Aug. 1, 1939. A. L. SOTHEN 2,168,303

DANCING TAP

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Fig. 1

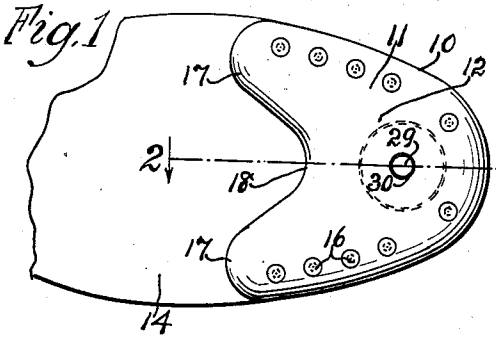


Fig. 3

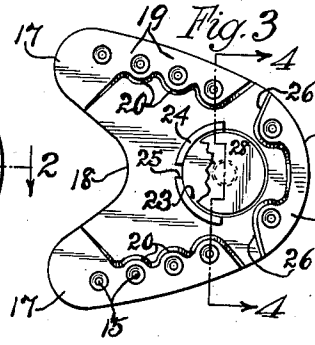


Fig. 5

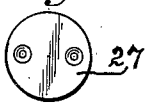




Fig. 6



Fig. 6a

Fig. 2

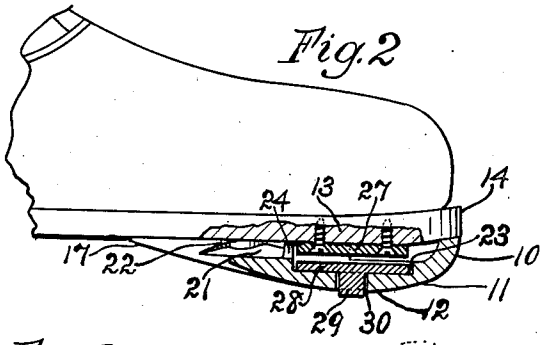


Fig. 4

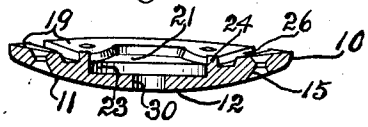


Fig. 8

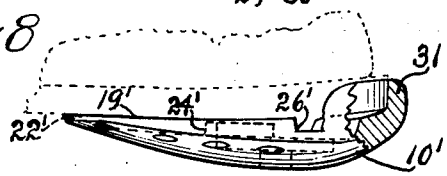


Fig. 7

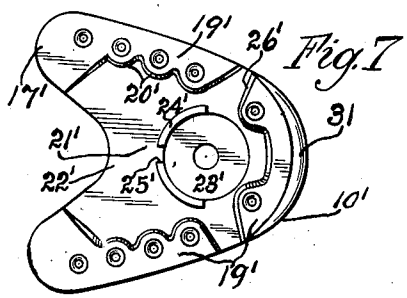


Fig. 9

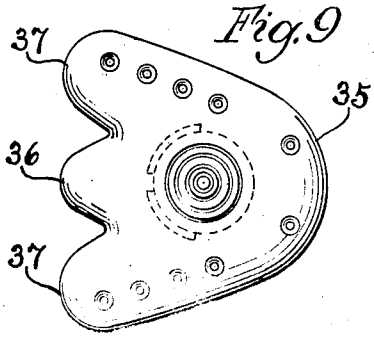
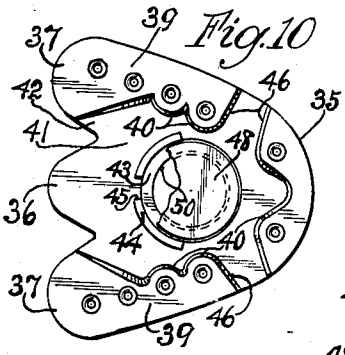


Fig. 10



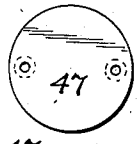


Fig. 12



Fig. 12a.



Fig. 13.

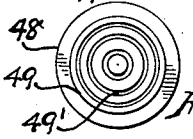
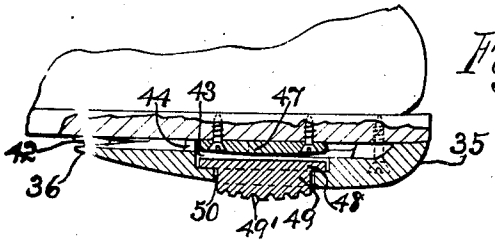


Fig. 13a.

