

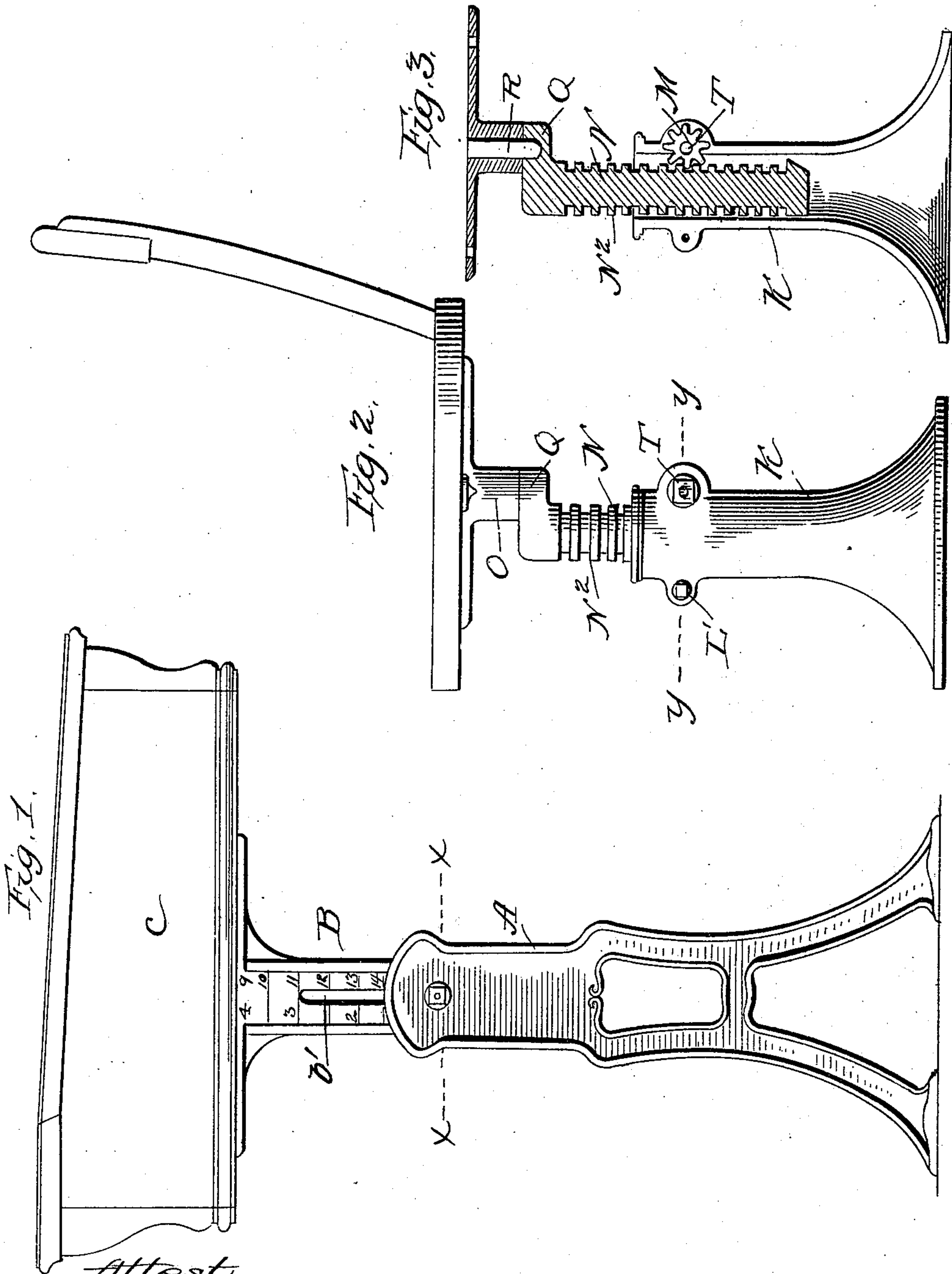
(No Model.)

2 Sheets—Sheet 1.

A. D. LINN.  
SCHOOL SEAT AND DESK.

No. 567,105.

Patented Sept. 1, 1896.



