

July 15, 1969

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3,455,531

DRESSMAKER'S TURNTABLE

Filed Jan. 25, 1967

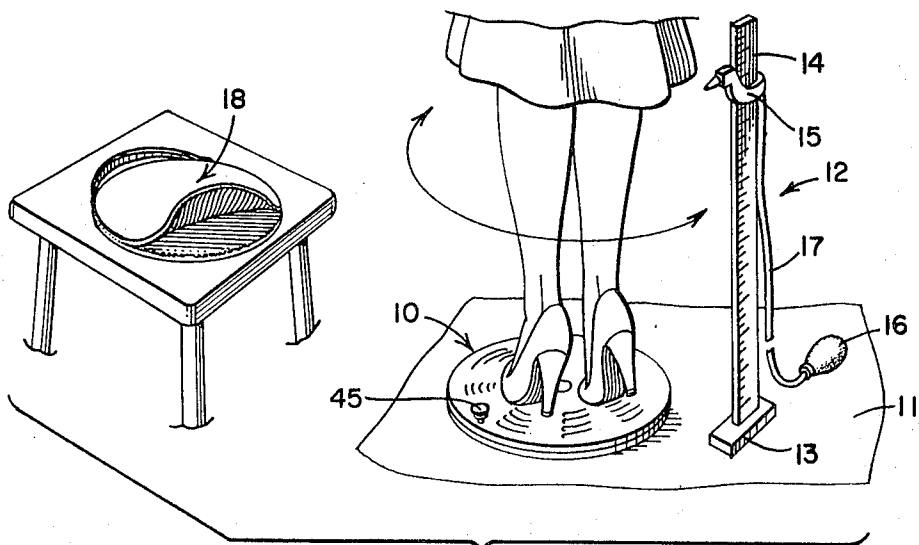


FIG. 1

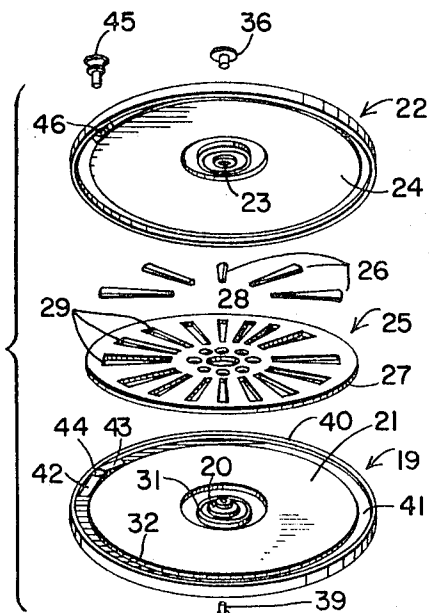


FIG. 2

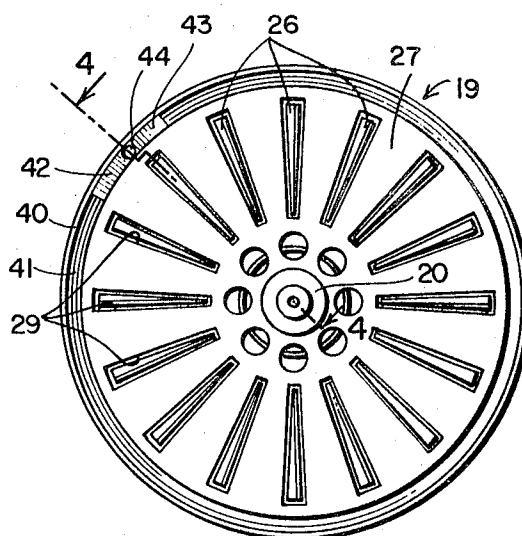


FIG. 3

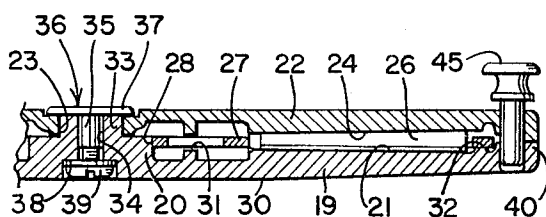


FIG. 4

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DRESSMAKER'S TURNTABLE

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Filed Jan. 25, 1967, Ser. No. 611,630
Int. Cl. A47b 95/00, 91/00
U.S. Cl. 248—349

1 Claim

ABSTRACT OF THE DISCLOSURE

The device of the invention relates to a turntable assembly adapted for rotatably supporting a person standing thereon for a hem-marking operation. The device includes a circular base member, a load-carrying platform rotatably mounted thereon, and a bearing assembly interposed therebetween for rotatably supporting the platform on the base member.

The turntable assembly of the invention is particularly adapted for rotatably supporting a person standing thereon so that a dress or skirt may be marked for a subsequent stitching of the hem. During the hem-marking operation, it is important that the markings on the skirt be equally spaced from the floor so that the skirt will hang evenly when stitched.