Fig. 11



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Fig. 14

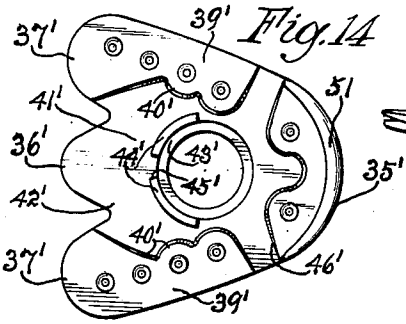


Fig. 15

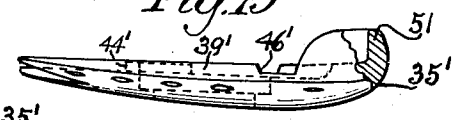


Fig. 16

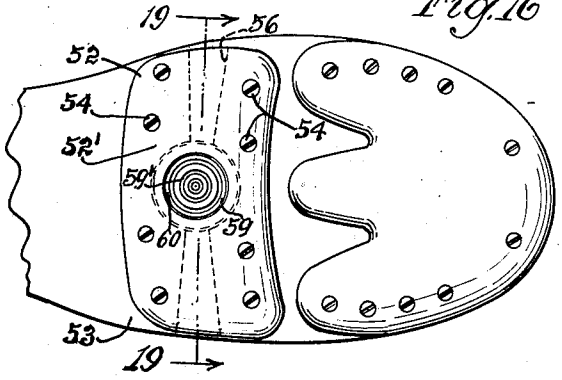


Fig. 17

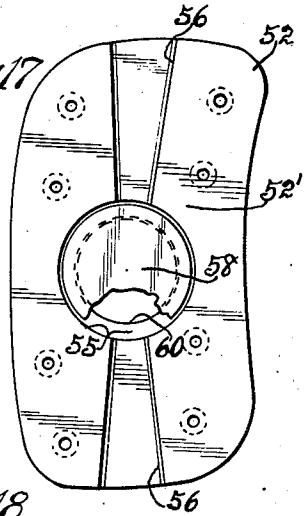


Fig. 18

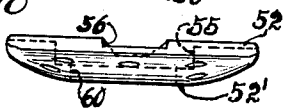


Fig. 19

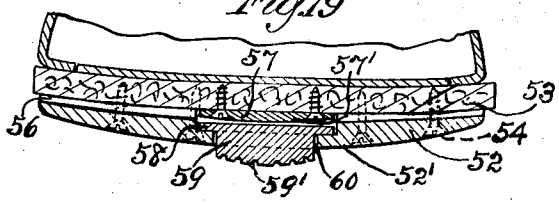


Fig. 20

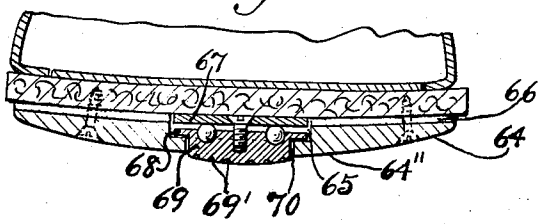


Fig. 21.

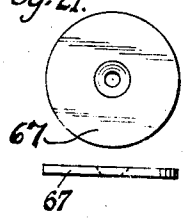


Fig. 21a.

Fig. 25

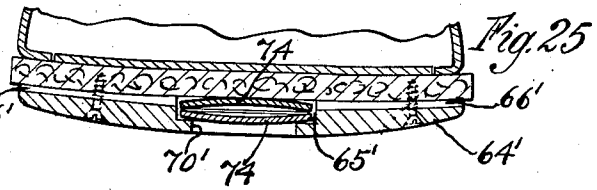


Fig. 22

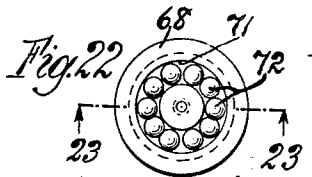


Fig. 23

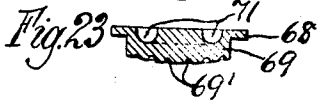


Fig. 24

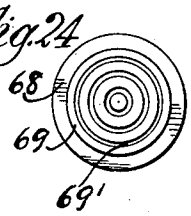
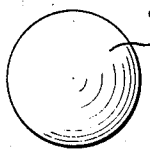


Fig. 26



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Fig. 27

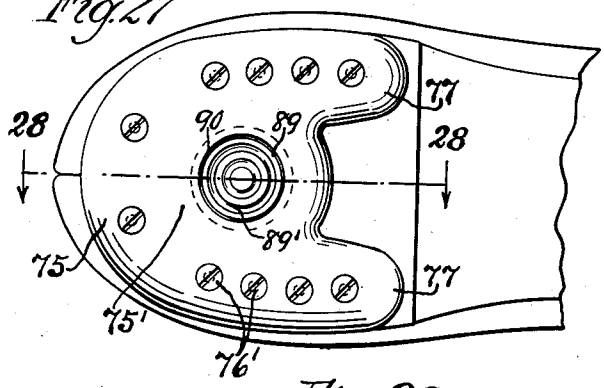
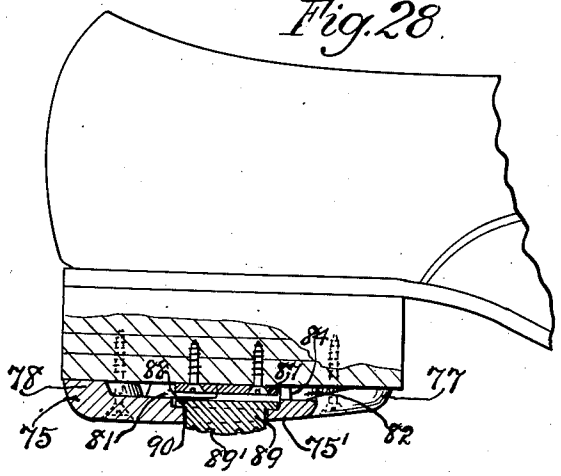


