

W. A. CLAASSEN.
ADJUSTABLE CASTER.
APPLICATION FILED MAR. 24, 1921.

1,386,317.

Patented Aug. 2, 1921.

Fig. 1.

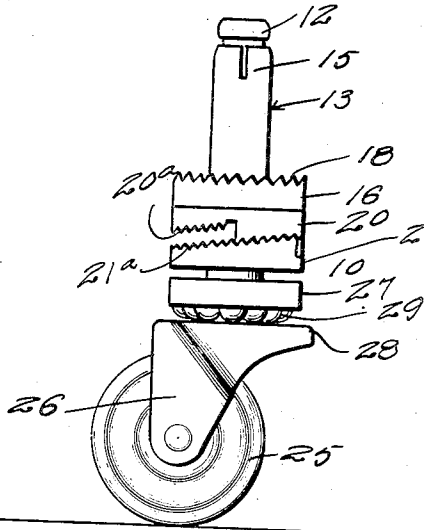


Fig. 2.

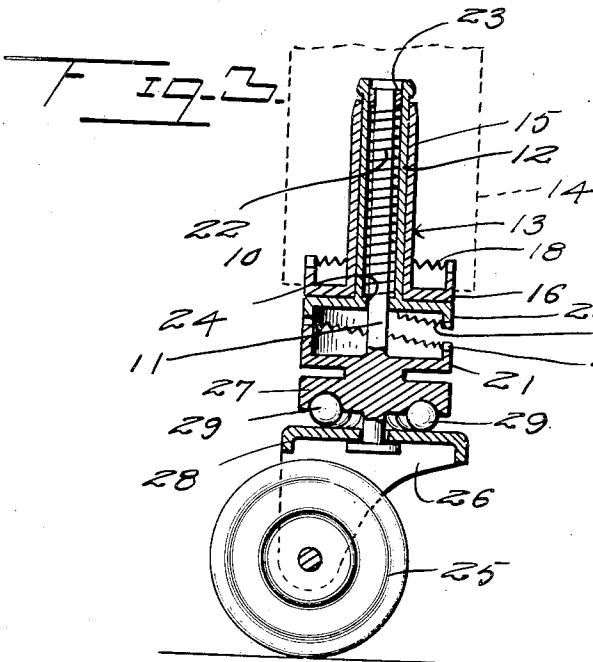
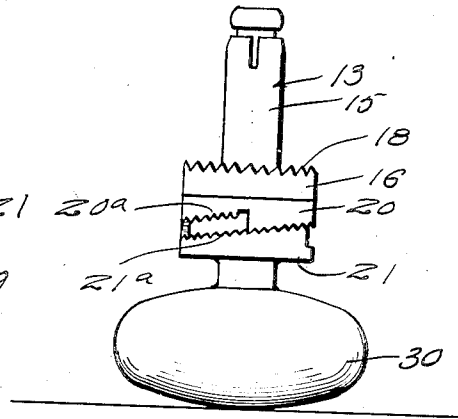
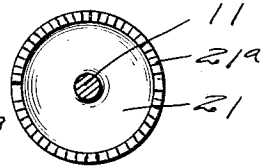


Fig. 4.



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ADJUSTABLE CASTER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM A. CLAASSEN, a citizen of the United States, residing at Fond du Lac, in the county of Fond du Lac, and State of Wisconsin, have invented certain new and useful Improvements in Adjustable Casters; 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.

The object of the invention is to provide a simple and comparatively inexpensive caster adapted for use in connection with various articles of furniture and particularly of heavy furniture, such as tables, pianos, bureaus, chiffonniers and the like and also adapted for use in connection with lighter articles such as chairs, stools, etc., and adapted for respective adjustment to provide for the leveling of the article of furniture in connection with which they may be used, to compensate for unevennesses of the floor or surface upon which the article rests or irregularities in the construction of the article of furniture; and furthermore to provide for an adjustment of each castor with the minimum of effort and without calling for the use of tools or the exercise of any particular skill, to the end that the adjustment may be made from time to time as the conditions under which the furniture may be used should require; and with these objects in view the invention consists in a construction, combination and relation of parts of which a preferred embodiment is shown in the drawing, wherein:

Figure 1 is a side view of a caster embodying the invention, the same being shown with a foot of the roller type.

