

(No Model.)

A. MOORE.
SCHOOL DESK AND SEAT.

No. 370,554.

Patented Sept. 27, 1887.

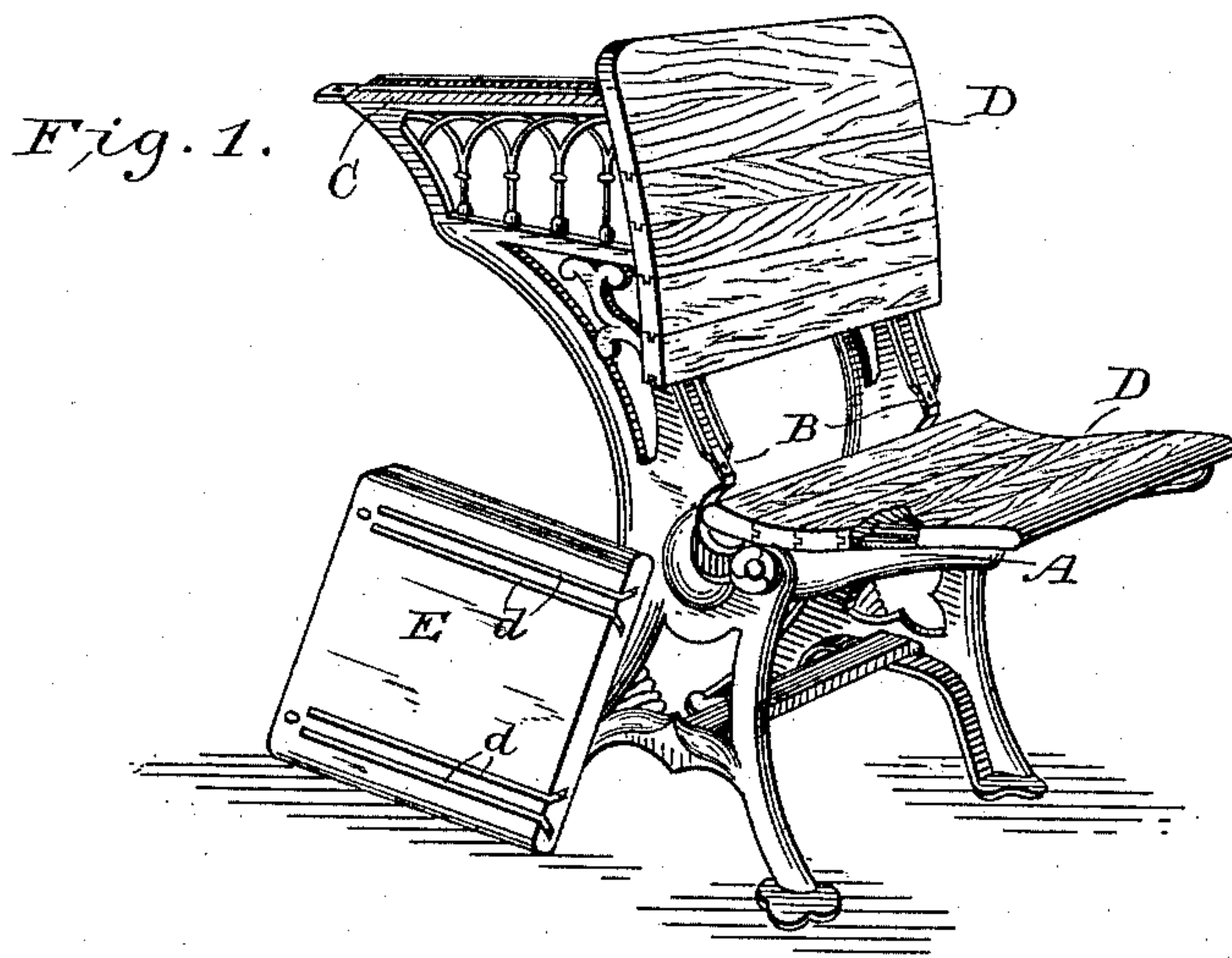


Fig. 4.



Fig. 3.

