No. 824,733. PATENTED JULY 3, 1906.

R. MERRICK, Jr. & O. E. MILLER.

CASTER.

APPLICATION FILED DEC. 22, 1905.

Fig. 1.

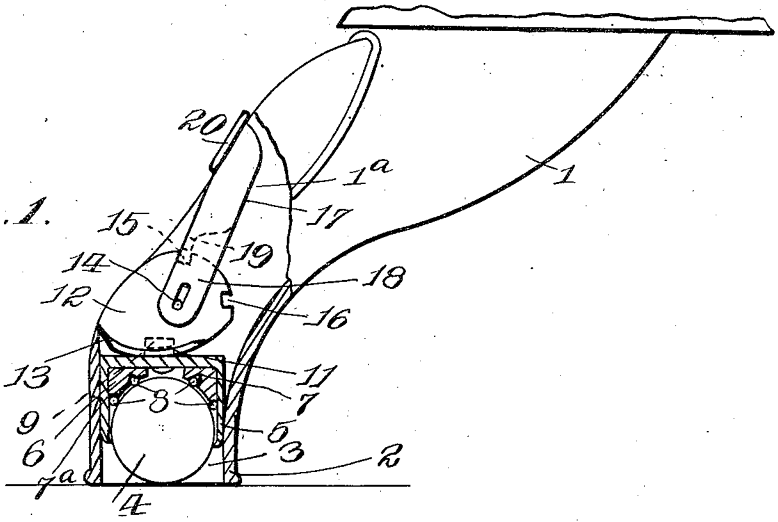


Fig. 2.

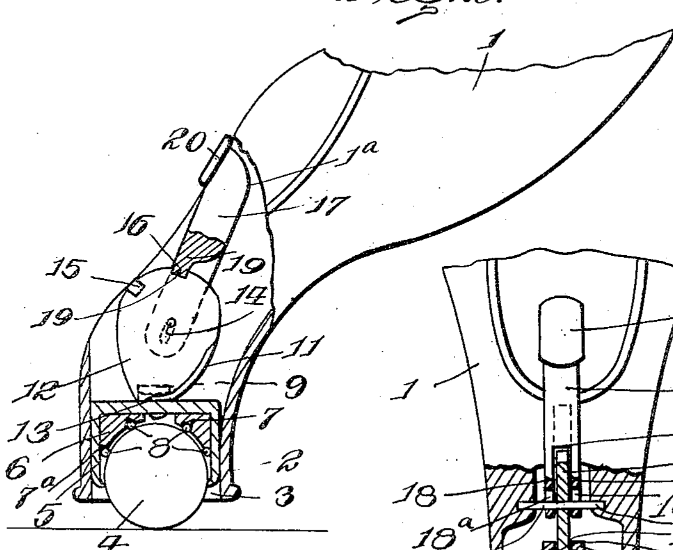
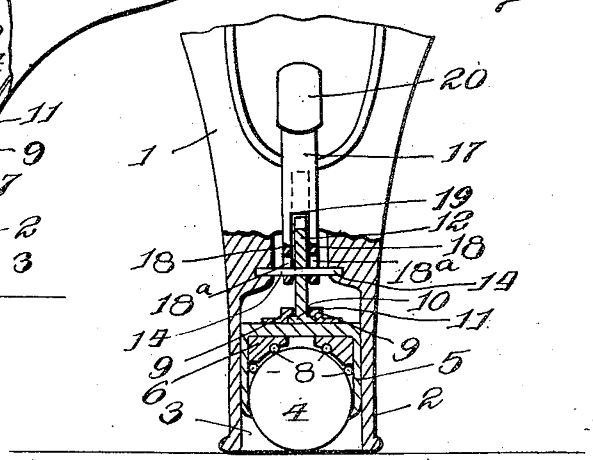


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

ROBERT MERRICK, JR., AND OTTIS E. MILLER, OF HOPEDALE, OHIO.

CASTER.

No. 824,733. Specification of Letters Patent. Patented July 3, 1906.

Application filed December 22, 1905. Serial No. 292,996.

To all whom it may concern:

Be it known that we, ROBERT MERRICK, JR., and OTTIS E. MILLER, citizens of the United States, residing at Hopedale, in the county of Harrison and State of Ohio, have invented certain new and useful Improvements in Casters, of which the following is a specification.

The object of our invention is to provide an improved construction of caster embodying novel features whereby the caster may be withdrawn from operative position with relation to its support, so that the latter may rest rigidly on the floor or the like and which may be readily projected into an operative position with respect to its support in order that the article to which it is attached may be easily rolled from place to place.

In the present embodiment of the invention we have shown our improvement applied to a stove-leg, which constitutes the support for the caster and its actuating means; but it is to be understood that this embodiment is for the purposes of illustration only and that our improvements are applicable to table-legs or to various other articles where casters are useful.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a side elevation of a stove-leg embodying our improved caster, the same being shown in retracted position and parts being shown in section. Fig. 2 is a similar view of the caster in extended position. Fig. 3 is a vertical sectional view taken substantially at right angles to Figs. 1 and 2.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings, the numeral 1 designates the leg of a stove which in the present instance constitutes the support for our improved caster and its means for projecting and retracting the same. The leg 1 is provided at its lower end with a foot 2, which in the present instance is hollow and forms a chamber 3 for the reception of the caster. The foot 2 may completely surround the caster when the latter is withdrawn or retracted therein, or it may be extended only partially around the same, so long as it provides a sufficient bearing-surface at its lower edge to produce a stable or rigid structure for the article of which it constitutes a base.