Prior to the present invention, a hem-marking operation normally required that a marking device be repeatedly moved to successive positions around the person wearing the dress or skirt so that sufficient marks could be made to indicate the desired hemline. This operation is particularly difficult and awkward for the wearer to perform since she must repeatedly bend down to move the marking device and then straighten up so that the hem may be marked at each successive position of the marking device. Accordingly, the assistance of another person to move and operate the marking device is frequently required to provide an even marking for the hemline with a minimum of difficulty for the wearer.

With the foregoing in mind, it is accordingly a primary object of the invention to provide a turntable assembly for rotatably supporting a person standing thereon so that an accurate and even marking may be made on a dress or skirt worn by the person without requiring that the marking device be moved.

More particularly, it is an object in accordance with the preceding object to provide a turntable assembly permitting the wearer of the dress to perform a hem-marking operation without requiring the assistance of others.

Another object is to provide a turntable assembly capable of easily supporting the weight of a person without requiring a construction utilizing expensive, high-strength materials.

Yet another object is to provide a turntable assembly which is compact and lightweight for easy portability and storage.

Briefly, these and many objects and advantages of the invention are obtained by providing a turntable assembly including a generally circular base member adapted to be positioned on a supporting surface such as a floor. A generally circular platform is rotatably secured on the base member for rotatably supporting a person standing thereon. The base member and the platform include non-planar, conical surfaces of revolution which are spaced from each other in opposing relation.

The turntable assembly includes a bearing assembly interposed between the conical surfaces of the base member and the platform. The bearing assembly includes a plurality of conically-shaped bearing members which are sandwiched between and engage the conical surfaces for rotatably supporting the platform on the base member.

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The bearing members are arranged so as to distribute the applied load over a substantial radial extent of the base member.

A better understanding of the invention will be had by now referring to a preferred embodiment thereof as illustrated in the accompanying drawings, in which:

FIGURE 1 is a perspective view of the turntable assembly of the invention and illustrates a person standing thereon for rotation with respect to a device for marking a hem of a dress;

FIGURE 2 is an exploded perspective view of the turntable assembly of FIGURE 1;

FIGURE 3 is a plan view of the turntable assembly in partially assembled form; and

FIGURE 4 is a fragmentary, cross-sectional view taken in the direction of the arrows 4—4 of FIGURE 3.

Referring first to FIGURE 1, there is shown a turntable 10 positioned on a floor 11 for supporting a person standing on the turntable for rotation with respect to a conventional marking device 12. The marking device 12 includes a base 13 for supporting a vertically extending scale or ruler 14 having markings thereon denoting inches and gradations thereof. The marking device 12 includes a chalk marker 15 slidably mounted on the ruler 14 for ejecting chalk onto the dress at a desired height above the floor as indicated on the ruler. The chalk is ejected from the marker 15 in the usual manner in response to squeezing an elastic bulb 16 connected to the marker 15 by a flexible tube 16.

It will be seen in FIGURE 1 that the turntable 10 is compact and may be conveniently carried and stored in a carrying case shown at 18.

Details of the turntable 10 will be seen more clearly in FIGURE 2, wherein the turntable includes a circular base member 19 having a central upwardly projecting hub 20. The base member 19 includes an upwardly facing, non-planar, conical surface of revolution 21 surrounding the hub 20. The surface 21 has a radial extent covering a major portion of the radial extent of the base member 19 as shown.

The turntable 10 further includes a circular platform 22 having a central opening 23 for mounting on a portion of the hub 20. The platform 22 includes a downwardly facing non-planar, conical surface of revolution 24 which, as in the case of the above-mentioned surface 21, has a radial extent covering a major portion of the radial extent of the platform 22 as shown.

The turntable includes a bearing assembly 25 for rotatably supporting the platform 22 on the base member 19. The bearing assembly 25 includes a plurality of conically-shaped bearing members shown at 26. The bearing assembly further includes a circular plate-like caging member 27 which has a central opening 28 for receiving the hub 20. The caging member 27 includes a plurality of radially extending, tapered openings 29 for receiving the bearing members 26 as will be described.

As shown in FIGURE 3, the bearing members 26 are positioned within the openings 29 and are thus retained in circumferentially spaced, radially extending relation with respect to the hub 20.

Further details of the invention are shown in FIGURE 4, wherein it will be seen that the base member 19 includes a substantially flat bottom surface 30 for engaging the floor as shown in FIGURE 1. The base member 19 includes a first annular rib 31 between the hub 20 and surface 21 and a second annular rib 32 surrounding the surface 21. The ribs 31 and 32 support the caging member 27 in a substantially horizontal position as shown. It will further be seen that the bearing members 26 are sandwiched between and engage the surfaces 21 and 24 in a complementary engagement.

