

W. P. GOOLMAN.  
School-Desks.

No. 152,224.

Patented June 23, 1874.

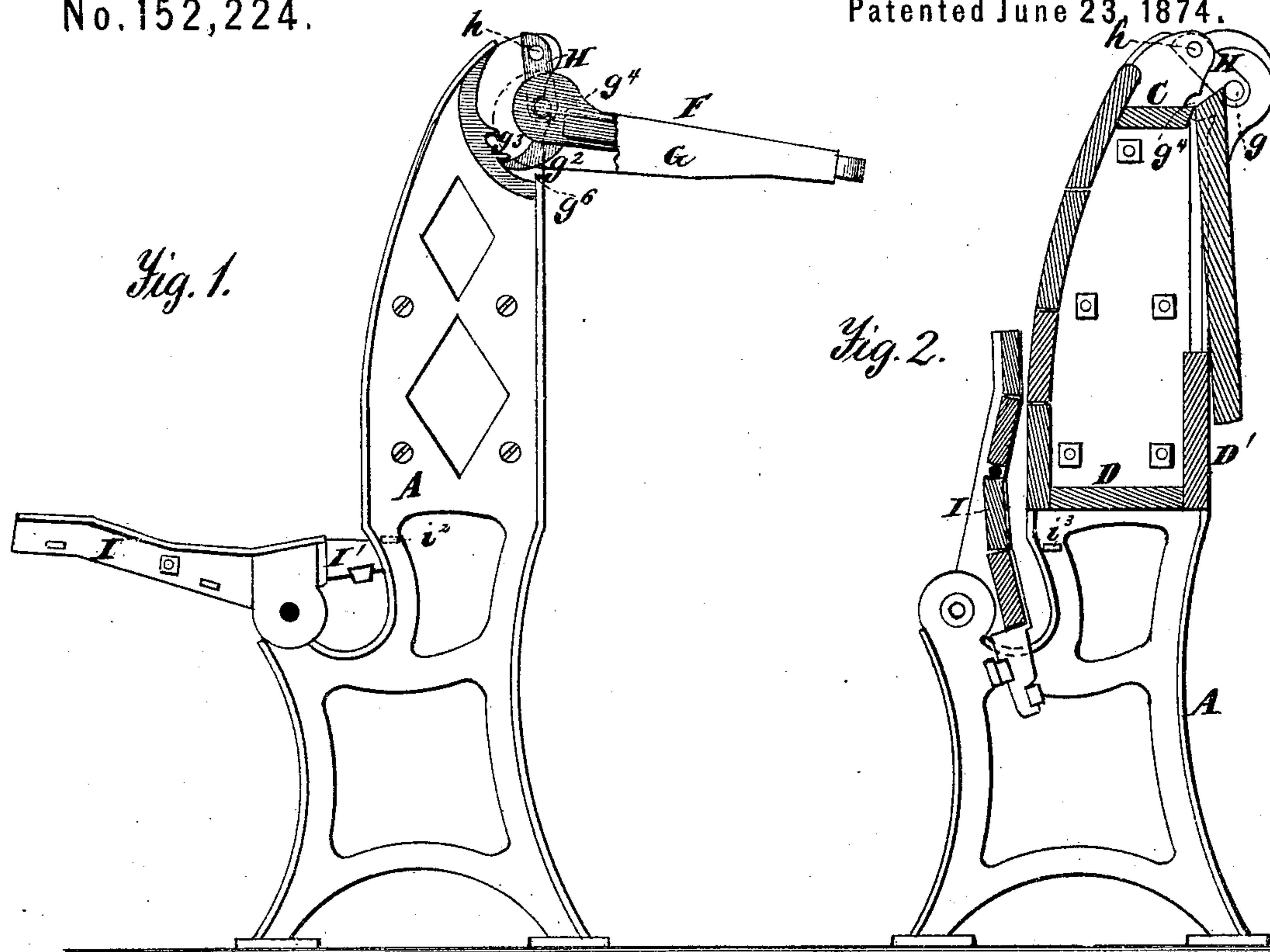
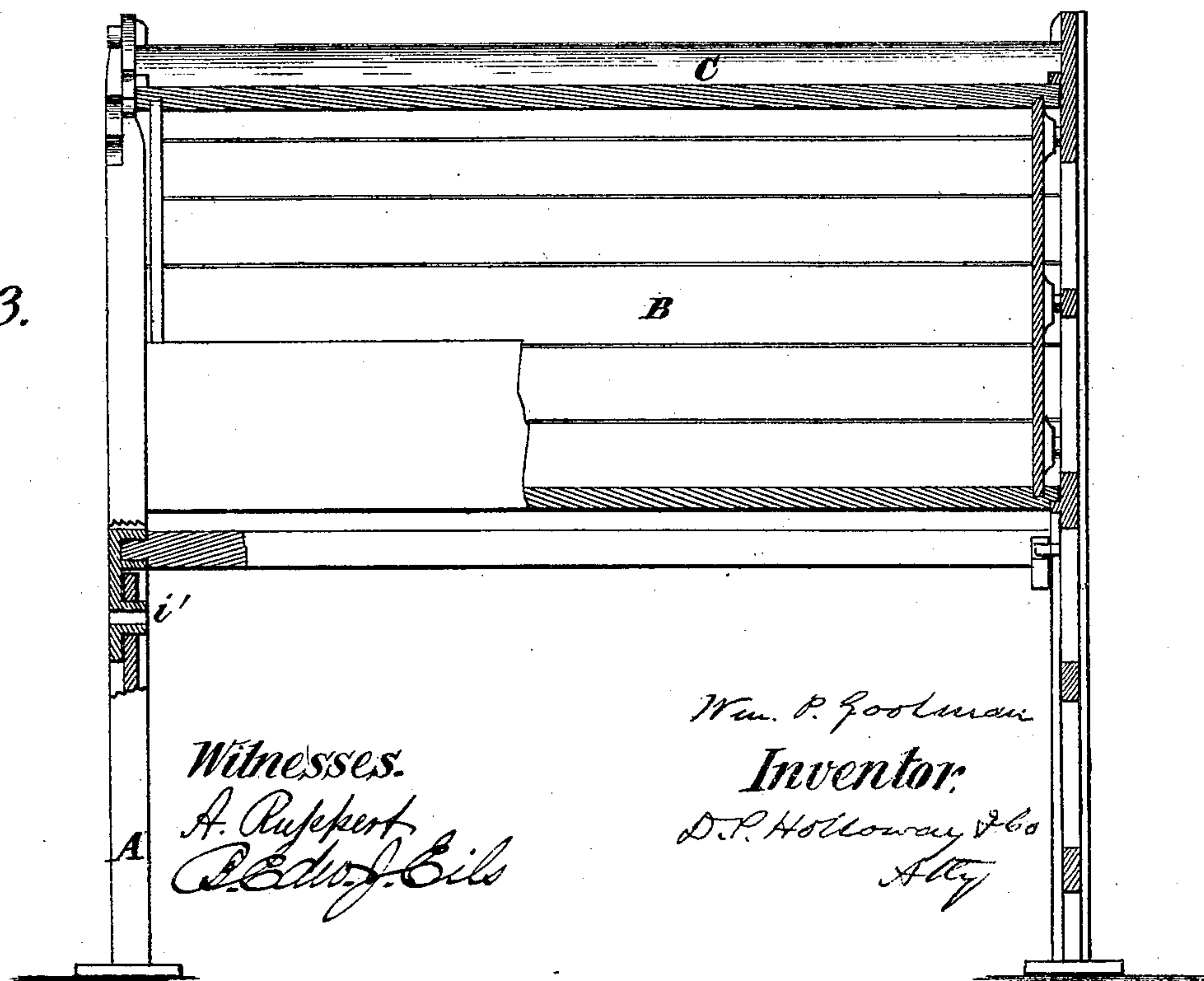


