(No Model.)

W. F. YOUNG.

DEVICE FOR DETACHABLY SECURING DESKS, SEATS, &c., TO FLOORS.

No. 326,470. Patented Sept. 15, 1885.

Fig. 1.

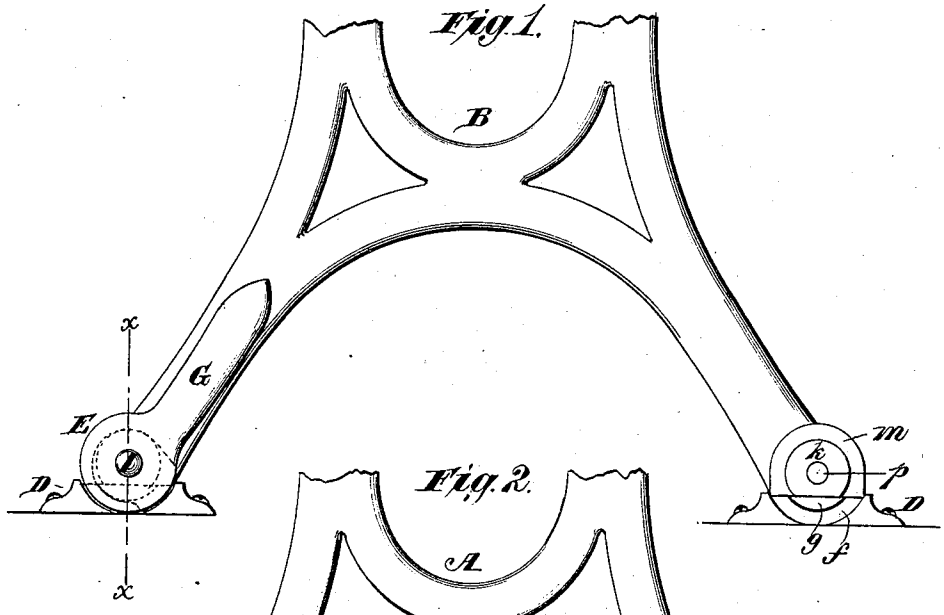


Fig. 2.

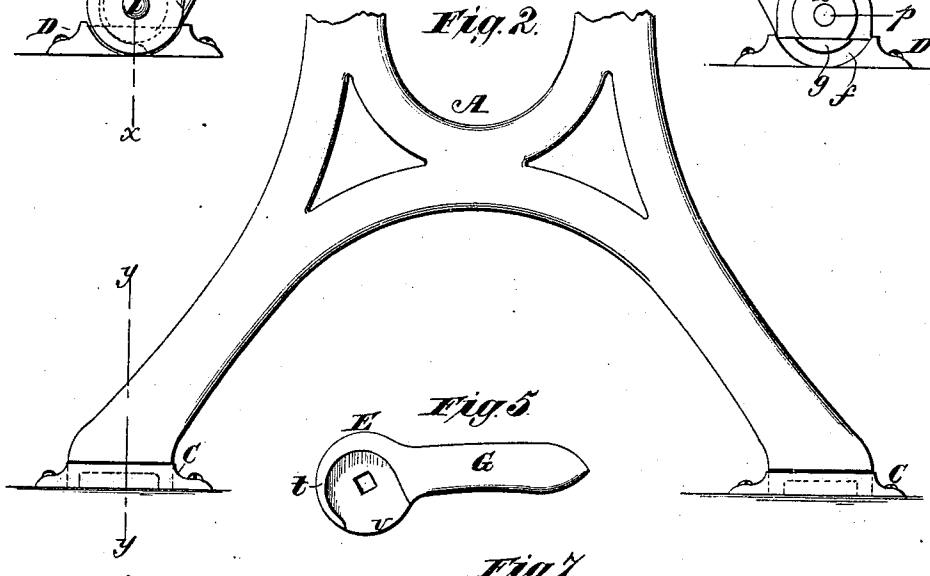


Fig. 5.

