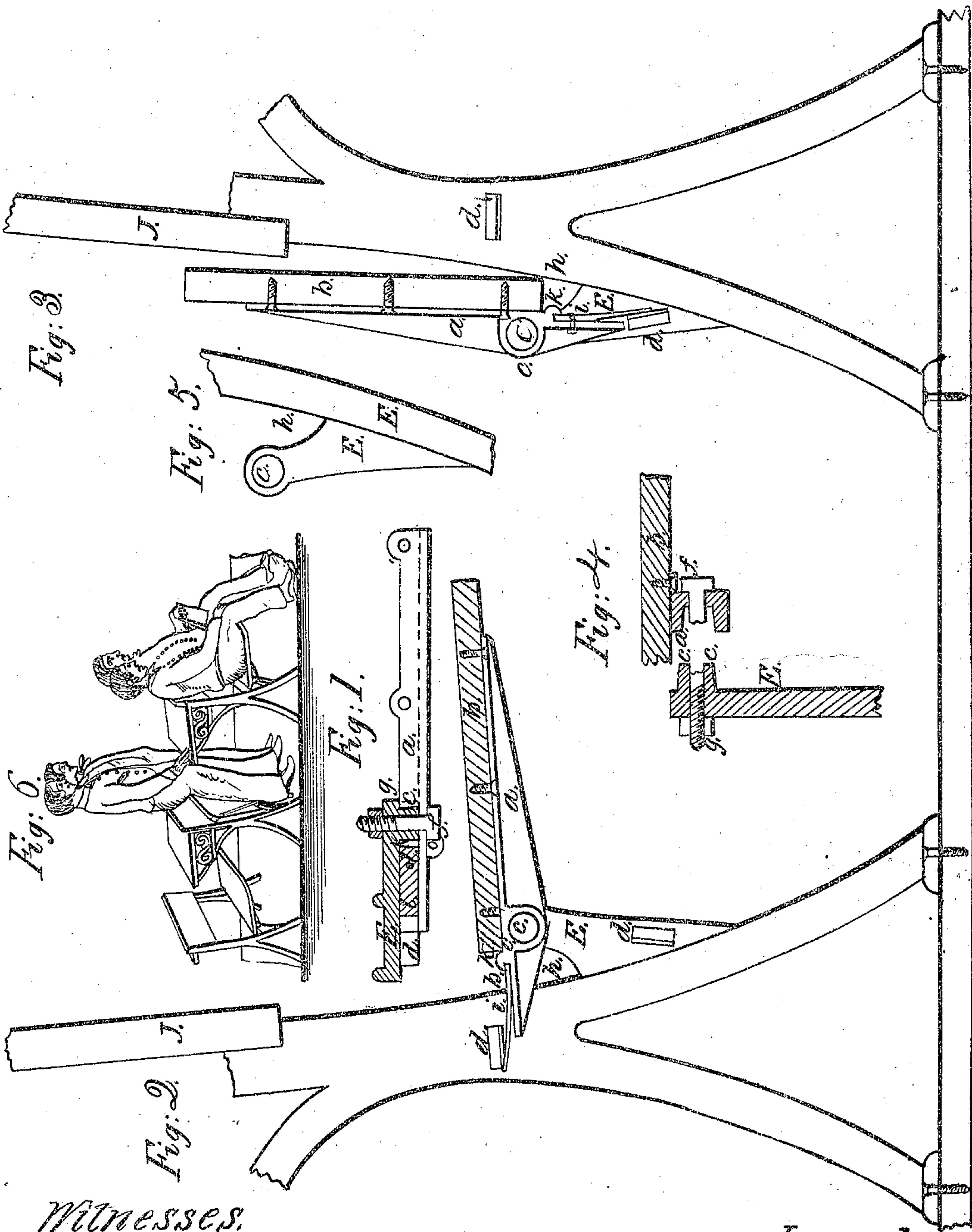


G. W. Hildreth.

School Desk & Seat.

No 55,293.

Patented June 5-1866.



Witnesses.
Daniel M. Kamm
Joseph Clark

Inventor.
G. W. Hildreth

UNITED STATES PATENT OFFICE.

GEORGE W. HILDRETH, OF LOCKPORT, NEW YORK.

IMPROVED SCHOOL DESK AND SEAT.

Specification forming part of Letters Patent No. 55,293, dated June 5, 1866.

To all whom it may concern:

Be it known that I, GEORGE W. HILDRETH, of Lockport, in the county of Niagara, in the State of New York, have invented an Improvement in School-House Seats and Desks; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which refer to the same parts in the various figures.

Figure 1 is a plan. Figs. 2 and 3 are side elevations. Fig. 4 is a transverse section. Fig. 5 is the pivot or fulcrum. Fig. 6 is a perspective view.