Fig. 28



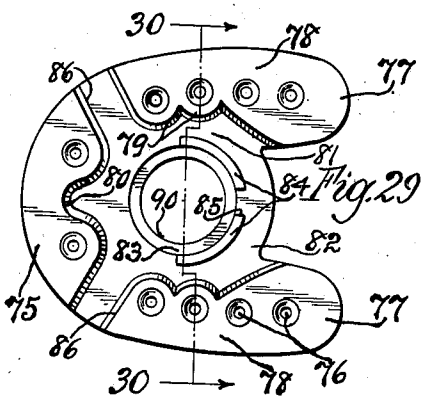


Fig. 29

Fig. 30

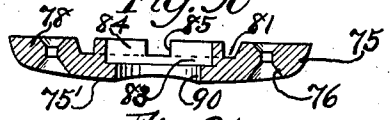
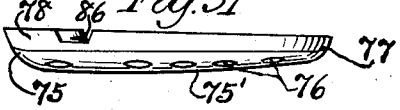


Fig. 31



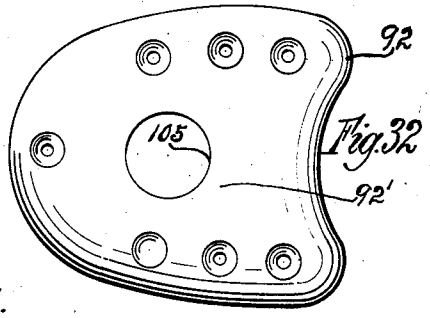


Fig. 32

Fig. 33

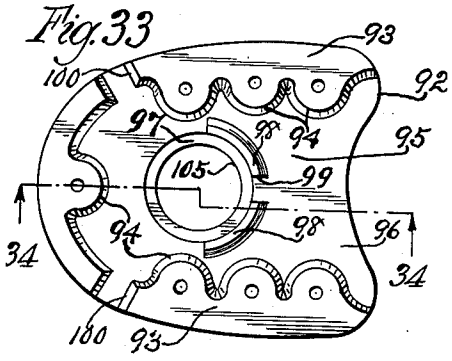


Fig. 34

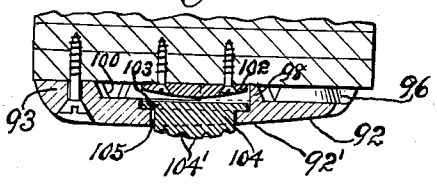
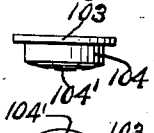


Fig. 35.



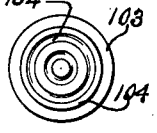


Fig. 35a.

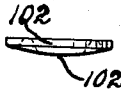


Fig. 36.



Fig. 36a.

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Patented Aug. 1, 1939 2,168,303

UNITED STATES PATENT OFFICE

2,168,303

DANCING TAP

Albert L. Sothen, Chicago, Ill.

Application August 12, 1938, Serial No. 224,422

17 Claims. (Cl. 36—8.3)

This invention relates to novel and improved dancing taps.

The known dancing taps of this type, such as are plate-like in form and are provided with a sound amplifying chamber, have no sound creating elements or only weak ones in said chamber, and furthermore have the sound outlet positioned under the bottom of the shoe, whereby said outlet becomes restricted by the overhanging shoe bottom, so that the sound emitted from the chamber is obliged to pass between the sole or the bottom of the shoe and the floor, which tends to muffle and deaden the metallic sound created in the chamber.

It is one of the main objects and purposes of my invention, in its various forms, to provide an improved dancing tap comprising a specially arranged sound chamber containing means for creating a positive and strong metallic or ringing sound, and further to provide special ports or channel means for emitting a clear and strong metallic sound directly outwardly of and beyond the confines of the shoe bottom.

Another object of this invention is to provide tap devices adapted for use for a variety of purposes, whereby to produce jingling, tapping, turning and spinning effects.

A further object of this invention is to provide a dancing tap which is constructed to meet the ever changing turning, tapping and spinning routines of the dancer, and to assist the dancer in performing these various exhibitions with ease and grace and with a minimum of expended energy.

Another object of this invention is to provide a dancing tap adapted to produce a strong and distinct sound effect, which is preferably accomplished by providing a sound chamber having a distinct recess or pocket wherein sound producing means is seated so as to be positively moved therein when the tap touches the floor.

A further object of this invention is to provide particular sound outlet ports on such tap, in order to clearly and efficiently discharge the sound from such sound chamber and recess beyond the bottom of the shoe.

Another object of this invention is to provide such dancing taps with upper reinforcing ridges having a sound chamber and recess therebetween and which ridges are scalloped or indented on the inward edges, adapted to produce variations in the tapping and jingling sounds.

Another object of this invention is to provide such a dancing tap comprising outer ridge means on its upper face, and also upstanding ribs adjacent an intermediate sound recess, adapted to engage under the bottom of the shoe and prevent the latter from being depressed into the sound chamber and recess or to deaden the created sound.