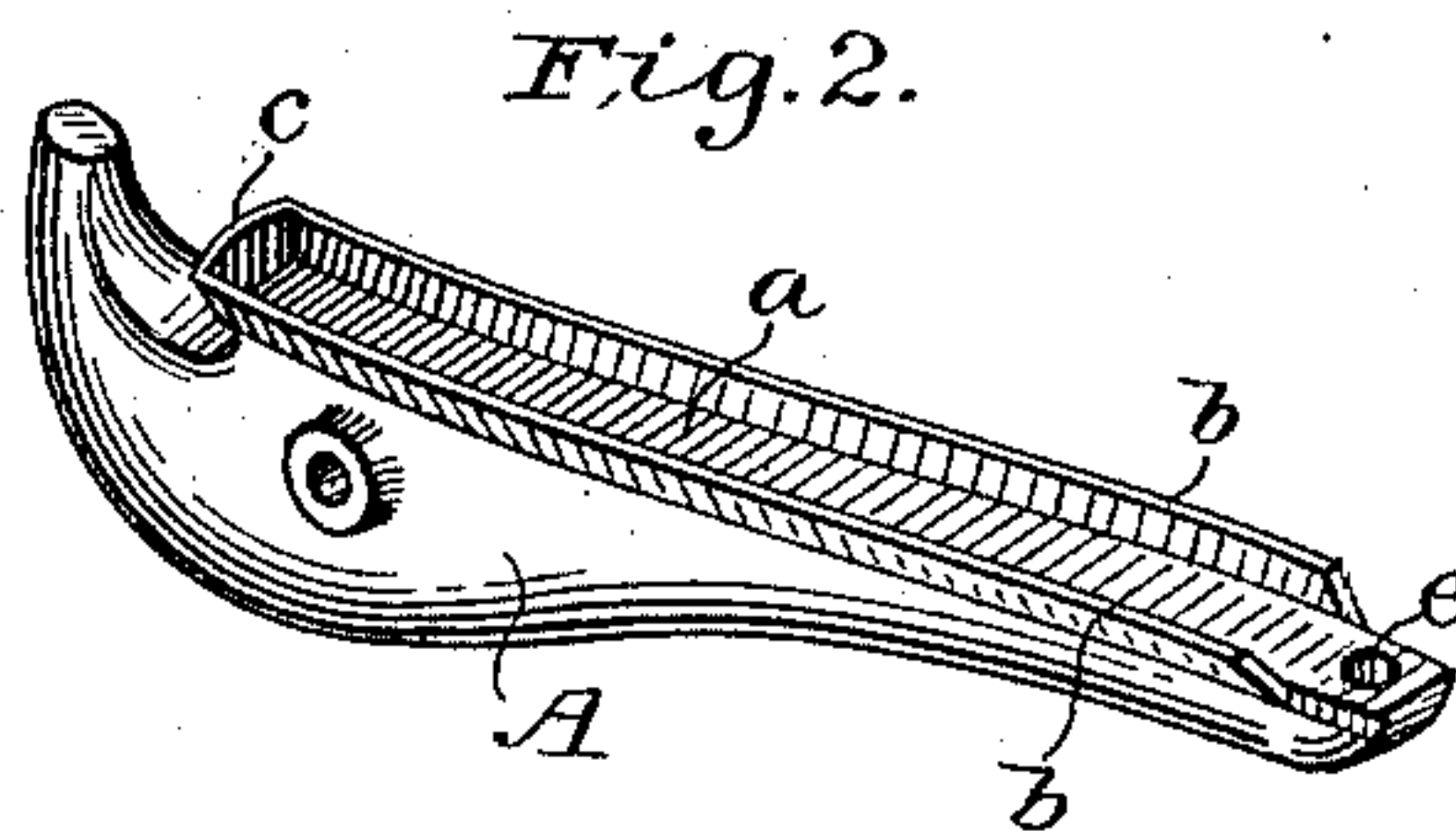
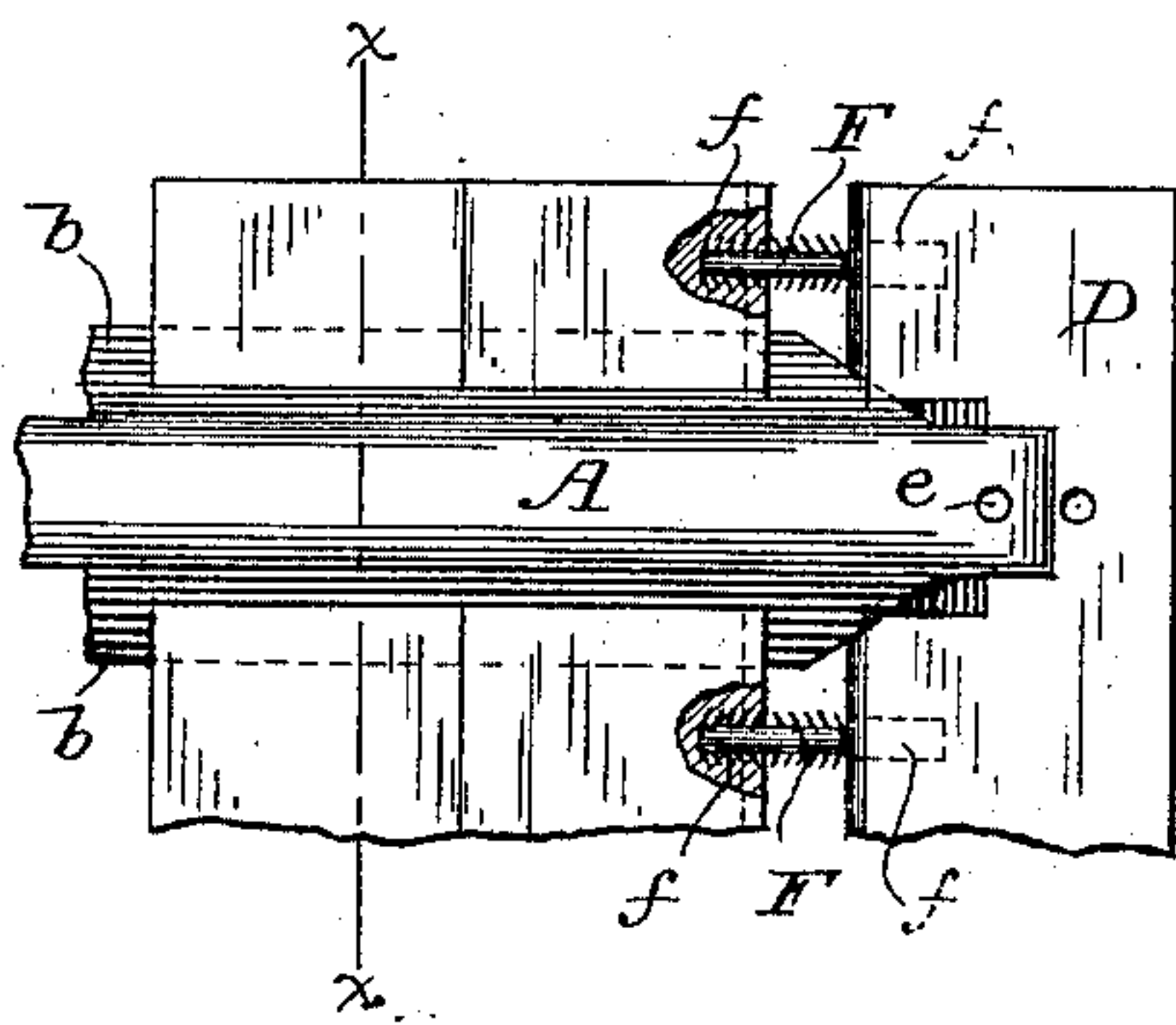