The caster here shown is of the ball type and comprises a rolling sphere 4, having universal motion within a casing 5. The casing 5 is provided above the sphere 4 with blocks 6, formed with preferably V-shaped races 7 and races 7^a, and small balls or rollers or other antifriction devices 8 are interposed between said races and the sphere 4 for the purpose of reducing friction in the customary manner. To the upper end of the casing or housing 5 are secured two oppositely-disposed angular plates or lugs 9, which constitute between them an inverted-T-shaped retaining-guideway 10 for a coacting flange 11 of a cam-plate 12, and the latter is provided adjacent said flange with a flat surface 13. The cam-plate 12 is provided with studs 14, mounted in the support 1, and at one edge is formed with notches 15 and 16. The lever 17 has a bifurcated end, the two members of which (designated 18) straddle or embrace the cam-plate 12 and are provided with elongated slots 18^a, receiving the pin 14. The lever 17 is further provided with a lug 19, which is so related to the pin 14 and the slots 18^a that when the lever is moved longitudinally with respect to the cam-plate 12, the said lug 19 may take into either the notch 15 or the corresponding notch 16 in order to rigidly connect the cam-plate and lever together. The lever 17 in one position fits partially within a recess 1^a in the leg or support 1, and the lever is preferably provided at its free end with a finger-piece 20, which does not fit within said recess 1^a, but always projects therefrom sufficiently to permit of the ready withdrawal of the lever for the actuation of the cam-plate.

In describing the practical operation of our improvements let it be assumed that the parts are first in the position shown in Fig. 1 of the accompanying drawings, with the caster retracted in the foot of the support 1 and the said foot resting solidly upon the floor or the like. In order to project the caster into operative position, the lever 17 is moved longitudinally until its lug 19 engages in the notch 15, which will effect a rigid relation between the lever and the cam-plate 12. If the lever then be rocked away from the support 1, it will in turn move the cam-plate 12, so that the cam-flange 11 thereof will by bearing downwardly upon the body of the caster casing or housing move the caster outwardly and cause it to project from the lower

edge of the foot 2, so that the support will be raised from its solid or stable position and be supported by the sphere 4, so that the stove or other article may be conveniently moved from place to place. When the cam-plate 12 has been moved sufficiently to bring the flat portion 13 flat against the caster, the latter will be mounted in its projected position to a reasonably certain degree without further pressing upon or holding the lever 17. Hence the lever may be then withdrawn from its locking engagement with the cam-plate and turned backwardly into its initial position against the support 1, in which position it will come into registry with the notch 16, and it may then be again slid longitudinally, so that its lug will engage the said notch 16 to provide against any possibility of the caster being accidentally moved into its retracted position. It will thus be understood that the lever when in engagement with the notch 16 locks the cam-plate in one position to hold the caster projected. By providing the improvements heretofore described it is manifest that when the caster is projected the lever does not necessarily extend at an awkward angle to the support 1, where it would be in the way, but may be turned snug against the support.

From the foregoing description, in connection with the accompanying drawings, it will be seen that we have provided a device which will enable heavy articles, such as stoves, to be conveniently moved from place to place and which embodies novel features of construction for either projecting the caster into an operative position or for allowing it to assume an inoperative retracted position in its support, so that the article to which it is applied may have a firm stand upon the support or the like.

Having thus described the invention, what is claimed as new is—

1. A device of the character described, comprising a support, a caster for said support, a cam-plate designed to move said caster into an extended position with respect to the support, a lever for actuating said cam-plate and pivotally connected thereto, said cam-plate and lever being provided with means for their locking engagement in two different relative positions and the former being constructed to hold the caster projected independently of said lever.

2. A device of the character described, comprising a support, a caster for said support, a cam device arranged to move the caster into an extended position with respect to the support, and a lever pivotally connected to the cam device and arranged for detachable unlocking engagement therewith, the cam device being provided with a flat portion designed to automatically hold the caster in extended position independently of the lever, for the purpose specified.

3. A device of the character described comprising a support, a caster for said support, a cam-plate arranged to move said caster into an extended position with respect to the support and provided on its edge with a notch, and a lever having a longitudinally-slidable connection with said cam-plate and provided with a lug designed to enter said notch thereby connecting the lever to the cam-plate.

4. A device of the character described comprising a support, a caster for said support, a cam-plate arranged to move the caster into an extended position with respect to the support, and provided on its edge with two notches, and a lever longitudinally slidable with respect to the cam-plate, and provided with a lug designed to enter either one of said notches, as and for the purpose set forth.

5. A device of the character described comprising a support, a caster for said support provided with a retaining-guideway, a cam-plate having a flange engaging in said guideway and designed to move the caster into an extended position with respect to the support, said cam-plate being provided with a supporting-stud, and a lever slidably mounted on said stud and provided with means for detachable engagement with said cam-plate.

6. A device of the character described comprising a support, a caster for said support, said caster being provided with a retaining-guideway, a cam-plate mounted in said support and provided with a flange working in said guideway and also provided with a notched edge, and a lever having a bifurcated end the members of which are slotted and which embrace said cam-plate, the slots thereof receiving said stud, and said lever being provided with a lug arranged for detachable engagement with the notched edge of the cam-plate.

7. A device of the character described comprising a support, a caster for said support, means for moving said caster into an extended position with respect to the support, a lever pivotally and permanently connected to the caster-moving means and designed to be swung out away from the support to actuate the caster-moving means, the caster-moving means being constructed to hold the caster projected independently of said lever, and the caster-moving means and lever being provided with means for their detachable locking engagement, whereby the lever may be swung back against the support with the caster in projected position.

In testimony whereof we affix our signatures in presence of two witnesses.

ROBERT MERRICK, JR. [L. S.]
OTTIS E. MILLER. [L. S.]

Witnesses:
J. B. MANSFIELD,
HARRY MANSFIELD.