

March 10, 1953

T. W. LEWIS
SINGING TEAKETTLE

2,630,776

Filed Jan. 18, 1951

2 SHEETS—SHEET 1

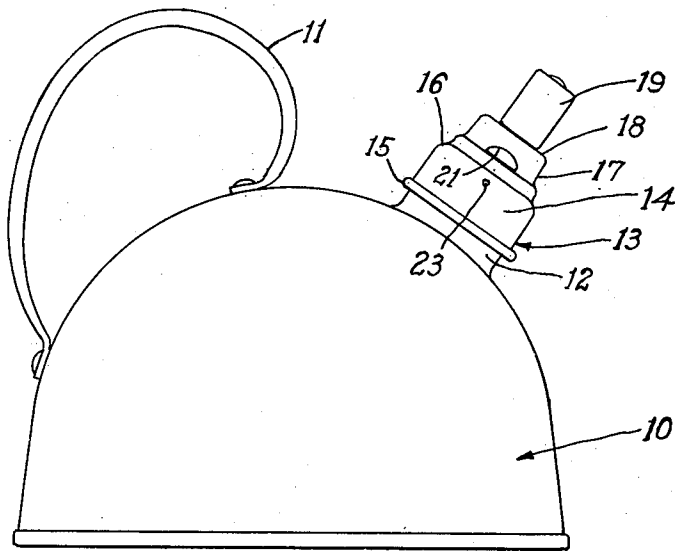


Fig. 1

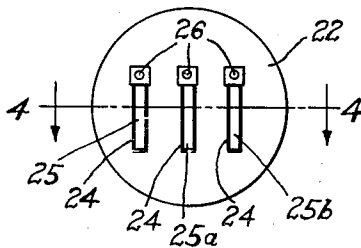


Fig. 3

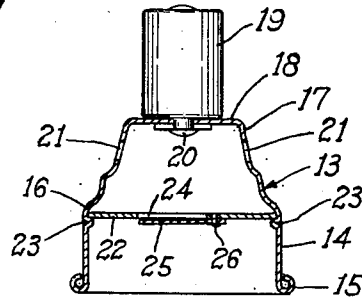


Fig. 2

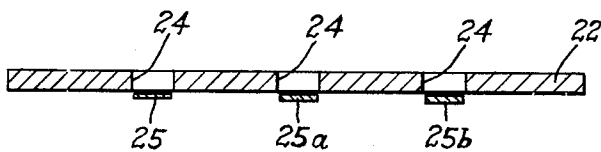


Fig. 4

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2 SHEETS—SHEET 2

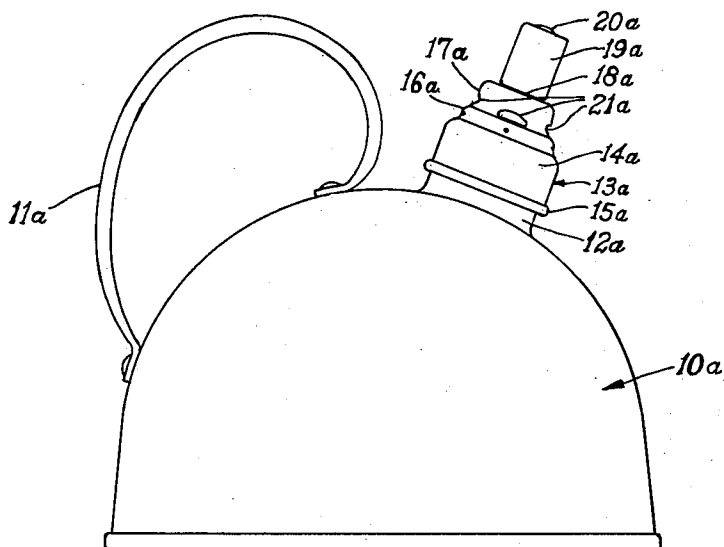


Fig. 5

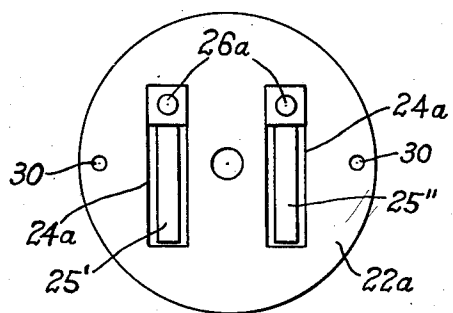


Fig. 7

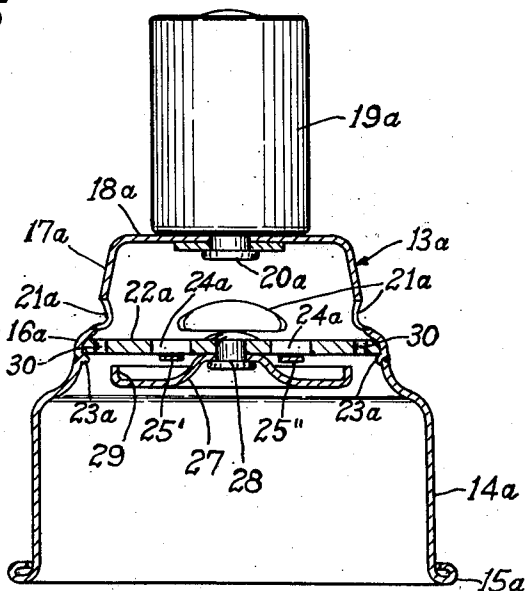


Fig. 6

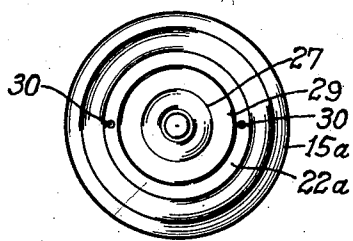


Fig. 8

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2,630,776

SINGING TEAKETTLE

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Application January 18, 1951, Serial No. 206,686

1 Claim. (Cl. 116—103)

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The invention relates to teakettles, and more particularly to a musical signal located in a cap or cover for the spout of the teakettle to indicate when the water in the teakettle reaches the boiling temperature, and this application is a continuation in part of my copending application, Serial No. 116,478, filed September 19, 1949, now abandoned.

It is common practice to provide a whistle in the spout of a teakettle, for operation by steam passing therethrough, such whistles producing a shrill sound which is annoying to many people. Furthermore, these whistles sound only a single note regardless of the amount of force of the steam passing therethrough.

The present invention contemplates the provision of means associated with the spout of a teakettle for producing a pleasing, musical sound when water in the teakettle reaches the boiling point.

Another object is to provide means for producing a harmonious chord by passage of steam through the spout of a teakettle.

A further object is to provide a plurality of flexible reeds in the spout of a teakettle, arranged to be vibrated by the passage of steam therethrough to produce musical sounds.

