STAY COOL

How to make an airconditioner
for around Rs 5,000

through it with greater force in the outlet duct, while condensed water flows down through
the hole into the smaller water tank below.
10. One-inch cuts to be made in the grooves. These
cuts, made alternately at the two ends of the
successive grooves, force the air to travel
the full 60 ft of the grooves.
11. The cylinder is now complete, with the two empty ice boxes squashed into it, pressing
against the 17 aluminium grooves fitted along
its periphery;
12. A powerful six-inch 25-watt exhaust fan to be
fitted in the middle of an eight-inch deep
box at the top of the
air-exit duct, leaving four
inches of empty space
behind the fan;
13. The bucket to be lined with an
aluminium sheet. Fit a
removable aluminium pasted
board, with a handle and
hole in the middle, above
a two-inch jelly water tank at its bottom. Fit a tap in the corner of the small water
tank at the bottom of the bucket to drain out the condensed water that collects;
14. Finally, place the cylinder in the
bucket and cover with a plastic lid. Use
the space between the cylinder and the
bucket wall as an ice jacket. It can take seven kilograms of ice, about the same as each of the
ice boxes.

Your gadget is now ready. You have only to fill the
cold and ice jacket with ice and switch on
the fan to achieve a fall of seven degrees
Centigrade in the temperature of a 10x12 ft
room.

Points to remember:
1. Snow breeze is an air conditioner, not a cooler. It
dehumidifies the air like any other AC. It
amounts to burying a 60-lb aluminium pipe
and a can and a half diameter in an
ice tank, through which
compressed air is kept running at high
speed;
2. Its most important benefit is relief from
massive power cuts and breakdowns, which
have become a regular feature of life
throughout India. It needs very little power,
just 25 watts, less than half that used by
a light bulb. In the absence of electricity, it
runs merrily on days for an inverter, even
a car battery;
3. Humidity is reduced in proportion to the
maximum fall in air temperature;
4. It consumes two to 2.5 kg of ice per hour
to cool a 10x12 ft place by air to seven degrees
Centigrade and the air in front of its fan by
10 degrees C. Its cooling capacity is somewhat
lower than an AC, but the objective is relief from
heat. It brings down room temperature by seven
degrees C;
5. It is energy-saving. Normal air conditioning
consumes many times more power than is used in
making ice for the same purpose. It is also non-
polluting, unlike normal air conditioning;
6. It is cheap to make and is intended as a
coastal industry. Two carpenters can
fabricate it in two days — using a
few sheets of aluminium, a six-inch
exhaust fan and a plastic bucket. It’s
also a lightweight device and can be
moved from room to room;
7. There is no heat expulsion, unlike
conventional air conditioners that
expel heat from the room into
surrounding areas and cause
discomfort to others;
8. To get optimal performance, its drums and
ice jacket have to be filled up at the start. But
ice and cold water from the refrigerator can
cope with a three-to-four-hour power
breakdown. Its performance remains
constant till the temperature of the melted
water rises to 15 degrees C and
9. The overall cost of fabricating a unit in
your home should not exceed
Rs 5,000.
(Make Your Own
Air Conditioner—Cruzy-Heater
by MB Lal, printed by Prime
Publications Products (P) Ltd, New
Delhi. For more, visit
www.gurukulonline.org)