A farm-made water heater

H. Maslin

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A FARM-MADE WATER HEATER

A PLENTIFUL supply of really hot water is a MUST on any dairy farm. Successful dairying calls for meticulous cleanliness of all the equipment used and hot water is always in demand. This simple farm-made hot water system can be constructed by any handyman at very little cost and many units are giving good service in the South-West.

by

H. MASLIN,
Dairy Instructor
The materials required and approximate costs are as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>£</th>
<th>s</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Heavy-gauge 44 gal. drum</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2 ¾in. flanges</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2 ¾in. M and F elbows or nipples</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1 ¾in. tap</td>
<td>12</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>1 ¾in. T-piece</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1 Bag cement</td>
<td>13</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>1 Bag builder’s lime</td>
<td>13</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>200 Bricks</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Piping (¾in.)</td>
<td>approx.</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>18</td>
<td>0</td>
</tr>
</tbody>
</table>

The bricks may not be necessary if ample supplies of suitable rock are available.

The quantity of piping and pipe fittings required will depend upon the location of the supply tank and the dairy premises in relation to the water heater.

If desired 1in. pipe and fittings could be used instead of ¾in.

**CONSTRUCTION**

The fire-box is built up to a height of about 15in. above ground level, running back the full length of the drum and incorporating a flue at the back. A fire-brick or fireclay lining for the firebox is recommended.

Two stout bars of iron, such as a spring-cart axle cut in halves, are built into the brickwork or stonework, spaced so that the weight of the drum is equally distributed when resting upon them.

The two flanges are welded over the two plug-holes already in the top of the drum.

N.B.—Before welding, remove both plugs and wash the drum out thoroughly, swilling it out with several lots of hot water and allowing 10 to 20 gals. of water to remain in the drum, during the welding process. These drums have usually contained petrol or other inflammable liquids.

Set the drum in place and continue to build it in as shown in the diagram. Attach the M and F elbows or nipples and connect the cold water pipe from the supply tank to the lower elbow.

The hot water pipe is connected to the top elbow and carries the T-piece and tap. The safety pipe runs vertically from the T-piece and must extend above the top of the supply tank. Where the supply tank is on a very high stand, it would be advisable to install a small feeder tank fitted with a ball-tap.

Remember that the supply of water should be constant and the drum must always be kept full.

A water heater of this type is inexpensive to construct, permits the use of large pieces of timber as fuel and ensures a plentiful supply of hot water at all times. The water remains hot for a long time after the fire has been allowed to die down.
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