

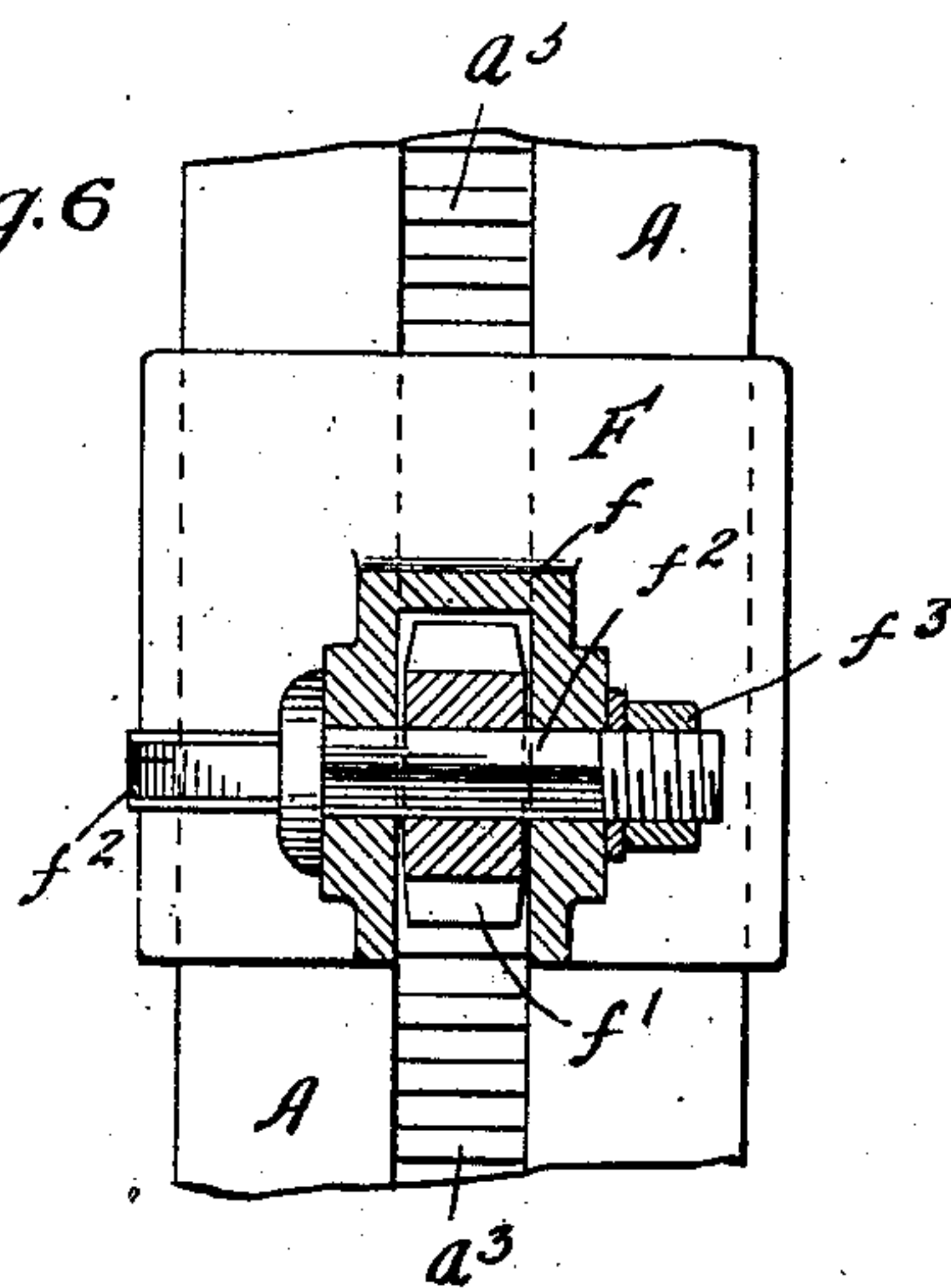
