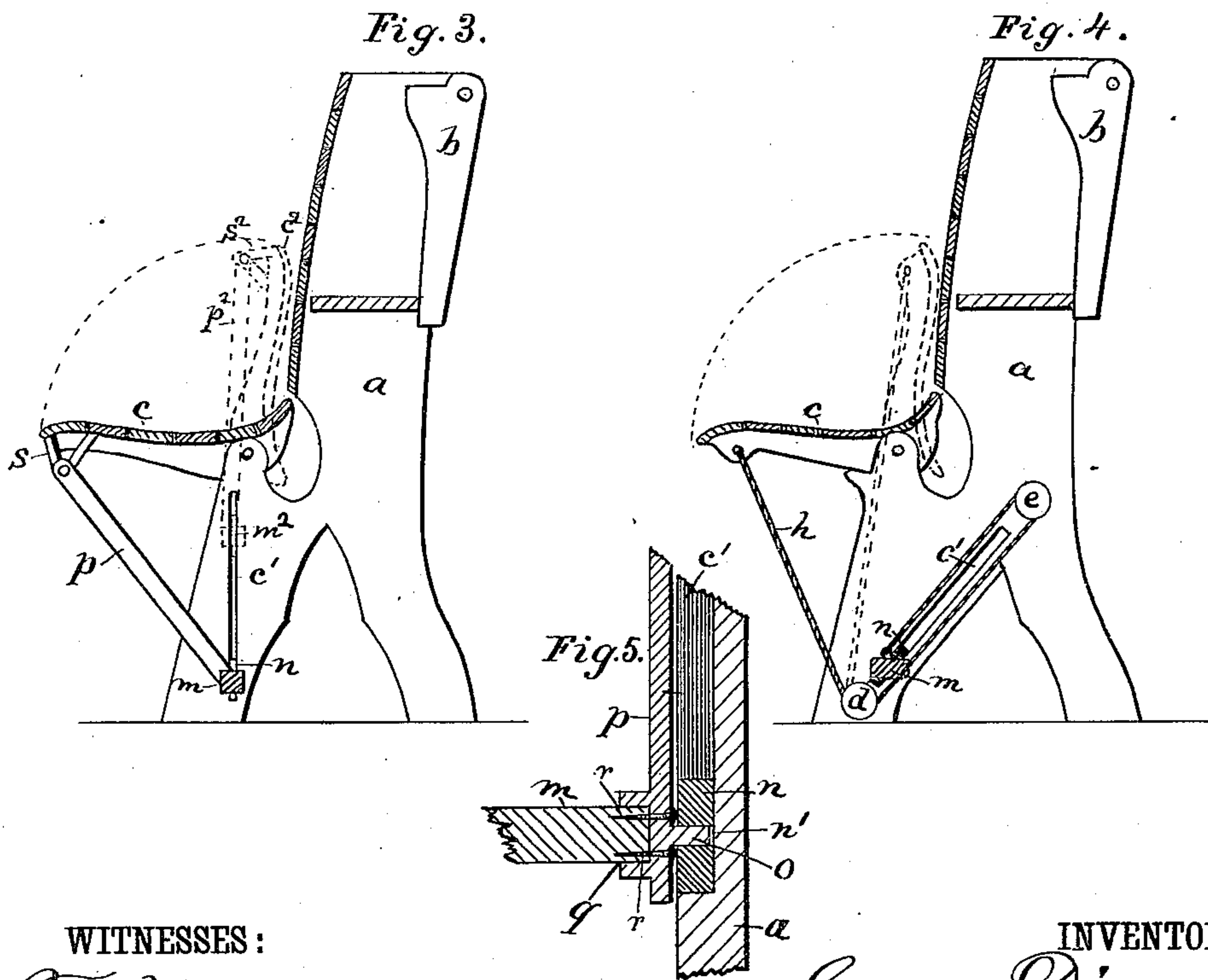