The hub 20 includes a decreased diameter portion 33 which projects upwardly to receive the opening 23 of the platform 22. The hub 20 further includes the central opening 34 for receiving a shank 35 of a connecting stud 36. The stud 36 has a head 37 having a diameter greater than that of the opening 23 for engaging the platform 22. The base member 19 is shouldered at 38 for receiving the head of a screw 39 threadedly coupled to the shank 35. It will thus be apparent that the stud 36 and screw 39 hold the turntable in assembled relation.

The turntable includes means for automatically locking the platform to the base member to prevent further rotation therebetween in response to rotation of the platform through a maximum of 360°. With reference to FIGURE 2, the base member 19 includes an upturned peripheral rim 40 which is spaced from the rib 32 to define an annular groove 41 therebetween. A pair of upwardly extending, tapered surfaces 42 and 43 are formed between the rib 32 and rim 40 on opposite sides respectively of an opening 44 defined in the base member 19. A locking pin 45 is mounted on the platform 22 through an opening 46 defined therethrough and is positioned to engage the groove 41 of the base member 19. Accordingly, the platform 22 is rotatable on the base member 19 until the pin 45 engages either of the tapered surfaces 42 or 43 which lift or cam the pin upwardly, whereupon the pin drops into the opening 44 to prevent further rotation.

In operation, and with reference first to FIGURE 1, the turntable is placed on the floor so that a person may stand thereon as shown. The marking device 12 is then adjusted to mark the hemline of the wearer's dress or skirt at the desired distance above the floor. The locking pin 45 is then lifted so that the platform is free to rotate on the base member. The person may easily rotate the platform by simply pushing against an adjacent wall or chair. By gripping the bulb 16, the person may cause the chalk to be ejected onto the hem of the dress at suitable intervals as the person rotates with respect to the marking device.

With reference to FIGURES 3 and 4, rotation of the platform 22 causes the bearing members 26 to rotate about their respective radially extending axes, which, in turn, may cause the caging member 27 to rotate with respect to the hub 20. It will be apparent that the imposed load on the platform 22 is transmitted to the base member 19 through the interposed bearing members 26 which are arranged to distribute the load onto a substantial area of the base member. Accordingly, rotation occurs with a minimum of wear, thereby insuring long service without requiring the use of expensive, high-strength materials. In this regard, completely satisfactory results are obtained by forming the platform, bearing assembly, and base member of molded plastic material.

From the foregoing, it will be apparent that the turntable assembly of the invention provides a convenient means for a person to mark the hem of a dress without requiring the assistance of others. The turntable is compact, lightweight, and ruggedly constructed to provide long service.

Various changes falling within the scope and spirit of the invention will occur to those skilled in the art. The invention is, therefore, not be thought of as limited to the specific embodiment set forth.

What is claimed is:

1. A clothing marking arrangement for assisting a per-

son to mark at a given height clothing being worn by the person, the arrangement comprising:

a base member having a substantially flat bottom surface for engaging a supporting surface, said base member including an upwardly projecting hub and an upwardly facing conical surface of revolution surrounding said hub;

a platform mounted for rotation about said hub and having a downwardly facing conical surface of revolution spaced from said upwardly facing conical surface;

a top surface formed on said platform for supporting a person in a standing position;

bearing means between said base member and said platform, said bearing means including a caging member mounted for rotation about said hub and positioned between said conical surfaces, said caging member having a plurality of circumferentially spaced radially extending openings defined therein, said bearing means further including a plurality of conically shaped roller bearing members positioned in said openings and engaging said conical surfaces for rotatably supporting said platform on said base member;

stop means for automatically locking said platform to said base member to prevent further rotation therebetween in response to rotation of said platform through a maximum turn of 360°, said stop means including a locking pin extending perpendicularly relative to said platform through an opening in said platform, an annular groove defined by said base member for slidably engaging said locking pin as said platform is being rotated, a pair of tapered surfaces disposed in said annular groove that mutually intersect at a height above the groove height, and, a retaining opening extending perpendicularly relative to said base member through the intersection point of said tapered surfaces so that when said platform is rotated through maximum turn 360° said locking pin will be cammed upwardly along one of said tapered surfaces and guided into said retaining opening to prevent further relative rotation between said platform and said base member; and

a marking device for marking clothing worn by the person at a given height as the person is being rotated on said platform.

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FRANCIS K. ZUGEL, Primary Examiner

U.S. Cl. X.R.

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,455,531

July 15, 1969

Loretta C. Baker

It is certified that error appears in the above identified patent and that said Letters Patent are hereby corrected as shown below:

In the heading to the printed specification, "Loretta C. Baker, San Gabriel, Calif., assignor to Storm Products Co., a corporation of California" should read -- Loretta C. Baker, 516 W. Coolidge Dr., San Gabriel, Calif., 91775 --.

Signed and sealed this 29th day of December 1970.

(SEAL)

Attest:

Edward M. Fletcher, Jr.

Attesting Officer

WILLIAM E. SCHUYLER, JR.

Commissioner of Patents