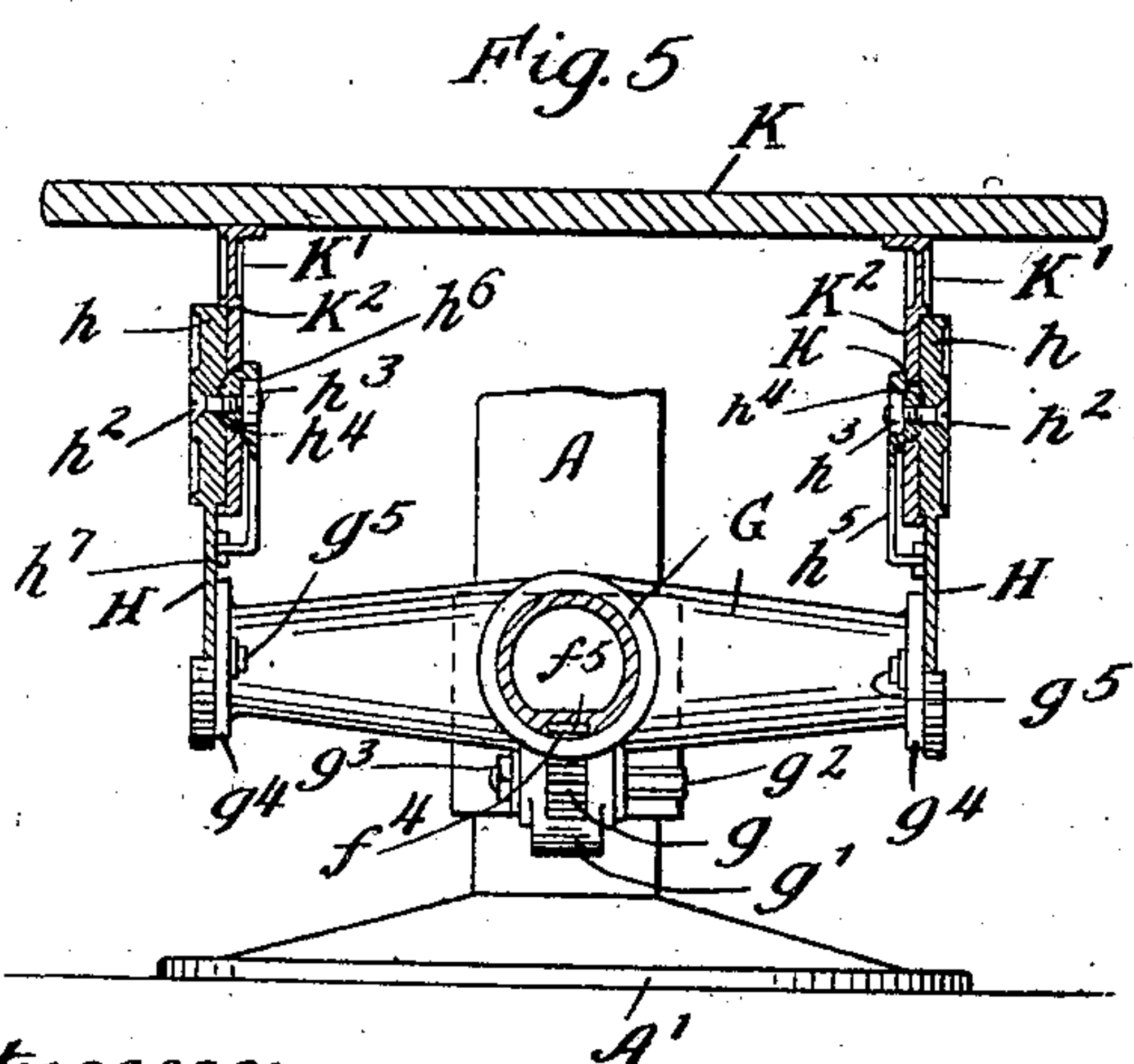
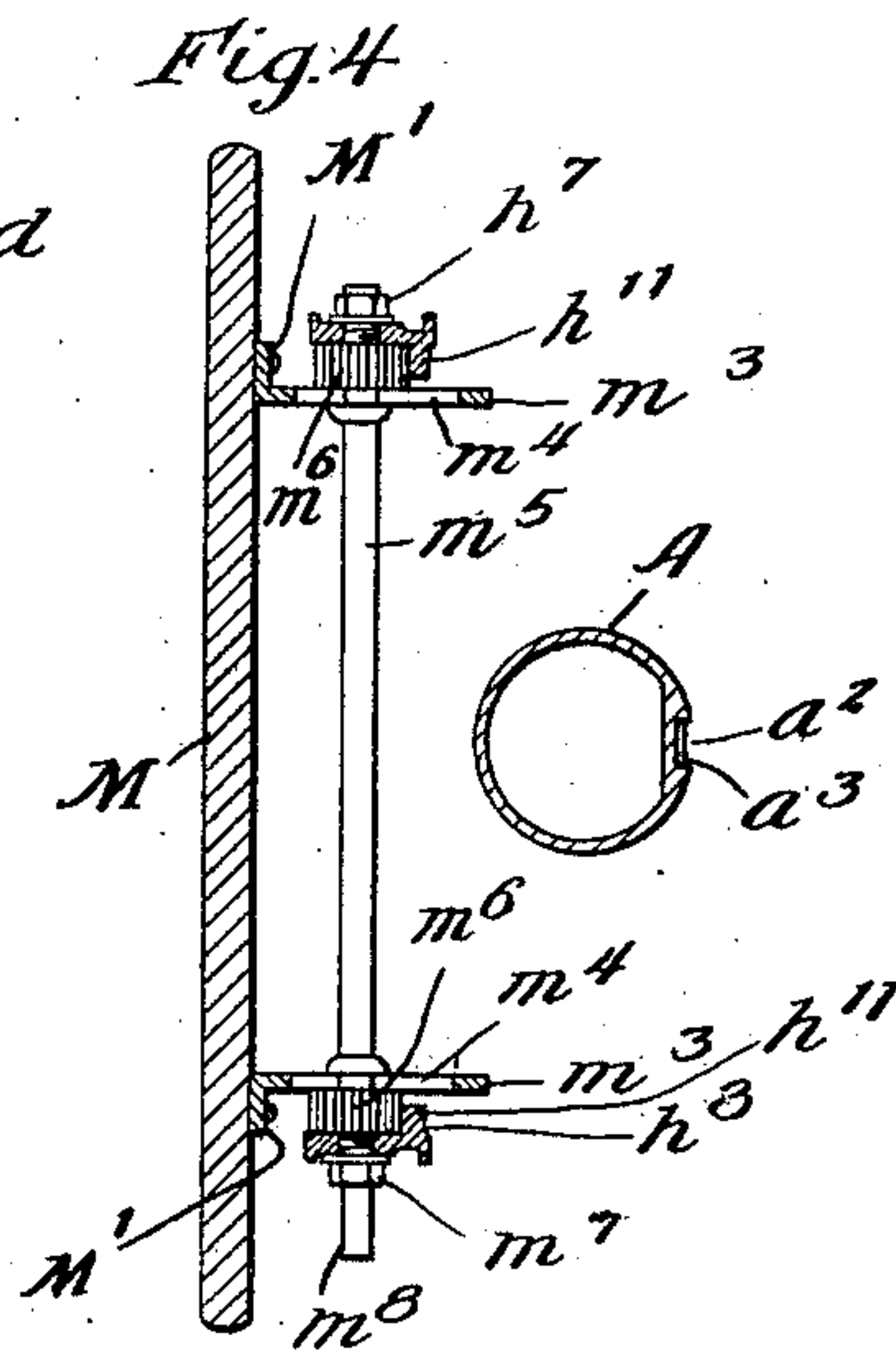
