

L. A. CHURGAY.
SCHOOL FURNITURE.
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1,042,397.

Patented Oct. 29, 1912.

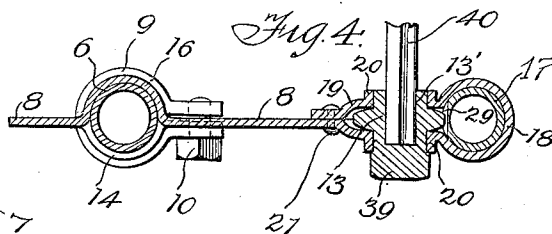
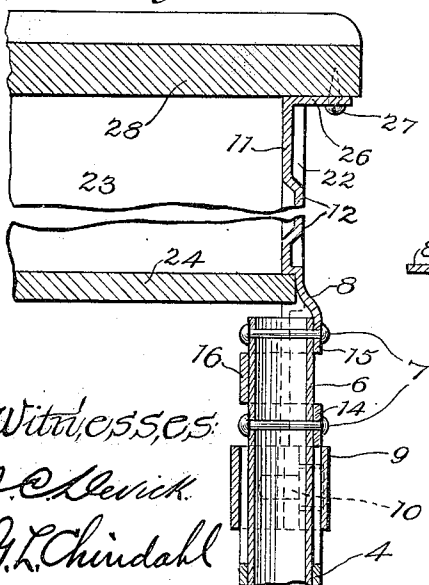
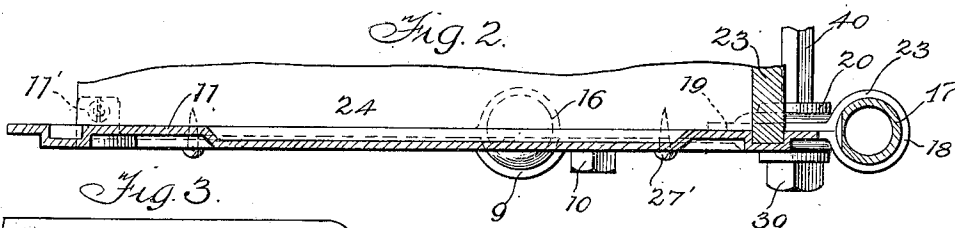
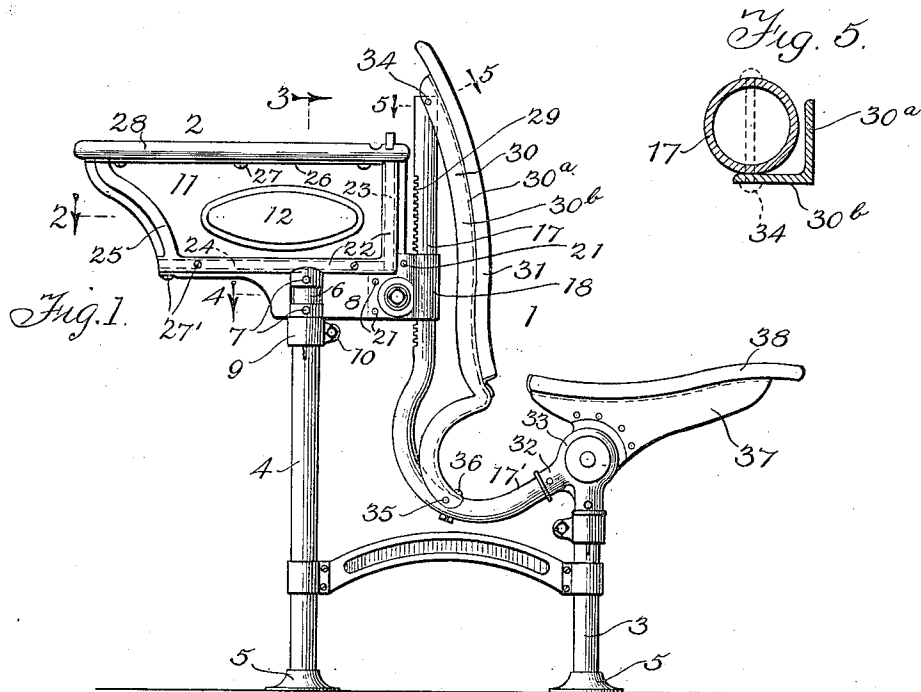
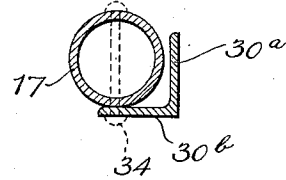


