



When is a pen
not a pen?

When it lights
as it writes
like the

LITEwriter

Imagine . . . take a
quality ball point pen,
design a spot light into
it and you have — the
LiteWriter — a never-
failing pen . . . that can
see its way in the dark.

Who needs it?

DOCTORS

for writing RX's in darkened wards and
for illuminating gloomy throats.

THEATERGOERS

who wish to check a point in the program
and to make notes without disturbing
their neighbors.

MEN-ABOUT-TOWN

who want to scrutinize and sign the check
in romantically dim bistros.
(Very debonair!)

MIDNIGHT THINKERS

who want to jot down sudden brainstorm
or solve Double-Crostics without waking
their companion. (We are told that Schu-
bert might have finished that Symphony
had he had a LiteWriter.)

POLICE OFFICERS

for 101 unobvious reasons.

GIFT-GIVERS

who need a bright idea for the man or
woman who has almost everything else.

EVERYONE

who needs to write and see in the dark,
but doesn't want to carry a pen in one
hand and a flashlight in the other.

The LiteWriter is perfectly balanced and
beautifully finished in gold-anodized
brushed aluminum. It comes with four
spare ink cartridges in assorted colors.
If it ever runs out of power (a long time
from now) just switch to a new battery.
**HAVERHILL'S USUAL UNCONDITIONAL
GUARANTEE:** If for any reason you are not
completely satisfied with your LiteWriter,
mail it back within ten days and we shall
do the same with your money.

— INSTANT ORDER BLANK —

Mail to: **HAVERHILL'S** SN0312
526 Washington St., San Francisco, Calif. 94111
Please rush me _____ LiteWriters, individu-
ally boxed & with four spare-ink cartridges each.
Price: \$4.90 each (3 for \$14.00; 6 for \$27.00;
12 for \$50.00)
Handling and Postage Included. California resi-
dents please add 4% sales tax.
 I enclose my check for \$ _____
 Diners' Amer. Exp. Acct. # _____
Name _____
Address _____

Haverhill's
Searching the World to bring you the Finest

© 1966

GENERAL SCIENCE

Question Animal Research

The right of students studying science to learn from
experiments with live animals was implicitly challenged
recently in a trial in New Jersey—By Patricia McBroom

► **THE OLD QUESTION** of man's
right to use animals for scientific re-
search has risen again.

This time controversy centers around
a high school biology experiment. But
so basic are the questions of law and
morality that the trial in Newark, N.J.,
in the Essex County Courthouse has
implications reaching into scientific
laboratories across the nation.

Three years ago a high school stu-
dent, John Barry Fugere, now a pre-
medical student, won approval from
his school for a project in which he in-
jected a Rous cancer virus into four
chickens. Two of the chickens devel-
oped cancer and died within months.

Subsequently the New Jersey Society
for the Prevention of Cruelty to Ani-
mals (SPCA) filed suit against the East
Orange Board of Education for allow-
ing "unnecessary cruelty" to chickens.

The trial raises a basic issue: Can
the use of animals for a worthy pur-
pose ever be termed "cruel?" If it can,
then virtually all experimentation on
living creatures leading to new knowl-
edge of disease and of the life processes
is suspect.

Fearing this, the National Society
for Medical Research offered itself as
a codefendant in the Essex case. Also,
the New Jersey Science Teachers As-
sociation joined for the defendants.

At this point the SPCA is not chal-
lenging all live animal experimentation.
Rather it is charging that the school
board acted illegally under a New Jer-
sey anti-cruelty law. Specifically exempt

from this law are institutions such as
universities, colleges, and medical so-
cieties conducting research authorized
by the State Department of Health.

The SPCA believes that any pain
given animals for any reason by any
group other than those listed in the
statutes is unnecessary and cruel pain.
In this case that means high school
biology classes.

Despite the statute scientists, physi-
cians, and commercial groups among
others in New Jersey have done live
animal research for years. Moreover
those institutions which could have
been authorized did not bother to ap-
ply. And the State Health department
people did not feel it their responsi-
bility to prohibit the research.

As for biology experiments in public
schools, that has always been con-
sidered a matter for the Department of
Education, not Health, Dr. Oscar Suss-
man, Director of the Division of
Veterinary Public Health said at the
trial.

Dr. Sussman said in his opinion ani-
mal cruelty depends on human intent.

If the intent is a good one, it cannot
be cruel, though from an animal's point
of view it may be uncomfortable.

Thousands of dogs are killed in
pounds because they have no homes.
Many could have been used to a valu-
able end in scientific research, Dr.
Sussman said. "Any animal killed in a
pound or shelter is cruelly killed if
unnecessarily 'killed,'" he said.

• Science News, 89:166 March 12, 1966

GENERAL SCIENCE

Need Live Experiments

► **THE NECESSITY** of allowing high
school students to experiment on live
animals was affirmed by a distinguished
scientist and authority on secondary
education in biology.

Dr. Arnold B. Grobman, Dean of
Arts and Sciences at Rutgers University
said biology is a "study of life, not a
study of models and charts."

Experimentation with living plants
and animals is part of the "whole
process of discovery for the students,"
he said. In his opinion the East Orange
Board of Education was not wrong in
allowing a student to inject a type of
cancer virus into chickens.

"What Barry Fugere did was neces-
sary to his development" said Dr.
Grobman. He is now a premedical stu-
dent at Drew University with a goal of
a career in medical research.

Dr. Grobman recently headed the
Biological Sciences Curriculum Study
(BSCS), a cooperate effort between

scientists and educators to improve the
teaching of life sciences in schools.
Roughly one million tenth graders
throughout the United States are cur-
rently using texts and laboratory experi-
ments developed by the BSCS.

Witnesses for the defense have stated
that it is not at all clear how much
pain, if any, animals experience.

Dr. Grobman told the court "I can't
be anthropomorphic and say animals
experience pain as I do." He said that
people experience pain in different
ways. Therefore the difference between
species must be very great.

In any case the educational value of
allowing students to deal with live crea-
tures in their biology classes is
recognized.

It is important for students to be al-
lowed to move with a free hand wher-
ever an experiment might lead them,
Dr. Grobman said.

• Science News, 89:166 March 12, 1966