Fig. 3.



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Fig. 4.

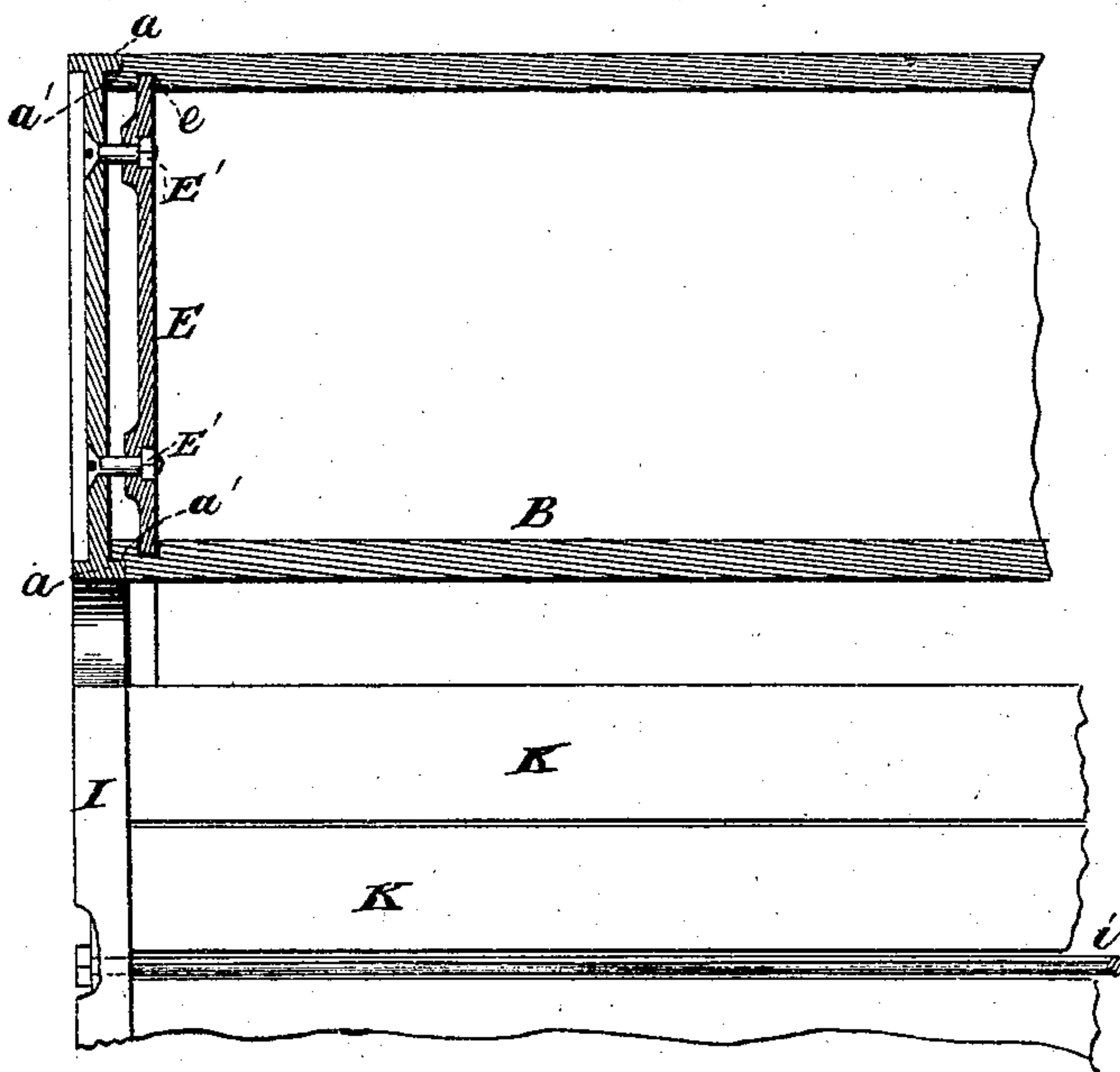


Fig. 5.