Another object of this invention is to provide such dancing taps comprising a crowned or domed lower face curved upward toward the front and the rear and the side edges, and wherein the openings for the fastening elements are placed close to the sloping edges, so as to prevent any fastening element from engaging or marring the floor.

Another object of this invention is to provide a novel dancing tap provided with means, which may also include a ballrace, to facilitate easy and graceful turning and spinning of the dancer in either direction; and furthermore to arrange the spinning means of such dancing taps with means on the lower face to prevent skidding and slipping over the floor thereby.

Another object of this invention is to provide such an improved dancing tap construction which may be embodied in either a toe tap or a ball tap or a heel tap, for attachment to the bottom of the shoe.

A further object of this invention is to produce a tap construction for the toe part, and likewise for the ball part of the foot, having a crowned lower face so as to readily strike the floor with the central crown portion of the tap, and thus to guide the dancer to a center balance or balance on the central part of the tap, and to produce very loud tapping and jingling sounds.

A more particular object of this invention is to provide a toe tap which is equipped with two or three rearwardly extending ears or wings which will serve as supporting means for the sole and the foot of the dancer, especially when engaged in toe stands.

A further object is to provide a tap equipped with three long ears or wings which extend a considerable distance rearwardly, for the particular purpose of effecting a triple or compound rippling sound when passing over the floor, especially in wing-step dancing.

Another object of this invention is to provide the tap in the form of a heel plate which comprises means, preferably including a sound recess and means movable therein, for creating a variety of jingling sounds and an amplifying thereof, and which means is instantly responsive to the least movement of the foot; and to furthermore provide such heel tap adapted for

easily making a number of turns thereon, without skidding on the floor or marring the same.

These and various other objects and advantages are attained with this invention as will become apparent from the following description, taken in connection with the accompanying drawings, in which the invention is shown in several preferred forms, it being understood that various other arrangements and forms of construction may be resorted to for carrying out the objects and purposes of this invention.

In the drawings:

Fig. 1 is an inverted plan view showing an embodiment of my invention in the form of a dancing tap attached to the toe part of a dancing shoe.

Fig. 2 is a side view thereof, showing a sectional view of the tap, taken on line 2—2 of Fig. 1.

Fig. 3 is a top plan view of said form of dancing tap.

Fig. 4 is a cross-sectional view thereof, taken on line 4—4 of Fig. 3.

Fig. 5 is an inverted plan view of the upper disk or sounding member which is attached to the sole of the shoe.

Figs. 6 and 6*a* illustrate respectively, in top plan and in elevation, the lower disk or sounding member which is housed and movable in the tap plate.

Fig. 7 is a top plan view of a slightly modified form of tap including an upstanding supporting flange on its front edge.

Fig. 8 is a side view thereof, with said flange shown in section.

Fig. 9 is an inverted plan view of another modified form of dancing tap which includes three rear wings.

Fig. 10 is a top plan view of said form.

Fig. 11 is a vertical sectional view of this form attached to the shoe, with the tap and its disk members shown in section.

Figs. 12 and 12*a* illustrate the upper disk, in plan and in elevation, respectively.

Figs. 13 and 13*a* illustrate the lower disk member in elevation and in inverted plan view, respectively.

Fig. 14 is an upper plan view of a further modified form of dancing tap, provided with an upstanding flange on its front edge.

Fig. 15 is a side elevational view of this form, with said flange shown in section.

Fig. 16 is an inverted plan view of another modified form of tap, in the shape of a ball tap, being shown mounted under the ball part of the shoe.

Fig. 17 is a top plan view of this ball tap.

Fig. 18 is an end view of this ball tap.

Fig. 19 is an enlarged sectional view of this ball tap, taken on line 19—19 of Fig. 16.

Fig. 20 is a cross-sectional view of my improved dancing tap, which is shown provided with ball-bearing means in the disk members for effecting an easy turning and spinning therewith.

Figs. 21 and 21*a* show the upper disk member thereof in plan and in side elevation, respectively.

Fig. 22 is a top plan view of the lower disk member with the ballrace therein.

Fig. 23 is a cross-sectional view thereof, taken on line 23—23 of Fig. 22.

Fig. 24 is an inverted plan view of said lower disk member.

Fig. 25 is a cross-sectional view showing my improved tap adapted to utilize cymbals in its sound recess.

Fig. 26 is a plan view of the cymbal.

Fig. 27 is an inverted plan view of a further modified form of dancing tap, in the shape of a heel plate shown attached to the heel of a dancing shoe.

Fig. 28 is a sectional view thereof, taken on line 28—28 of Fig. 27, showing the attached shoe part in elevation.

Fig. 29 is a top plan view of said heel tap.

Fig. 30 is a vertical cross-sectional view thereof, taken on line 30—30 of Fig. 29.

Fig. 31 is a side view of this tap.

Fig. 32 is an inverted plan view of another form of heel tap.

Fig. 33 is a top plan view of this heel tap.

Fig. 34 is a sectional view thereof, taken on line 34—34 of Fig. 33, showing the upper disk secured to the heel, and its curved lower face engageable by the lower disk member to turn thereon.