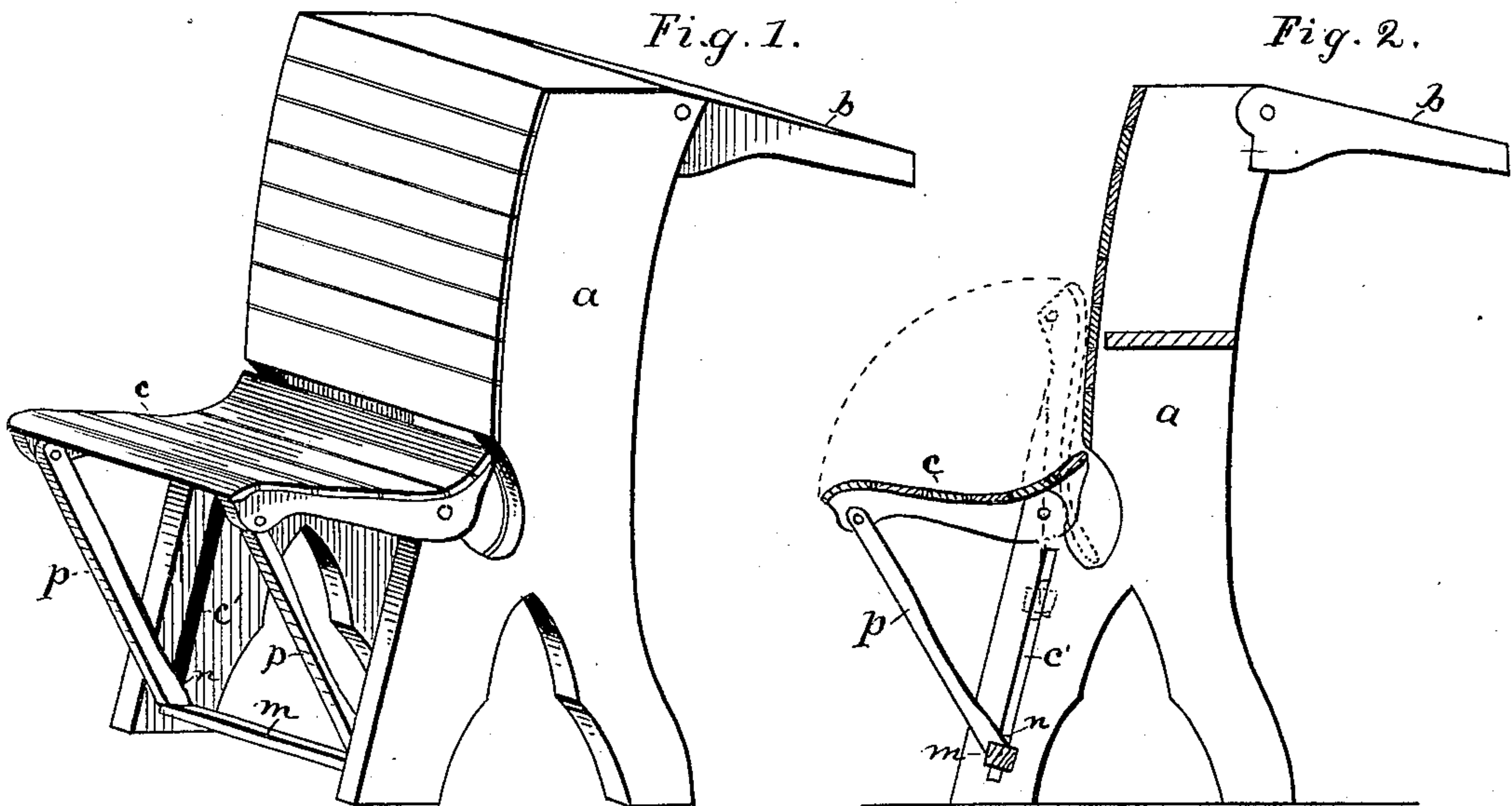


