

W. H. KLINE, J. UPHAM & S. D. TUTTLE.

SCHOOL-DESK AND SEAT.

No. 172,451.

Patented Jan. 18, 1876.

Fig. 2.

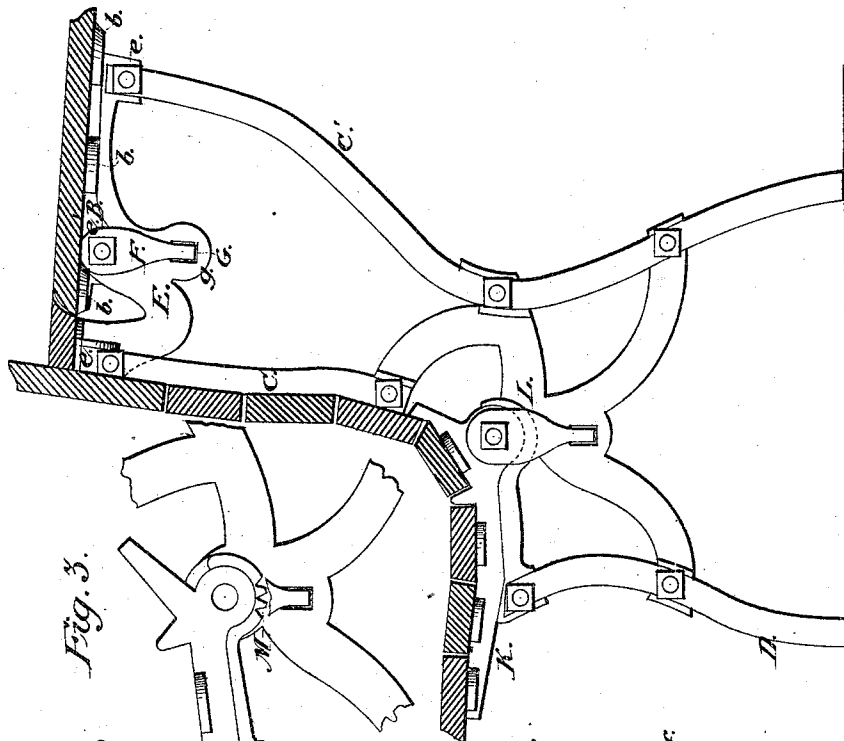


Fig. 3.

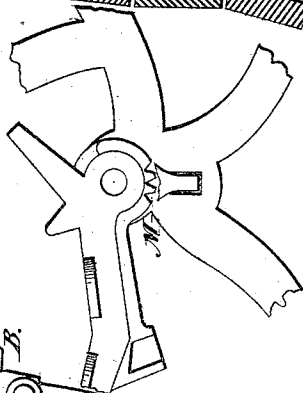


Fig. 4.

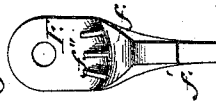
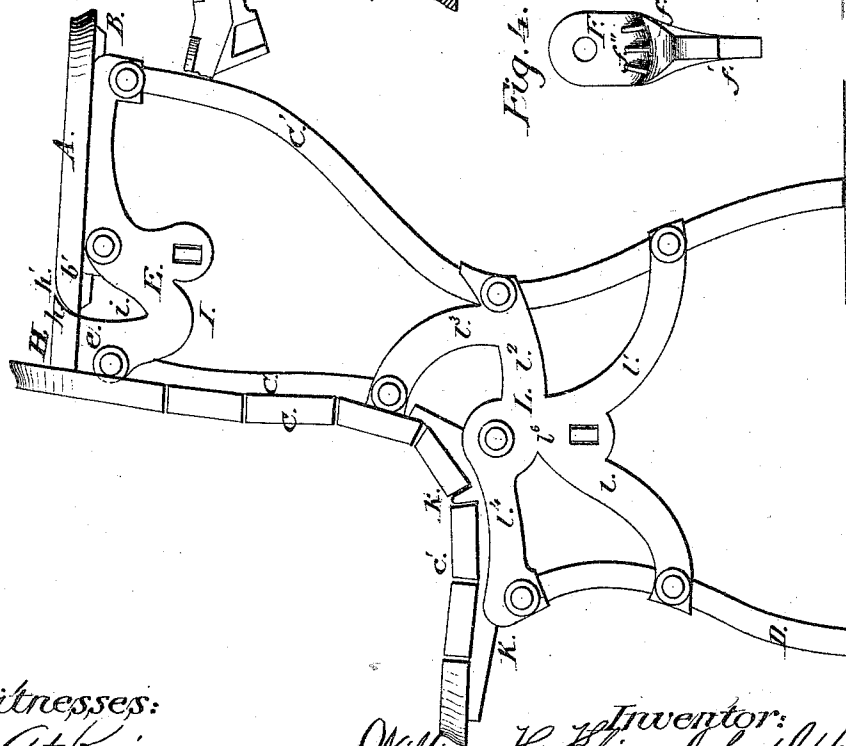


Fig. 1.



