

At 4:07 the sun, a red ball through the smoke and haze, only about 8 degrees above the horizon - temperature 34 degrees F., a large new Cadillac curves into the station from the east entrance - an old and uncertain driver.

His small bald head within the huge Cadillac like the head of some gigantic reptile whose body grows and grows until it is killed. Jerry knelt in the shadow by the rear bumper, after properly topping off the tank.

He squeezes the trigger again with his left hand spooning the chilly gasoline up with his cupped right hand - like a man drinking from a stream - quickly swallowing 7 or 8 handfulls.

Jerry was dismissed from his job. The other attendants had become uneasy about him though he'd only been seen to drink once. His strange pleasantness about the difficulties of the station and the suspicion about the odor others bumped into in the restroom - a strange mixture of acetone and ammonia. The boss decided he just "didn't fit in."

MECHANICAL EQUIVALENT OF SOLAR ENERGY

1000 BTUs per day is a conservative average for solar radiation absorbed by the earth. How deep a pool could this sunshine raise 778 feet high above the ground against the force of gravity? Water weighs about 62 lbs./cubic foot.

So that if all the energy reaching the earth were convertible to raising a weight of water above the earth, this could amount to a layer 16 ft. deep each day raised 778 feet.

If a man were able to use all the sunlight falling on his body for his own metabolism what share of his diet would be sunlight? Let us say a man is able to shade an area of 6 feet square. By laying flat on the ground it would be a quite simple matter to pick up half of one's energy needs on fairly sunny days - and then by positioning - moving to well exposed slopes - and changing as the sun orientation changes the way lizards do during the day it would be easy to multiply this pickup by 2 or 3 - depending on the time of year.

THE "BASKERS"

Spread it on, the super sun oil, then stand out in the sun - that's all you need to do. Your oily skin can produce the materials your body needs if you are exposed to sunlight. The ultimate in solar energy devices.

You must practice. The more you use it, the better it works. First week of so it will just take the edge off your hunger. After a year you don't need to eat any more often than a snake. The oil's development is still a little unclear, it seems it was first tested as a weed killer. It is known to be poisonous to plants. And the plants suffer from it all around. Trampled and flattened bushes in city parks, trees with limbs broken off by the oily climbers moving toward the sun.

Yes, a great migration to the Southwest. No, it isn't what you'd call a boom. These people aren't staying in motels or eating in restaurants or building houses or buying much clothing. Of course, the oil is selling great. It's very difficult to know what kind of stand to take about it. Some see it as a cure to mankind's problems. Others have formed vigilante groups to go "hoe weeds," murdering dozens of lethargic baskers.

"Damn it Ray, go out and get a job."

"Sure Dad." Later in the day find he's not done anything, just out in the yard, stripped to his shorts. Starting in on the oil.

You look close at one of them under a very strong fluorescent light - and there is a definite green tinge. The only time they ever come into town is during the cloudy weather - and we'd just as soon not see them then - all they are doing is waiting for the sun.

EQUATIONS & ENERGY EQUIVALENCES

You can always turn mechanical energy into thermal energy, but it is not so easy to turn thermal energy into mechanical energy. An equation that reads 2546.14 BTUs equals 1 horsepower hour can be misleading.

I can supply you with heat - let us say a bath tub full of hot water, but it is no easy matter, after you agree that you have been presented with such and such a quantity of BTUs, to balance the equation by converting this to mechanical energy. Mechanical energy can be taken back from thermal energy but only as a kind of tax on the transfer of heat between two temperatures. It is a difficult tax to collect and requires very careful contrivances and can never exceed very definite properties. More about this later.

EQUATIONS ARE STRANGE

Why should two plus four equal two times three? If you object to such an equation, 2 plus 4 equals 2 times 3, saying that you understand that to be equal the two sides must be just the same, you will be told that they are abstractions, qualities derived from both sides that are equal and that it is missing the point to belabor such trivial matters as that the two sides don't even look the same. But you press your point - how can two things that are born of different processes possibly be the same.

Standing a car in the sunshine for one minute and crashing a car at the bottom of a 120 ft. cliff are equal thermally, but you have very different objects at the end of each operation.

What sense can it make to turn to numbers and equations when it is heat or energy that we want and not numbers.

In house solar heating systems the final test is how the inhabitants feel about the house. With a solar water heater the test of the system is not just how many gallons of hot water you get each day, but how you feel about it - how you use the hot water. A man can stand under a hot shower heated by gas or electricity and stay and stay soothing himself by the heat of the water. When he runs out of hot water he feels a bitterness towards the hot water heater. When he takes a long shower he feels guilty because his gas or electricity bill will be higher that month.