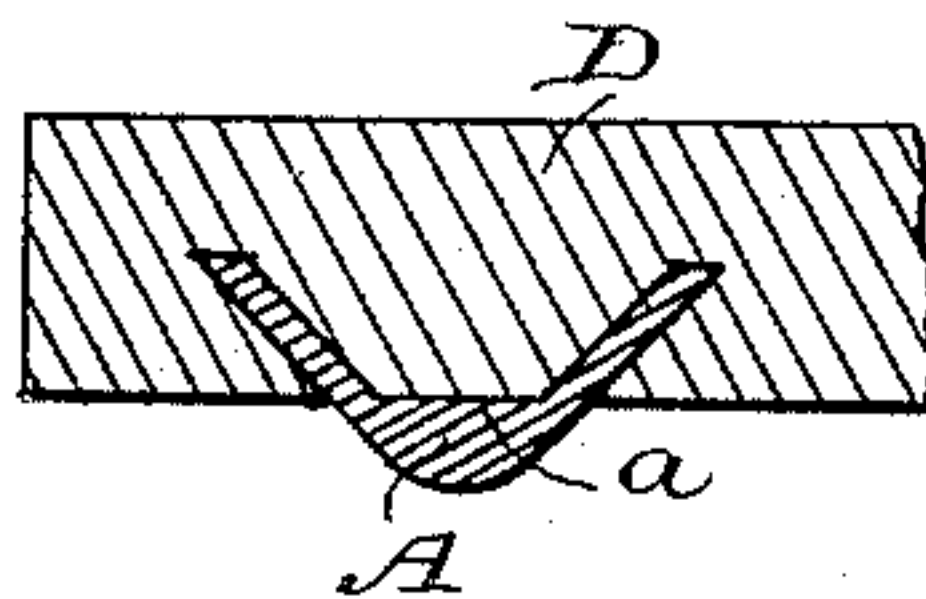