A still further object is to provide such a device including a plurality of flexible reeds of various thickness, whereby a slight steam pressure will vibrate only the thinnest reed to produce a relatively high note, a slight increase in steam pressure will also vibrate the next thicker reed to produce a musical chord and further steam pressure will vibrate the thickest reed to produce a chord of three notes, thus indicating by the musical sound the approximate temperature of the water in the teakettle.

The above were generally objects of my copending application, Serial No. 116,478, of which this application is a continuation in part. Other objects include various new features and details of construction which have been discovered and developed since the filing of said copending application, and it is because of these new features and details of construction that this continuation application is filed to be substituted for said copending application.

One of the objects of this continuation application is the provision of a reed protecting bell, to be connected to the underside of the disc, carrying the reeds, to prevent humming of the reeds and also to prevent boiling water from spurting out through the slots in which the reeds are located.

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Another object is the provision of slots in the disc, of considerably greater width than the width of the reeds, whereby corrosion or liming up of the reeds, and walls of the slots, by the use of hard water in the teakettle will not prevent vibration of the reeds.

A further object is the provision of a water trap in the protecting bell for the reeds.

A still further object is the provision of relief openings in the disc carrying the reeds, so that excess steam pressure may be accommodated therethrough without all of the steam pressure passing through the slots around the reeds.

