The present invention relates to electric water heaters and is more particularly concerned with a heater of the character referred to for installation in connection with water tanks or founts for hogs and poultry.

The primary object of the invention is to provide a heater of the character referred to which is operated by electricity instead of a lamp or stove.

Another object of the invention is to provide a safe electric heater wherein the temperature is self-regulating.

Another object of the invention is to provide adjustable supports for the heat radiating members.

Another object of the invention is to provide a heater for water tanks and the like of simpler and more compact construction than that of prior devices.

With the foregoing and other objects and advantages in view, the invention consists of the novel construction and arrangement of parts hereinafter described and claimed.

In the accompanying drawing illustrating the invention—

Figure 1 is a side elevation of the invention.

Figure 2 is a top plan view thereof partially broken away.

Figure 3 is a partial diagrammatic view of the invention installed under a water tank.

Figure 4 is a side elevation of a modified form of the invention.

Like numerals in the description and drawing designate the same parts of construction.

The heat member 1 may be of typical construction but preferably flat and rectangular. The length thereof will be suitable to the dimensions of the water tank or fount and for the purposes of this invention is designed to fit against the bottom of the tank or fount, herein designated as T.

Beneath the heat member 1 is a longitudinally disposed truss 2 with arms 3 upturned at right angles and secured to the ends of the heat member 1 by means of fastening bolts 4 and nuts.

The truss is preferably constructed from hot rolled steel in the form of a bar which serves to support the heat member and is suitably spaced therefrom.

The truss is supported by one or more helical springs 5, the number being governed by the size and shape of the heat member. For a medium size two springs will be sufficient. In the case of a small size tank, especially where it is circular in shape, one such supporting spring will be sufficient, as shown in the modified form in Figure 4.

The said springs are fastened at the top to the underside of truss 2 by means of threaded bolts while the bottoms or feet are designed to rest on the floor. Because of the resiliency of the springs, the heater assembly can be placed beneath a tank of ordinary height and there held firmly against its underside. Where the height of the tank is unusual, blocks may be placed under the springs to lift the heater assembly, as desired.

Attached to the heat member 1 is a ground wire 6 and the necessary circuit wires 7 from a suitable source of electricity, these being heavily insulated. In said circuit is a thermostatic switch 8 of ordinary type to serve as an automatic circuit breaker in case of over-load on circuit 1. Preferably this thermostat is secured to the truss 2.

The bellows 9, which serve to open the switch in the manner, are adapted to be suitably spaced to vary the cut-off temperature and this is regulated by turning the thumb screw 10.

In the modified form shown in Figure 4 but one coiled spring 5 is used and this is centered on the truss. In view of the position of the single spring at the center, the thermostatic switch 8 will be placed at the end of the truss. Otherwise the construction will be the same as in the case of longer heat members, hereinbefore described.

This embodiment of the invention is especially adaptable to circular water tanks or founts, and may be readily substituted for the kerosene lamp in the ordinary hog and chicken watering trough.

As different embodiments may be made of this inventive concept and modifications may be made in the embodiment hereinbefore shown and described, it will be understood that the matter herein is to be interpreted as illustrative merely, and not in a limiting sense.

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

1. The combination with a stock-watering trough arranged in superimposed spaced relation with respect to a support, of a means supporting an electric heater below and exteriorly of the bottom of said trough and resting upon said supporting surface, said means comprising at least one frusto-conical helical spring, the base of said spring resting upon said supporting surface and the apex of said spring urging the heater into engagement with the bottom of said trough.
2. The combination with a stock-watering trough arranged in superimposed spaced relation with respect to a supporting surface and supported upon the latter, of a means supporting an electric heater below and exteriorly of the bottom of said trough and resting upon said supporting surface, said means comprising a longitudinally-disposed truss, an upturned arm at each end of said truss and connected to the latter, said heater extending between said arms and connected thereto, and at least a pair of frusto-conical helical springs arranged in spaced relation underneath said truss and having their apices connected to the latter for urging the heater into engagement with the bottom of said trough, the base of the respective springs resting upon said supporting surface.

DE WITT D. OWENS.

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