

Patented June 9, 1868.

United States Patent Office.

ELLIOTT E. FURNEY, OF CHICOPEE, MASSACHUSETTS.

Letters Patent No. 78,798, dated June 9, 1868.

IMPROVED CASTER FOR FURNITURE.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ELLIOTT E. FURNEY, of Chicopee, in the county of Hampden, and State of Massachusetts, have invented a new and useful Improved Furniture-Caster; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a side view of a caster with my invention applied, and showing the lock open.

Figure 2 is a plan view of the same, with the lock closed.

Figure 3 is a plan view of the same, with the spindle and upper part removed.

Figure 4 is a side view of the lower part of a caster, with the spindle attached.

Figure 5 is a side view of the upper part of the caster, with the spindle in the same.

Figure 6 is a vertical section through line H I of fig. 5.

Figure 7 is a plan view of the under side of the upper plate.

Figure 8 is a plan view of the circular lever or lock; and

Figure 9 is a vertical transverse section through line F G of fig. 8.

My invention consists in the arrangement and construction of a furniture-caster, whereby the same may be rendered stationary, or the roller prevented from rolling, and held in one position, and whereby the spindle may also be rendered stationary with reference to the article of furniture to which it may be attached, so that the caster may, when desirable, be rendered entirely inoperative.

Many articles of furniture which it is desirable to place upon casters, are so comparatively light that when so placed upon casters, a very slight pressure against them will cause them to roll, when it is not desired to have them move; and some articles, although heavy, will still work out of their place by constant use, as sewing-machines, for example, are very liable to work out of their place by the action of the machinery, if placed upon casters, and yet it is desirable to have them arranged to move easily when not in use, as it is necessary oftentimes to lift them to move them to a good light while using, and set them away after use, and still it is inconvenient to do so, for they are generally too heavy for ladies to lift.

It is also often desirable to have writing-tables, desks, &c., placed upon casters, and yet if the common caster is used, they almost always roll away from the person using them, if, in writing, they are leaned against.

My invention obviates these objections, as articles of furniture having my improved caster thereon can be rendered perfectly firm and stationary at any time, and, by a slight movement of the foot in unlocking it, can be changed into a movable caster, so that they may be moved about with perfect use.

That others skilled in the art may be able to make and use my invention, I will proceed to describe its construction and mode of operation.

In the drawings, *g* represents the base or lower plate of the caster, having the ears or projections, *E E*, thereon, in which is hung or pivoted the roller *D*, by means of the pivot *y*. Upon the upper side of said plate *g* is the projection *m*, the top of which is plane or flat, and having a vertical perforation, *x*, with a screw-thread cut therein. The said plate *g* has also the elongated curved projection, *g'*, thereon, projecting upward to a height a little below the plane of the top of the projection or bearing *m*, said projection *g'* terminating at *s* and *s'* in a vertical shoulder, the space *h'*, around the projection *m*, being cut away as low as the base of the projection *g'*. The rectangular space *u'* is cut or made in the plate *g*, and the periphery of the roller *D* reaches slightly above the plane of the part *h'* of the lower plate *g*, as shown at *h* in fig. 4. The plate *g* has also a pin or projection, *e*, which is of about the same height as the projection *g'*, and a hole, *w*, is also made in said plate. *d* is a circular piece of metal, having at one end the hole *e*, through which is inserted the pivot *e'*, upon which the circular lever *d* moves, and at the other end of the said lever *d* is the knob *c*, attached to the edge *v*. The outer edge of the lever corresponds in curvature with the periphery of the upper and lower plates, *b* and *g*, and there is a protuberance, *d'*, upon the upper side of said lever *d*, said protuberance being higher or thicker upon the side *v*, between the points *n'* and *n''*, than upon the side between the points *n'* and *n'*, thus rendering the

protuberance d' wedge-shaped, or inclined downwards towards the edge u of said circular lever d . The circular lever d would be equally operative if the protuberance d were made upon the under side of the lever d , but in either case the said protuberance d should be immediately over the roller D , when the circular piece d is closed in between the plates b and g .

The socket C consists of the upper plate b , secured to the barrel a , said barrel a being of a diameter inside to fit, and turn freely upon the spindle B . The upper surface of the plate g is made plane or flat, and the part upon t , the under side, is cut away slightly, leaving the parts t^1 and t^2 projecting below the part t , and the surface of the part t^2 may be ridged or serrated slightly, as shown in fig. 7. Holes, $i i i$, are made in the upper plate, b , through which are inserted screws to secure the caster to the furniture, and when the plate b and plate g are used together, the screws may be inserted, through the hole w , into the holes $i i i$, by rotating said plate g , or a space sufficiently large may be cut away in the lower plate g to expose one of the holes $i i i$, and by rotating the plate g , each screw can in turn be inserted in place. The spindle B is secured to the plate g by turning the threaded end f into the threaded hole x , although in practice the spindle may be either riveted into the plate g or it may be cast solid with it; and when the caster is to be used upon any article of furniture having iron feet, as a sewing-machine, the upper plate, b , with the barrel a , may be omitted, using only the spindle B , and when used upon wooden furniture, the plate g and barrel a may be used; but the spindle B , if riveted into the lower plate g , or cast solid with it, may be headed down at the top to secure the barrel a upon the spindle B . The screw is used and shown in the drawings in this case merely for the sake of convenience, and I prefer to construct the casters for use with a spindle riveted to or cast solid with the plate g .

Having thus described the construction of my invention, I will now proceed to describe the mode of its operation.

The several parts of the caster being put together, the barrel a is inserted into the hole made in the article of furniture, and the plate b secured thereto by means of the screws inserted into the holes $i i i$, through the hole w in the plate g , when the caster is ready for use. The weight of the furniture is exerted upon the upper plate b , the whole bearing of which is at t^1 , resting upon the flat surface m' of the projection m , and the elongated projection, g' , being slightly lower than the projection m , or the upper surface of said projection g' being below the plane of the upper surface of the said projection m , the barrel a and plate b rotate freely upon the spindle B .

When the circular lever d , which is secured to the plate g by the pin e , is thrown out, as shown in dotted lines in fig. 2, the roller D is free to revolve, and the barrel a and plate b free to rotate around the spindle B , and the furniture can then be moved easily, and when it is in the desired position, the circular lever d is thrown in by pressing the foot against the knob e , the said lever d fitting into the space h , between the upper and lower plates b and g . This causes some part of the portion t^2 of the plate b to impinge against or rest upon the protuberance d' upon the circular lever d , which, at the point immediately over the roller D , completely fills the space h , between the upper and lower plates b and g , so that a great portion of the weight of the furniture rests upon the roller D , and the said roller D is prevented from rolling, by its contact against the under side of the circular lever d , while the plate b and barrel a are prevented from rotating by the friction between the protuberance d' and the portion of the part t^2 upon the under side of the plate b , against which it strikes. The part t^2 would be equally operative, perhaps, without being ridged or serrated, and the circular lever d would be equally operative, if the pin e were made upon the lever, and a hole or socket for said pin made in the plate g , instead of being made as shown.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The lower plate g of a caster, when constructed with the elongated curved projection g thereon, and having the projection or bearing m , said plate g being used in connection with the spindle B and roller D , when constructed and operating substantially as described, and for the purposes herein specified.

2. The combination of the plate g , having a spindle, B , with the circular lever d , said lever d operating in conjunction either with the plate b or with the furniture to which the caster may be attached, all constructed and operating substantially as herein described and for the purposes specified.

ELLIOTT E. FURNEY.

Witnesses:

R. S. FURNEY,
P. W. SMITH.