

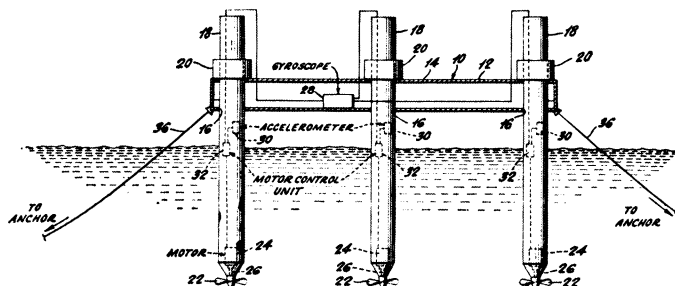
Current Patents

OIL DRILLING

Floating platforms stabilized

As oil drillers move farther offshore, the platforms they drill from become more of a problem.

In deep water, a floating platform is more efficient than one built on piles on the ocean floor. But the stability problem with floating platforms is serious.



An invention patented last week attacks the problem of heaving platforms directly by putting propellers on the ends of the supporting pillars. Motion sensors in each pillar sense when that part of the platform is moving up or down and drive the propellers to counteract it.

Inventor Sheldon B. Field of McMullen Associates, Inc., said that heaving—up-and-down motion—is the major problem with drilling platforms. Pitch and roll can be fairly easily handled.

Field said another well regarded solution to deep-water drilling was using a drilling ship, rather than a platform. Pitch and roll have been a problem with ships, he said, but stabilizing equipment developed by McMullen is now licking that problem. Ships are more mobile than platforms, and are better for quick delivery.

But heaving is the limiting factor with both ships and platforms, which is why the present patent may be important, he said. PATENT 3,349,740.

PHOTOGRAPHY

Automated flash attachment

A flash gun that measures the amount of light reflected off the subject and cuts off the flash when the proper exposure has been made was patented last week.

The device has been marketed for two years by Honeywell Inc., under the name of Strobonar 660. It eliminates the need to measure the distance of the object before setting the exposure—only the aperture and the film speed need to be pre-set.

The electronic flash, invented by Roger D. Erickson, uses a cadmium-sulfide semiconductor to measure incoming light. When the shutter is tripped, the flash reflects light off the subject back to the camera and the exposure meter.

The meter puts out an electric signal which depends on the total amount of light reflected onto it. When that total reaches the pre-set amount for proper exposure of the film, the signal is big enough to trigger a circuit which cuts off the flash.

The entire measuring and cutoff take place within the thousandth of a second that an electronic flash would normally last if uncontrolled.

PATENTS 3,350,603 and 3,350,604.

SMOKING

Low temperature cigarette

One reason sometimes put forward for cigarettes' more lethal effects on humans is that they burn hotter than cigars and pipes.

A cigarette patented last week builds on this theory to produce a low-temperature cigarette. The tobacco has a hollow core running the length of the cigarette, designed to make it burn at a lower temperature.

Inventors James A. E. Bell and David H. Laing of Ontario, Canada, made measurements of the burning temperatures of cigarettes, pipes and cigars, and found cigarettes much hotter. They claim their cigarette burns at a lower temperature and still has the drawing characteristics of an ordinary cigarette. PATENT 3,349,776.

PROTECTION

Radioactive lightning rod

Lightning rods do their work partly by draining off quietly the charge between the cloud and the building they protect, and partly by carrying a discharge, if one occurs, safely to the ground.

If the atmosphere around the rod is ionized, electric charges can flow more easily through it to the rod. This means the rod's range of protection is increased.

A lightning rod with radioactive materials attached to increase ionization was patented last week by Karlheinz Ritter of Liechtenstein, who assigned it to General Protection Establishment of that country.

Radioactive lightning rods have been proposed before, and a U.S. Atomic Energy Commission scientist said that their ionizing potential had not looked promising. Alpha particle emitters, he said, have the greatest ionizing effect, but their range is only an inch or so. Beta and gamma

particles although they have a greater range, don't ionize as well.

According to the Ritter invention, though, the radioactive material only acts as a trigger to set off further ionization.

The patented rod has a jacket or ring with the radioactive material on it. The ring is insulated from the rod and has points attached to it that come close to the end of the rod.

Since the ring is insulated, it is at the potential of the surrounding atmosphere, while the rod is grounded. In a charged atmosphere, sparks begin to fly between the ring's points and the rod, and these sparks ionize the surrounding atmosphere for some distance.

The radioactive material makes the sparks fly sooner than normal, according to the patent. PATENT 3,350,496.