Fig. 2 is a similar view of a caster having a foot or shoe of the sliding type.

Fig. 3 is a vertical central sectional view of the same.

Fig. 4 is a face view of one of the members of the adjusting wedge.

The shoe or foot of the caster which is indicated generally at 10, and which may be of any preferred construction, form or type, to suit the character of the furniture in connection with which the device is to be used or the character of the floor or surface or carpeting upon which it is to be used, is provided with a stem or spindle 11 upon which is movably fitted a bearing sleeve 12 mounted for sliding and revoluble

movement and permanently associated with the spindle or stem to constitute in connection therewith the shank for removably engaging and fitting in the socket member 13 which is driven into a suitable bore in the leg 14 of the furniture. In practice the socket member preferably consists of a terminally split and compressible sleeve 15 provided at its lower end with a bearing disk 16 adapted for contact with the bottom end surface of the furniture leg and having an upwardly directed spurred or serrated flange 18 to be driven into the material of the furniture leg to secure the same in place.

The stem or spindle and the bearing sleeve, serving jointly, as above indicated, to form the shank of the caster respectively carry the complemental members 20 and 21 of a wedge block having cooperating beveled faces 20^a and 21^a adapted for arrangement in contact and disposed spirally with relation to the axis or length of the stem or spindle, so that as the members of said block are turned with reference to each other in one direction or the other, the bearing sleeve is moved longitudinally on the stem or spindle to either extend or reduce the length of the shank. The beveled or spiral faces of said members of the wedge block are also preferably toothed or serrated as indicated to insure the locking of said members in their adjusted relation, and a spring 22 is interposed between a terminal head 23 on the stem or spindle and a shoulder 24 in the bore of the bearing sleeve, to yieldingly hold said interlocking faces of the members of the wedge block in engagement.

When it is desired therefore to adjust the caster constructed as described, and requiring either lengthening or shortening in order to secure a leveling of the article of furniture or a proper bearing of all of the casters upon the supporting surface such as the floor, it is only necessary to move the bearing sleeve relative to the stem or spindle in opposition to the resistance offered by the spring 22, to thereby disengage the interlocked faces of said members and permit the turning movement of the sleeve and the member attached thereto, to vary the positions of the serrated faces and hence either shorten or lengthen the shank or vary the position of the upper surface of the wedge member 20 which is carried by the bearing sleeve with relation to the plane of the foot or shoe on the caster, it being obvious that the bearing

disk at the lower end of the socket member which is secured in the leg of the article of furniture, rests upon said upper surface of the wedge member 20.

- 5 In the embodiment of the invention illustrated in Figs. 1 and 3, the foot or shoe is of the roller type as indicated at 25 mounted in a fork 26, which is swiveled on the lower end of the spindle or stem with an adjacent anti-friction bearing provided by the disks 27 and 28 and the interposed bearing balls 29; but as indicated in Fig. 2 the adjustable structure is equally applicable to other forms of caster shoes or feet as for example the glass or porcelain glider 30 which under some conditions is preferred to the roller.

Having thus described the invention, what I claim is:—

- 20 1. A caster having a spindle, a bearing member movably fitted thereon, means to

vary the height of the bearing member on the spindle through movement of the bearing member relatively to the spindle, and means to urge said spindle and bearing member into coupled relation. 25

2. A caster having a stem or spindle and a tubular bearing sleeve movably fitted thereon and combining therewith to form a caster shank for engagement with a suitable socket, said stem and sleeve being provided with contacting members of which the adjacent faces are spirally disposed, and a spring for yieldingly holding said faces in engagement. 30.

In testimony whereof I affix my signature in presence of two witnesses. 35

WILLIAM A. CLAASSEN.

Witnesses:

H. A. WEHDE,
V. V. QUADE.