(No Model.)

J. KULCSÁR.

LAMP CHIMNEY PROTECTOR.

No. 573,155. Patented Dec. 15, 1896.

Fig. 1.

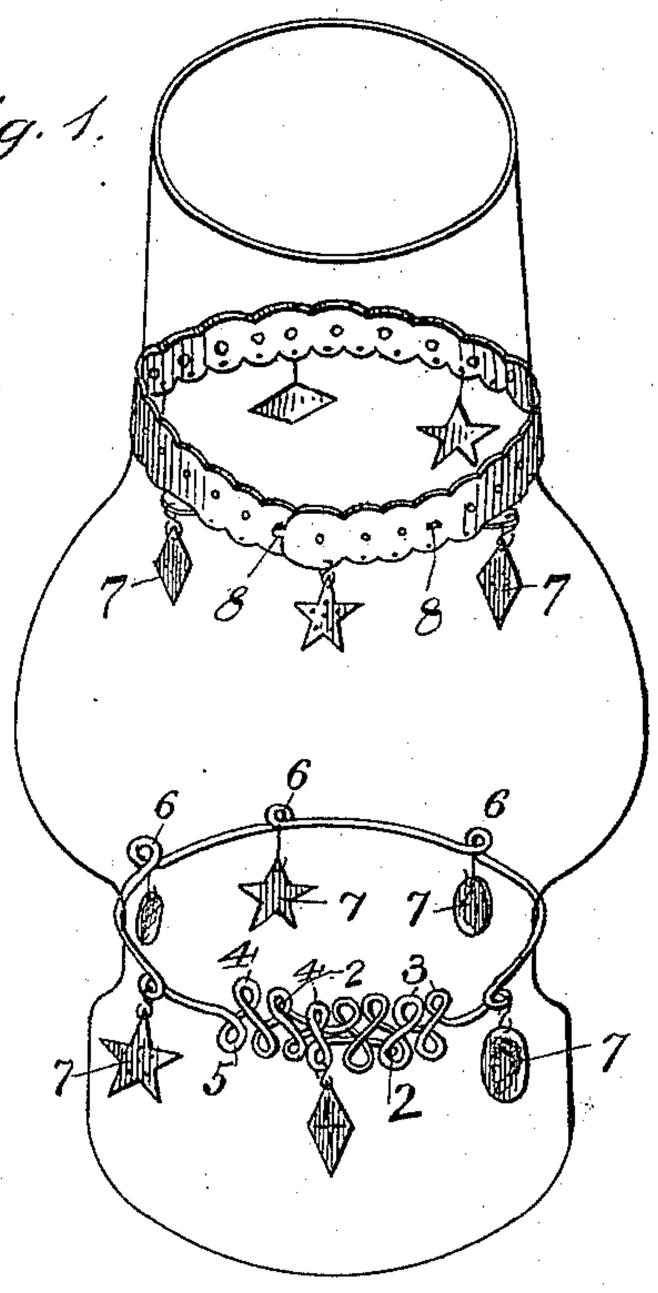
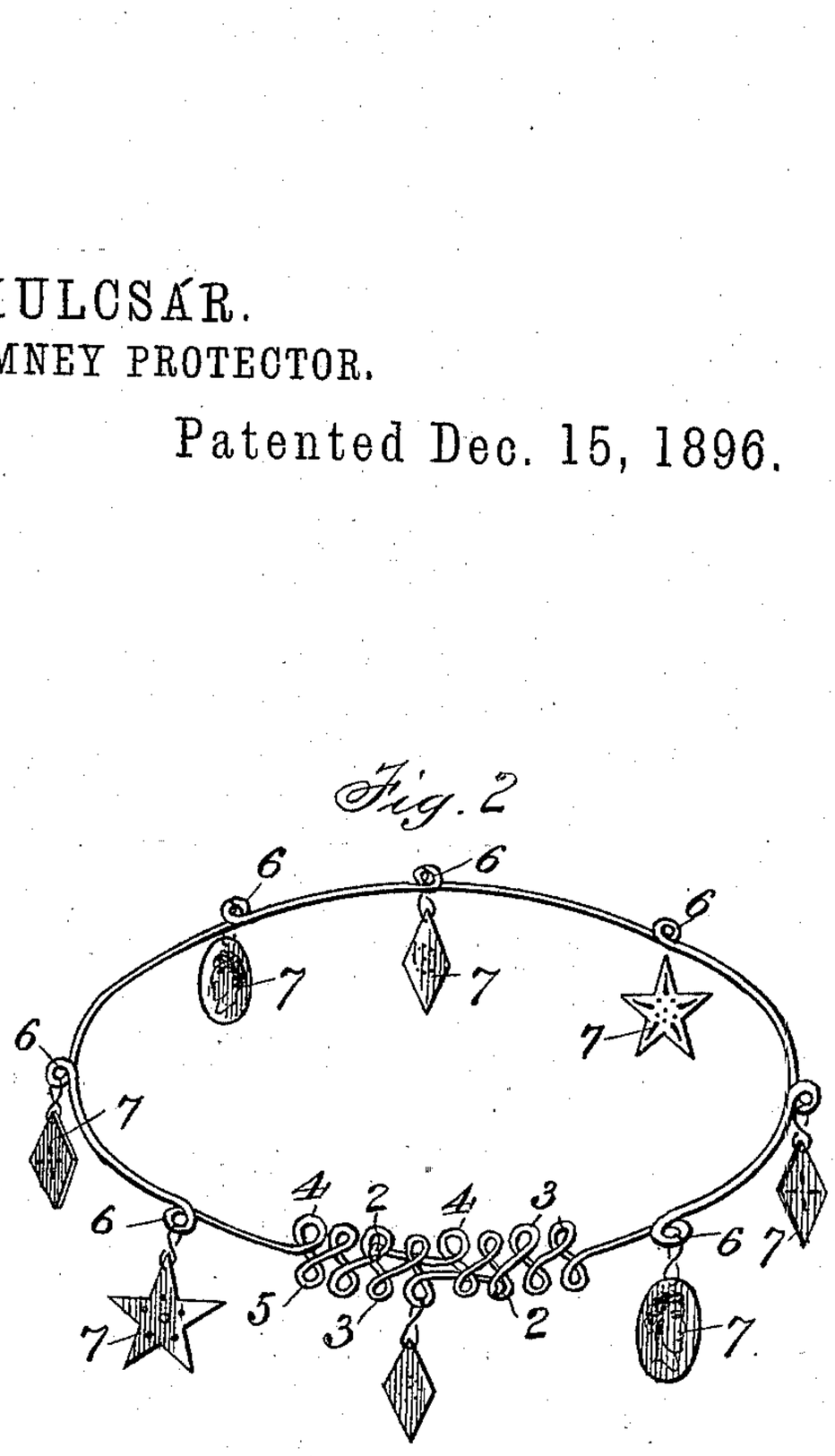


