

The MUNDLING STICK



the LION
Salt Works
TRUST

Newsletter of the Lion Salt Works Trust: **CHESHIRE SHOW**

VOLUME 2 No.2 Extra

SALTMAKING AT THE CHESHIRE SHOW **Fingers Crossed For Sun**

The Lion Salt Works demonstration at the 1996 Cheshire Show is an attempt to bring alternative technology to open pan evaporation.

The modern method of evaporating brine in vacuum chambers is more efficient than the open-pan evaporation technique by reducing labour costs and utilising a more effective heating system. The ancient method of evaporating sea-water to produce bay salt allows the sun to evaporate off the excess water in shallow lagoons. The former method requires the burning of fossil fuels, the later takes many days or weeks to produce salt crystals. Both produce only a limited type of salt crystal. In sea-salt producing areas vacuum plants are sometimes built in order to produce fine, free-flowing salt which is so different to the large sea-salt crystals.

SOLAR PANELS MAKING SALT

Our demonstration pan utilises conventional solar panels. The pan has been designed and made by apprentices at Brunner-Mond, Northwich.

Water is circulated through three solar panels picking up heat as it passes through the black coated lining beneath a transparent cover.

The circulating water is heated as the sun's rays heat the black surface of the panel. The heated water is passed through a "bain-marie", or heat exchange unit, passing the heat through to the brine in the inner container thereby raising its temperature to the point where crystal are formed

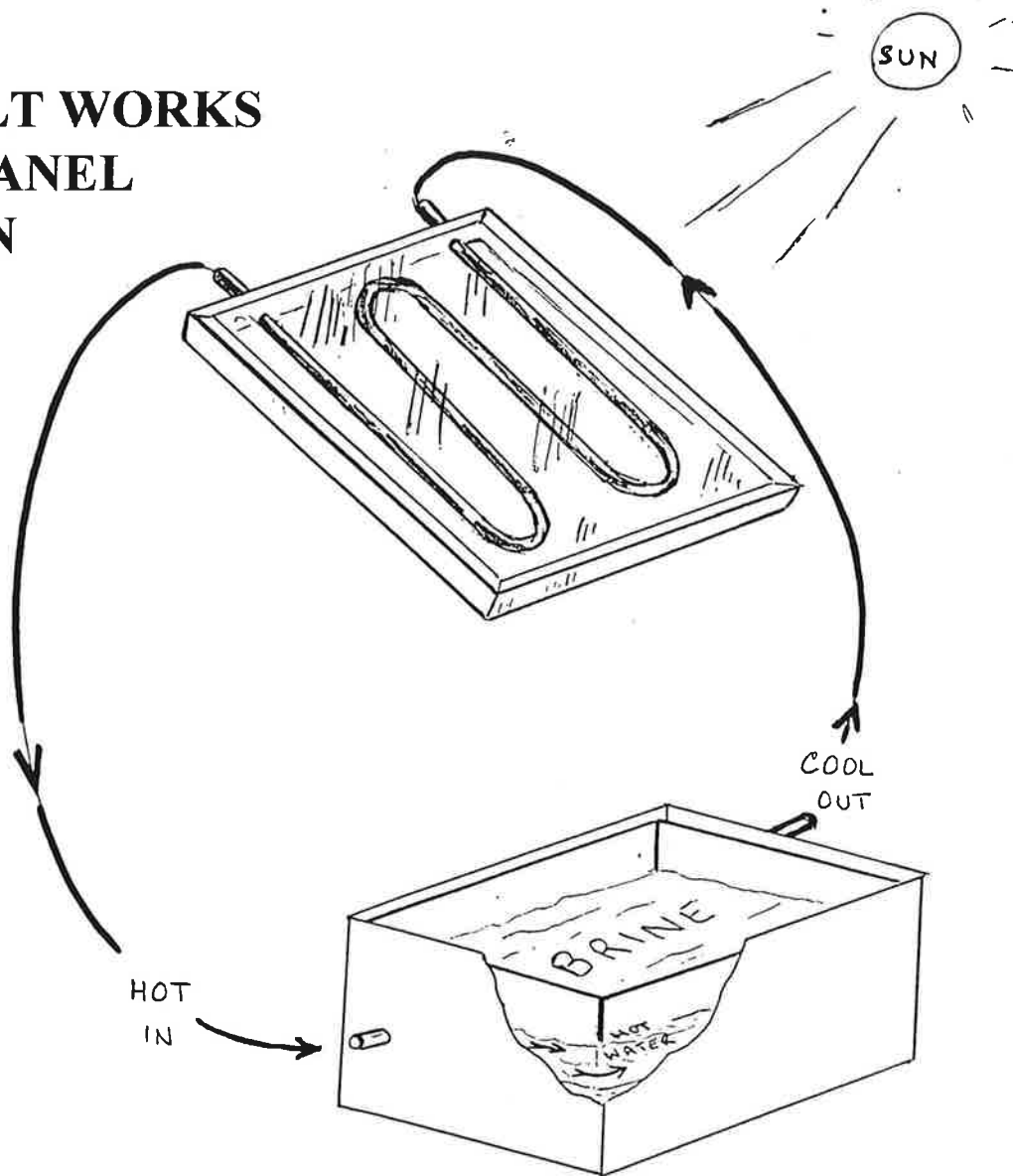
The circulating water can reach over 90° C.

To pick up the maximum amount of heat the solar panels should be directed at the sun through out the day. Our design allows the panels to be raised and lowered to follow the sun as it rises to the highest point in the sky at mid-day.

Corrosion is a major problem when dealing with brine. Traditional iron pans would generally be repaired or replaced after only six months use. As part of our 'high-tec' demonstration the inner salt pan has been made from titanium.

The solar panels used in the model can be installed on the roof of your house to provide environmentally friendly domestic hot water especially effective during the summer months.

LION SALT WORKS SOLAR PANEL SALT PAN



Thanks to :

Dave Millar	Apprentices	Brunner-Mond & Co,	Winnington, Northwich.
Bill Shaw	Tuition and materials	North Trafford College,	Stretford, Manchester.
Ian Calderwood	Solar panels	Sundwel Solar Ltd,	Washington, Tyne and Wear.
Terry Creswell	Brine	British Salt,	Middlewich, Cheshire.
Chris Hall	Titanium salt pan	Timet UK,	Witton, Birmingham.

The Lion Salt Works is opened each afternoon : 1.30 to 4.30pm .

Located on the B5105 at Marston, between Northwich and Great Budworth, beside the Trent and Mersey Canal, opposite the Salt Barge Pub.

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The Lion Salt Works Trust is a registered charity.