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W. E. HOLT

1,933,670

OIL BURNER FOOT

Filed March 22, 1933

Fig. 1.

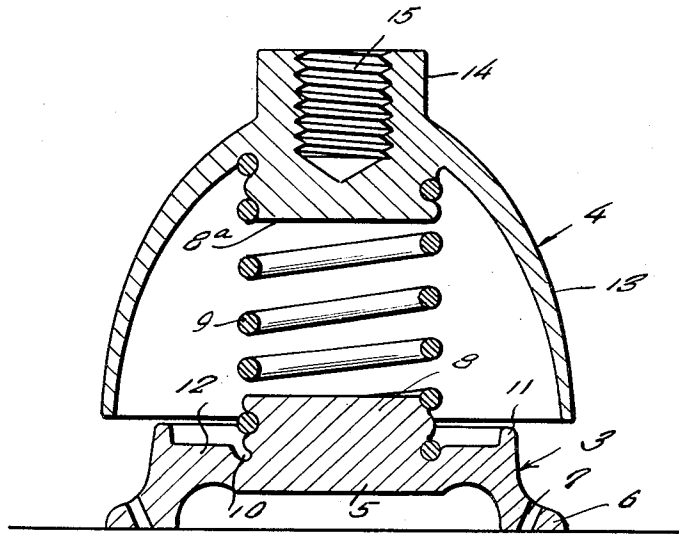
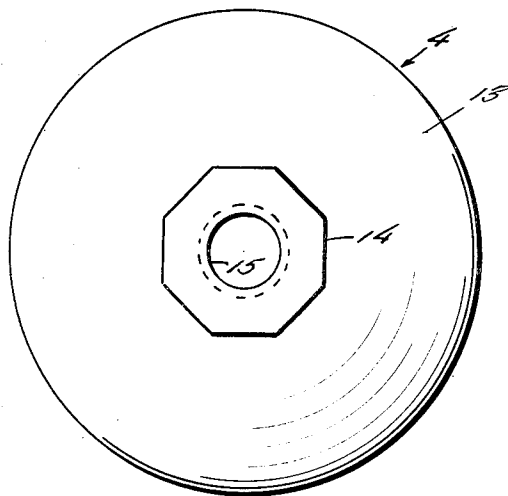


Fig. 2.



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UNITED STATES PATENT OFFICE

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OIL BURNER FOOT

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2 Claims. (Cl. 248—16)

This invention relates to an unusually simple and economical accessory which is especially but not necessarily adapted to serve as a shock absorbing and cushioning foot for the leg of an oil burner.

Needless to say oil burners of the type used in present day heating systems and plants are subjected to considerable vibration. Therefore in order to compensate for this objectionable factor it has been found necessary to equip the legs of the burner with self contained springs or equivalent cushioned feet.

With the foregoing in mind, I have evolved and produced an unusually practicable, dependable and efficient sectional foot assembly which, it is believed, will fulfill the requirements of a structure of this class in a highly satisfactory manner. In proceeding to accomplish this end I have perfected an arrangement which is well balanced, susceptible of expeditious and economical repair, easy of attachment and anchorage and characterized by advantages thought to be essential in a device of this type.

The explicit detail and configuration and arrangement will become more readily apparent from the following description and drawing.

In the drawing:

Figure 1 is a view in section illustrating the preferred embodiment of foot construction perfected to accomplish the desired result.

Figure 2 is a top plan view thereof.

Referring now to the drawing by distinguishing reference characters it will be observed that the device comprises a base unit or casting 3 for anchorage on the floor or the like, and a companion attaching unit 4 designed for expeditious attachment to the leg of the oil burner, (not shown). The base 3 is of general disk like form in top plan view and in the nature of a single casting which embodies an elevated central portion 5 and a marginal annulus 6 shaped to rest flat on the floor and having apertures 7 to accommodate suitable fastening elements (not shown). The portion 5 is formed centrally with an upstanding externally threaded boss 8 to which the lower coils of the cushioning spring 9 are connected as shown in Figure 1. Incidentally it will be noted that at the point of juncture between the boss 8 and portion 5 a keeper groove 10 is formed for effective retention of the lowermost convolution or coil of the spring. The numeral 11 merely designates an upstanding rim defining an annular depression 12.

The upper unit or casing 4 is in the form of a single body and is characterized by an inverted

dome like shell 13 of approximately semi-spherical configuration. The internal diameter of the base of the shell is such as to permit it to telescope down over the anchoring annulus or flange 6 if necessary. The crown portion of the dome is formed with a central upstanding tool grip or nut 14 having a screw threaded socket 15 into which the leg of the oil burner is threaded. The numeral 8a designates a boss which depends into the shell and is in vertical alinement with the boss 8 to accommodate the uppermost convolutions of the aforesaid coiled spring. This provides the requisite maintenance of the spring and uniform balance for accommodation of stress and strain to which the spring and associated parts are subjected. In other words this assembly affords the requisite stability and rigidity.

Attention is called to the particular shape and proportioning of the sections 3 and 4 whereby to permit the desired telescoping action in case of spring breakage. Moreover the depth of the cup like dome or skirt 13 minimizes the degree of drop in case of breakage and allows the entire section 4 to recede slowly and to rest firmly on the floor to prevent upsetting of the burner. In this sense the parts are properly balanced and equalized to insure positive and uniform results. The parts are separately replaceable and this points to manufacturing advantages. Other features and advantages will be evident to those familiar with accessories of this general classification.

It has been observed that horizontally fired burners can be made as quiet as any rotary style by equipping the legs with shock-absorbing feet of the type herein described and illustrated. Where the legs are solidly attached to the concrete floor there is a tendency for the burner to magnify and relay the vibration of heavy street traffic through the entire heating system. Naturally, machinery in motion will create vibration and consequent objectionable noises. Consequently, by attaching the legs to the floor through the instrumentality of these spring-equipped feet, the noise is eliminated.

A careful consideration of the foregoing description in conjunction with the illustrative drawings will enable the reader to obtain a clear understanding of the purpose, features and advantages, the explicit construction, and the invention as hereinafter claimed.

It is to be understood that minor changes in shape, size, relative proportions, and materials may be resorted to in practice without departing

from the spirit of the invention or the scope of the invention as now claimed.

Having thus described my invention, what I claim as new is:

- 5 1. An oil burner foot of the class described comprising a substantially circular base embodying an elevated disk like portion having a depending apertured annular anchoring flange, an upstanding marginal rim defining a depression and an upstanding centralized externally threaded spring retention boss, means for detachable connection with the oil burner leg, and a coil spring interposed between said means and base and attached to the means at one end and threaded on said boss at its opposite end.

2. An oil burner foot of the class described comprising a substantially circular base embodying an elevated disk like portion having a depending apertured annular anchoring flange, an upstanding marginal rim defining a depression and an upstanding centralized externally threaded spring retention boss, an inverted dome-like shell having a depending centralized externally threaded spring retention boss, and a coil spring screw threaded on the upstanding and depending centralized externally threaded spring retention bosses and interposed between the base and the dome-like shell.

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20	95
25	100
30	105
35	110
40	115
45	120
50	125
55	130
60	135
65	140
70	145
75	150