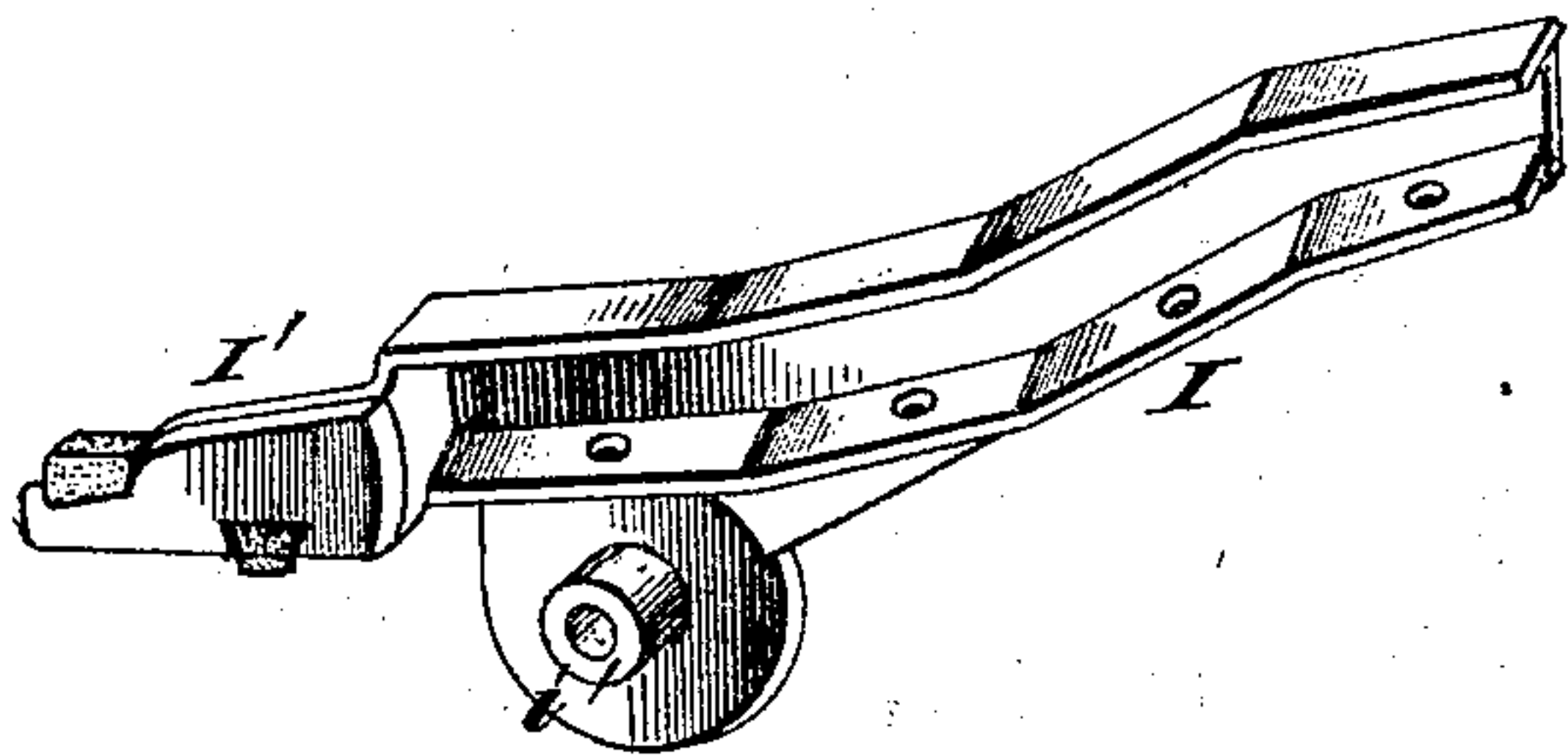
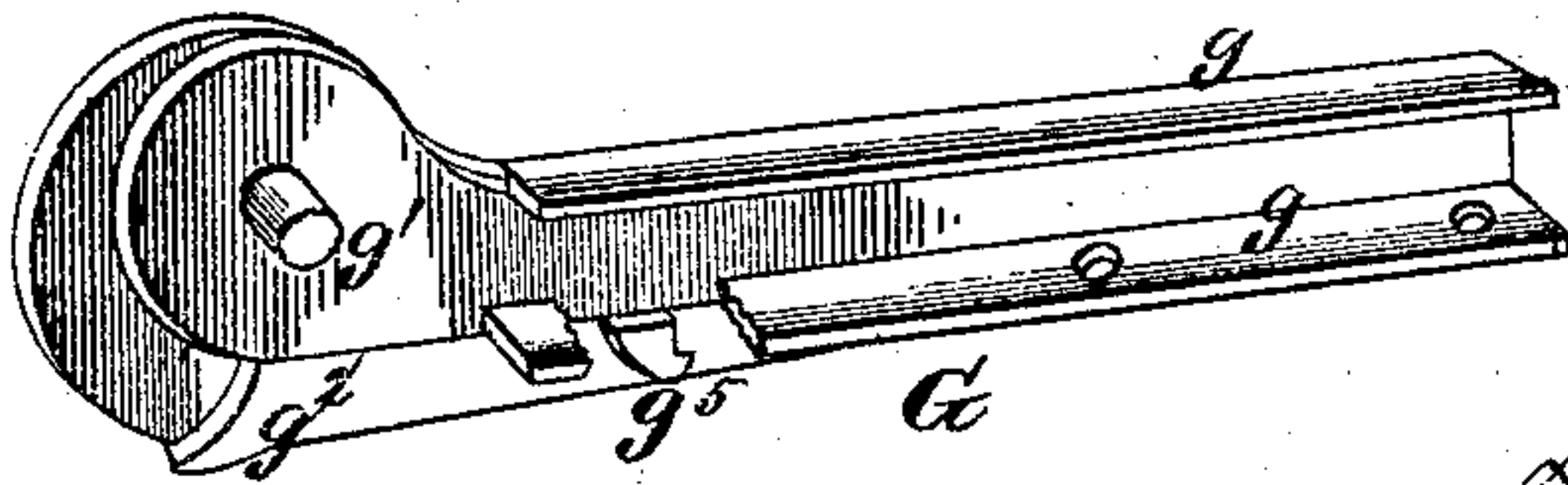


Fig. 6.