It is another object of the continuation application to increase the number of steam escape apertures in the cap above the disc carrying the reeds.

Another object is to locate the spout of the teakettle, upon which the cap carrying the reeds is located, at a higher point upon the teakettle than in the old style teakettle shown in the copending application, Serial No. 116,478, whereby the capacity of water which may be boiled in the teakettle is increased.

The above objects together with others which will be apparent from the drawings and following description, or which may be later referred to, may be attained by constructing the invention in the manner hereinafter described in detail and illustrated in the accompanying drawings, in which:

Figure 1 is a side elevation of a teakettle provided with the musical device to which the invention pertains;

Fig. 2 a vertical, longitudinal sectional view through the cap or cover for the spout of a teakettle, showing the musical device located therein;

Fig. 3 a bottom plan view of the musical device;

Fig. 4 a greatly enlarged transverse section taken as on the line 4—4, Fig. 3;

Fig. 5 a side elevation of the new style teakettle with the spout located at a higher point thereon, showing the cap thereon;

Fig. 6 an enlarged, vertical, longitudinal, sectional view through the improved cap for the spout made in accordance with the objects of the continuation application;

Fig. 7 a bottom plan view of the disc and reeds shown in Fig. 6; and

Fig. 8 a bottom plan, internal view of the cap shown in Fig. 6, on a smaller scale.

Referring now more particularly to the construction illustrated in Figs. 1 to 4 inclusive of

the drawings, in which similar numerals refer to similar parts throughout the several views, the invention is shown as applied to a teakettle of conventional design, indicated generally at 10, provided with a handle 11 upon its top side and a spout 12 located at one side of the top, as in usual practice, for filling the teakettle with water and pouring water therefrom. As is common in teakettles of this general type, the spout is the only opening provided therein.

For the purpose of normally closing the spout 12, except when filling or pouring from the teakettle, a cap or cover indicated generally at 13, is provided for slidably fitting over the end of the spout, as shown in Fig. 1.

This cap has the substantially cylindrical portion 14, open at its lower end and provided with the rim bead 15, the upper end portion of the cap being shouldered, as at 16, and then preferably tapered upwardly as at 17, to the closed upper end 18.

A knob 19, which may be of plastic or other suitable material, is attached to the closed end 18 of the cap, as by a rivet 20. Apertures 21 are provided in the cap, above the shoulder 16, for the escape of steam.

A disc 22, of sheet metal, is located within the cap at the shoulder 16, and is held in place therein as by dimples 23 pressed into the side walls of the cap directly below the disc 22. The disc 22 is provided with a plurality of elongated slots 24, and for the purpose of producing a musical signal when steam passes through the spout of the teakettle, a flexible reed is located upon the underside of the disc 22 at each of these slots.

These reeds are formed of flexible material, preferably sheet brass, and in order to produce notes of various pitch, the reeds may be of various thickness. For instance, as shown in the drawing, the reed indicated at 25 is of relatively light gauge, the reed 25a is of slightly heavier gauge and the reed 25b is of still heavier gauge, so that a high note is produced by the reed 25, a lower note by the reed 25a and a still lower note by the reed 25b.

Each reed is connected at one end to the disc 22, as by a rivet 26, and the reeds are so proportioned and located that steam pressure passing upward through the spout and into the cap will flex the reeds upwardly through the corresponding slots 24 in the disc 22, as they are vibrated.

In use, the cap is placed upon the spout as shown in Fig. 1 and when water in the teakettle is heated to the point where steam starts to escape through the spout, the thinnest reed 25 will first be vibrated producing a relatively high note.

As the steam pressure increases the second reed 25a will also be vibrated, the two reeds producing a chord and as the water boils vigorously the third reed 25b will also be vibrated producing a chord of three notes.

With this construction a pleasing musical sound will be produced and the user will be able to tell by the sound approximately the temperature of the water in the teakettle.