Fig. 3.



Fig. 6.

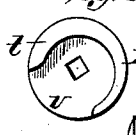


Fig. 7.



Fig. 9.

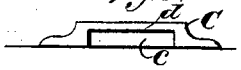


Fig. 4.

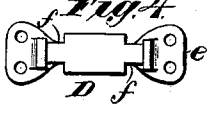


Fig. 10.

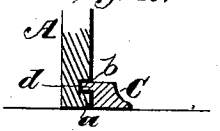
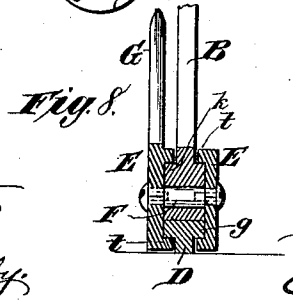


Fig. 8.



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Dennis Sumby.

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UNITED STATES PATENT OFFICE.

WALTER F. YOUNG, OF MERRILL, WISCONSIN, ASSIGNOR OF ONE-HALF TO CHARLES M. STROBRIDGE, OF SAME PLACE.

DEVICE FOR DETACHABLY SECURING DESKS, SEATS, &c., TO FLOORS.

SPECIFICATION forming part of Letters Patent No. 326,470, dated September 15, 1885.

Application filed June 25, 1885. (No model.)

To all whom it may concern:

Be it known that I, WALTER F. YOUNG, a citizen of the United States, residing at Merrill, in the county of Lincoln and State of Wisconsin, have invented new and useful Improvements in Devices for Detachably Securing Desks, Seats, &c., to Floors, of which the following is a specification.

My invention relates to devices for detachably securing the legs of desks, chairs, tables, and other articles of furniture to the floor in school-rooms, theaters, halls, railway-cars, ship-cabins, and other places, whereby such articles of furniture can be readily secured and removed with rapidity; and the invention consists in the peculiarities of construction, as hereinafter set forth.

In the annexed drawings, illustrating my invention, Figure 1 is a partial elevation of the legs or standards at one side or end of a table, desk, or other article of furniture, provided with my improved devices for securing the same to the floor. Fig. 2 is a similar view showing the manner of fastening the opposite end of an article of furniture to the floor. Figs. 3 and 4 are sectional views of the foothold for one side or end of the article of furniture. Figs. 5 and 6 are detail views of the cam clamping lever for tightening or securing one end of the article of furniture to its foothold. Fig. 7 is a square-ended cylindrical bolt for connecting and attaching the cam-shaped disks or tighteners. Fig. 8 is a vertical section on the line *x x* of Fig. 1. Fig. 9 is a view of the foothold for attaching the chair or desk end shown in Fig. 2. Fig. 10 is a transverse vertical section on the line *y y* of Fig. 2.

In the drawings, A and B designate, respectively, the legs or standards at opposite sides or ends of the desk, table, chair, or other article of furniture that is to be removably secured to the floor. It will be understood that these standards A B may be made as shown, or in any other convenient or desirable manner.

According to my invention, the legs or standards, as A, that support one end of the piece of furniture, are formed at the bottom with a foot, *a*, that is surrounded on three sides by a countersunk recess, *b*, as shown in Figs. 2 and 10, so that said foot need not project beyond the surface of the leg. This foot *a* is adapted to be inserted into a recess, *c*, that is formed by the countersunk under face of a foothold, C, which is screwed or otherwise secured to the floor.

The footholds C C, as shown in Fig. 9, are each formed on the under side with a recess, *c*, for receiving one of the feet *a*, and they also have on the inner side a flange, *d*, that enters the recess *b* of the standard A when the latter is placed in position to engage its footholds. The ends of the foot-holds C C are beveled or rounded to avoid undue projections, and are of a width that is greater than the body of the foot-hold and equal to the thickness of the leg or standard A, so as to make a neat finish therefor while securing it in place upon the floor. These footholds C C are secured to the floor by screws passed through their ends or by other suitable means.

