No. 612,135. Patented Oct. 11, 1898.

A. D. LINN.

KNEELER FOR CHURCH PEWS.

(Application filed Aug. 10, 1897.)

(No Model.)

Fig. 3.

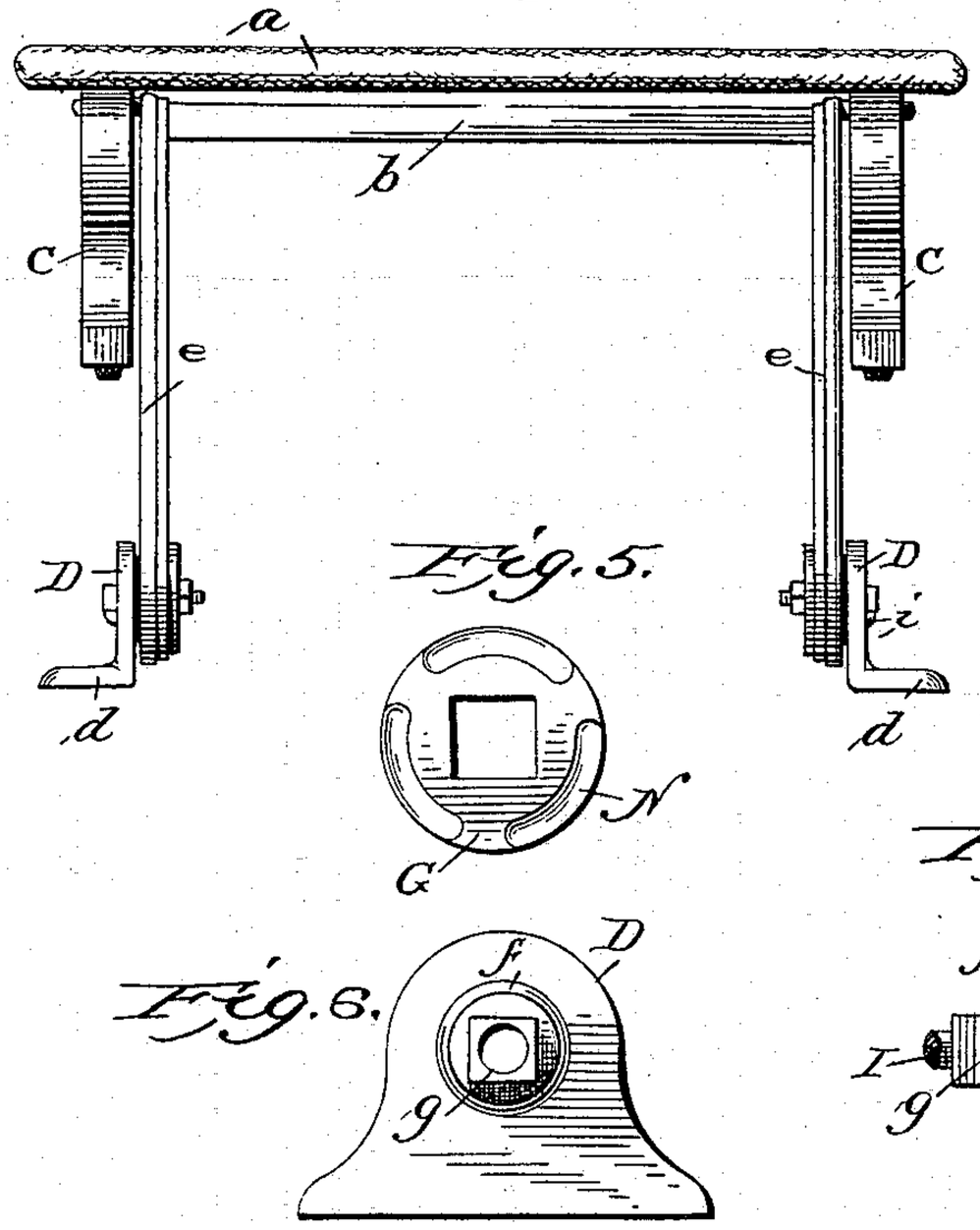


Fig. 4.

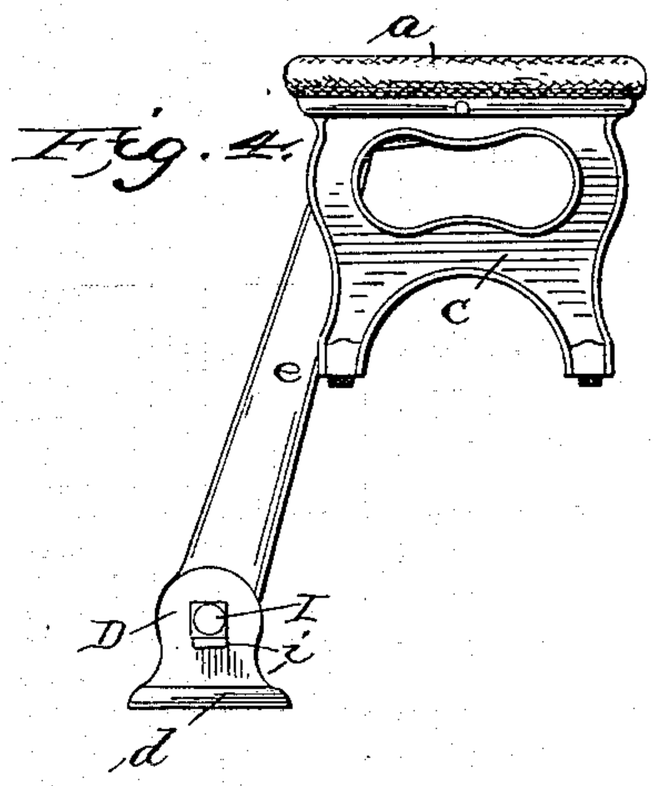


Fig. 5.