Fig. 5.



Witnesses

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SCHOOL DESK AND SEAT.

SPECIFICATION forming part of Letters Patent No. 370,554, dated September 27, 1887.

Application filed April 14, 1887. Serial No. 234,808. (No model.)

To all whom it may concern:

Be it known that I, ASBURY MOORE, a citizen of the United States of America, residing at Sidney, in the county of Shelby and State of Ohio, have invented certain new and useful Improvements in School Desks and Seats, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to school desks and seats; and it consists in the novel means hereinafter described for securing the seat, back, and top to the frame, and also in the means for securing together the slats composing the seat and back.

In some desks and seats of modern construction the seat-arms, back-standards, and top-ribs are cast with either dovetail or T projections, and the wooden portions are formed with corresponding grooves, with which the projections engage for holding the wood-work to the frame, the wood-work of the seat and back being composed of slats, usually tongued and grooved together. Any construction involving either dovetail or T grooves has its objections in that, first, the grooves are difficult to cut; secondly, when cut, they materially weaken the slats, and, thirdly, by reason of the peculiar form of these grooves, a slight shrinkage of the wood causes the slats to become loose on the frame. Unless the slats are held firmly together, shrinkage will cause gaps at the joints.

All the above-mentioned objections have been overcome by my invention, which I will now proceed to describe, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a combined desk and seat, showing the construction of the seat-arms, back-standards, and top-ribs. Fig. 2 is a perspective view of one of the seat-arms. Fig. 3 illustrates the manner of attaching the slats to the frame, and also the means of securing the slats together, viewed from the under side. Fig. 4 is a side view of one of the barbed studs for securing the slats together. Fig. 5 is a cross-section taken on the line $\alpha \alpha$ of Fig. 3.

Referring to the drawings, A represents the seat-arms, B the back-standards, and C the top-ribs, all of cast metal, as usual. The up-

per surface of each of these parts of the frame is flat, as seen at a , and above this flat portion, on either side, rises a flange, b , these flanges standing at an inclination of about forty-five degrees from the plane of the flat surface, and extending nearly the whole length of the arm, standard, or rib, as seen in Fig. 2. Another flange, c , rising vertically from the face of the arm, standard, or rib, joins the flanges b and forms a stop for the wood-work.

D represents the slats composing the seat and back, and E the board which forms the top of the desk. In these pieces near each end are cut gains d at such an inclination and at such a distance apart as to fit snugly over the flange b on the frame, that portion of the wood-work lying between each set of gains having a firm bearing on the flat top surface of the arm, standard, or rib, as seen in Fig. 5. These gains may be easily, rapidly, and accurately cut by means of saws or gaining-heads, as will be readily understood by the mechanic.

F represents a small steel stud, barbed in opposite directions from its longitudinal center, the purpose of which will presently appear. It is desirable for several reasons that the slats of the seat and back should be put together at the factory, and in order to prevent them from parting at the joints by shrinkage when once put together I bore small holes in their meeting edges, and into the holes in one slat I drive one end of the studs F, and over the other end of the studs I drive the adjoining slat. It will be readily apparent that any tendency of the slats to pull apart will be at once arrested by the barbs on the studs sinking into the wood.

The wood-work is driven over the flanges b of the frame until one side abuts against the flange or stop c , and its other side is then secured by screws passed through perforations e in the arm, standard, and rib.

I am aware that it is common to join boards together by means of a slide made in the form of a cross, (the wings of the slide taking into gains cut in the boards,) and having angular ribs in the angles formed by the wings, for the purpose of counteracting cramping due to swelling of the wood. Such a slide would not answer my purpose for the reason that it is adapted to run only lengthwise of the board,

and it would therefore be necessary to have one slide for each joint. As the seat is made up of a series of slats, it is apparent such a fastening device would be impracticable. I
5 am also aware that metal strips having inclined wings for taking into gains cut in flooring-boards and the like are old; but they are provided with no means at their ends for securing the boards against lateral movement.
10 I make no claim, broadly, to either of the above-mentioned devices; but,

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

15 The combination, with a portion of the frame having a flat upper surface perforated at one end and provided with an outwardly-inclined and upwardly-extending flange on

either side of said surface and a vertical flange joining the rear ends of the inclined 20 flanges, of the wood-work forming the seat, back, or top, having inclined gains corresponding with and adapted to fit over the inclined flanges, that portion of the slat lying between the gains having a firm bearing on said flat 25 surface of the frame, and a screw or other suitable device to pass through the perforation in the frame and take into the wood, substantially as described, and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ASBURY MOORE.

Witnesses:

J. A. THROCKMORTON,
D. OLDHAM.