It will be seen that the legs or standards A at one end or side of a table, chair, desk, or like article can thus be readily attached to the floor by simply slipping the feet *a a* into the recesses *c c* of the fixed footholds.

The opposite end of the piece of furniture, as shown in Fig. 1, is detachably secured to the floor by means of a foothold, D, of somewhat different construction. The foothold D consists of a plate or casting having a flange, *e*, which is perforated for the passage of screws or securing devices. In each side of the foothold D is a curved groove, *f*, that is arranged beneath and partly surrounding a segmental projection, *g*. The top of each foothold D is slightly countersunk at *h*, Fig. 3, to receive the bottom or foot of the corresponding leg B, which rests therein.

The foot of each leg B is provided on opposite sides with nearly-circular projections *k k*, the lower flattened sides of which rest on the corresponding surfaces of the segmental projections *g g*, as shown in Figs. 1 and 8. It will be observed that the curved or segmental projections *g* and *k* are struck from a common center, but form parts of circles having an unequal diameter, that from which the projection *g* is struck being slightly the larger. The opposite sides of each leg B are also formed with tracks *m* for the flanged surfaces of the recessed cam-disks E E, by which the projec-

tions *g* and *k* are held tightly together when the piece of furniture is secured in place. The recessed cam-disks E E, one on each side of the legs B B, are secured by screws or otherwise to the squared ends of a rotary bolt or shaft, F, that is passed through a circular opening, *p*, in the center of the projections *k k*.

Each recessed tightening-disk E is formed with a cam-shaped flange, *t*, and an edge opening, *v*, and one disk in each pair is provided with a handle or lever, G, as shown in Figs. 1 and 5. When this lever or handle G is turned down to the floor, the disks E E will be rotated so as to bring the opening *v* beneath the segmental projections *g g* on opposite sides, thereby permitting the end B of the table, desk, or chair to be lifted off the footholds D D. Upon pulling the lever or handle G upward, as shown in Fig. 1, the thickest part of each cam-shaped flange *t* will be brought beneath the segmental projections *g g*, thus wedging the projections *g* and *k* together and drawing the legs B B firmly to their seats in the foot-holds.

It will be observed that the square ended bolt F serves to connect the opposite cam-disks E E, so that they will rotate together in securing or loosening the legs of a chair, desk, or other article.

It may also be remarked that the slight difference in the diameter of the segmental projections *g* and *k* prevents any unsteadiness of the parts when secured.

It will be seen that the article of furniture is securely attached to the floor by simply slipping the feet *a a* at one end into engagement with the recessed footholds C C, the legs or feet at the opposite end being then brought down upon the footholds D D and fastened by turning the levers G G upward, so as to bring the flanges of the cam-disks E E firmly in contact with the segmental projections *g* and *k*, which are thus wedged together.

By means of the devices described, desks, chairs, tables, and other articles of furniture in school-rooms and other places can be rapidly secured to the floor or detached therefrom with but little labor.

What I claim as my invention is—

1. The combination, with the leg of a desk, chair, or other article of furniture having a foot provided with segmental projections and a recessed foothold fixed to the floor, and also having segmental projections, of a pair of recessed cam-disks pivoted in said foot and adapted to secure the article of furniture in position by drawing its feet into firm contact with their footholds, substantially as described.

2. The combination, with an article of furniture having a leg, as B, provided with segmental projections *k k*, of cam-disks E E, journaled in said projections and having cam-flanges *t t* and openings *v v*, and the foothold D, having grooves *f f* and segmental projections *g g*, substantially as described.

3. The combination, with the leg of a desk, chair, or other article of furniture having a foot provided near the floor and on its outer vertical side with a transverse recess, *b*, of a foothold, C, secured to the floor and provided with a countersunk recess, *c*, and a flange, *d*, located immediately above said recess, substantially as described.

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

W. F. YOUNG.

Witnesses:

FRANCIS E. MATHEWS,

ALBERT CLEMENT.