Fig. 5.



Witnesses:
J. C. Klevick
G. L. Chindahl

Inventor:
Louis A. Churgay.
By Luther L. Miller,
Att'y.

UNITED STATES PATENT OFFICE.

LOUIS A. CHURGAY, OF BUFFALO, NEW YORK, ASSIGNOR TO SEARS, ROEBUCK AND CO.,
OF CHICAGO, ILLINOIS, A CORPORATION OF NEW YORK.

SCHOOL FURNITURE.

1,042,397.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LOUIS A. CHURGAY, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in School Furniture, of which the following is a specification.

My invention relates to improvements in the general type of combined seat and desk disclosed in my pending application No. 596,191, filed December 8, 1910.

The principal object of my invention is to provide a combined seat and desk embodying greater strength and simplicity and enabling cheaper construction than those heretofore disclosed.

Another object is to combine the various necessary structural elements of an adjustable seat and desk into a smaller number of integral parts than heretofore disclosed.

I also aim to combine the end wall, preferably of ornamental design, adjusting bracket, and means for attachment to a locking desk standard, all in a single group adapted to be stamped integrally from a plain sheet of metal.

Still another object is to provide an improved and simplified framework for the seat backboard of my said combined seat and desk.

Further, my invention consists in various details of construction and in combination of parts, as hereinafter more fully described.

As the general type of desk referred to is described quite fully in my said pending application, I will largely restrict this present specification to the particular features covered by my present invention.

Referring to the accompanying drawings in which I have disclosed in considerable detail certain features of a preferred embodiment, and in which like reference numerals refer to like parts, Figure 1 is a side elevation of my improved combined seat and desk assembled complete. Fig. 2 is an enlarged sectional plan view of the right hand end of the desk along line 2 of Fig. 1. Fig. 3 is an enlarged vertical longitudinal section of the desk along the line 3 of Fig. 1. Fig. 4 is an enlarged horizontal section of the right-hand end of the desk framework along the line 4 of Fig. 1. Fig. 5 is an enlarged cross-section of the chair-back framework on the line 5 of Fig. 1.

In a general way my improved device comprises a seat designated by the numeral 1, combined with a desk indicated by numeral 2. Each of these parts is supported by a pair of standards 3 and 4, one at each end of said seat and desk, respectively, set in flanged feet 5 suitable for fastening to the floor. At the top of the several standards means are provided for adjustably attaching the seat and desk elements respectively for vertical adjustment.

Referring now to the desk, I will explain that the upper end of the standard 4 telescopically engages a vertically reciprocable tubular element 6 which is permanently attached by rivets 7 to the bracket 8 which is dependent from the outer end of the desk. The desk is fixed in adjusted position by means of a clamping ring 9 which is provided with a screw 10 for tightening same, said ring fitting around the slotted upper end of standard 4 in which the tube 6 is adapted to reciprocate.

Referring to the end construction of the desk, it will be noted that the end wall panel 11, preferably having stamped therein some artistic or ornamental design 12, and bracket 8 to which the telescopic tube 6 is permanently attached, and which also contains a pinion element 13 for adjusting the relative position of the desk and seat, is stamped integrally from a single piece of sheet metal.