(No Model.)

G. DINSMOOR.
SCHOOL DESK.

No. 258,721.

Patented May 30, 1882.



WITNESSES:
Thos. Houghton.
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UNITED STATES PATENT OFFICE.

GORDON DINSMOOR, OF KIRKSVILLE, MISSOURI.

SCHOOL-DESK.

SPECIFICATION forming part of Letters Patent No. 258,721, dated May 30, 1882.

Application filed February 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, GORDON DINSMOOR, of Kirksville, in the county of Adair, State of Missouri, have invented a new and Improved School-Desk; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of my improved school-desk. Fig. 2 is a vertical section. Fig. 3 is a vertical section with the grooves in the desk-frame vertical. Fig. 4 is a vertical section of a modification of my invention, and Fig. 5 is a detail view.

My invention relates to improvements in school-desks; and it consists of a foot-rest sliding in grooves in the desk-frame and connected with the front edge of the hinged seat, whereby the hinged seat and foot-rest are simultaneously raised and lowered, as hereinafter more fully set forth.

In the accompanying drawings, *a* represents the frame of a school-desk, provided with a hinged desk, *b*, and a hinged seat, *c*, of the usual construction, for the occupant of the desk in front of that described. The inner faces of the lower ends of the sides of the desk-frame *a* are each provided with inclined or vertical grooves *c'*, lying parallel and opposite each other, which may be cast in the sides of the desk-frame; or separate pieces provided with grooves may be formed and secured to the sides of an ordinary desk-frame, opposite each other, to adapt the device to desk-frames of the ordinary construction in use.

nn represent short rectangular slides adapted to move up and down in the grooves *c'*, and each provided with a round hole, *n'*, at its middle for the reception of the gudgeons or pins *o o*, which may be driven into the ends of the foot-rest *m* and be adapted to turn in the holes *n'* in the slides *n*. In lieu of driving the gudgeons *o* into the ends of the foot-rest, they may be each formed on the end of a casting and the latter secured to the end of the foot-rest.

p p represent two rigid arms or bars, having their upper ends hinged to the inner side of the hinged seat-frame and their lower ends secured firmly to the foot-rest *m* near its ends. The back faces of the bars *p p* should be

curved or cut out so as to fit the curve of the seat when raised. The rigid arms *p* may be mortised to the foot-rest *m* at their lower ends, or may be made to extend below the end of the foot-rest, and each have a gudgeon or pin, *o*, cast on its outer face, near its lower end, and each provided on its inner face with a recess, *q*, for the reception of the ends of the foot-rest, which is secured in the recess *q* by screws *r* running in the direction of the grain of the wood of the foot-rest. The recess or mortise *q* in the rigid arms *p* should be cast so as to act as a band for the end of the foot-rest, so that the latter can be driven into it. When the seat is lowered the foot-rest slides down with it, ready for the use of the person just back. The rigid arms *p p*, which convert the circular movement of the front of the hinged seat *c* into rectilinear motion, serve also as braces to support the front of the seat, where the leverage is greatest. If the position of the grooves *c'* inclining forward should bring the foot-rest too far forward for the convenience of the person in the seat in rear using it, then the grooves may be placed in a vertical position, and thus bring the foot-rest farther back. This would render it necessary to lengthen the braces or arms *p p*, or else fasten their upper ends lower down. The latter plan is the better one, and may be accomplished thus: Arms *s* are secured to the outer ends of the seat frame *c*, as shown in Fig. 3, making the distance from the lower end of each arm *s*, where the rigid arm *p* is hinged to the center of the arc described by the seat, equal to that from the upper end of the arm *s* to the center of the arc. When the seat is raised the parts *p*, *m*, *c*, and *s* occupy the positions *p'*, *m'*, *c'*, and *s'*, respectively. By this construction a foot-rest is afforded which cannot be removed by the janitor, and the seat is braced when it is lowered by the arms, and when the seat is raised the foot-rest is simultaneously raised and out of the way of the sweeping of the janitor, and the whole construction is so simple as not to be liable to get out of order.

As a modification of my invention (see Fig. 4) for raising and lowering the hinged seat *c* and the foot-rest simultaneously, I employ pulleys *d* and *e*, journaled in the desk-frame, around which passes a cord, *h*, secured at its

outer end to the seat-frame and fastened at its opposite end to the foot-rest *m*, adapted to slide in grooves *c'* in the desk-frame. By this construction the seat and foot-rest are raised and
5 lowered simultaneously; but the seat is not braced, as when lowered by the rigid arms *p*.

In lieu of grooves in the desk-frame, there may be ridges in the desk-frame and corresponding grooves in the slides.

10 What I claim as my invention is—

1. The combination, with a desk-frame provided with grooves in its sides, and a seat hinged to the desk-frame, of a foot-rest sliding in said grooves, and means, substantially as described,
15 for connecting the foot-rest and hinged seat, whereby the foot-rest and seat rise and fall simultaneously, as specified.

2. The combination of the desk-frame *a*, provided with grooves *c'*, foot-rest *m*, hinged seat
20 *c'* rigid arms *p*, secured to the foot-rest at their lower ends and hinged to the seat-frame at

their upper ends, substantially as described, and for the purpose set forth.

3. The combination of the desk-frame *a*, provided with vertical grooves *c'*, foot-rest *m*, slides
25 *n*, hinged seat *c*, provided with rigid arms *s*, and rigid arms *p*, secured to the foot-rest at their lower ends and hinged to the lower ends of the arms *s* at their upper ends, substantially as set forth.

4. The combination, with the desk-frame *a*, provided with grooves *c'*, hinged seat *c*, slides
30 *n*, and sliding foot-rest *m*, of the rigid arms *p*, hinged to the seat-frame at their upper ends, and provided with the gudgeons *o o* and mortises *q q* and screws *r r*, substantially as described, and for the purpose set forth.

GORDON DINSMOOR.

Witnesses:

C. R. STEPHENS,
SILAS DINSMOOR.