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UNITED STATES PATENT OFFICE.

WILLIAM H. KLINE, JOHN UPHAM, AND STERLING D. TUTTLE, OF EATON, OHIO.

IMPROVEMENT IN SCHOOL DESKS AND SEATS.

Specification forming part of Letters Patent No. **172,451**, dated January 18, 1876; application filed August 28, 1873.

To all whom it may concern:

Be it known that we, WILLIAM H. KLINE, JOHN UPHAM, and STERLING D. TUTTLE, all of Eaton, Preble county, State of Ohio, have invented a Combined School Desk and Seat, of which the following is a specification:

This invention relates to a combined school desk and seat, so constructed as to be neat, substantial, convenient, and comfortable, all as hereinafter fully set forth.

Our improvement consists, first, in a brace-frame or spider of peculiar construction, having a body which forms a bearing for the seat-hinge, lateral and downwardly-diverging braces, and standards for bracing the seat-back supports near their centers to the back lateral braces near their junction with the back legs, in combination with bent back and front legs and seat and seat-back supports. Our improvement consists, secondly, in a clamp provided with shoulders, shank, and corrugations, in combination with a desk or seat hinge formed with a notched heel and pintle.

In the accompanying drawing, Figure 1 represents an end view, and Fig. 2 a transverse vertical section, of the combined desk and seat; Fig. 3, an inside view of the lower brace and joint, with the nut and clamp removed; and Fig. 4, an inside view of the clamp.

A is the top of the desk, to the under side of which, near the ends, are fastened hinge-straps B, by means of ears *b* and screws. These hinge-straps have eyes at *b'*. C are bent wooden supports, to which the slats *c*, forming the back of the seat, are fastened by screws. C' are bent wooden legs in the rear of the desk and seat. D are bent wooden legs under the seat. The supports C and the legs C' are connected at their upper ends by peculiar hinge-braces E. These braces have at each end three-sided sockets *e*, to receive the upper ends of the supports and legs, which are firmly secured in the sockets by bolts and nuts. These braces have depressions *e'* to receive the eyes *b'* of the hinge-straps, and bolts pass through the eyes on the hinge-straps and the sides of the depressions on the hinge-braces, forming hinges for the lid of the desk. Clamps F, having shoulders *f*, shanks

f', and teeth *f''*, are placed on the hinge-bolts under the nuts, the shanks resting in sockets *g* in projections G on the hinge-braces, the shoulders *f* relieving the eyes on the hinge-straps from pressure, and the teeth *f''* engaging the teeth M on the hinge-braces, as shown in Fig. 3, thus preventing the clamps from turning. On the top of the sockets *e* on the hinge-braces is secured a strip, H, having a beveled edge, *h*, to match the beveled edge *h'* on the desk-top. The hinge-braces are bent at I to form depressions *i*, to permit the turning of the top of the desk. K are hinge-straps, like the hinge-straps B, except that they have projections *k*, forming sockets for the seat-slats. L are brace-frames or spiders for bracing the legs and back-supports, and having hinge-supports in the body *l'* thereof, similar to those of the hinge-supports E. The hinge-straps K and the hinge-supports on the spiders L are connected to form seat-hinges, in the same manner as the desk-top hinges are formed, embracing similar clamps and recesses. The brace-frames or spiders L have arms *l*, *l'*, *l''*, *l'''*, on the extremities of which are sockets receiving the legs and back-supports, and to which they are fastened by bolts and nuts, as shown.

What we claim is—

1. The spiders L, constructed with body *l'*, lateral braces *l''*, downwardly-diverging braces *l*, *l'*, and standards *l'''*, in combination with the bent back legs C', front legs D, seat-supports K, and seat-back supports C, said body *l'* forming a bearing for the seat-hinge, and the standards *l'''* bracing the seat-back supports near their centers to the lateral braces *l''*, near their junction with the back legs, substantially as set forth.

2. The clamp F, constructed with shoulders, shank, and corrugations, and applied substantially as set forth, in combination with a desk or seat hinge formed with a notched heel and pintle.

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