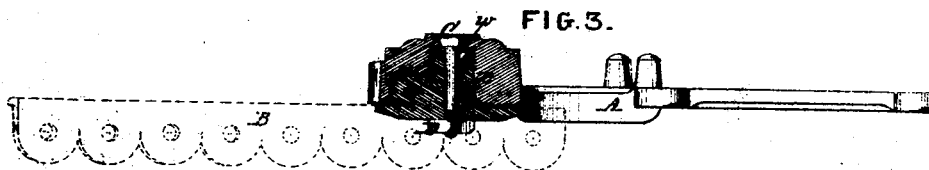
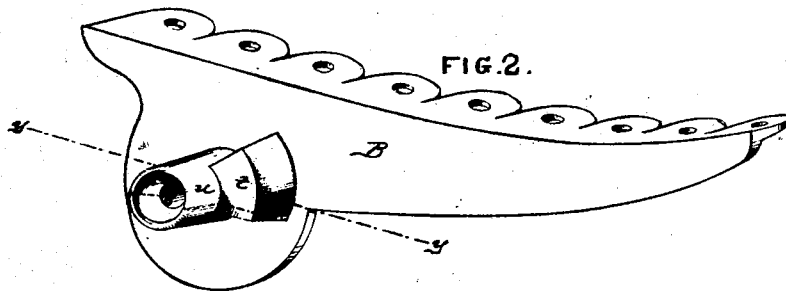
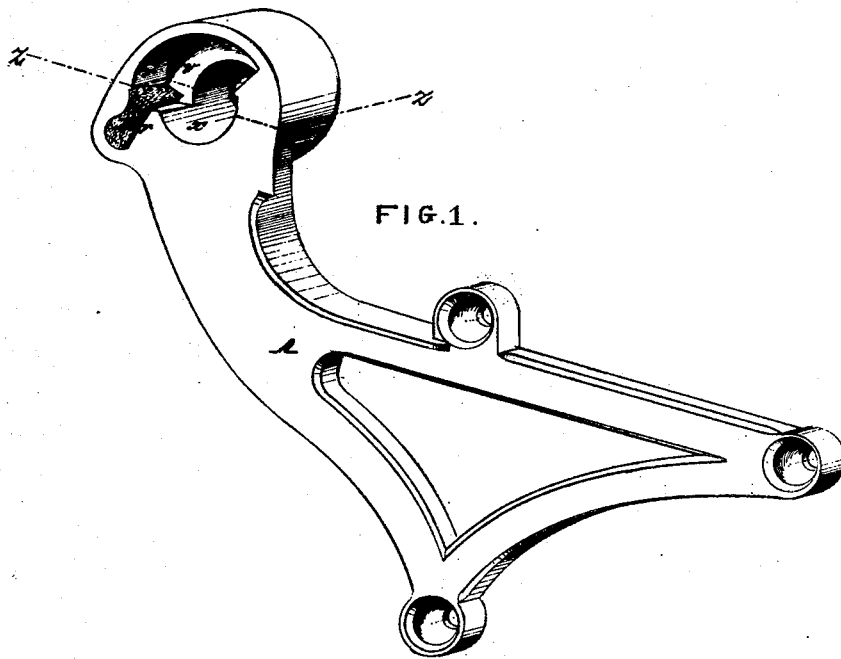


N.O. Tiffany,
Seal Hinge.
No. 110,402. Patented Dec. 20. 1870.



WITNESSES:
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NELSON O. TIFFANY. OF BUFFALO, NEW YORK.

Letters Patent No. 110,402, dated December 20, 1870.

IMPROVEMENT IN SEAT-HINGES FOR SCHOOL-DESKS AND SETTEES.

The Schedule referred to in these Letters Patent and making part of the same.

I, NELSON O. TIFFANY, of Buffalo, in the county of Erie and State of New York, have invented an Improved Seat-Hinge for School-Desks, Settees, &c., of which the following is a specification.

