

COOKING WITH POTENTIAL ENERGY

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INTRODUCTION

The world's supply of combustible energy resources, such as wood and fossil fuels, are rapidly diminishing. If civilization is to continue, we must quickly develop alternative non-combusting energy sources that can be used for basic human needs. Heating, transportation and cooking will be of paramount concern.

This new energy must be cheap, safe and of such low technology that it can be easily understood by the layman.¹

The obvious solution to any future energy crises is the development and use of potential energy. This form of energy is ubiquitous in nature; it is renewable; and, to date, it has largely been untapped.

All elevated objects possess potential energy. When an object is dropped from a height, its potential energy is converted into kinetic energy. Upon impact with the ground, this kinetic energy is converted into heat. This phenomena may be described with the energy balance $\Delta Z \frac{g}{g_c} = C_p (\Delta T)$.

If the change in height (ΔZ) can be made sufficiently large, significant amounts of heat can be generated. Everyday tasks such as cooking could be made safe, simple and energy efficient.

In our experiment, we proved that this can be done. In six hours, we partly cooked a 25 pound turkey with potential energy.

MATERIALS AND METHODS

There was considerable debate among the investigators as to what we should cook. A goose was suggested but we finally settled on a 25 pound, defrosted, Greaseball® brand turkey.²

At 9:00 in the morning, an undergraduate carried the bird up the stairs to the tenth floor of the University of Southern Arizona administration building. From this vantage point, he flung the bird from a ledge.

Immediately after the turkey impacted on the pavement, the investigators inserted a thermometer into the carcass and recorded the temperature. The assistant then ran back down the stairs and retrieved the bird.

This process was repeated 72 times in six hours with the same turkey.

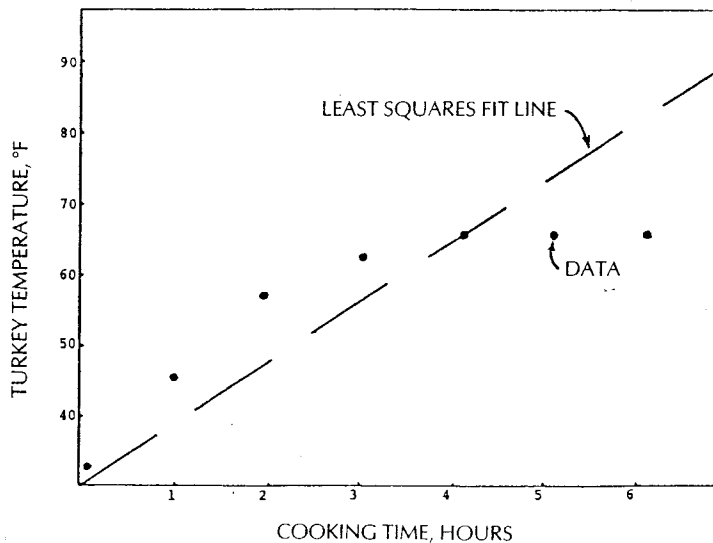


Figure 1. Rate of cooking for turkey. Initial turkey temperature, 32 °F; Final turkey temperature, 65°F. Ambient temperature, 68°F.

RESULTS

Data are supplied in Fig. 1. A least squares fit method was used on the data. The rate of temperature

increase for the turkey was 8°F/hr.

DISCUSSION

At 3:00 pm the last of our funding³ was consumed and the experiment was halted.


By extrapolating from our existing data it was obvious that the turkey would have reached a temperature of 400°F in approximately 46 hours. While this is admittedly a "slow cook", our critics will have to concede that we did not burn any fuel.

The principal investigator sampled some of the partly cooked bird. He found it was "somewhat cool" but comparable to any of the cooking his spouse has done at home. He also reported that the meat was very tender.⁴

ACKNOWLEDGEMENTS

The scientific community has known about potential energy for hundreds of years. So, why aren't we funding more research on it? If we had developed our potential energy reserves in the 1950's, the energy crises of the past two decades would have been avoided.

We believe that a board of inquiry should be convened by Congress to determine why this information has been suppressed by other scientists.⁵ What did each scientist know and when did they know it?

This board will probably uncover a conspiracy of researchers, enamored with money for high-tech projects, who are hiding simple answers from the public. 

¹Fonda, Prof. J., "No Nukes is Good Nukes" J. Eschatological Sci. of Tannu Tuva, 1595.

²Our consultant, Prof. S. Hoenig remarked, "This experiment would be a turkey, even with good results."

³\$11.07 for the turkey; \$1.93 for bananas that were periodically given to our assistant.

⁴Viscosity 94 centipoise.

⁵We will testify in return for a small consideration.

A PRESSING PROBLEM

Jack Wilson
Shaker Heights, OH

*I met a man the other day
Who said he thought that he could say,
The relationship of the Pascal
To units much more rational
This can't be found in reference books,
Available to he who looks.
He didn't tell, and then he went,
And I remain quite ignorant.*

*Another thing I do not know
Is if the plural is Pascaux,
And if I really shouldn't oughter
Stick with lb/inch, and inch of water
The gauge that stares me in the eye
Is writ full large in P.S.I.
Increasing my bewilderment,
And leaving me quite ignorant.*

*The S.I. gurus play their games,
And give each unit scientists' names,
•But how to pluralize don't indicate.
Worse yet, some names they will truncate,
For example, Torr for torricelli,
A sound that really is more belli
Whatever will they next invent
To keep us all quite ignorant?*

*The ancients seemed to understand
That units need not be so grand,
But rather things folks use each day
Like foot, or hand, which do portray
Their value, instead of units that are worth
Some fraction of the girth of earth.
Now S.I. units are the rage extant,
And we remain quite ignorant.*

MORE ON REMOVING COCKROACHES FROM THE AUDITORY CANAL

Cantrell, H. (Univ. of Maryland Hosp., Baltimore, MD 21201) (Letters), N. Engl. J. Med. 314:720 (Mar 13) 1986

A case of extreme dizziness and vertigo which persisted for over an hour is reported in a 50-yr-old woman following an application of 2% topical lidocaine spray for the removal of a large cockroach from the ear canal.

In the light of the potential risk, a recommendation was made to abandon the use of topical anesthetic agents to kill insects in the ear canal and to return to the use of mineral oil. (3 references).

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