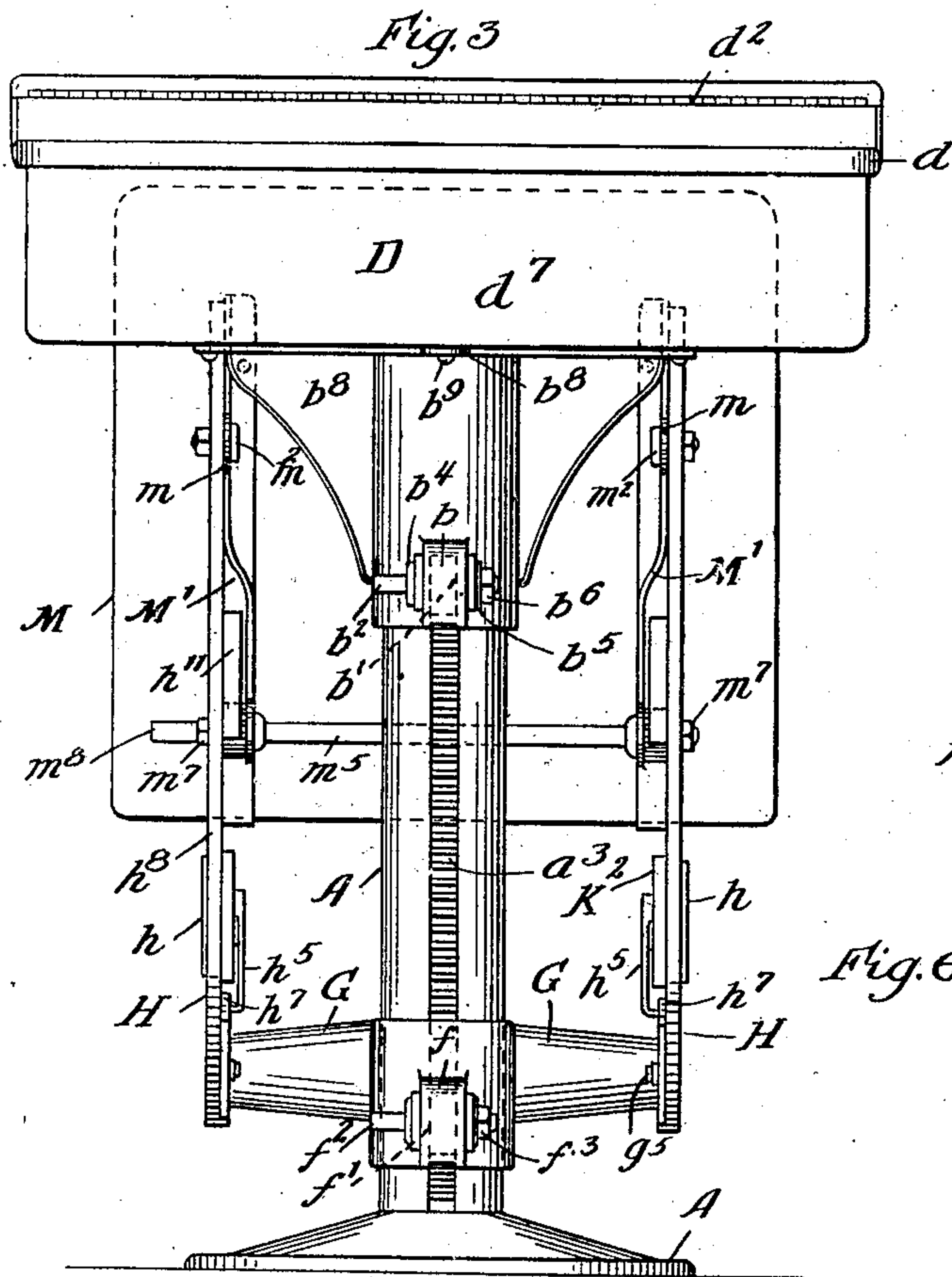
No. 827,830.