The means for attaching the said tube 6 to the bracket 8 is well shown in Figs. 1 and 3. It will be seen that strap elements 14 and 15 are punched outwardly and an intermediate corresponding strap 16 is punched inwardly, thus making a kind of socket into which the tube 6 is fitted and then fastened by the rivets 7 heretofore mentioned.

The forward end of bracket 8 is constructed as follows: The main body web which lies in a vertical position extends forward, forming a guide loop 18 around the rack element 17, which constitutes a part of the back of the seat. After forming the loop the end 19 of the web extends back and cooperates with the forwardly extending part to form a bearing 20 for the horizontally rotatable adjusting pinion 13, the two thicknesses of the folded web providing between them a space 20^a to receive the pinion. The end 19 of said web element is fastened by rivets 21 to the main body of the bracket.

The end wall 11 has stamped in it a suitable groove or rib 22 adapted to receive the ends of the backboard 23 and the shelf board 24. A perforated lug 11' integral with end panel 11 extends under shelf 24. A stiffening rib 25 is also stamped in panel 11 near the edge away from the seat. The upper edge of this end wall has a horizontal flange 26 turned outwardly thereon with means such as screws 27 for fastening to it the top desk board 28. Screws 27' engaging panel 11 are provided to fasten shelf 24 in place.

Referring now to the seat, the back of same comprises a pair of upwardly extending rack elements 17, having rack teeth 29 adapted to co-act with pinions 13, and a pair of specially formed angle bars 30 adapted to support the backboard 31 of the seat. The lower end of rack bar 17 bends forward, forming the loop 17' the end of which fits into and is held by a branch 32 of the seat hub 33. The said angle bars 30 comprise webs 30^a and 30^b. The backboard of the seat is attached to the former, and the latter extends backward therefrom. These angle bars are attached to adjacent parts of the corresponding bars 17. Each is attached at the top by means of a rivet or the like 34 through flange 30^b, and at the lower end by suitable means, such as rivets or screws 35 and 36 through the flanges 30^b and 30^a, respectively. The upper portion of this angle bar is curved in accordance with the usual form for ordinary chair backs, while the lower portion thereof is curved abruptly backward and then downward so as to provide for turning up the seat. The latter consists of hinged brackets 37 supporting the seat board 38, which extends backward slightly beyond the center line of the standards 3 and the pivot hub 33.

Referring to the rack and pinion, it will be seen that the pinion element 13 is provided with a squared head 39 adapted to be turned by an ordinary wrench, while on the other end, facing the inside, is a squared

cavity 13' adapted to receive the end of a correspondingly squared connecting rod 40 extending across to a similar pinion on the opposite side of the desk. In order to effect adjustment it is necessary to loosen the clamping rings on either the desk or seat, as, for instance, 9 on the desk. Then by means of turning the pinion 13, adjust the height of the desk to the point desired. Then after tightening up the ring 9, the corresponding rings on the seat standard may be loosened, whereupon further operation of the seat pinion 13 will enable a proper adjustment of the seat, after which the seat ring may be tightened.

Well knowing that modifications may be made by those skilled in the art without departing from the spirit of my invention, I do not wish to limit the same to the precise constructions herein set forth.

Having thus described my invention, I claim:

1. In a combined seat and desk, an integral metal end element comprising an end wall, a bracket extending downward therefrom on which are stamped a plurality of straps forming a socket and on which there is also a journal bearing on the end adjacent the seat; an adjustable upright standard adapted to engage said socket; a pinion rotatably supported by said bearing; and a seat having a vertical reciprocatory rack co-acting with said pinion.

2. An element for a combined school seat and desk consisting of a sheet-metal plate having upon one side grooves to receive the bottom and back of a desk box, said plate being formed below said grooves to provide a socket, and a portion of said plate being folded upon itself to provide a guide loop and a pinion-receiving space.

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

LOUIS A. CHURGAY.

Witnesses:

H. M. FRANK,

F. A. ANDERSON.