

INVENTION

Current U.S. Patents

A newly patented parking meter expires each time a parked car leaves, signals when tampered with and notifies motorists when a space is available—By William McCann

► HAVE YOU ever cruised around up and down the street in your car looking for a parking meter with lots of time left on it?

A newly patented parking meter that automatically turns back to zero when a car pulls out is expected to be a real foe of the motorist seeking to freeloader on someone else's vehicle.

The meter sends out ultrasonic pulses every so often toward the parking area beside it. If a pulse, reflected back to the meter, reports that a car is no longer present, the meter will go back to zero.

This jack-of-all-trades meter, which earned patent 3,166,732 from the U.S. Patent Office for Nils Ljungman, Narberth, Pa., and James E. Brown Jr., Philadelphia, Pa., also packs a number of other surprises. When the vehicle's parking time is up, the meter will signal for a policeman. If someone tampers with it, the meter will also signal for a policeman. In addition, the meter will send out a signal to let cruising drivers know when a parking space is available.

Automatic Gear Shift

A major part of the automatic transmission that has gone into millions of Ford cars in the past 15 years was finally granted a patent.

Robert W. Wayman, North Riverside, Ill., earned patent 3,165,946 for his gear control system, the part of the automatic transmission that actually does the shifting. This gear control system was used in 1951 on the first Fords and Mercurys equipped with automatic transmission and a variation of it is still used on Fords today.

The patent, which was applied for in 1950, included 106 separate ideas and is one of the largest patents ever to be granted in the transmission field.

Mr. Wayman could give no explanation as to why it took so long for his invention to be granted a patent in the United States. A patent was awarded for the control system in Great Britain several years ago, he said.

Rights were assigned to Borg-Warner Corporation, Chicago.

Flaw Detector for Reactors

A newly patented device that detects flaws in metals is being used by the U.S. Atomic Energy Commission to maintain safety standards in water-cooled reactors and chemical processing facilities.

The device is a transmitter-receiver combination that checks for metal flaws at a distance with ultrasonic waves. Unlike commercially used detectors, this device can find flaws at varying depths in a metal sample, Daniel C. Worlton, Richland, Wash., reported.

Mr. Worlton earned patent 3,165,922 for his invention and patent rights were assigned to the U.S. Atomic Energy Commission.

Other Interesting Patents

A throw-away toothbrush carries its own toothpaste in the bristles of the brush. The brush, which is used only once then thrown away, earned patent 3,165,776 for Philip H. Tuset, Waco, Texas.

Irrigation sprinkler pipes with wheels earned patent 3,166,088 for Hadley H. Kern, Cochran County, Texas. The wheels allow the pipes to be moved from one location to another in a field with very little trouble.

For a list of registered patent attorneys and other Patent Office information, write the Commissioner of Patents, Washington, D.C. 20231, or call 202-967-4058 for specific information.

• Science News Letter, 87:93 February 6, 1965

Nature Note

American Black Bear

► QUICK AND POWERFUL but generally harmless, the American black bear, *E. americanus*, originally roamed over almost all the wooded areas of the United States and Canada. Now these bears live mainly in less populated sections of the country, but still come surprisingly close to human habitations. Some have even become quite used to people and can become friendly nuisances in national parks where they are under legal protection.

Called black bears, these bears also come in assorted colors—chocolate-brown, cinnamon-brown, blue-black and even white. One litter may have a variety of different colored cubs, although the white bears are more numerous on the Pacific Coast, and the blue-black ones are more often found on the St. Elias range in Alaska.

The month of January or February is the time baby cubs are born—interrupting the winter slumber of the mother. Contrary to belief, bears do not really hibernate during the cold winter months, as woodchucks, dormice and other creatures do. Bears are fat by the time cold weather arrives and take long naps in a den, hollow tree or windfall. But they do not drop into the coma-like sleep of the true hibernators. If the weather gets relatively warm, they sometimes awake and roam about.

Black bears are good tree-climbers, in spite of their 300 pounds. They are fond of berries and other vegetation, as well as fish and meat of animals. If they live a normal healthy life, black bears can live as long as 25 years.

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