Fig. 2



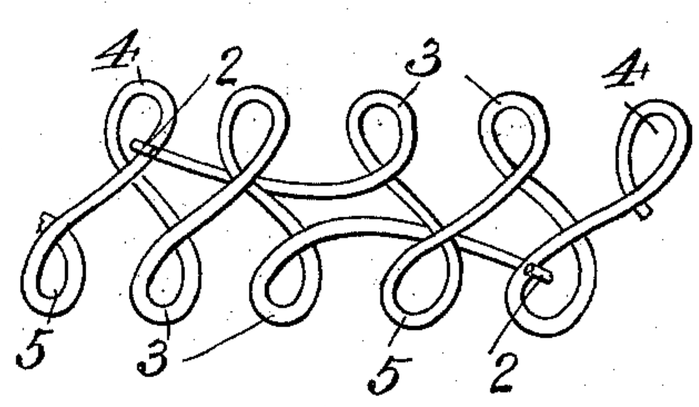
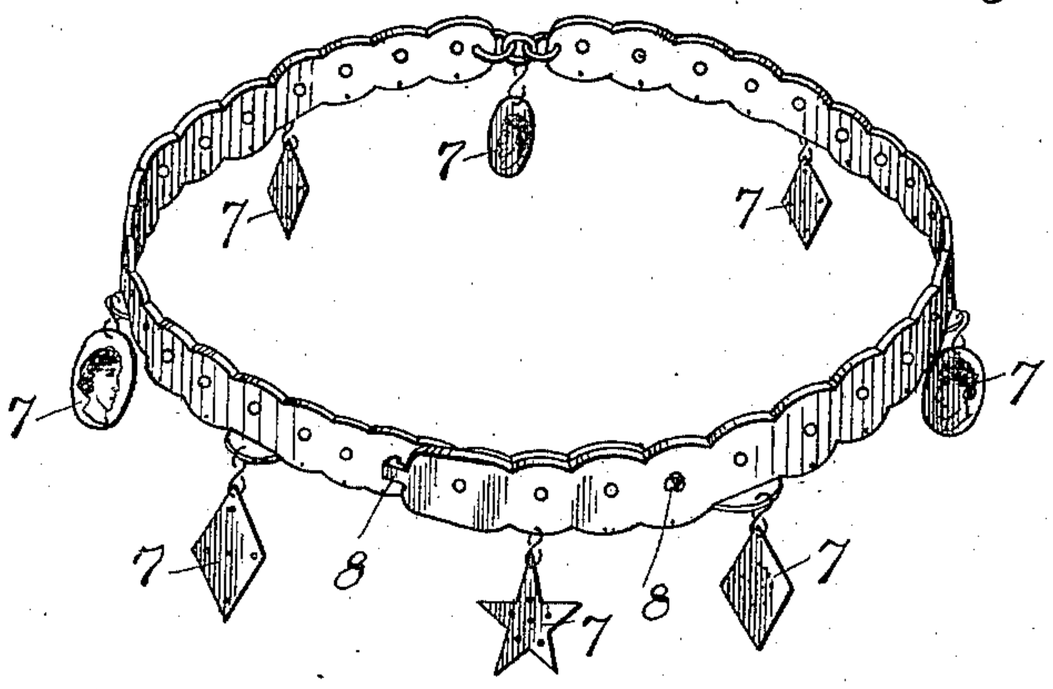


