

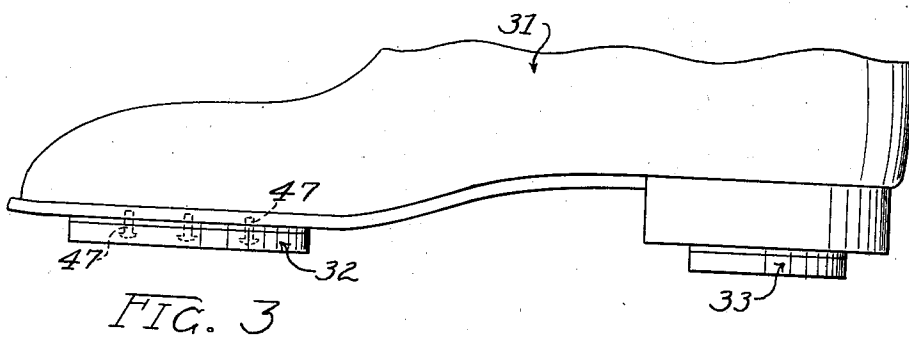
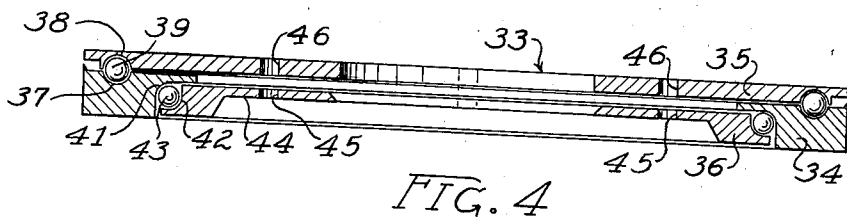
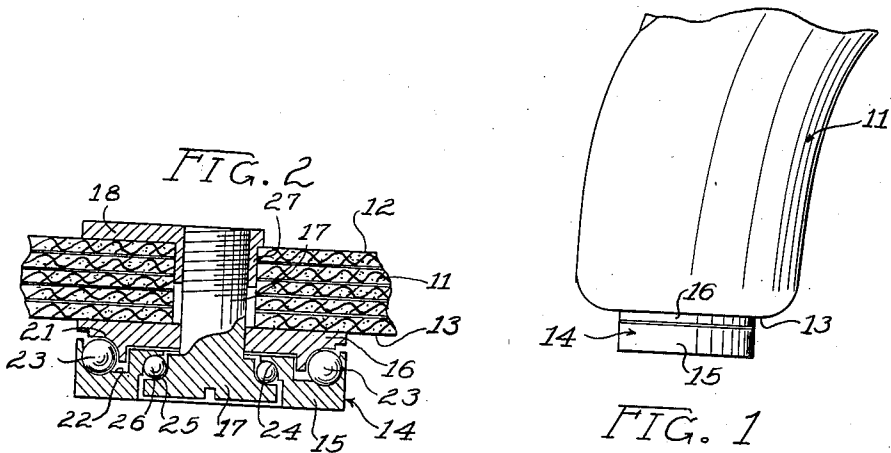
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DANCING SHOE

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DANCING SHOE

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1 Claim. (Cl. 36—8.3)

This invention relates in general to a novel attachment for dancing shoes whereby the dancer is enabled to do rapid spins and tapping.

A principal object of the invention is the provision of a spinner or tap attachment which may be used on either new or old shoes, and which may be secured to the toe of toe dancing shoes or the sole, heel, or both, of any type of dancing shoes to facilitate numerous and rapid spins, turns, or taps by the dancer.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawing, discloses a preferred embodiment thereof.

In the drawing,

Figure 1 is a side elevational view of the toe of a toe dancing shoe, showing a spinner or tap attachment embodying the features of my invention secured thereto;

Fig. 2 is an enlarged vertical section through the spinner or tap attachment and shoe of Fig. 1, parts of the shoe being broken away;

Fig. 3 is a side elevation of another type of dancing shoe, with parts broken away, showing a modified form of spinner or tap attachment secured to the sole and heel thereof; and

Fig. 4 is an enlarged vertical section through one of the spinner or tap attachments of Fig. 3. Referring more particularly to the drawing, reference numeral 11 indicates a shoe of the conventional toe dancing type. As is well known in the art, the toes of such shoes are built up out of leather, cloth and glue, fibre, or the like to provide a stiff, solid body portion of relatively great depth from the inner bottom wall 12 thereof to the base or outer bottom surface 13.

One form of my invention comprises a spinner or tap attachment, indicated generally by reference numeral 14, which may be secured to the toe of the shoe 11 during or subsequent to the manufacture thereof. This form of spinner 14 preferably comprises a bottom ball race assembly, including a bottom plate or ring 15 in the form of a double ball race member, an upper race member 16, and a connecting bolt member 17, and a top plate 18.