PATENTED AUG. 7, 1906.

W. C. TOLES.
SCHOOL DESK.

APPLICATION FILED APR. 10, 1906.

2 SHEETS—SHEET 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILFORD C. TOLES, OF IRVING PARK, ILLINOIS.

SCHOOL-DESK.

No. 827,830.

Specification of Letters Patent.

Patented Aug. 7, 1906.

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To all whom it may concern:

Be it known that I, WILFORD C. TOLES, a citizen of the United States, residing in Irving Park, in the county of Cook and State of Illinois, have invented a new and useful Improvement in School-Desks, of which the following is a specification.

My invention relates to improvements in school-desks.

10 The object of my invention is to provide a school-desk of a strong, simple, efficient, durable, and neat construction in which the desk may be vertically adjusted, the seat and back horizontally and vertically adjusted, 15 and the back vertically and pivotally adjusted independently of the seat, and in which all these adjustments may be readily and conveniently effected without interfering with the strength and rigidity of the desk as a whole, and in which the desk will not interfere with the proper sweeping, washing, or cleaning of the school-room floor.

My invention consists in the means I employ to practically accomplish this object or 25 result, as herein shown and described.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side elevation of a school-desk embodying my invention. Fig. 2 is a central vertical sectional 30 view. Fig. 3 is a rear elevation. Fig. 4 is a plan view, partly in horizontal section, on line 4 4 of Fig. 2. Fig. 5 is a vertical section on line 5 5 of Fig. 1, and Fig. 6 is an enlarged detail section on line 6 6 of Fig. 2.

35 In the drawings, A represents the column or standard, preferably of cast-iron and furnished with a flat integral base A', having holes a to receive screws a' , by which the standard is screwed to the floor. The column A, which is preferably hollow, is furnished with an upright longitudinal groove or channel a^2 and rack a^3 .

