the top of the back piece or rail. A seat thus constructed can readily be folded up out of the way or let down for use; is cool, easy, and accommodating to the sitter, obviating injurious pressure on the muscles, nerves, veins, or arteries.

I claim as my invention—

1. A seat-frame constructed substantially as described, with side pieces connected by a curved bar arranged in rear of the point of attachment of the flexible cover, as set forth.

2. The combination, with the side pieces of the desk or seat, of a pivoted seat-frame, constructed as described, and adapted to receive the flexible cover, as specified.

3. In combination with a seat-frame and fastening piece, N, a flexible seat and back piece tightly stretched across the front of the seat, substantially as described, but loose in the back, as set forth.

4. The combination of the side pieces of the desk or seat L L and the interlocking cross-brace M, adapted to be held in position by the floor, as described, whereby the elements are locked together, as and for the purposes specified.

5. The combination of the side pieces and curved interlocking back piece of the desk, substantially as set forth.

6. The combination of the side pieces, interlocking back piece, and the sliding bottom of the desk, substantially as set forth.

7. The combination, with a desk, constructed substantially as described, of a sliding top, as and for the purposes specified.

In testimony whereof I have hereunto subscribed my name.

JOE V. MEIGS.

Witnesses:

LAURIN MARTIN,
WM. B. RICHARDSON.