No. 621,337. Patented Mar. 21, 1899.

C. O. HALLIDAY.

MEANS FOR FASTENING FURNITURE TO FLOORS.

(Application filed June 24, 1898.)

(No Model.)

Fig. 1.

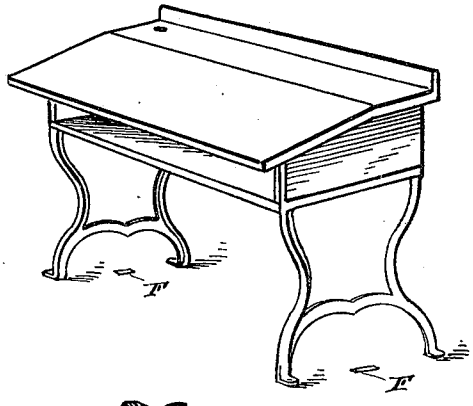
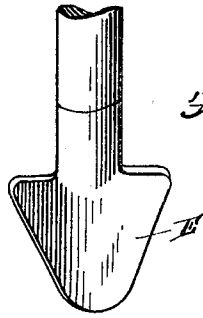


Fig. 3.



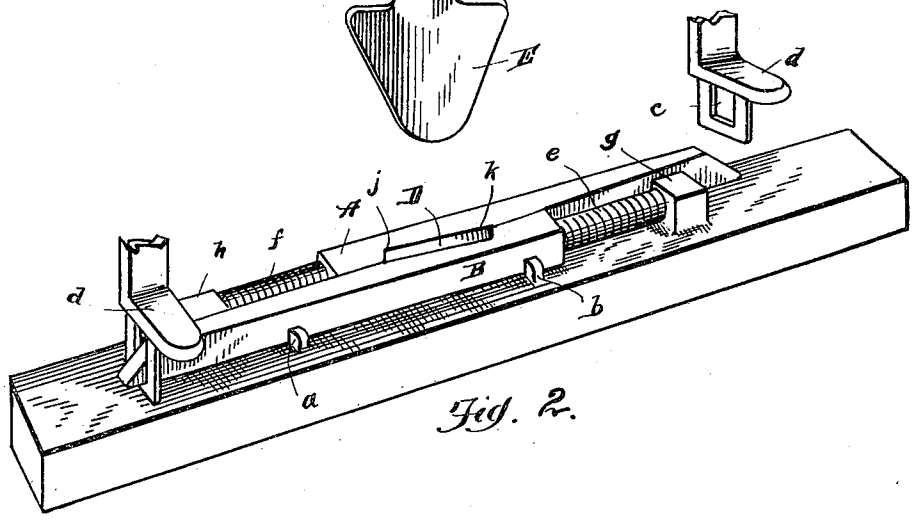


Fig. 2.

WITNESSES.

Harry Moule.

Henry Guenter

INVENTOR.

CHARLES O. HALLIDAY.

By D. W. Bradford

Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES O. HALLIDAY, OF DETROIT, MICHIGAN.

MEANS FOR FASTENING FURNITURE TO FLOORS.

SPECIFICATION forming part of Letters Patent No. 621,337, dated March 21, 1899.

Application filed June 24, 1898. Serial No. 684,363. (No model.)

To all whom it may concern:

Be it known that I, CHARLES O. HALLIDAY, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Means for Fastening Articles of Furniture to the Floor; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to improvements in means for fastening school-desks and other similar articles of furniture to the floor, and has for its object to provide a simple, economical, and durable lock that will act automatically when the article to be secured is adjusted in position and may by a simple and quick action of a harpoon-shaped key be released, so that the desk or seat may be removed in case of emergency.

The invention consists in the general construction and arrangement of the various parts to be hereinafter described and claimed.