The upper race member 16 is in the form of a ring having a flat upper surface adapted to contact with the bottom surface 13 of the shoe 11, and provided on its lower surface with an annular groove 21. The bottom plate 15 has an annular groove 22 formed in its upper surface adjacent the circumference thereof, the outer portion of which co-operates with the

groove 21 in the member 16 when the two are assembled in proper relationship to form a race for a plurality of balls 23. The inner portion of the ring 15 is provided with an annular rib 24 which, with a suitable circumferential groove 25 in the upper or inner surface of the head of the bolt member 17, forms a race for a plurality of balls 26 when the several parts are properly assembled.

In order to attach the spinner 14 to the shoe 11, a suitable hole is first drilled through the center of the toe of the shoe from the surface 13 to the surface 12. The top plate 18 is then placed inside of the shoe with a downwardly extending annular flange portion 27 of said plate inserted into the hole. The horizontally disposed body portion of the plate 18 is given any suitable shape to eliminate the possibility of discomfort to the dancer's foot, and is preferably formed as a circle in plan with a portion thereof cut off by a relatively long chord, the annular flange 27 having its center coinciding with that of the circle.

The members 15, 16, 17, 23 and 26 having been properly assembled, the bolt 17 is inserted upwardly into the hole in the toe of the shoe and screwed into the flange 27 of the upper plate 18, the inner surface of which is suitably threaded. In this manner the spinner 14 is rigidly secured to the toe of the toe dancing shoe 11 to provide an anti-friction supporting device which greatly facilitates the execution of rapid spins, turns, or taps.

It will be seen from Fig. 2 that only the lower surface of the bottom plate or ring 15 will come in contact with the dancing surface, since the several parts are so proportioned that the head of the bolt 17 will extend above this lower surface when the spinner is properly mounted on the shoe; and it will be readily understood that the different parts of the spinner attachment may be made or formed in any desired manner from any suitable material or materials and in any desired size or sizes.

In Fig. 3 a different type of dancing shoe is shown, to the sole and heel of which are secured spinner or tap attachments 32 and 33, respectively, embodying the features of my invention in a slightly modified form. The spinners or taps 32 and 33 are identical in all respects except as to size, the heel spinner 33 preferably being smaller in diameter than the one secured to the sole of the shoe. It will, of course, be apparent that either sole or heel spinners or taps 32, 33 respec-

tively, may be used alone, or both may be attached to the shoe as desired.

Referring to Fig. 4, the spinner or tap 32 is shown as comprising a bottom plate or ring 34 in the form of a double ball race similar to the ring 15 of the spinner 14, an upper plate or race member 35 similar to the ring 16 of the spinner 14, and an inner ring member or retaining plate 36. The members 34 and 35 are provided with annular grooves 37 and 38 in their upper and lower surfaces, respectively, adjacent the periphery thereof which co-operate to form a race for a plurality of balls 39. The lower surface of the ring 34 is provided with an inner circumferential groove 41 which is adapted to cooperate with an outer circumferential groove 42 in the upper surface of the ring 36 to form a race for a plurality of balls 43. It will be apparent from Fig. 4 that, when the several parts are in properly assembled position, the lower surface of the ring 36 will be above the plane of the lower surface of the plate 34, so that only the latter will contact the dancing surface.

The lower surface of the ring or retaining plate 36 is provided with an inner circumferential groove 44, and through the inner flange defined by this groove, are a plurality of circumferentially spaced holes 45. The upper plate 35 is also provided with a plurality of holes 46 which are coaxially aligned with the holes 45 when the spinner is properly assembled. Suitable screws or bolts 47 may thus be inserted through these holes 45, 46 and threaded into or through the sole or heel of the shoe 31 to rigidly secure the spinner thereto. Due to the recess provided by the groove 44, the heads of the screws or bolts 47 will be above the plane of the bottom of plate 34.

It will, of course, be apparent that any other suitable clamping or retaining means may be employed to rigidly secure the spinner or tap attachments 14, 32 or 33 to a dancing shoe in the desired position. While a double ball race is shown in the spinners herein disclosed, a single

race or any other number of races may be employed as desired.

From the foregoing description it will be seen that I have provided an attachment that may be readily secured to any type of dancing shoe, either during or subsequent to the manufacture thereof, and which enables a dancer to do a greatly increased number of rapid spins, turns, or taps while toe or tap dancing.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

In combination with a dancing shoe having an aperture extending through the toe portion thereof, a spinner attachment, comprising a substantially flat plate member positioned within the toe portion of the shoe and having a tapped flange extending outwardly into said aperture, an annular base plate positioned against the outer end surface of the toe portion of said shoe surrounding said aperture, an annular spinner plate adapted to engage a floor surface, a retaining bolt having an enlarged head portion at one end with an annular groove formed in the upper surface thereof and a threaded shaft portion extending through said base and spinner plates and through the aperture in said shoe to be screwed into the tapped flange of said first plate member, a plurality of balls interposed between said spinner plate and said base plate, and a plurality of balls mounted within the annular groove in the head portion of said retaining bolt in rolling contact with said spinner plate, whereby said spinner plate may be freely rotated relative to said shoe.

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