45 B is the desk supporting and adjusting sleeve, which telescopes or reciprocates upon the column A. The reciprocating desk-support B is furnished with an integral hollow housing b to receive the adjusting-gear b' and its shaft b^2 , upon the squared portion b^3 of which the gear b' fits. The shaft b^2 has a collar 50 b^4 , washer b^5 , a clamp-nut b^6 , and a flattened or non-circular end b^7 to receive a wrench C, by which the shaft and its gear may be turned to adjust the height of the desk D on the standard A. To effect this adjustment the clamp-nut b^6 is first loosened, and then the shaft b^2

may be turned, and thus cause its gear b' to rotate and by its engagement with the rack a^3 to raise or lower the desk D and sleeve or support B. The desk support or sleeve B is furnished at its upper end with flanges b^8 to receive the desk D and to which the desk is 60 firmly secured by screws b^9 .

The desk D, which is preferably of wood, has a chamber or receptacle D' and a hinged top d , secured to the top piece d' of the desk 6 by a long continuous hinge, comprising a long hinge-strap d^2 , secured to the rigid top piece d' of the desk, a long hinge-strap d^3 , secured to the horizontal top d , and a long hinge-rod d^5 , the same extending substantially 70 the full length of the desk, and thus very firmly securing the hinged top in place and at the same time preventing any crevice between the hinged top and the rigid piece d' of the desk. Stop-chains d^6 limit the opening 75 movement of the hinged top. The inclined front piece d^7 of the desk is provided with a right-angle rib d^8 to form a holder for pens, pencils, or other like articles inside the desk.

F is a vertically-adjustable seat and back 80 carrier adapted to reciprocate or be adjusted up and down on the main standard A. The seat and back carrier F has a housing or chamber f to receive its adjusting-gear f' and the shaft f^2 thereof. This adjusting-gear f' 85 meshes with the rack a^3 , and its shaft is adapted to receive the same wrench C as the shaft b^2 of the adjusting-gear b' . The shaft f^2 has a clamp-nut f^3 , which when loosened permits the shaft f^2 to be turned to effect any 90 necessary vertical adjustment of the seat and back. The carrier F is provided on its under side with a groove or channel f^4 and a rack f^5 , with which meshes the adjusting-gear g of the horizontally-adjustable seat and back 95 carrier G. The horizontally-adjustable seat and back carrier G has housing gears or lugs g' to receive the adjusting-gear g and its shaft g^2 , which is provided with a clamp-nut g^3 and a flattened or non-circular end to receive the wrench C, and thus enable the necessary horizontal adjustment of the seat and back to be conveniently effected. The horizontally-movable seat and back carrier G has flanges g^4 at its ends, to which the seat and 105 back carrying arms H H are rigidly secured by screws or bolts g^5 .

The seat K is provided with seat-brackets K', having circular sockets K² to receive the circular heads or bosses h on the outer limbs 110

h' of the seat-arms H, to which the seat-brackets are hinged by clamp nuts or bolts h^2 , having nuts h^3 . The hinged seat-brackets K' have sockets k to receive the squared or circular heads h^4 of the stop-arms h^5 , through which the bolts h^2 extend and which have squared or non-circular sockets h^6 to receive the nuts h^3 of the bolts h^2 , and the seat-arms H are furnished with stops or recesses h^7 to receive the stop-arms h^5 . By this means the seat K may be readily folded up against the back without danger of loosening the clamp-bolts h^2 . The back M is secured to its brackets M', and these back-brackets M' are furnished with an upper lug or ear m , having a hole m' , through which a connecting-bolt m^2 extends. Each of these back-brackets is likewise provided with a lower lug or ear m^3 , having a horizontally-extending curved slot m^4 , through which the connecting bolt or shaft m^5 extends. The upright limbs h^8 of the seat and back carrying arms H is furnished with vertical slots h^9 h^{10} to receive the connecting-bolts m^2 and shaft m^5 , and also with a rack h^{11} , that engages with an adjusting-gear m^6 on the shaft m^5 , which has a clamp-nut m^7 and flattened or non-circular end m^8 to receive the wrench C. The back M may thus be adjusted vertically not only with the seat K, but also independently of the seat. By reason of the horizontally-extending slot m^4 in the seat-bracket M' the seat may also be pivotally adjusted about the connecting-bolts m^2 as a center.

In my improved desk it will thus be understood that the desk D may be vertically adjusted independent of the seat or back, that the seat and back may also be independently adjusted vertically and also horizontally, and the back may also be adjusted vertically as well as pivotally independently of the seat or desk, and in my invention all these adjustments may be readily and independently effected, while at the same time the construction is very simple and strong.