Referring to the accompanying drawings, Figure 1 is a perspective view of a school-desk, showing the relative positions of the legs and the opening in the floor for the key. Fig. 2 is a perspective view of the lock, showing the legs broken off, one of which is illustrated in position above its locking-latch and the other in engagement therewith; and Fig. 3 is a perspective view of one form of key by means of which my improved holding device is operated to release the article of furniture.

Like letters of reference refer to the corresponding parts throughout the various figures.

It will be apparent that the general principle which I desire to claim and which is the essence of the invention is the means by which the desk, chair, or church-pew, whatever it may be, is secured to the floor by a suitable latch-lock engagement therebelow.

In illustrating my invention I have deemed it sufficient to show the one form and desire to have it understood that other modifications may be made without departing from the spirit of the invention.

In the form, A B represents two locking-bars, supported on the upper surface of the plate C and guided between lugs *a b*, those on one side being seen in Fig. 2. These bars are beveled from their outer ends to latch with the loop *c*, extending from the lower end of the foot *d* of the supporting-legs, and at their opposite ends are arranged to receive the expansive pressure of the springs *e f*. These springs rest at the opposite ends against the lugs *g h*, which are made rigid upon the upper surface of the plate C or, if desired, formed integral therewith.

The normal position of the locking-bars, where they are held by the action of the springs *e f*, brings the beveled latching ends diretly beneath the openings in the floor through which the loops *c* pass, so that when the article is adjusted in position to be fastened these loops will pass through their respective openings and will engage the beveled ends of the locking-bars, causing them to be forced back against the tension of the springs *e f*, which react to force the ends again into the loop and securely hold the article of furniture in position.

As a convenient means for quickly and easily releasing the fastening I provide notches in the adjacent faces of the locking-bolts. These notches unite to form the slot D, and owing to the construction of the notches the shoulders *j k* are formed in the locking-bars at opposite ends of the slot. The key E, constructed somewhat in the form of a harpoon, is adapted to fit within the slot D through the opening F in the floor, and its sides are so constructed as to engage the shoulders *j k* and force the locking-bars against the tension of the springs as the key is pressed downward. This arrangement offers a very simple and effectual means for actuating the fastener, and, as will readily be understood, the same results may be accomplished by altering the form of the key to any desired degree.

Of course it will be understood that the parts illustrated in Fig. 2 when in position for use will be placed below the floor and supported by any suitable block or joist, and when so situated the floor serves to hold the locking-bolts firmly into engagement with the plate C. It will be apparent that a covering-

plate may be arranged above the locking-bolts for the purpose of preventing them from being drawn upward with the article locked to the floor. However, this is a matter of construction and takes no important part in the novelty of my invention.

From the foregoing it will be evident that some changes may be made without materially affecting the results, and I desire to have it understood that although I have deemed it sufficient to illustrate the invention in one form others may be adapted without departing from the spirit of my invention.

Having thus described my invention, what I claim is—

1. A means for fastening school-desks or other similar articles of furniture to the floor, consisting of a pair of locking-bolts, a plate adapted to slidingly support said bolts, lugs secured to the said plate, springs arranged between said lugs and locking-bolts, loops upon the feet of said article of furniture adapted to engage through suitable openings in the floor with said locking-bolts, and means for disengaging said bolts, whereby said furniture may be removed, substantially as described.

2. In a furniture-fastening means, the combination with said furniture having loops secured to the under side of the legs thereof, and adapted to engage through suitable openings in the floor, a pair of locking-bolts beveled at their outer ends, and adapted to receive said loops, a plate arranged to support said bolts, lugs secured to said plate, springs secured between said lugs and locking-bolts, and lugs adapted to normally hold the beveled ends of said locking-bolts in the path of said loops, said locking-bolts having notches cut in their adjacent faces arranged to form a slot to receive a wedge by means of which said locking-bolts are caused to move against the tension of said springs, whereupon said loops are released, substantially as described.

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

CHARLES O. HALLIDAY.

Witnesses:
L. McMULLEN,
A. McDOUGALL.