Nature and Objects of the Invention.

My invention relates to hinges for school, hall, and church-seats, having inclosed stops to limit the movement of the seats.

The first part of the said invention consists in arranging a rubber cushion, to prevent noise when the seat is dropped to its horizontal position in a recess in the proper end of the stop-groove.

The second part of the invention consists in a peculiar form and arrangement for the parts of the hinge proper, giving them superior strength and adapting them to be cast of complete form.

Description of the Accompanying Drawing.

Figure 1 is a perspective view of a seat-bracket for a wooden-end school-desk or similar article, provided with the female part of my improved hinge.

Figure 2 is a perspective view of a seat-arm, provided with the male part of the hinge.

Figure 3 is a transverse section of the complete hinge, as shown in figs. 1 and 2, the section being on the lines *z z* and *y y* in said figures.

Similar letters of reference indicate like parts in the several figures.

General Description.

The female part of my hinge, which is preferably formed in a bracket, A, to be attached to the desk or seat-support, or in the cast-end of such desk or support, is composed of a cylindrical socket, *x*, open at one end, and having its closed end pierced by a countersunk hole, *w*, and a concentric segmental groove, *v*, constituting an enlargement of said socket *x* at its open end.

The male part, which may be formed on the seat-arm B, consists of a journal or hub, *u*, adapted to fit the socket *x*, and a lug or projection, *t*, adjoining said hub, and adapted to occupy the stop-groove *v*.

The said lug *t* is of corresponding width and depth with the stop-groove *x*, and of such relative circumferential length as to permit the requisite movement; said groove being adapted to arrest the same on the seat, reaching its effective position in one direction, and an elevated position, where it shall be out of the way, in the other. In the latter position the seat is supported from contact with the back.

An axial aperture, *s*, in the journal *u*, corresponding with the hole *w* in the socket *x*, receives, in connection with such hole, a bolt, C, which, receiving a nut, D, on its inner end, unites the two parts.

For applying the customary rubber cushion E to the hinge I provide a recess, *r*, of any suitable shape, in the end of the stop-groove *x*, which arrests the stop-lug *t*, on the seat reaching its effective position.

This recess may extend, as shown, to the face of the female part, to facilitate the insertion of the cushion, and the latter projecting thereout on this side, as represented in fig. 1, may form a brake to support the seat-arm at intermediate points.

The respective members of the hinge may evidently be applied to opposite parts, if preferred, without any substantial change.

In another modification, the recess *r* for the reception of the cushion E may be arranged in the proper face of the stop-lug *t* with the same effect. Such cushion, when applied to the lug or an additional one, in either case may arrest the backward movement of the seat.

The following may be recited as some of the advantages of my construction.

First, the parts may be cast of complete form, requiring no milling. (See 5.)

Second, all the shoulders are inclosed, leaving no means for boys to crack nuts or their fingers with, or projections on which to catch their clothing.

Third, it is noiseless, owing to the arrangement of the cushion as proposed.

Fourth, the cushion is applied without laterally enlarging the joint.

Fifth, it is stronger, and may be made smaller than any other hinge having inclosed stops, owing to the mutual support afforded by the stop-lug and journal, each to the other, as arranged.

The stop-slot and cushion-recess are adapted to be perfectly formed in the mold by their arrangement relatively to the journal-socket incident to this form.

Claims.

I claim as my invention—

1. In combination with the inclosed stop-lug *t* and stop-groove *v*, of a seat-hinge, the cushion E, arranged in the end of the said stop-groove, all substantially as shown and described, for the purposes set forth.

2. The combination of the journal-socket *x*, journal *u*, stop-groove *v*, lug *t*, perforation *w*, bolt C, and nut D, with a seat-arm B, and a bracket or arm, A, on the desk or other support, formed and arranged substantially as described, and represented for the purposes shown.

N. O. TIFFANY.

Witnesses:

ZENAS M. SWIFT,
B. L. TIFFANY.