Figs. 35 and 35*a* show said lower disk member in elevation and in bottom plan view, respectively.

Figs. 36 and 36*a* show said top disk in elevation and in bottom plan view, respectively.

In the drawings I have illustrated this invention in a few of its various forms of construction. In Figs. 1 to 15 inclusive, the several forms of dancing taps conform to the forward part or toe part of the shoe sole and are arranged to be firmly secured thereunder; while in Figs. 16 to 19 inclusive, the invention is shown in the form of a ball tap arranged to be secured under the ball part of the shoe; and in Figs. 27 to 34 inclusive, the invention is shown in the form of a heel tap or heel plate arranged to be secured under the heel of the shoe.

These taps are generally made of light-weight, rust-resisting metal, such as aluminum or an aluminum alloy or the like.

In Figs. 1 to 6 inclusive, I have shown the invention in the particular form of a toe tap. It comprises a body or plate portion 10 having a convex lower face 11 which is curved upwards toward the front and the rear and the side edges, providing an intermediate crowned or domed part 12 thereon, which is positioned under the toe portion 13 of the sole 14 of the shoe. The beveled edges of the tap have openings 15 provided therein, to receive fastening elements 16 for securing the tap to the shoe sole 14, said openings being countersunk and the elements placed deep therein to prevent any digging or scraping of said elements into the floor.

In this form of tap the body 10 has two outer rearwardly extending wings 17 thereon with a recess 18 therebetween, said wings extending a substantial distance rearwardly almost to the bending part of the shoe, so as to provide ample support and stiffness to the forward part of the shoe sole.

Reinforcing means or ridge means 19 is provided on the upper face of the tap, extending along the marginal side and front part thereof, and being provided with dents or scallops 20 on the inner edge. A sound chamber 21 is thus formed between said scalloped ridge means, having a sound outlet opening or port 22 at the rear. These scallops are effective in producing a variety of jingling and tapping sounds.

A pocket or recess 23, which is substantially circular, is further provided within the upper face portion of the tap, substantially in the intermediate part of chamber 21, and arcuate rib means 24 is further provided at the rearward part of said recess, whereby to positively retain the sound producing disk means in position in the recess. Said rib means 24 greatly aids the ridge

means 19 hereby to bear under the bottom of the sole 14, and thereby prevents the sole from being depressed into chamber 21 or its outlet 22, or into recess 23, which would diminish or deaden the sound produced therein. A rear port 25 is provided between said rib means 24, to emit sound from the recess into the chamber.

Special outlet ports 26 are also provided in ridge means 19, and are preferably extended laterally therein for directing the sound created in the recess 23 and the chamber 21 laterally, and emitting the sound beyond the tap and the confines of the shoe bottom, so as to produce a clear and distinct metallic tone thereby.

In this form of tap the companion sounding means comprises an upper disk member 27 and a lower disk member 28, the lower member being seated in recess 23 having a guide stem 29 depending therefrom and protruding thru an aperture 30 which extends from said recess 23 thru the dome part 12 of the tap. The construction is arranged so that there is a space between the upper member 27 and the lower member 28, and as the tap contacts the floor during dancing the bottom end of the stem 29 also engages the floor, thru the slightest movement of the foot on the floor, whereby the member 28 is forced upward and strikes member 27, thereby producing a ringing sound. This provides a very clear and distinct ringing sound, which is greatly and definitely amplified, chiefly in view of the recess 23 with its companion sounding means, in conjunction with chamber 21 and the sound outlet ports 25 extending therefrom thru the ridge means 19 to the outer edge of the tap and the shoe bottom, which is aided by the sound emitted from the rear outlet 22.

Figs. 7 and 8 illustrate such a tap 10' in a slightly modified form. It comprises an upstanding flange 31 at the forward part of the tap, which extends along the toe part of the shoe sole, and for substantially the height of the sole, so as to clasp the forward edge thereof and protect the same, and so that during tap dancing this flanged toe part of the tap will engage the floor and produce the proper metallic sound. This tap otherwise includes, like the preceding form, the upper ridges 19' with the scallops 20', also the sound chamber 21, therebetween with its apertured recess 23' therein and the ribs 24' thereon, as well as the sound outlet ports 22', 25' and 26'.

In Figs. 9, 10 and 11 is illustrated a further modified form of tap 35 which is provided with three rearwardly extending wings, including a central wing 36 and two side wings 37, similar to the side wings 17 in the above described form. These triple wings have a great advantage in producing extra rippling vibrations when passing over the floor and especially in wing-step dancing, and provides the dancer a better center support in toe stand exhibitions. The extra center wing also serves to stiffen the central body part of the tap. This form otherwise is similar to the preceding form and includes the ridge means 39 along the marginal upper edge part of the tap, with its scallops 40 on the inner edge thereof, also the sound chamber 41 therebetween with the sound outlet channel or port 42 at the rear. This form also includes the pocket or recess 43 in the upper face portion of the tap having arcuate rib means 44 on the rearward edge provided with an outlet port 45 therein, and a pair of outlet ports 46 extending laterally thru ridge means 39. Said ports 45 and 46 along with rear port 42 provide complete and efficient sound outlet means for the emitting of sound from recess 43 in conjunction with chamber 41, as in the preceding form.