Fig. 7.

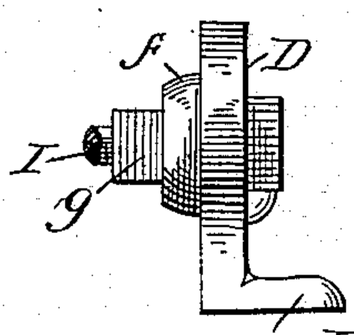


Fig. 6.

Fig. 8.

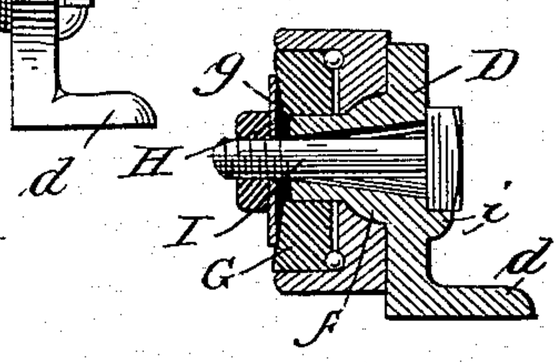


Fig. 1.

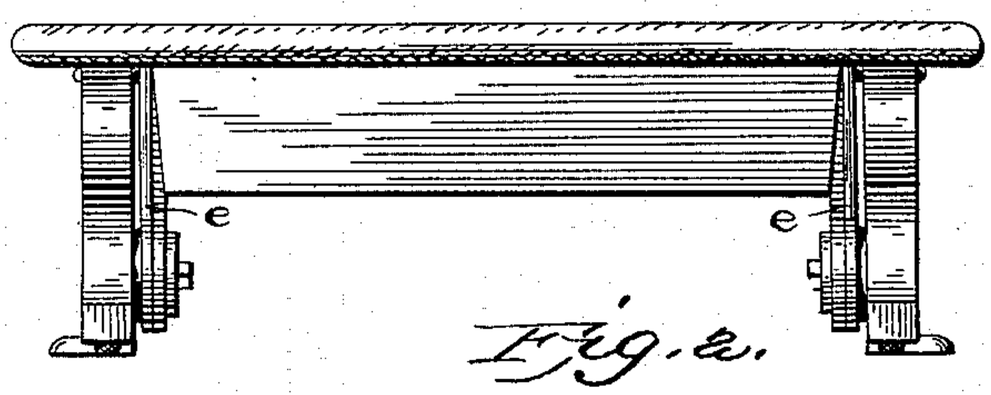


Fig. 9.

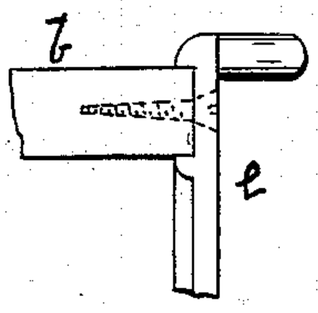
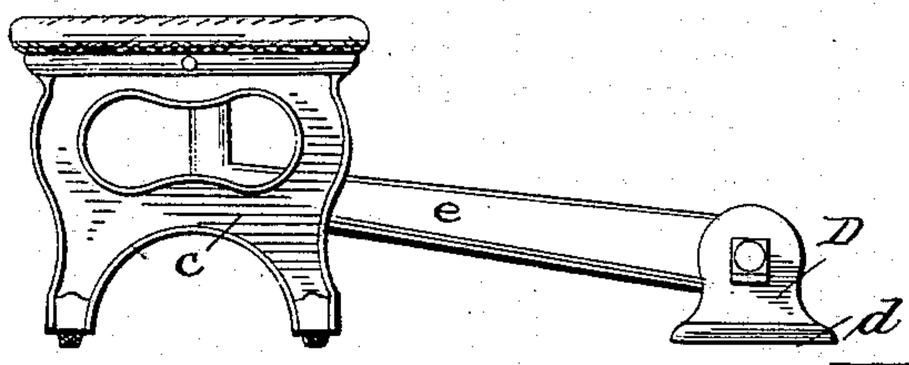


Fig. 2.



Attest
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UNITED STATES PATENT OFFICE.

ALLEN D. LINN, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR TO THE GRAND RAPIDS SCHOOL FURNITURE COMPANY, OF SAME PLACE.

KNEELER FOR CHURCH-PEWS.