Fig. 4.

Fig. 3.



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UNITED STATES PATENT OFFICE.

JOSEF KULCSAR, OF CONCORD, MASSACHUSETTS.

LAMP-CHIMNEY PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 573,155, dated December 15, 1896.

Application filed August 8, 1896. Serial No. 602,175. (No model.)

To all whom it may concern:

Be it known that I, JOSEF KULCSAR, a citizen of the United States, residing at Concord Junction, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Lamp-Chimney Protectors; 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.

My invention relates to the provision of a preserving or protecting device for lamp-chimneys; and it consists in certain novel features of construction and arrangement of parts which will be hereinafter fully described, claimed, and pointed out in the accompanying drawings, made a part of this application.

The object of my invention is to provide a device which will at all times reliably perform the work of conserving and protecting a sound chimney from the violence of sudden expansion and contraction due to suddenly lighting or extinguishing the flame of the lamp, and will also be found useful in preventing further breakage should the chimney become cracked or partly broken.

By loosely mounting upon the chimney a metallic collar or band the combination of the glass and metallic parts thus provided results in an intimate intercommunication between said parts, effecting an immediate compensation for sudden expansion or contraction of the glass, as in practice it is found that the metallic parts will immediately take up a large proportion of the extreme of temperature at one part of the chimney and distribute it to other parts. By providing the metallic collar (which, it will be understood, may be formed of sheet metal or a wire-like band) with a series of pendants reaching downward into contact with other parts of the chimney a means for equalizing the temperature at various points of the surface of the chimney is provided.

In practice it is found that the flame, at times, when the wick is unevenly shaped, will impinge or center upon one section or part of the chimney, leaving the other parts thereof comparatively cool. It follows that a violent expansion results for one part of the chimney, almost invariably resulting in a fracture thereof. It is found by the use of my invention, which might be termed a "combined protector and equalizer," that in case the heat is unduly centered at one point the metallic parts in contact therewith will take up the excess of heat and radiate the same throughout the other parts of the collar and the pendants carried thereby, effecting a thorough dissemination or equalization thereof and preventing the fracture which would otherwise result. It is found, therefore, that the mere presence of the metallic parts resting loosely in contact with the surface of the chimney effectively provides for the general or equal distribution of the heat throughout the entire chimney.

It will be seen that I have provided the collar proper with a series of depending sections which will practically have a two-fold function, first and most important of which is the provision of means for contacting various parts of the surface of the chimney, and, second, to provide means for adding to the attractive appearance of the lamp thus equipped by any preferred form of ornamentation, which will be hereinafter more particularly referred to.

By providing the depending sections for the collar it will be seen that the various parts of the chimney are contacted without the necessity of providing a wide band or collar and thus obscuring the light and impairing the usefulness of the lamp.

In a lamp-chimney of usual construction it will be found that one band or collar will be amply sufficient; but in case of specially-shaped chimneys two of such collars may be employed, if desired.

It is well understood that a large percentage of the breakage of lamp-chimneys is due to lighting the lamp when the wick is rolled full up, resulting in a too sudden expansion of the chimney, due to the intense heat thus instantly generated, and also the sudden extinguishment of the flame, resulting in an immediate and violent contraction, especially if the temperature of the atmosphere is low.

The foregoing will be fully appreciated by all who have had experience in such matters.