The disk means shown in connection with this form of tap comprises an upper disk member 47 and a lower disk member 48, said lower member including an upper disk portion seated in recess 43, and having a lower body or guiding stem portion 49 depending therefrom and protruding thru an aperture 50 extending from recess 43 thru the dome part of the tap. The upper disk member 47 is adapted to be secured under the shoe sole and it is preferably provided with a rounded lower face 47' so that a readily turning motion is provided between said rounded face and the upper face of the lower member 48. This body or stem portion 49 is heavier than the guide stem 29 in the preceding form, and is thus especially adapted for making turns thereon. It has its bottom face 49' substantially crown-shaped and provided with suction grooves, adapted to afford traction on the floor and avoid skidding of the lower face thereon, especially while making turns or spinning. As the grooved face 49' engages the floor, the lower member 48 rises in aperture 50, so that its top face engages under the rounded bottom face 47' of the upper member 47, and thus provides for an easy turning and spinning of the dancer on his toe portion of the shoe; but this construction also permits tap dancing and gliding over the floor smoothly and evenly without marring or digging into the floor.

Figs. 14 and 15 illustrate such a tap 35' in a slightly modified form. It comprises an upstanding flange 51 arising from the front part of the tap, so as to extend along the toe part of the sole and for substantially the height thereof, adapted to protect the same, and so that the flanged front part of the tap will engage the floor and produce the proper metallic sound during tap dancing. This tap is otherwise like the preceding form and includes the three wings 36' and 37' and the upper ridge means 39' with its scallops 40', also the chamber 41' having the recess 43' therein and the rib means 44' thereon, also the outlet ports 45', 46' and 42' for properly and efficiently emitting the sound from said recess and chamber as in the precedng form.

In Figs. 16 to 19 inclusive I have illustrated this invention as applied to a ball tap 52 which is particularly adapted to be secured under the ball part 53 of the shoe sole, and it extends substantially across the width of the sole, as indicated in Fig. 16 of the drawings. This tap also has a curved or crowned lower face including a crowning center portion 52', and it has openings near its edges for receiving securing elements 54 therein to secure the tap under the ball part of the shoe. A recess 55 is provided in the intermediate part of the upper face of said tap, and outlet channels or ports 56 extend laterally outward therefrom to the sides of the tap 52 and the ball 53, for emitting the created sound beyond the confines of the shoe bottom.

The disk means shown in conjunction with this form of tap is similar to that shown in Figs. 12 and 13 of the preceding form and comprises an upper disk member 57 and a companion lower disk member 58, the upper member being secured under the ball part 53 of the shoe sole and being provided with a lower rounded face 57', and the lower member 58 being provided with a body portion 59 which extends thru an aperture 60 extending from recess 55 thru the dome part of the tap. The lower face 59' of said portion 59 is substantially crown-shaped and is provided with

grooves therein, adapted to prevent skidding of said lower face on the floor while making turns with this tap. The shoe with the attached upper member 57 with its rounded lower face 57' is adapted to turn freely and easily upon the top of the lower member 58 which has its face 59' resting on the floor, thus adapting this form of construction particularly for easy and graceful spinning and turning exhibitions, for either right or left turns therewith.

Figs. 20 to 24 inclusive illustrate how my improved type of tap is especially adapted to use a pair of disk members provided with ball-bearing means. This tap 64 is provided with the recess 65 therein for receiving the disk means, and wherefrom channel means or port means 66 extend for emitting the sound. Said disk means comprises an upper member 67 and a lower member 68 provided with a depending body or guide stem portion 69 protruding thru an aperture 70 which extends from recess 65 thru the lower crowning portion 64'' of the tap. A ballrace 71 is provided on the upper face of member 68 having balls 72 movable therein, while the upper member 67 rests upon balls 72 and is held rotatably thereon by a central screw or pivot element 73, so that member 67 with the shoe is readily turnable or rotary upon the lower member 68. Grooves 69' are preferably also provided in the lower face of body portion 69 to afford traction on the floor.

This ball-bearing form of disk means provides an exceptionally easy operating and fast spinning device, whereby the dancer can make a very speedy spinning exhibition and a substantially unlimited number of turns.

Figs. 25 and 26 further illustrate how this form of tap is also adapted to utilize a pair of cymbals 74 in the recess 65' of tap 64', the sound being adapted to emanate from the lower aperture 70' as well as from the other sound channels or ports, such as those shown at 66'.