SPECIFICATION forming part of Letters Patent No. 612,135, dated October 11, 1898.

Application filed August 10, 1897. Serial No. 647,705. (No model.)

To all whom it may concern:

Be it known that I, ALLEN D. LINN, a citizen of the United States, residing at Grand Rapids, Kent county, Michigan, have invented certain new and useful Improvements in Kneelers for Church-Pews, of which the following is a specification.

My invention is designed to provide a kneeler for church-pews capable of being lifted from the floor and folded beneath the pew immediately in front and just as readily returned to its normal position on the floor, where it may be used either as a foot-rest or to kneel upon in the act of devotion.

While my invention has been designed particularly for use in connection with pews, I do not wish to limit myself in this respect, as it is obvious that with slight modification the device might be used as a foot-support in many other situations—as, for instance, where chairs are used.

In the accompanying drawings I have shown in Figure 1 a front view of the support in its normal position on the floor. Fig. 2 is an end view of Fig. 1. Fig. 3 shows the support in its raised position, and Fig. 4 is an end view of Fig. 3. Figs. 5, 6, 7, 8, and 9 are details of construction.

The support or kneeler is composed of side standards *c c*, connected by a top *a*, which may be plain or cushioned, as desired. This support is connected to arms *e e* by means of a cross-piece or apron *b*, this apron being fitted at its ends to recesses in the arms *e*, and to which arms the apron is further held by screws. Each arm is provided with a laterally-extending trunnion fitted to a bearing in the standard *c* just beneath the top plate, as shown. The arms *e* are formed with angular ends adapted to receive the cross-piece or apron *b*, and the cross-piece is of greatest width vertically when the rest or kneeler is in its normal position, thus giving the greatest amount of strength when the device is in use; but in the lifting of the rest or kneeler so as to fold it beneath the pew immediately in front of that in which the device is used it will be observed from Fig. 4 that the position of the parts change, the rest or kneeler maintaining its position at all times with its top in a horizontal plane, while the angular ends of the arm *e*, with the flat side of the cross-piece or apron *b*, change from a vertical to a horizontal position, folding snugly beneath the top of the kneeler, as in Figs. 3 and 4. In this position the least amount of space is occupied by the part, and there is no interference with the work of the janitor in getting beneath the pews under which the kneelers have been folded.

The hinged or pivoted arms *e* are supported at their opposite ends to the sides of the pew or, as shown, from brackets secured to the floor. In the latter case I use a bracket D, having a base-flange *d*, fastened directly to the floor, and the upright part of this bracket has a semispherical bearing *f*, terminating in a square end *g*. The end of the arm *e* is recessed on one side to conform to the semispherical bearing *f* of the bracket and on its opposite face is recessed to receive a disk G, fitted to the squared end *g*. A bolt I passes through the tubular center of the bracket, and a spring-plate H, supported by this bolt, bears against the outer face of the disk G, while a nut on the bolt holds the parts together. It will thus be seen that the end of the arm *e* is free to move upon the semispherical bearing of the bracket. The disk G is held from turning on the squared end of the bracket, and the spring-plate H puts tension upon the parts. The adjacent faces of the disk G and the recessed end of the arm *e* are provided with recesses, as shown at N in Fig. 5, adapted to receive antifriction-balls, one in each recess. These recesses or grooves are independent of each other, and the antifriction-balls not only render the movement between the parts easy, but have a further effect of serving to gradually stop the arms noiselessly at the limit of their movement in either direction.

By joining the ends of the arms *e* by means of the apron or cross-piece a very rigid construction is provided, preventing any twisting of the parts, as might occur if the arms were directly connected, and the device can be raised or lowered from one end as well as at the center.

In order to assist in the assembling of the

parts, I make the tubular opening through the bracket cone shape and provide a lug *i* to support the head of the bolt.

I claim—

1. A kneeling-stool comprising the rest having the top and side legs, and a supporting-arm at each end of the stool connected thereto by a pivot permanently located at one point on the stool, the said supporting-arms being pivoted at their lower ends whereby the stool may be raised to its upper position under the pew or lowered to the floor for use by the user manipulating it from either end of the pew or from a central point.

2. A kneeling-stool for pews and the like comprising the rest having the top and side legs and the arms pivoted at their lower ends, the upper ends of said arms being pivoted to the kneeler centrally below the top thereof and above the center of gravity so that the rest will remain in horizontal position in both its upper and lower positions, the said pivotal connection being permanently located at the center line of the top and the lower ends of said arms being also held by permanent pivots whereby the stool may be raised or lowered by a single manipulation by a user located either at the end of the pew or centrally thereof substantially as described.

3. A kneeling-stool for pews and the like comprising the rest, the supporting-arms and the right-angular apron on the arms pivoted to the rest, substantially as described.

4. A kneeling-stool for pews and the like comprising the rest, the arms pivoted thereto and to the floor by permanently-located pivots whereby the rest will be held suspended by the arms, and the friction and stop means at the lower pivot of the arms whereby the rest may be manipulated by a single user from either end of the pew or in the center thereof, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ALLEN D. LINN.

Witnesses:

L. T. GIBSON,

H. J. WATROUS.