

NEVER SAY NEVER

There is no likelihood that Man can ever tap the power of the atom.

----Robert Milliken, Nobel Prize in Physics, 1923

The energy produced by the breaking down of the atom is a very poor kind of thing. Anyone who expects a source of power from the retransformation of these atoms is talking nonsense.

----Ernest Rutherford, British Physicist, Nobel Prize in Chemistry, 1908

There has been a great deal said about a 3,000 mile rocket. In my opinion, such a thing is impossiblewe can leave it out of our thinking.

----Vannevar Bush, Physicist, MIT, 1945 Nobel Laureate

There is no hope for the fanciful idea of reaching the moon, because of insurmountable barriers to escaping the Earth's gravity.

----Dr. F.R. Moulton, astronomer, University of Chicago, 1932

While theoretically and technically, television may be possible, commercially and financially I consider it an impossibility, a development of which we need waste little time dreaming.

----Lee de Forest, American Radio Pioneer, 1926

What, Sir? You would make a ship sail against the wind and currents by lighting a bonfire under her deck? I pray you, excuse me. I have no time to listen to such nonsense.

----Napoleon Bonaparte, speaking to Robert Fulton, American inventor.

Someone who says something is impossible is likely to be interrupted by someone doing it.

----Old adage----

Patent Language - What in the world are they really saying???

Mounting a header ring means on a cylindrical housing means in the regenerator.

Fastening a ring shaped pipe to a vertical straight pipe.

Attaching high pressure air supply means to the cylindrical housing means for supplying the header means. *Hook a blower to the pipes.*

Forming a plurality of nozzles in the header ring means, and in the cylindrical housing means with each nozzle formed with a diverging bore for ejecting high pressure air from the header means and cylindrical means into the spent catalyst.

Put a whole bunch of tapered nozzles in the ring for the air to blow out of.

Do we promote or stifle creativity and innovation?

The following question was given on a physics exam at the University of Copenhagen: "Describe how to determine the height of a skyscraper with a barometer."



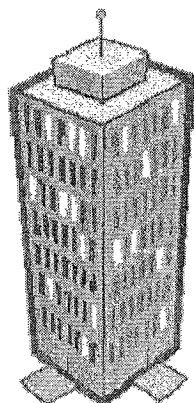
One student replied: "You tie a long piece of string to the neck of the barometer, then lower the barometer from the roof of the skyscraper to the ground. The length of the string plus the length of the barometer will equal the height of the building."

This highly original answer so infuriated the examiner that the student was failed. The student appealed on the grounds that his answer was indisputably correct, and the university appointed an independent arbiter to decide the case. The arbiter judged that the answer was indeed correct, but it was decided to call the student in and allow him six minutes in which to provide a verbal answer which showed at least a minimal familiarity with the basic principles of physics.

For five minutes the student sat in silence, forehead creased in thought. The arbiter reminded him that time was running out, to which the student replied that he had several extremely relevant answers, but couldn't make up his mind which to use.

On being advised to hurry up the student replied as follows:

"Firstly, you could take the barometer up to the roof of the skyscraper, drop it over the edge, and measure the time it takes to reach the ground. The height of the building can then be worked out from the formula $H = 0.5g \times t^2$. But bad luck on the barometer."

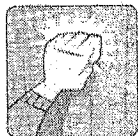


"Or, if the sun is shining you could measure the height of the barometer, then set it on end measure the length of its shadow, then you measure the length of the skyscraper's shadow, and thereafter it is a simple matter of proportional arithmetic to work out the height of the skyscraper."

"But if you wanted to be highly scientific about it, you could tie a short piece of string to the barometer and swing it like a pendulum, first at ground level and then on the roof of the sky-scraper. The height is worked out by the difference in the gravitational restoring force $T = 2\pi(L/g)^{0.5}$ "

"Or, if the skyscraper has an outside emergency staircase, it would be easier to walk up it and mark off the height of the skyscraper in barometer lengths, then add them up."

"If you merely wanted to be boring and orthodox about it, of course, you could use the barometer to measure the air pressure on the roof of the skyscraper and on the ground, and convert the difference in millibars into feet to give the height of the building."



"But since we are constantly being exhorted to exercise independence of mind and apply scientific methods, undoubtedly the best way would be to knock on the janitor's door and say to him 'If you would like a nice new barometer, I will give you this one if you tell me the height of this skyscraper'."



The student was Niels Bohr - the only person from Denmark to win the Nobel Prize for Physics.