Referring to the accompanying drawings, Figure 1 is a perspective view showing two

forms of my invention as applied to use. Fig. 2 is an enlarged detail perspective view of the securing device. Fig. 3 is a detail perspective view of a varied form thereof. Fig. 4 is a side elevation of an enlarged section of Fig. 2.

For convenience of description I will employ figures to designate the various details involved in my invention, each figure referring to the same part throughout the several views.

In materializing my invention I form, preferably from wire or strip of sheet metal, what is essentially an expansible collar, the details of which will be hereinafter fully set forth.

In Fig. 1 of the drawings both forms of construction are set forth, that is to say, one of the forms of securing device is made of wire, while the other is formed of a strip of sheet metal.

It will of course be understood that any preferred kind of material may be employed to form the collar proper and the depending sections carried thereby.

In Fig. 2 the securing device is shown to have been made from a piece of wire bent in order to compensate for expansion and contraction.

As will be seen, the whole device can be formed of one piece of wire 1, provided at each end with the terminal loop or hook 2 and near such ends with the series of loops 3. The said series of loops 3, it will be seen, practically consist in bending the wire to form in their general outline the figure **8** and arranging any number of said figures together, as preferred.

It will of course be understood that other shapes for bending the wire may be employed.

It will be seen that each of the figures have the open sections 4 5. The office performed by such loops, formed by bending the wire as above set forth, is twofold: first, provision is thus made for fully compensating for both expansion and contraction of the lamp-chimney, which it encircles, and, secondly, the open sections 4 5 of the loops provide a convenient point or keeper to hold the hook 2 upon the opposite end of the wire.

As above stated, any preferred number of loops 3 may be formed, and in order to reinforce them I provide at any preferred intervals in the wire a series of loops 6. The said loops above referred to are preferably formed as shown in the drawings. Said loops 6 add to the capacity of the securing device to conform to the contraction or expansion of the chimney and also provide a convenient point upon which the ornamental device 7 can be suspended. It will be understood that said means for effecting the ornamentation of the securing device may be greatly elaborated, if desired, by the addition of illustrations thereon representing various objects, such, for instance, as the portrait of any preferred subject or any preferred form of illustration. These points of ornamentation may be suspended at equally distant points around the entire chimney, and the illustrations carried thereon may be simply stamped into them or may consist of perforations through which the light may pass, adding to the brilliancy and desirability of the ornament.

In Fig. 3 I have shown a varied form of construction for my securing device, and it will be seen that instead of employing a wire for forming the body I use a strip of sheet metal, formed substantially as shown and provided with the serrated edges and a series of perforations, the latter being the equivalent of the loop-section 3. By thus cutting away the strip of sheet metal and providing the same with perforations I reduce its resistant strength to the minimum and provide it with a capacity of yielding to the expansion of the chimney.

The points of the series of serrations may be ornamented with the dependent sections. In order to add to the elasticity of the band, it may be formed in several sections, each of which is connected to the others by suitably-formed links.

In operation the securing device is placed upon the chimney so as to encircle either the top or bottom thereof, or both of said parts, if deemed necessary, when the hooks 2 are arranged to engage with one of the series of loops 4 5, formed upon the opposite end of the wire. By means of this arrangement the device can be snugly adjusted to exactly encircle the diameter of varying sizes of lamp-chimneys.

The securing device should be loosely clasped upon the chimney and the hooks caused to enter a proper loop or perforation, when the chimney will be held against breakage, or, if already broken, the parts thereof will be positively held into their respective places, thus guarding against their falling asunder and preserving the broken chimney for long-continued use. If sheet metal is employed to form the collar in lieu of the piece of wire, the hooks 8, formed integrally thereon, are arranged to engage with suitably-located perforations.

Believing that the construction and use of my improved securing device for application to a cracked chimney as well as upon a sound one will be fully understood, further description is dispensed with.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As an article of manufacture the herein-described securing device for lamp-chimneys consisting of the metal collar having a series of perforations and provided with a series of depending sections resting in direct contact with the outer surface of the chimney and adapted to ornamentation, and hooks formed upon either end of the collar and arranged to engage in apertures provided in the contiguous ends thereof, as and for the purpose set forth.

2. The herein-described lamp-chimney protector and temperature-equalizing device substantially as shown, consisting of the metal collar adapted to expand and contract in sympathy with the chimney and carrying heat-absorbing contact-points arranged to depend therefrom and lie in direct contact with the surface of the chimney and means for adjusting the ends of said collar in contact with each other, as and for the purpose named.

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

JOSEF KULCSAR.

Witnesses:
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