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# UNITED STATES PATENT OFFICE.

WILLIAM P. GOOLMAN, OF KANSAS CITY, MISSOURI.

## IMPROVEMENT IN SCHOOL-DESKS.

Specification forming part of Letters Patent No. **152,224**, dated June 23, 1874; application filed April 20, 1874.

*To all whom it may concern:*

Be it known that I, WILLIAM P. GOOLMAN, of Kansas City, in the county of Jackson and State of Missouri, have invented certain Improvements in School-Desks, of which the following is a specification:

This invention relates to that class of school-desks which have a folding top, and are also provided with a folding seat. My improvements consist, first, in so hanging the folding top of the desk that it can be supported at different inclinations, and in certain peculiarities of construction of the standards and the arms of the folding top where they are connected together; secondly, in the manner of connecting the standards and the wooden strips composing the back of the seat, the ink-well strip, and the book-rack.

In the annexed drawings, Figure 1 is an end elevation of my improved school-desk. Fig. 2 is a transverse section of the same, showing both the seat and top folded. Fig. 3 is a longitudinal section of the same. Figs. 4, 5, and 6 are detail views of various parts.

The same letters of reference are used in all the figures in the designation of identical parts.

The standards A are constructed with ribs *a* upon their interior sides, entering gains *a'* cut on the ends and at the exterior sides of the strips or bars B of the back, the ink-well strip C, and the boards D D' of the book-rack. The interior side of each standard is faced by a plate, E, the edges of which enter grooves *e* cut in the strips and boards B C D D', and which are then drawn up toward the standards, so as to firmly clamp the ends of the strips and boards by bolts and nuts E', thus making a very strong connection between the parts mentioned. The folding top F is secured between flanges *g* of the arms G, the flanges embracing the top at the ends to prevent its warping. Each arm has an inwardly-projecting stud, *g*<sup>1</sup>, to which one end of the short link H is pivoted, the other end of which is suspended from an outwardly-projecting stud, *h*, of the standard. The head of each arm has also a fixed pawl, *g*<sup>2</sup>, adapted to engage with either one of a series of teeth, *g*<sup>3</sup>,

formed on the standards, and thus supporting the top at any desired inclination. The studs *g*<sup>1</sup> project far enough to enter notches *g*<sup>4</sup> in the edges of the standards when the top is turned up, and giving a support at these points take all strain from the links. Projections *g*<sup>5</sup> are also formed on the arms to hook onto a cut-away portion of the standards, as at *g*<sup>6</sup>, Fig. 1, when the top is folded, to hold it in position, so as to raise its upper edge above the ink-well strip, and prevent articles thereon from rolling off.

The arrangement of these parts is also such that the edge of the top shall be slightly above the ink-well strip when it is raised or turned up.

The slats K of the seat are secured, like the top F, between flanges of the arms I.

The rods *i* may be used to bind the arms and slats more firmly together. Such tie-rods may also be employed in other parts of the desk.

The arms I have inwardly-projecting studs *i*<sup>1</sup>, which form the journals of the seat, and turn in bearings in the standards, which bearings they enter from the outside of the standards. Each arm has a rearwardly-projecting bar, I', arranged sufficiently out of line to stand just inside of the standard, thus preventing the disengagement of the seat by "springing" it. These bars, in connection with stops *i*<sup>2</sup> and *i*<sup>3</sup> on the standards, limit the movement of the seat, and sustain it in a horizontal position. Rubber cushions *i*<sup>5</sup> are provided, as usual, to prevent too much noise being made by the seat in turning it up or down.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the arms G of the folding top F, having fixed pawls *g*<sup>2</sup>, links H, and teeth *g*<sup>3</sup> on the standards A, substantially as and for the purpose specified.

2. The combination of the arms G, studs *g*<sup>1</sup>, and pawls *g*<sup>2</sup> thereon, with the links H, and the teeth *g*<sup>3</sup> and notches *g*<sup>4</sup> of the standards, substantially as and for the purposes specified.

3. The combination of the arms G *g*<sup>5</sup>, links

H, and standards A, notched at  $g^6$ , substantially as and for the purpose specified.

4. The strips B of the back, ink-well strip C, and book-rack boards D D', all provided with gains  $a'$  and grooves  $e$ , in combination with the ribbed standards A  $a$ , plates E, and bolts E', substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM P. GOOLMAN.

Witnesses:

JAMES W. JONES,

H. W. McCOTTER.