C. G. OVERMYER.

CASTER DEVICE FOR STOVE LEGS.

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1,161,007. Patented Nov. 16, 1915.

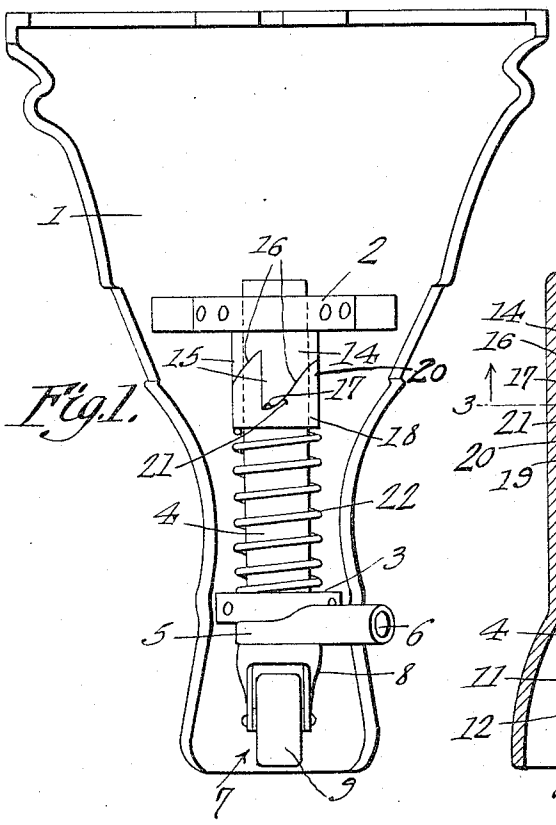


Fig. 1.

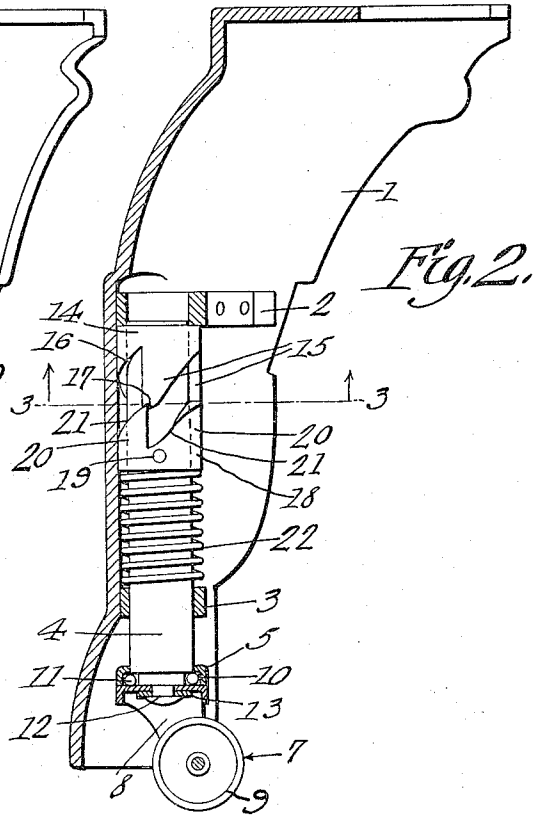


Fig. 2.

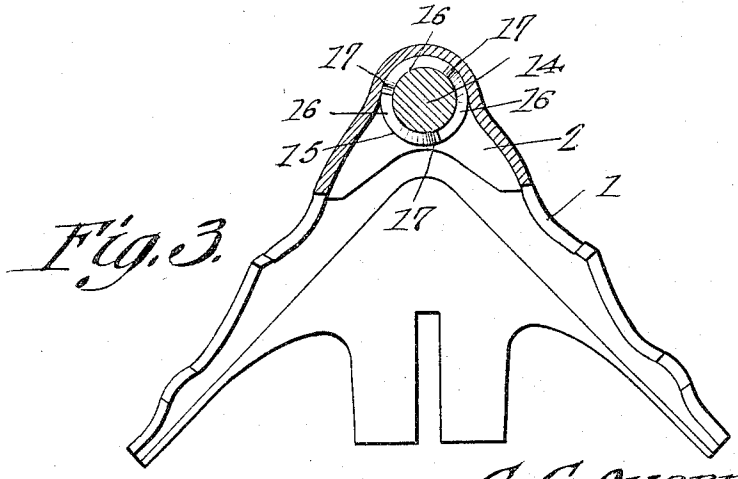


Fig. 3.

Witnesses

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CASTER DEVICE FOR STOVE-LEGS.

1,161,007. Specification of Letters Patent. Patented Nov. 16, 1915.

Application filed December 22, 1914. Serial No. 878,563.

To all whom it may concern:

Be it known that I, CHARLES G. OVERMYER, a citizen of the United States, residing at Hartford City, in the county of Blackford and State of Indiana, have invented a new and useful Caster Device for Stove-Legs, of which the following is a specification.

The present invention appertains to a caster device for stove legs, and aims to provide a novel and improved appliance of that nature applicable to a stove leg, whereby the leg may be raised and supported upon a caster, when it is desired to move the stove about, each of the legs of a stove being equipped with one of the caster devices.

It is the object of this invention, to provide a caster device of unique construction, and applied to a stove leg in such a manner, that the present device is operative to retract a caster above the lower end of the leg when the leg normally supports the stove, and which is also operable to extend or project the caster below the lower end of the leg, whereby the leg will be supported on the caster, and whereby a stove provided with the improved caster devices for the legs thereof, may be readily pushed or moved about, without the inconvenience usually incident to ordinary stove legs.

