



NEWSLETTER

Volume XII, Number 4
May, 1990

COME TO THE CONFERENCE

Included with this newsletter is a registration form for the 12th annual OAPT conference. Also included is a list of special events and a map showing the location of Vanier Hall at the University of Windsor. An outline of the program and a call for contributed papers was enclosed with the March newsletter. In addition to relevant professional development, the conference provides many opportunities for conversations with fellow physics teachers in the relaxed setting of a university campus.

The Sunday afternoon workshop commences at 2:00 p.m. Even if you are not attending the workshop, make an effort to arrive in time for the evening reception. It is a great way to start the conference.

VOLUNTEER NOW

There has been, I believe, only one occasion in the history of our organization when an election was contested. Usually, the positions are filled by volunteers. Our vice-president is, de facto, someone who takes on the responsibility of organizing the annual conference in conjunction with the other members of the executive. Every year, at this time, such an individual must come forward and we are confident that it will happen again.

There are two other positions that need to be filled.

Secretary-Treasurer

Peter Scovil has completed a three-year term as secretary-treasurer. We thank Peter for his quiet, efficient, dedicated service to the OAPT. A successor will have to be found in time for the post-conference executive meeting. Peter offers the following job description:

- Maintaining and reporting on OAPT accounts
- Maintaining a record of all financial transactions
- Paying bills and expenses as they arise

- Checking the financial statement and accounts of the OAPT Contest
- Recording and distributing minutes of the executive meetings (twice yearly)
- Dealing with correspondence as the need arises

Contest Chairman

George Kelly has completed a three-year term as chairman of the OAPT contest. George is one of the founders of the OAPT and has continued to serve the organization after his retirement from teaching. We are grateful for his contribution and wish him well in his future endeavors.

It may be that the duties can be divided amongst several people. However, it would be convenient if one of these people lived in the Guelph area since the Physics Department at the University of Guelph plays a central role in the administration of the contest.

Here is the job description:

- Oversee the planning of the contest, including finances
- Assemble the test questions with the help of a committee and arrange for the paper to be checked and printed
- Arrange for mailing to the schools (three mailings)
- Receive and compile orders for test papers, arrange for computer marking, etc.
- Make a report to the annual conference

OAPT is affiliated with the AAPT

Keeping Alive the Sense of Wonder ...
Counter-Intuition

by DOUG CUNNINGHAM
Science Head
Bruce Peninsula District School
Lion's Head, Ontario
N0H 1W0

"... The whole art of teaching is only the art
of awakening the natural curiosity of young
minds ..."

Anatole France
1921 Nobel Prize, Literature

I have always been interested in
finding demonstrations that provoke and
awaken the natural curiosity of students.
Demonstrations that provide unexpected
results, or appear on the surface to violate
common sense, are particularly effective
vehicles for motivation. These
demonstrations or experiments are known
as counter-intuitive.

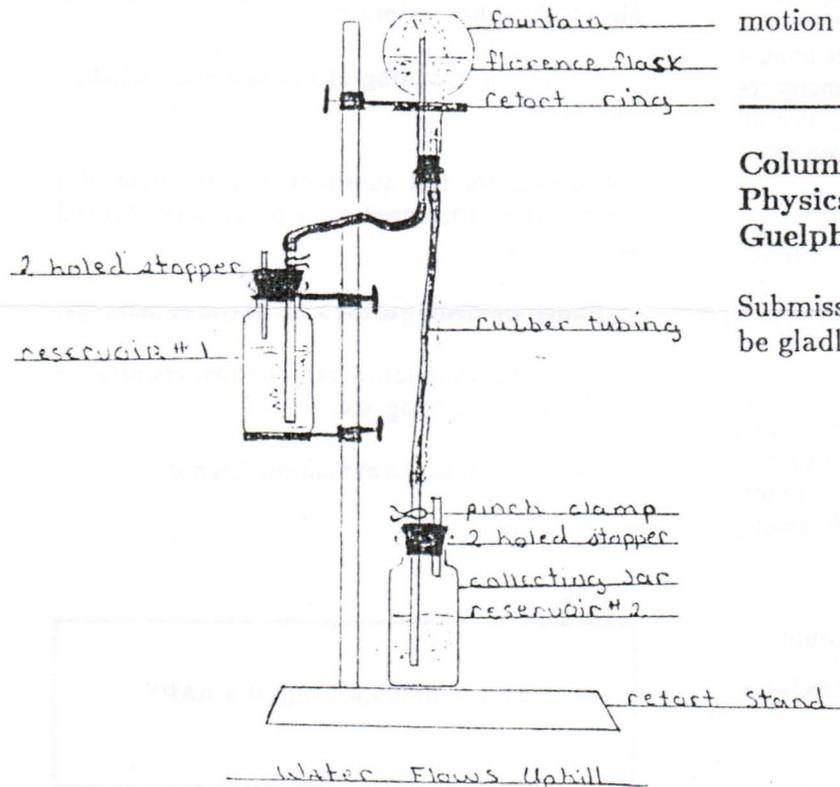


diagram by Clifton
Peclosiquette
SNC 3B

One such clever demonstration
makes use of air pressure and gravity acting
on water in the simple apparatus shown.
The demonstration shows coloured water
flowing uphill and producing a fountain
effect in an inverted Florence flask ... the
uphill motion of the water appears to
proceed without any visible impetus. Water
flowing uphill by itself!

The apparatus is primed by having
the Florence flask initially 2/3 filled with the
coloured water and reservoir #1 is filled
with the same coloured water. The water's
motion is started by opening the pinch
clamp leading to reservoir #2 and it will
continue until reservoir #1 is empty. The
counter-intuition effect is enhanced if the
students are shown the fountain only after
it has been started.

The demonstration is useful for
Intermediate Grades when talking about air
pressure ... and provides an interesting
starting point for brain storming with Senior
Physics students regarding counter-intuition,
conservation of energy, and perpetual
motion machines. I recommend it.

Column Editor: Ernie McFarland,
Physics Dept., University of Guelph,
Guelph, Ontario, N1G 2W1

Submissions describing demonstrations will
be gladly received by the column editor.