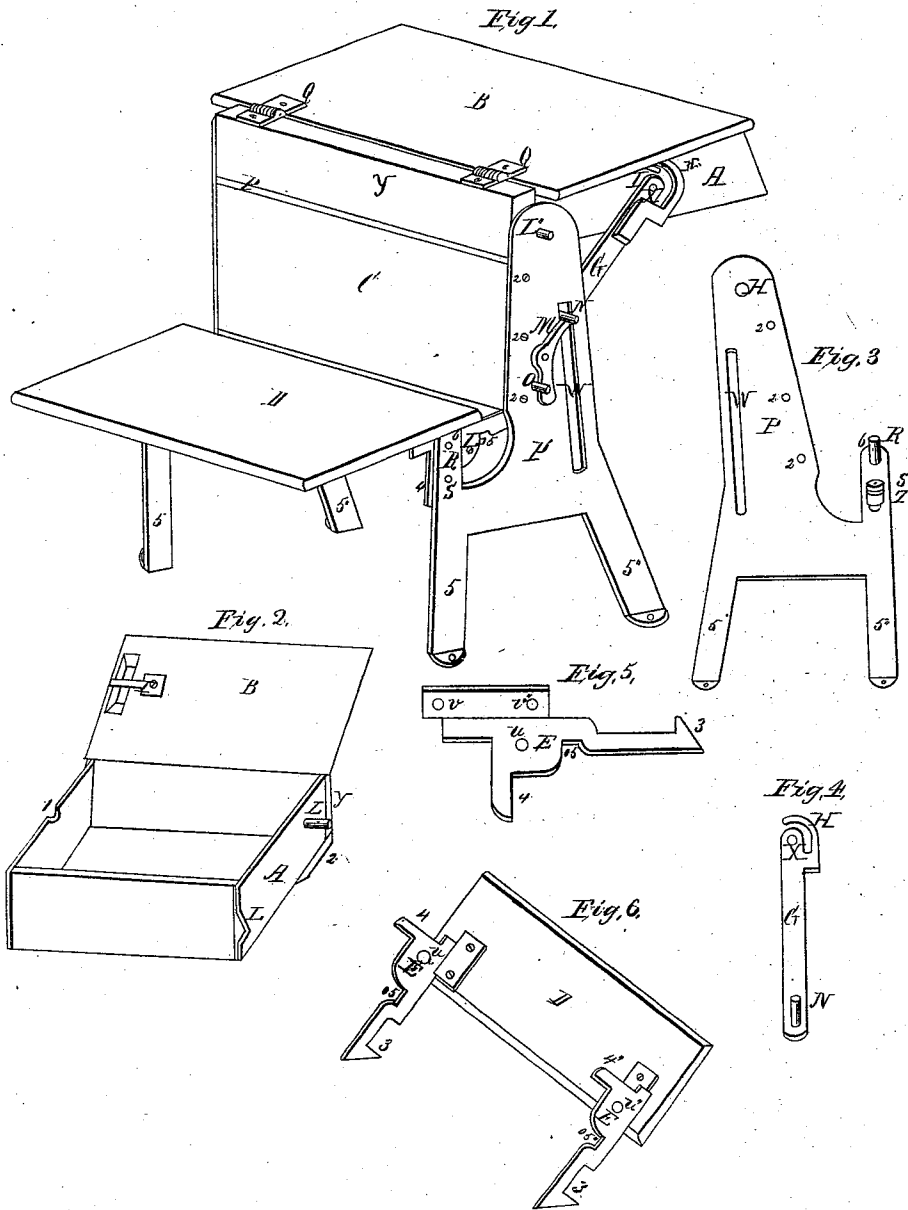


Erwin & Ingdale.

School Furniture.

No 100,276.

Patented Mar. 1, 1870.



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WILLIAM P. ERWIN AND THOMAS A. DUGDALE, OF RICHMOND, INDIANA.

Letters Patent No. 100,276, dated March 1, 1870.

IMPROVED SCHOOL-DESK AND SEAT.

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

We, WILLIAM P. ERWIN and THOMAS A. DUGDALE, of the city of Richmond, county of Wayne, and State of Indiana, have jointly invented certain Improvements in School-Desks and Seats, of which the following is a specification.

Nature and Object of the Invention.

The nature of our invention consists in constructing a school-desk in such a manner that the desk containing the books may be turned or swung down behind the back board, when the said desk is so constructed that a part of the back board is formed by the back of the desk, and that when the desk is turned or swung down, a piece attached to the under side of the desk fills the space vacated in or at the top of the back board, so that when the desk is turned down, nearly the same back is presented as when it is up; and that when the desk is swung down it will just fill the space between the end pieces or legs, thereby occupying the least possible room, which is effected by hinging the desk at the center of the top of the end piece or upright.

Our invention further consists in the manner of supporting the seat in connection with the bearings on which the seat vibrates.

Our invention further consists in providing the upright pieces, at the front side of the legs, with two pins on a vertical line with each other, and furnishing the lower pin with a gum-elastic collar or other flexible substance, against which an arm or arms rest when the seat is in use. One of said arms has a hook at back end which holds the desk when it is down.

Our invention further consists in the manner of securing the lid of the desk by means of a hook, in connection with other devices hereafter described.

Description of Accompanying Drawings, which are contained on plates Nos. 1 and 2.

The same letters refer to corresponding parts in the several figures.