In Figs. 27 to 31 inclusive, a further modified form of tap is shown, illustrating how this invention is adapted to be applied to the heel of a shoe. This form comprises the heel tap or heel plate 75 provided with a convex lower face 75' sloping to the rounded side edges thereof, similar to the forms described above, and being provided with openings 76 near the edges to receive fastening elements 76' therein for securing the tap to the heel of the shoe, said openings being sufficiently counter-sunk to prevent the securing elements from projecting and marring the floor. The tap has forwardly extending wings 77, and has ridge means 78 extending along the edge part of its upper face, said ridge means being provided with scallops 79 on the inner edge including an indentation 80 at the rear. A sound chamber 81 is located within the ridge means and is provided with an outlet channel or port 82 at the front. A pocket or recess 83 is provided in the upper face portion of the tap, substantially centrally of the sound chamber 81, while rib means 84 is preferably provided on the forward edge of the recess and has an outlet port 85 in the front part thereof. A pair of outlet ports 86 are also provided in ridge means 78, extending laterally from chamber 81 to the outer edge of the tap and heel, and said ports 85 and 86, along with the front port 82, provide proper and efficient outlet means for emitting the sound fully from recess 83 and chamber 81.

The disk means shown in conjunction with this form of tap comprises an upper disk member 87 and a lower disk member 88, the lower member being seated in recess 83 and having a lower body or stem portion 89 which protrudes thru an aperture 90 extending from recess 83 thru the crown part of the tap. The upper member 87 is secured under the heel, while the lower member 88 is preferably provided with a grooved and crowned lower face 89', as explained above.

Figs. 32 to 34 illustrate a further modified form of tap adapted for the heel of the shoe. This form of tap 92 does not have the pronounced wings shown in the preceding form of tap 75, otherwise it similarly includes the ridge means 93 on the upper face having scallops 94 on the inner edge and providing a sound chamber 95 therebetween having a front outlet channel or port 96 thereon. A pocket or recess 97 is provided in the upper face of the tap, within sound chamber 95, and rib means 98 provided with a front port 99 arises from the forward edge of said recess. A pair of outlet ports 100 also extend thru the ridge means 93, to the side edge of the heel, said ports 100 and 99 along with the front port 96 serving for properly and completely emitting the amplified sound from the recess 97 and the sound chamber 95.

The disk means illustrated in conjunction with this form of tap comprises an upper disk member 102 including a crowned or domed lower face 102', and a lower disk member 103, the lower member being seated in the recess 97 and having a lower body portion 104 protruding thru an aperture 105 which extends from recess 97 thru the lower crown portion 92' of the tap. The lower face 104' of said body portion 104 may also be grooved, in the manner and for the purpose explained in the preceding forms.

It is apparent from the above disclosure that this invention is adapted for various dancing taps including a toe tap, a ball tap and a heel tap; and that in the several forms of taps the ball-bearing disk means, and also the cymbal means, may be readily substituted or used for the other disclosed forms of disk means of two companion members, and vice versa.

I claim:

1. A tap comprising a plate-like metallic body adapted for attachment to a bottom part of a dancing shoe, said body containing a crowning portion centrally of its lower face and a recessed seat centrally in its upper face portion provided with an aperture extending down therefrom thru said crowning portion, sound channels provided in said upper face portion to extend to the side edges of said shoe part and emit the sound from said recessed seat in various directions and directly beyond the bottom of the shoe, and metallic sound providing means including means mounted movably in said seat, whereby to produce a strong and clear sound effect.

2. A dancing tap comprising a metallic body having a well defined crowning portion centrally on its bottom face for guiding the dancer to a center balance and containing a sound chamber in its upper face provided with sound outlet ports thereon, a recess provided in said chamber and having an aperture extending therefrom thru the crowning portion, and sound effecting means mounted in said recess and including means depending thru the aperture adapted to engage the floor, to have free movement in said aperture and recess, whereby to positively produce a distinct and strong sound effect.

3. A dancing tap comprising a metallic body having a well defined crowning portion on its

bottom face sloping towards the edges and containing a sound chamber in its upper face provided with a sound outlet at one end and also lateral outlet ports, a recess in said chamber having an aperture extending therefrom thru the crowning portion, arcuate rib means arising from a substantial part of the edge of said recess provided with sound outlet means thereon, said rib means along with the edge part of the body being adapted to engage the shoe bottom and prevent it from sagging into the recess and chamber, and metallic means mounted in said recess and including means depending thru the aperture adapted to engage the floor, for readily producing a distinct and strong sound.

4. A dancing tap comprising a metallic body provided with upper reinforcing ridge means thereon including scalloped inner edge means provided with a sound chamber therebetween having outlet ports thereon, an aperture extending downward from the chamber thru the body, and sound effecting means in said chamber including means extending downward thru the aperture, said ridge means being adapted to bear against the shoe bottom and said scalloped means aiding in providing a variety of tapping and jingling effects with this tap.

5. A dancing tap comprising a metallic body containing a crowning portion on its lower face and ridge means around the edge portion of the upper face including scalloped inner edge means, providing a sound chamber therebetween having a sound outlet at one end between the ends of the ridge means, also having sound outlet ports extending laterally thru the ridge means, a recess in said chamber provided with an aperture extending therefrom thru the crowning portion, rib means in said chamber arising from said recess, adapted to have the shoe bottom bear thereon as well as on the ridge means, and a companion pair of metal sound members mounted in said recess, one thereof being provided with means depending thru said aperture and being freely movable vertically therein, whereby to produce a clear and distinct jingling sound.