The nature of my invention consists in hanging a seat for school and other purposes so it can be turned up or down to accommodate a scholar in a standing position without standing in the aisle, or when sitting he may be near the desk or table in front of him, and when standing may have plenty of room to stand free and easy in his seat.

It will be seen by referring to Fig. 6 in the drawings how these seats accommodate scholars both sitting and standing. This is done by means of an adjustable hinge, the center of which is in front of the seat when turned up, so the seat will not fall by its own gravity. When lowered to a sitting position noise is prevented by a steel spring-pad, which also gives the seat some elasticity when sitting upon it. Sudden falling of the seat is also prevented by an adjustable joint-bolt and jam-nut, which tightens a tapering socket-joint, which is very strong and durable. By this joint the seat can be made to stand in any position, requiring but a slight force to turn it down. The seat in a measure is balanced upon the hinge, stands up by its own gravity, and also lies horizontal by the same force.

This style of seat admits of passing through the house across the aisles when they are turned up. They occupy less space than a chair-seat, and are much more convenient in sweeping and cleaning the house.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

a in Fig. 2 is an arm or lever, upon which the seat is fastened by screws, (it may be called a lever of the first kind,) the seat *b* on the long end, the fulcrum or pivot *c* toward

the center, the short end of the lever at *d* bearing against a projection or stop, *d*, on the main frame.

The pivot *c* is upon the upper end of a standard or projection, *e*, projecting from the main frame, a cross-section of which is seen in Fig. 1. The standard *e* is shaded dark and the lever *a* is shaded light color. Here it will be seen how the pivot *c* projects into the lever *a*, and the bolt *f* (colored brown) holds the two together. Here observe that the thread of the screw is cut partly in the standard *e* and also in the nut *g*, so that when the bolt *f* is screwed just tight enough to make the joint work with some friction, still loose enough to be able to raise and lower the seat *b* easily, and yet prevent it from falling suddenly and making a noise, then tighten up the jam-nut *g*, so that in working the seat or joint the bolt *f* will not start back and make the joint loose or slack again.

Please here observe the taper of the pivot *c* as it goes into the lever or arm *a*, to admit of tightening or slacking more perfectly in case of wearing. The same thing will be seen in Fig. 4—an edge view of the pivot *e* and an end view of the lever *a*, with the parts separated and the bolt (colored brown) parted, with *a* screwed to seat *b*.

In Fig. 5 is a side view of pivot *c* projecting from the main frame 3, with a space, *h*, between the pivot and main frame for the lower edge of the seat to occupy when it is turned up, as will be seen more plainly in Fig. 3, where the seat is turned up. The seat *b* and back of the seat *j* are colored reddish, or cherry-color.

The seat *b*, when turned up, is prevented by a spring, *i*, from striking the back of the seat *j*, to prevent noise and moving themselves, also to leave a small space to get the fingers in when the scholar wishes to lower the seat under him in sitting down. These last three objects are accomplished by means of a spring, *i*, (colored green,) at the short end of arm or lever, and fastened to said lever *a* by one end running into a slot under a projection at *k* and a small rivet at *l*, as seen in Figs. 1, 2, 3. When the seat is raised, as in Fig. 3, the back side of the spring *i* strikes against a projection, *d*, avoiding noise, &c., as before stated.

When the seat *b*, attached to the lever *a*, is

lowered to a sitting position, the spring *i* and short end of the lever *a*, as in Fig. 2, strikes against a projection, *d*, holding the seat in nearly a horizontal position. The spring *i*, operating between the short end of the lever *a* and projection *d*, gives elasticity to the seat, making it much easier to sit upon, preventing noise, &c. Should the spring break, the short end of the lever *a* runs far enough under the projection *d* to sustain the seat when the spring is gone.

The main frames and levers are made of cast-iron. It requires two of them for a seat, as seen in Fig. 6, placed from sixteen to forty inches apart, according to the length of seat required. The seat, back, and top are made of wood, to which the frame is screwed by means of flanges, &c., the iron frame being set in about two or three inches from the ends of the wood, as seen in Fig. 6.

I do not claim the hanging of a seat with a

common hinge, so it can be turned up merely, nor with a bolt put through the length of the seat, with the bearings on the frame outside of the seat; but

I do claim—

1. The lever *a*, moving upon the pivot *c* between the center of the lever and the back end thereof, when said lever or seat is sustained in a sitting position by the back end of the lever bearing against the stop *d* on the frame, as herein specified.

2. The tapering pivot *c*, with the corresponding socket in *a*, bolt *f*, and jam-nut *g*, as and for the purpose described.

3. The spring *i* and stops *d* *d*, for the purposes herein specified and shown.

G. W. HILDRETH.

Witnesses:

DANIEL MCKIM,
JOSEPH CLARK.