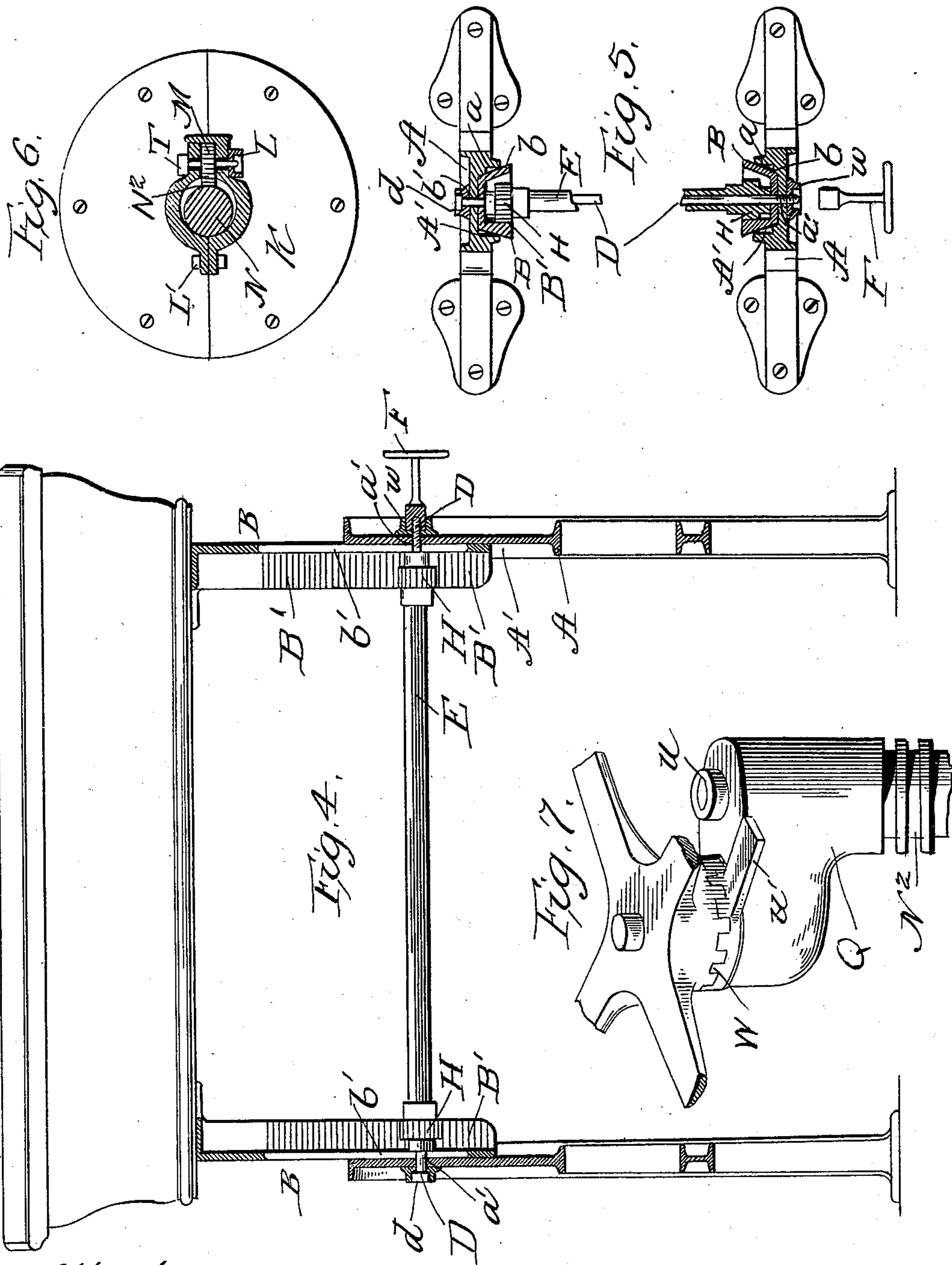
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by S. L. Spear  
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# UNITED STATES PATENT OFFICE.

ALLEN D. LINN, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR TO THE GRAND RAPIDS SCHOOL FURNITURE COMPANY, OF SAME PLACE.

## SCHOOL SEAT AND DESK.

SPECIFICATION forming part of Letters Patent No. 567,105, dated September 1, 1896.

Application filed September 11, 1895. Serial No. 562,168. (No model.)

*To all whom it may concern:*

Be it known that I, ALLEN D. LINN, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in School Seats and Desks, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in school seats and desks; and the object of the invention is to provide a construction in which the desk may be easily and quickly adjusted to any desired height and when so adjusted may be securely held in place with the least possible strain upon the parts, and, further, to provide a turning or pivoting seat which may be quickly adjusted toward and from the desk, means being provided whereby the seat is prevented from turning sufficiently to cause the back to come in contact with the desk.

The invention consists in the construction hereinafter described, and particularly pointed out in the claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the desk. Fig. 2 is an elevation of the chair. Fig. 3 is a vertical section through the chair-standard. Fig. 4 is a front view of the desk, partly in section. Fig. 5 is a section of the desk-standard, taken on line *xx* of Fig. 1. Fig. 6 is a section of the chair-bracket on line *yy* of Fig. 2. Fig. 7 is a perspective view illustrating the stop for limiting the turning movement of the chair.

