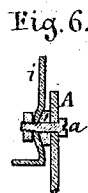
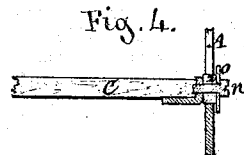
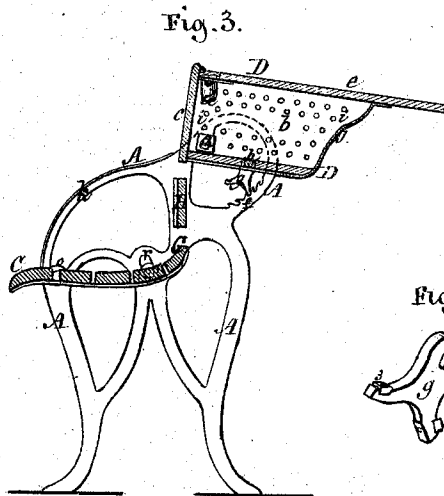
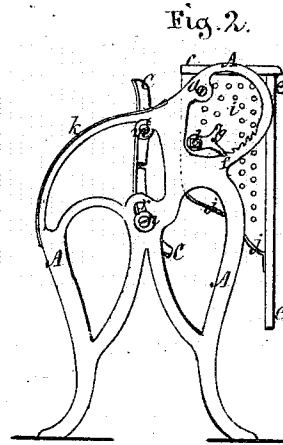
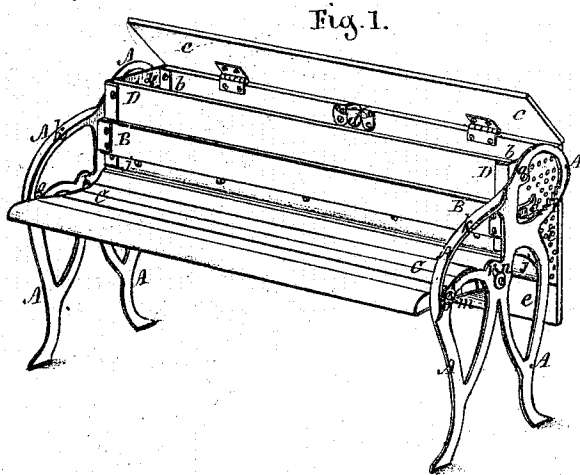


J. Ingels,

School Desk.

No. 102,941.

Patented May 10, 1870.



Witnesses.

H. K. Bygatt }
Edmund Masson } Joseph Ingels.
By his atty. A. P. Loughton.

United States Patent Office.

JOSEPH INGELS, OF MILTON, INDIANA.

Letters Patent No. 102,941, dated May 10, 1870.

IMPROVED SCHOOL-DESK AND SEAT.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, JOSEPH INGELS, of Milton, in the county of Wayne and State of Indiana, have invented certain new and useful Improvements in School-Desks; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 represents the desk in perspective, with the lid slightly raised to show the method of hanging the inkstand therein.

Figure 2 represents an end elevation of the desk as it appears when the top is swung down and the seat raised up, or folded up as it is termed.

Figure 3 represents an end elevation of the desk as it appears when arranged for use and occupation.

Figures 4, 5, and 6, represent detached portions of the desk, which will be hereafter more particularly referred to.

Similar letters of reference, where they occur in the several separate figures, denote like parts of the desk, or desk and seat, in all of the drawings.

My invention relates to a school-desk, or, more properly, a combined desk and seat for school purposes, in which the desk is pivoted so as to be raised up or let down, and held in any adjusted position; and in hanging the inkstand therein or thereto, so that it will in any and all of the positions in which the desk portion may be placed, maintain an upright position; and it further relates to the giving of two bearings to each end of the seat, one in front and the other at the rear, so that the seat may follow the inclination of the body of the occupant as it moves forward or backward thereon.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

The end pieces or supports *A A* are made, for the sake of cheapness and durability, of cast metal, and may be united by a longitudinal strip, *B*, of wood, which serves as a back-support for the occupant of the seat *C*.

Near the upper ends of the supports *A A*, as seen at *a*, are pivots, to or by which the desk portion *D* is hung to said end supports, so as to be raised and held up or lowered, as occasion may require.

The desk *D* is composed of an inclosed compartment, *b*, access to which may be attained by means of the hinged top, cover, or lid *c*; and in said compartment is hung, by trunnions or otherwise, an inkstand, *d*, which is overpoised at its lower end, so that, in whatever position the desk may be placed,

said inkstand will be in a vertical position, mouth upward.

The table *e* of the desk is wider than the opposite side piece of the desk, said table forming, itself, one of the side pieces, and, when this table portion is in a horizontal, or nearly so, position, as seen in fig. 3, the top of the inkstand swings into a position directly opposite an opening through said table, so that, while the inkstand is always within the compartment of the desk, it is readily accessible when the table portion of the desk is in a position in which it can be used for writing.

In the interior edge of the upper portions of the end pieces *A*, as seen at *f*, there are made ratchet teeth, into which swinging and reversible pawls or dogs *g*, fastened to the ends of the desk, may work or catch, so as to hold the desk when down or folded, as seen in figs. 1 2, or up, as seen in fig. 3.

The rod, *h*, on which these dogs or pawls are hung, may extend clear through from end to end of the desk, to strengthen the structure, though not necessarily so, for forming the pivot supports of the dogs or pawls.

I have represented the ends *i i* and the bottom portion *j* of the desk as made of metal. I can, of course, make these parts of other material, when so preferred, without changing the characteristics of my invention.

The seat *C* is supported on two pivots or studs *m n*, at each of its ends; said pivots or studs having seats, which control and define the extent to which the seat can descend, but do not prevent said seat from swinging, on the rear pivots *n*, up into a position like that shown in fig. 2, the rails *k k* of the end pieces serving as guides for the rollers *o o* to run on or against.

When the seat is let down, as seen in fig. 3, it can raise a short distance at its rear, swinging on the front pivots or studs *m*, while the rear pivots or studs *n* move in and through the curved slots *r r* in the end pieces.

The object of the raising and lowering of the rear of the seat is, that the seat may follow or rock, to accommodate itself to the inclination of the body of the user as it is moved forward or backward.

That these desks may be folded up and unfolded, and moved and adjusted without noise, I have interposed rubber disks or cushions at all the moving parts, so that there will be no clatter or noise, when the parts are swung from one position into another. The rubber may be seen at the points marked 1 2 3, and is similarly interposed at *m* as at *n*, so that all these parts may move or come together noiselessly.

Figs. 4 and 6 represent sections broken at or near *n* or *m*, and *a*, and fig. 5 represents one of the double pawls, *g*, on an enlarged scale.

Having thus fully described my improved school-desk or combined desk and seat,

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

In combination with a pivoted desk, *D*, supported on and by the end pieces *A A*, a double reversible pawl on the desk, and reversed ratchet-teeth on the end piece, for holding said desk when up or down, substantially as described and represented.

Also, in combination with a swinging or folding desk, an inkstand suspended thereto so as always to

remain in the same vertical position, whatever may be the position of the desk, and accessible through an opening in the table portion of said desk, as described and represented.

Also, the seat *C*, in combination with the end pieces *A*, when attached thereto by front and rear pivots or studs, on either pairs of which said seat may swing in conforming to the movement of the body of the occupant, or for being folded up out of the way, substantially as described.

JOSEPH INGELS.

Witnesses:

A. B. STOUGHTON,
EDMUND MASSON.