The clamp-nuts on the shafts of the adjusting-gears b' for the desk (f' for the vertically-movable seat and back carrier F, g for the horizontally-movable seat and back carrier G, and m^6 for the back and end) serve to rigidly and firmly lock and hold the several parts, respectively, in their adjusted positions and to cause the desk as a whole, while composed of a number of independently-adjustable devices, to nevertheless constitute an absolutely firm and rigid structure as a whole, much the same as though the several parts were cast in one piece or rigidly and immovably connected together instead of adjustably connected. This prevents all danger of my improved school-desk being racked or loosened when subjected to the rough and severe usage incident to school-desks and also insures that all the desks in the school-

room will be absolutely noiseless when pushed or leaned upon by the scholars.

The standard A, as illustrated in the drawings, is circular in cross-section, although this is simply a preferred form.

I claim—

1. In a school-desk the combination of a central standard having a rack, a desk having a sleeve telescoping on said standard, a toothed wheel mounted on the sleeve and engaging said rack, a seat and back carrier vertically movable on the standard, a toothed wheel mounted on the carrier in line below the former toothed wheel and engaging the said rack, and a seat and back supported on a forward extension of the carrier in front of the standard, substantially as set forth.

2. In a school-desk the combination of a central standard having a channel a^2 and a rack in the same, a desk having a sleeve telescoping on said standard, a toothed wheel mounted on the sleeve and engaging said channel and rack, a seat and back carrier vertically movable on the standard, a toothed wheel mounted on the carrier in line below the former toothed wheel and engaging the said channel and rack, and a seat and back supported on the carrier in front of the standard, substantially as set forth.

3. In a school-desk the combination of the central standard and desk, a vertically-adjustable carrier on the standard and having a forward extension, a horizontally-adjustable carrier on said extension, seat-supporting arms attached to the horizontally-adjustable carrier, a seat connected with said arms by horizontal transverse pivots, stop-arms through which the pivots extend, nuts on the pivots bearing on the stop-arms, means on the said limbs for engaging and holding the stop-arms, and a suitable seat-back, substantially as set forth.

4. In a school-desk the combination of a central standard, a desk vertically adjustable thereon, a carrier F vertically adjustable on the standard and extending forwardly therefrom, a horizontally-adjustable carrier G mounted on the carrier F and having laterally-extending portions, arms H secured to said laterally-extending portions and having upwardly-extending forward ends, a seat pivotally mounted on the latter, the upright limbs h^8 of the said arms H, and a back adjustably mounted on said limbs, substantially as set forth.

5. In a school-desk the combination of a central standard, a desk vertically adjustable thereon, a vertically-adjustable carrier mounted on the standard and having a forward extension, a horizontally-adjustable carrier having a sleeve mounted on such extension of the vertically-adjustable carrier, and having lateral extensions, seat and back supporting arms attached to such lateral extensions and having front and rear upwardly-

extending limbs, and a seat and back mounted on said limbs respectively, substantially as set forth.

5 6. In a school-desk the combination of a central standard, a desk vertically adjustable thereon, a vertically-adjustable carrier mounted in the standard, a horizontally-adjustable carrier mounted on the vertically-adjustable carrier, upright limbs on the horizontally-adjustable carrier and having vertical slots, a back having lugs, and bolts connecting the lugs with said slots, certain of said lugs having horizontal slots, and a seat on the horizontally-adjustable carrier, substantially as set forth.

15 7. In a school-desk the combination of a central standard and desk, a vertically-adjustable carrier on the standard and having a forward extension, a horizontally-adjustable carrier on the said extension, upwardly-extending arms on the horizontally-adjustable carrier and provided with slots and racks, a transverse shaft in said slots having toothed wheels engaging the racks, a back pivotally and vertically adjustably connected with the upper part of said arms, lugs on the back having slots embracing the said shaft, and a suitable seat, substantially as set forth.

8. A school-desk comprising an upright central standard, a desk-support independently adjustable on the standard, a desk secured to said support, a seat and back carrier independently adjustable vertically on the standard and having a forward extension, seat and back arms independently adjustable horizontally on said forward extension, a seat pivotally connected to said arms, and a back independently adjustable vertically on said arms, substantially as specified.

9. A school-desk comprising an upright central standard, a desk-support independently adjustable on the standard, a desk secured to said support, a seat and back carrier independently adjustable vertically on the standard and having a forward extension, seat and back arms independently adjustable horizontally on said forward extension, a seat pivotally connected to said arms, and a back independently adjustable vertically on said arms, said back being also independently pivotally adjustable on said arms, substantially as specified.

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Witnesses:

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