6. A dancing tap comprising a metallic body containing a crowning portion centrally on its lower face and ridge means on the upper edge portion adapted to bear under a part of the shoe and having a sound chamber therebetween provided with sound outlet ports thereon, a recess in the intermediate part of said chamber provided with an aperture extending thru the crowning portion, and a companion pair of metal sounding members including an upper one bearing against said shoe part, also a lower one movable in said recess and having a body part depending thru said aperture and movable freely therein adapted to engage the floor and produce a strong jingling effect with said upper member, the lower end of said body part including grooved means to provide traction and prevent skidding on the floor.

7. A dancing tap comprising a plate-like metallic body containing a crowning portion centrally on its lower face and ridge means on the upper edge portion adapted to bear under the shoe and having a sound chamber therebetween provided with sound outlet ports, a recess in said chamber provided with an aperture extending thru the crowning portion, a companion pair of sounding members including an upper one in the form of a disk bearing against the shoe also a lower one movable in said recess and including a body part depending thru the aperture to move freely therein and having grooved means on its bottom to provide traction on the floor, and ball-bearing means between the two members to provide easy turning and spinning thereon.

8. A dancing tap comprising a metallic body containing a crowning portion centrally on its lower face and sloping upwardly therefrom toward the upper edge portion adapted to be secured under a part of the shoe, and provided with a sound chamber in its upper face having sound outlet ports thereon, a recess in the chamber provided with an aperture extending therefrom thru the crowning portion, and a companion pair of disk-like members in said recess, including an upper member to be secured under said shoe part and a lower member having a part depending thru said aperture adapted to engage the floor, one of said pair of members having a crowned bearing face to facilitate turning on the adjoining face of the other member, and the lower member having means on its lower face to provide traction on the floor, whereby the dancer is enabled to readily make a continuous number of turns in either direction.

9. A tap conforming to the toe part of a dancing shoe, comprising a metal plate-like body having a crowned lower face and three long rearwardly extending wings, to stiffen the shoe sole for supporting the foot, a sound chamber in the upper face of the body including a recess provided with an aperture extending therefrom thru said crowned face, there being outlet openings provided laterally as well as rearwardly from said chamber for emitting the sound in various directions and clearly therefrom, and companion metallic sound effecting members in said recess, whereby to produce a strong and clear sound effect.

10. A dancing tap as set forth in claim 9, wherein said companion members comprise an upper disk engaging the toe part of the shoe sole and including a crowned lower face, and a lower disk member having a body part depending thru said aperture and provided on its lower face with means to avoid skidding on the floor, to facilitate convenient turning thereon as well as tap dancing.

11. A dancing tap as set forth in claim 9, wherein the toe part of the tap is provided with an upstanding flange, closely fitting the front part of the shoe sole and extending substantially the height of the sole in front and tapering down toward the rear, for protecting the toe part of the shoe and assuring a metallic contact and sound during tap dancing.

12. A dancing tap conforming to and adapted to extend across the ball part of a dancing shoe, said tap having a central crowning portion on its lower face and a sound recess centrally in its upper face provided with an aperture extending therefrom thru the crowning portion, sound channels extending from said recess outwardly of the tap to emit the sound in various directions, and metallic companion sound effecting members in said recess, the lower one having means extending thru said aperture adapted to engage the floor, whereby to positively produce a strong sound effect.

13. A dancing tap as set forth in claim 12, wherein said companion members comprise an upper disk member engaging the ball part of the shoe and including a crowned lower face, and a lower member having a part depending thru said aperture and having means on the lower face to prevent skidding on the floor, adapted to move vertically in said aperture and to turn on

said crowned face, enabling the dancer to make turns easily on the ball part of the foot.

14. A ball tap comprising a metal plate adapted to extend across the ball part of a dancing shoe, having a crowning portion centrally of its lower face and sloping upwardly therefrom toward the edges, a recess in the form of a seat located centrally in its upper face provided with an aperture extending therefrom thru the crowning portion, sound channels extending from said recess laterally on said upper face, to said edges, and companion metal sound effecting members mounted superposed in said recess, at least the lower one of which is movable freely in said recess, for producing a strong and clear metallic sound well distributed by said channels.

15. A dancing tap comprising a metallic body containing a crowning portion on its lower face and ridge means on the curved edge portion of the upper face adapted to be secured under the heel of the dancing shoe, a sound chamber between said ridge means having an outlet opening at the front thereof and outlet ports extending thru the ridge means, a recess in the intermediate part of said chamber provided with an aperture extending therefrom thru said crowning portion, and a companion pair of sounding elements in said recess, including an upper one to engage the heel and a lower one having a part extending thru and freely movable in said aperture to engage the floor, whereby to produce a strong and clear sound effect.

16. A dancing tap as set forth in claim 15, wherein said companion members include an upper disk member secured under the heel and a lower disk-like member movable in said aperture and recess to engage the upper one, and having anti-skid means on its lower face, whereby the dancer is enabled to easily make a great number of turns in either direction.

17. A dancing tap as set forth in claim 15, wherein rib means arise at the edge of the recess to bear under the heel and to aid the ridge means in supporting the heel and prevent it from sagging into said recess and chamber, port means is provided in said rib means, and the inner edge of the ridge means is scalloped, whereby to produce a variety of tapping and jingling sounds.

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