Current Patents

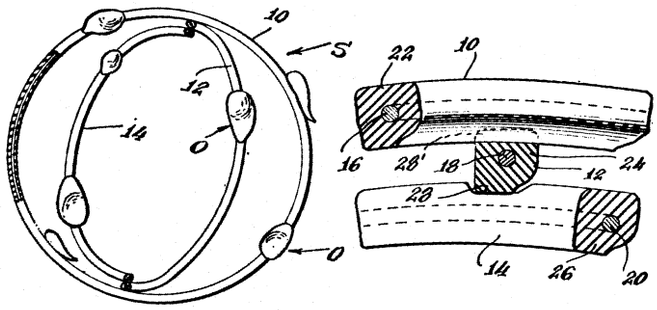
MARINE BIOLOGY

Oysters grow on tire rims

World oyster population has been taking a beating in the last decade or two, while the population of old tires has boomed.

Combining these two facts, an invention patented last week uses the rubber-encased metal rim or bead of used tires to support young oysters till they grow to table size.

Oyster spat need a hard surface to set and grow on;



if they set on mud or sand they die. Oyster beds have been prepared by strewing them with clam and oyster shells, but this surface isn't best for growing.

By meshing several tire hoops together, a spherical lattice is formed to keep the spat above the bottom.

Tire beads have a number of advantages as oyster supports, according to inventor Gerald Golub, who assigned his patent to AG-Heat Systems, Inc., Orlando, Fla.:

- They are otherwise discarded in tire de-beading operations;
- They resist corrosion, being rubber-covered metal;
- They work well, keeping the spat off the bottom;
- They are easy to stack in boats carrying them to oyster beds and easily picked up in harvesting;
- Underdeveloped oysters can later be returned to the water to grow to full size.

PATENT 3,347,210

CYBERNETICS

Fast print-out for computers

Machines to print the output of big computers are getting faster all the time, but not fast enough to suit the users or the engineers.

Most output printers are electro-mechanical, using switches and printing hammers. A printer patented last week uses electric sparks to mark special paper, at a speed which the inventor claims can be eight times faster than the high-speed printers now in use.

The new electrostatic printer, patented by Paul F. King and assigned to Xerox Corp., puts out a page at a time, saving milliseconds on the paper-advance time.

One problem with electrostatic printers has been accuracy, but that problem is being solved, according to a Xerox spokesman.

PATENT 3,348,232

HORTICULTURE

Poison-free exhaust

Few places need more carbon dioxide, but a greenhouse is one of them. Plants need the gas to grow.

A propane burner that puts out a supply of carbon dioxide without contaminating the atmosphere with poisonous carbon monoxide was patented this week by an English inventor, George H. Maynard. He assigned the patent to Scheu Steel Supply Co., Upland, Calif.

The CO_2 burner has a ring-shaped flame. A stack of corrugated passages through which the fuel reaches the flame point give good flame stability under varying fuel pressure, according to the patent. This means that the fuel is fully oxidized, eliminating the monoxide menace.

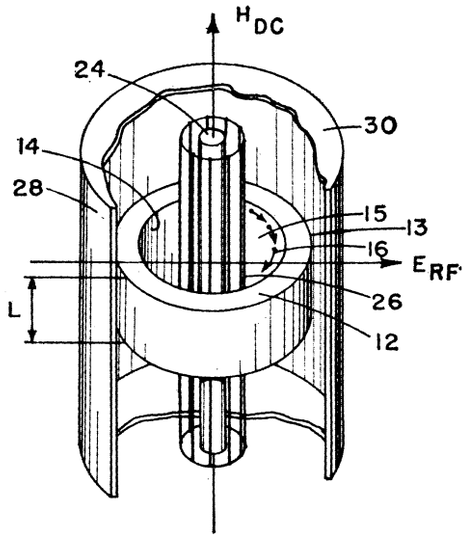
PATENT 3,327,221

CERENKOV GENERATION

Source of coherent radiation

A device that puts out coherent radiation at frequencies not handled by lasers was patented this week. It uses so-called Cerenkov radiation to produce the effect.

According to Arthur D. Little, Inc. physicist Sandor Holly, experiments with Cerenkov radiation up to now have been too inefficient to produce a usable amount of power. The radiation is produced when electrons are



passed near a material at speeds faster than the speed of light in that material.

The major problem has been that each electron was only being used once. It takes a lot of energy to get the electrons up to the speed of light in the material, and this is wasted once the electron hits an absorber.

In the Holly invention, electrons are kept in a circular path near the material by a magnetic field, travelling near the speed of light in the material. Then a pulsed electric field periodically gives them a jolt of energy, pushing them faster. As they slow down, the Cerenkov radiation is given off.

PATENT 3,348,093