Referring now to the improved construction shown in Figs. 5 to 8, in which the various new features and details of construction are illustrated, the improved teakettle, as shown in Fig. 5, is indicated generally at 10a, provided with the handle 11a upon its top and rear side, and a spout 12a, located much closer to the top of the teakettle than the spout 12 shown in Fig. 1, for the purpose of permitting a considerably greater

amount of water to be placed in the teakettle without the water level being located within the spout, which is a very undesirable feature in actual practice, because, when the water starts to boil the boiling water will spurt upward through the spout and through the reeds and will escape through the escape apertures 21a in the cap, which is indicated generally at 13a.

This spout is provided for filling the teakettle 10 with cold water and pouring the boiling water therefrom, when the cap 13a is removed, as in usual and well known practice. The cap 13a, as in common practice, is arranged to slidably fit upon the spout 12a, as best shown in Fig. 5, for normally closing the spout, except when filling the teakettle with water or pouring water therefrom.

The cap 13a has the substantially cylindrical portion 14a, open at its lower end and provided with the rim bead 15a, the upper end portion of the cap being reduced and shouldered, as at 16a, and then preferably tapered upwardly, as at 17a, to the closed upper end 18a, and a knob 19a of plastic, or other suitable material, is attached to the closed end 18a of the cap, as by the rivet 20a.

The sheet metal disc 22a is located within the cap 13a, at the shoulder 16a and is held in place therein, as by the dimples 23a, pressed into the side walls of the cap directly below the disc. This disc is provided with a plurality of elongated slots 24a, and for the purpose of producing the musical signal, when steam passes through the spout of the teakettle, flexible reeds 25' and 25'' are located in said slots, upon the underside of the disc, the reeds being of considerably less thickness than the slots, as best shown in Fig. 6.

The reeds, as above described, are formed of flexible material, preferably sheet brass, and in order to produce notes of various pitch, the reeds may be of various thickness. For instance, as shown in Fig. 6, the reed 25' is of relatively light gauge and the reed 25'' is of relatively heavy gauge, so that a high note is produced by the reed 25' and a lower note by the reed 25''.

Each reed is connected at one end to the disc 22a, as by the rivet 26a, and the reeds are so proportioned and located that steam pressure passing upward through the spout, and into the cap, will flex the reeds upwardly through the corresponding slots 24a, in the disc 22a as they are vibrated.

In order to protect the reeds against excessive steam pressure within the teakettle, a protecting bell 27 is concentrically attached to the underside of the disc 22a, as by the concentric rivet 28, and is spaced sufficiently below the reeds 25' and 25'' so that it will not interfere with the vibration of the reeds.

This bell has an annular, cup-shaped water trap 29 formed thereon, so as to receive any water which may spurt upward through the spout and cap, against the disc 22a.

In order to compensate for excessive steam pressure within the teakettle, relief openings 30 are formed in the disc 22a beyond the periphery of the water trap 29 of the bell 27. For the purpose of taking care of all escape of steam which may be produced in the teakettle and passed upward through the spout and cap and around the reeds, the number of steam escape openings 21a is preferably increased, over that shown in Figs. 1 to 4, forming the disclosure of the copending application above referred to.

In use, the cap is placed upon the spout, as shown in Fig. 5, and when water in the teakettle

is heated to the point where steam starts to escape through the spout, the thinner reed 25' will first be vibrated producing a relatively soft high note, and as the steam pressure increases the reed 25' will be vibrated more rapidly producing a louder high note, and as the steam pressure further increases the two reeds will be vibrated producing a chord which becomes louder as the water boils vigorously. Thus a pleasing musical sound will be produced and the user will be able to tell by the sound approximately the temperature of the water in the teakettle.

I claim:

A cap for the spout of a teakettle, said cap being of inverted cup shape, a disc located transversely within the cap at a point intermediate the ends of the cap, there being an opening in the cap above the disc, an elongated slot in the disc, a flexible reed connected at one end to the underside of the disc adjacent to one end of the slot, said reed being so shaped and positioned that it may be flexed upward into said slot, a protecting bell concentric with the disc and of sufficient diameter to cover said slot and reed, means connecting the center of said bell to the underside of the disc, the bell being spaced suf-

ficiently below said reed so as not to interfere with the vibration of the reed.

THOMAS W. LEWIS.

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