Referring first to the desk, the brackets B, which carry the box-desk *c*, are fitted to slide in grooves or ways A' in the standards A. The outer side faces of these brackets B are preferably inclined or beveled, as shown at *b*, Fig. 5, and bear against the sides *a* of the grooves in the standard. A rod D extends through slots *b'* in the brackets and through openings *a'* in the standards, said rod being provided with a bearing-head *d* at one end and a nut *w*, threaded upon the opposite end, as hereinafter described. A sleeve E surrounds this rod between the two brackets and is provided at each end with a gear-pinion

H, which meshes with a rack B', formed on the inner face of bracket B. The portion of the sleeve adjacent to the gear is squared, so that, when the parts are loosened, a suitable wrench may be applied thereto and the sleeve turned to cause the gears to engage the racks on the brackets and thus raise the desk. After the desk has been adjusted to the proper height the nut *w* is screwed down upon the end of the rod by means of a suitable wrench, such as that shown at F, and the bracket is thus clamped tightly into the groove in the standard.

The sleeve is accurately fitted to the space between the brackets and resists any inward movement thereof during the clamping action, and the rod and sleeve therefor not only serve as a lifting and clamping device, but also as a brace, giving strength and rigidity to the parts.

In order that the desk may be quickly and accurately adjusted to the proper height to suit the age of the pupil, I graduate the brackets, as shown in Fig. 1, one set of numerals, "1234," being provided extending upwardly and serving to indicate the heights corresponding to the common school-desks, and another set of numbers, "9101112," &c., extending downwardly and indicating approximately the age of the scholar for whom the desk would be adjusted.

The improved seat which I have designed to use with this desk comprises a divided pedestal K, which receives the seat-support N. This support is provided with a rack N<sup>2</sup>, which is engaged by a pinion M, keyed or otherwise secured on a headed bolt T, provided with a clamping-nut L. The opposite side of the pedestal is clamped by a nut and bolt I'.

When the chair is to be raised or lowered, the clamping-nut being loosened, a wrench is applied to the head T' of the bolt T and the chair may be quickly adjusted to the proper height while the child is seated thereon, after which the clamping-nut is tightened, drawing the sides of the pedestal tightly against the pinion and holding it securely against movement.

In order to provide for a limited amount of adjustment of the seat proper toward and



from the desk, the rack is formed entirely around the seat-support, so that it may be rotated without disengaging the teeth from the gear, and the upper end of the support  
 5 is provided with an offset portion Q, upon which the chair-bracket O is rotatably supported by a central spindle R. Usually an eccentricity of an inch is found sufficient to give the desired range of adjustment. Thus  
 10 the chair may be quickly adjusted to the proper height, and then by the eccentric support the necessary lateral adjustment may be effected to bring the pupil to the desired distance from the desk.

15 In order to prevent the chair from being swung around against the desk, a bumper *u* is provided on the support, which is engaged by a stop *u'* connected with the seat-bracket. A clutch W is interposed between the stop  
 20 and the seat-bracket, so that as the standard is turned to give lateral adjustment to the chair the seat may be raised to disengage the clutch and set in a position to just clear the edge of the desk.

25 I claim as my invention—

1. An adjustable school-desk comprising the standards having grooves or channels in their upper ends, brackets supporting the desk and fitted to the grooves in the stand-  
 30 ards, the said brackets being channeled on their inner faces and having racks within the channels, a rod extending through the brackets and standards, and a sleeve surrounding the rod but of less length than the said rod,

the ends of said sleeve extending into the 35 channels of the brackets and bearing against the inner faces of said brackets, gears on said sleeve meshing with said brackets, and means for manipulating the rod to tighten and loosen the parts, substantially as described. 40

2. In combination, a pedestal, a rotatable shank having an offset or projection at its upper end extending to one side of the center of the shank, and a seat-bracket swiveled centrally of said offset whereby the shank 45 may be rotated to adjust the seat in its relation to the desk and the seat itself be permitted independent rotation, substantially as described.

3. In a seat the combination with the pedes- 50 tal of the rotatable and vertically-adjustable shank having an offset at its upper end, the seat journaled on the end of said offset, stop-arms carried by the seat and a projection or stop on the offset arranged in the path of said 55 stop-arms, substantially as described.

4. In combination, the pedestal, the rotatable shank, the seat-bracket eccentrically journaled thereon, and the stops adjustably connected with the seat-bracket, substantially 60 as described.

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

ALLEN D. LINN.

Witnesses:

L. T. GIBSON,  
 J. H. MEGREW.