It is also within the scope of the invention, to provide a caster device for stove legs which is comparatively simple, compact, non-encumbering and inexpensive in construction, which may be readily applied to the stove leg, and which is convenient, serviceable, efficient and practical in use.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, can be made within the scope of what is claimed, without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing in its preferred embodiment, wherein:—

Figure 1 is an inside elevation of a stove leg embodying the present invention, with the caster retracted or raised to enable the stove leg to rest upon the floor or base in the usual manner. Fig. 2 is a vertical or longitudinal section of the structure, taken on the line 2—2 of Fig. 1, and illustrating the caster projected or depressed below the lower end of the leg for supporting the leg movably upon the floor or underlying surface. Fig. 3 is a horizontal or cross sectional view taken on the line 3—3 of Fig. 2.

In the drawing, there is illustrated a stove leg 1 of the same general contour and construction, as an ordinary stove leg, although the present leg may require slight changes in details to accommodate the present caster device.

In carrying out the invention, upper and lower bearings 2 and 3, respectively, are riveted or otherwise secured within the leg 1 between the upper and lower ends thereof, although the bearings may be cast integrally with the leg, if desired, and a vertical spindle or caster shank 4 is journaled through the bearings 2 and 3 for oscillatory and reciprocatory movements.

A disk or member 5 is keyed or otherwise secured upon the lower end portion of the spindle 4 which projects below the lower bearing 3, and is provided with a radial socket 6 projecting therefrom and arranged to oscillate between the edges of the leg 1, for oscillating the spindle 4, the socket 6 being designed for the reception of a stove shaker, lifter, poker or other suitable implement, to enable the device to be readily operated.

The lower end of the spindle 4 carries the caster 7, which embodies a caster frame or fork 8 swiveled upon the lower end of the spindle 4, and a caster wheel 9 mounted for rotation within the frame or fork 8. The disk or member 5 is preferably provided with a lower annular ball race 10 in which an annular series of bearing balls or rollers 11 are mounted, to bear upon the caster frame or fork 8, whereby an antifrictional bearing is provided between the caster and spindle 4 to enable the caster to swing about the axis of the spindle 4 as the stove to which the leg 1 is applied, is moved about. The caster 7 is preferably swiveled to the lower end of the spindle 4, by reducing the lower end of the spindle 4, as at 12, and journaling the head of the caster frame or fork 8 upon the reduced end 12 of the spindle, and riveting the reduced end 12 under a washer 13 engaged thereon and bear-

ing against the bottom of the caster frame or fork, although the caster may be applied to the spindle in any well known manner.

As a means for raising and lowering or reciprocating the spindle 4, when the same is oscillated, so as to retract and project the caster above and below the lower end of the leg 1, the upper bearing 2 is equipped with a depending boss 14 surrounding the spindle 4, and the boss 14 is provided with several cam teeth 15, having the helical or spiral cam faces 16 of relatively long pitch, and the notches 17 at the tips or ends of the teeth 15 or at the ends of the cam faces 16. A collar 18 is secured upon the spindle 4 immediately below the boss 14, by means of a pin 19 engaged through the collar and spindle, or in any other suitable manner, and the collar 18 is provided with upper cam teeth 20 engageable between the cam teeth 15 of the boss 14, and having the helical or spiral cam faces 21 of relatively long pitch bearing against the cam faces 16. A coiled wire expansion spring 22 is disposed upon the spindle 4 between the lower bearing 3 and the collar 18, for yieldably raising the spindle and parts carried thereby.

The parts of the present device are concealed or covered by the sides or flanges of the leg 1, so as not to present any bunglesome or unattractive appearance. In the use of the present device, it will be understood that each of the legs of a stove or other structure to which the legs are applied, is provided with one of the caster devices, so that when the casters are rendered operative, the stove or structure may be readily moved about. When the socket 6 is swung in one direction adjacent one edge or flange of the leg 1, as seen in Fig. 1, the collar 18 carried by the spindle 4 will be moved in such a direction, as to bring the teeth 20 of the collar between the teeth 15 of the boss 14, so that the leg 1 will be let down onto the floor or underlying surface, and the spring 22 coming into play, will retract or raise the caster out of active engagement with the floor, so that the leg will support the weight of the stove. When it is desired to raise the stove leg off of the floor, the socket 6 is swung, preferably by engaging a stove shaker, lifter or other implement into the socket 6, in order that the spindle 4 may be readily swung, and when the spindle 4 is swung properly, the collar 18 in being swung, will cause the teeth 15 which are rigid with the leg 1, to ride upwardly upon the cam faces 21 of the teeth 20 which are rigid with the spindle, and as a result, the leg 1 will be raised, and the caster 7 will be projected below the lower end of the leg, to support the leg. When the spindle 4 is swung sufficiently, the tips or points of the teeth 20 will snap into engagement with the notches 17 of the teeth 15, for preventing the parts from returning back to normal position, the spring 22 serving to hold the teeth 20 and notches 17 in engagement while the stove is moved about upon the casters. By forcibly swinging the spindle 4 back to normal or initial position, the teeth 20 may be disengaged from the notches 17, which will enable the teeth 15 to ride downwardly upon the cam faces 21 of the collar 18, so as to lower the leg back onto the floor to render the caster device inoperative.

From the foregoing, the advantages and capabilities of the present invention will suggest themselves to those familiar with the art, and further comment is not deemed necessary.

What is claimed is:—

The combination with a leg, of a spindle carried thereby for vertical movement, a caster carried by the lower end of the spindle, and coöperating spiral cams of long pitch carried by the spindle and leg, one of the cams being oscillatory whereby the oscillation thereof will move the leg and spindle relative to one another for retracting and projecting the caster above and below the lower end of the leg, one of the cams having a notch at its tip for the reception of the tip of the other cam when the oscillatory cam is swung to project the caster.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHARLES G. OVERMYER.

Witnesses:

CLAUDE OVERMYER,

ERVIN BAUERS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."