Figure 1, on plate 1, is a perspective view of our school-desk and seat.

Figure 2, on plate 2, is a perspective view of our school-desk detached from its legs and seat, with lid standing up.

Figure 3, on plate 2, is one of two end pieces lying on its side, and viewed from the legs or feet, endwise.

Figure 4, on plate 2, is a brace with a circling hook at its upper end, and a pin at its lower end. This brace is also lying on its side, and viewed endwise.

Figure 5, on plate 2, is one of two braces or supports for the seat, lying on its side.

Figure 6, on plate 2, in the seat turned bottom side up, showing the braces or supports attached.

A is the desk.

B is the lid.

C, the back-board.

D, the seat.

E E' are braces or supports.

F is a notch in the cast-iron end, at the back of the desk, in which the hook 3 catches when the desk is swung down.

G is a brace.

H is a circling hook attached to or may be cast with the brace G, shown attached in fig. 1, and shown cast solid with the brace, in fig. 4.

I is a pin, which may be secured to the lid in any convenient way, around which the hook H turns as the desk is being let down, or a staple may answer the purpose of the pin I, if desired.

K is a hole in the end piece P, there being a corresponding hole in each end piece.

L L' are pins which are inserted in the holes K, and on which the desk swings.

M is a catch or pawl to hold up the brace G, and near the top of the slot W.

N is a pin near the bottom of the brace G, which works by sliding in the slot W.

O is a pin in the end piece P to act as a stop and govern the catch or pawl M.

P P' are end pieces which support the desk A, and which are secured to the back board C by means of screws inserted in the hole Z, or they may be secured in any other convenient way so as to have sufficient strength.

Q Q' are hinges by which the lid of the desk A is secured to the piece y, which forms a part of the back board when the desk is up.

R, upright pieces extending from the two front legs up, and which are provided with pins S and 6.

S, one of the two pins with which the uprights R are provided, and on each of said lower pins is secured a piece of gum elastic or other flexible substance, which is secured by riveting a washer over it on the pin or pins.

T, gum elastic or other flexible substance.

U U' are holes in the braces or supports E to receive the pins 6.

V V' are holes in the flanges of the braces or supports, through which screws are inserted to secure them to the seat.

W is a slot in the end piece P.

X is a hole at the top of the brace G, which vibrates on a pin.

Y is the front of the desk.

Z are holes in the end piece P.

1 is a notch to make room for the pin I.

2 shows the end of a piece secured to the bottom of the desk, which, when the desk is turned down, fills the space occupied by the piece Y when the desk is up.

3 is a hook to catch in the notch F, which holds the desk down.

4 are arms projecting from the braces or supports E E' of the seat, which when the seat is down rests on the gum elastic, T, or other flexible substance, on the pins S.

5 5" are legs.

05 05" are recesses in the braces; E E' should rest against the gum-elastic pieces T, which are on the pins S.

6 is a pin on a vertical line above the pin S on each of the uprights R.

Construction.

We make our desks and seats of good ash lumber, one inch thick, the end pieces of cast-iron. The brace G and hook H are best made of malleable iron, as also the pawl M and braces or supports E E'. The ends of the desk A are made of cast-iron. The hinges for the lid are best of wrought iron.

Operation.

It will be seen that the desk being suspended on the pins L, and having the brace G attached at X, and the pawl M supporting the pin N, the desk is held permanently to its place; and by detaching the pawl M and lowering or swinging the back part of the desk down, the pin N passes down the slot W, and the brace G turning on a pivot at X, the hook H passes around the pin I, and when the desk is down in a vertical position with the end pieces P, the brace G is folded in between the end P and the desk A when the lid of the desk is firmly held by the hook H, when the hook 3 catches in the notch F, when the weight of a person seated on the seat D will hold the desk A, containing the books, firmly, so that it is impossible for any one behind to tamper with the contents of the desk, while the books are free from dust while sweeping the room.

The seat being secured to the braces or supports E E', and the pins 6 being inserted in the holes U U"

the seat D may be turned up against the back board C, and is supported by the gum pieces T on pins S in the recesses 05 05", which will release the hook 3, and the desk A may be raised. And when the seat D is let down, the arms or projecting pieces 4 4" will rest against the gum-elastic pieces T on the pins S, and prevent noise in letting down the seat.

We do not claim simply a folding desk and seat, as we are aware they have been used and are not new.

We are aware that slots, pins, and braces have been used for the purpose of folding the front of the desk down behind the back board, elevating the mouth or back of the desk and leaving it open and exposed.

We are aware that the lids of desks have been fastened by means of spring-locks, common locks, and bolts; we do not claim fastening our desk-lid by any of these means; neither do we claim a hinged lid to a desk, as we are aware that is not new.

Claims.

We claim as our invention—

1. Constructing a swinging desk with the piece Y in connection with the piece 2, pin I, lid B, pins L, and notches F, as described.
2. The combination of brace G, hook H, pin I, pin N, and desk A, for the purpose of securing the lid of the desk when the desk is swung down, and also for holding the desk up.
3. The construction of the braces or supports E E' with the hooks 3 and arms 4, in combination with the pieces R, pins S, and 6, seat D, and gum-elastic pieces T, as described.
4. Securing the desk when swung down, by means of the hooks or catches 3, and notches F, in combination with seat D, constructed and arranged as above described.

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Witnesses:

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