

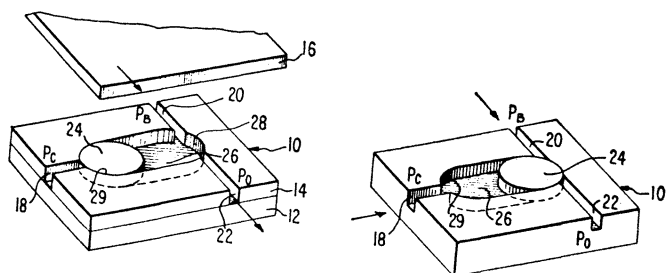
current patents

FLUIDICS

Pill Boosts Power

Fluidic control systems use small control jets of air or other gas or liquid to switch large flows from one channel to another.

If a control flow has to service a number of power channels, however, its pressure is likely to drop, reducing its switching ability.



A newly-patented modification of the pure fluidic pattern inserts a sliding disk or pill between the control port and the power channel. When a jet enters the control port, it pushes the disk into place to block flow through the power channel. With no signal at the control port, the disk is pushed back, out of the way of power flow.

Inventor Peter A. Freeman says the pill device allows practically no fluid to escape past the disk, so there is very little pressure drop in the control channel. This means that a single control flow can service a number of power channels effectively.

Freeman, who is now with Bowles Engineering Corp., Silver Spring, Md., assigned the patent to Martin-Marietta Corp., where he worked while developing the idea. A Martin spokesman said the corporation is planning to license the concept to commercial developers.

Patent 3,362,633.

AERONAUTICS

Steerable Parachute With Inflated Rotor

An inflatable helicopter-like glider that allows the parachutist to pick his landing spot has been patented by two engineers from the Army's Frankford Arsenal at Philadelphia.

The twin-rotor device, invented by Agnew E. Larsen and Robert F. Le Vino, is inflated after a conventional parachute opens to break the free fall. Small gas jets on the rotor tips start it spinning; once started, the rotors are kept spinning by the downward movement of the machine.

A Frankford spokesman said lack of funds have kept the device from being developed. The patent was assigned to the U.S. Army.

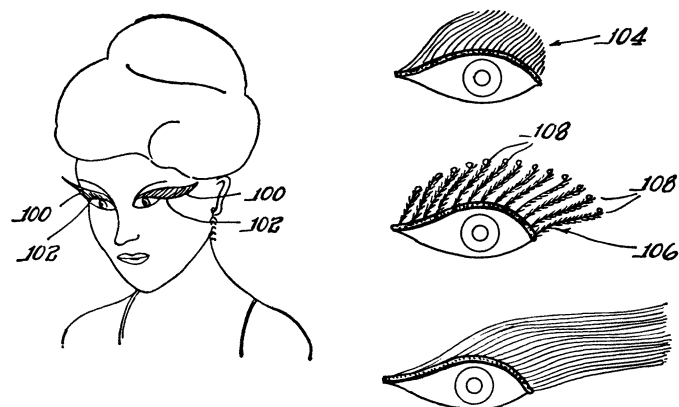
Patent 3,362,665.

COSMETICS

Feathers on the Eyelids

Women who wouldn't tolerate identical dresses, says inventor Frederick E. Glaser of Chicago, must suffer

identical eyelashes. Conventional artificial lashes "impart a certain sameness to the eyes of women wearing



them and . . . fall short of giving the wearer the distinctively attractive appearance desired," he says.

The solution is feather eyelashes, whose variety make it unlikely that any two wearers in any given group might have identical eyes.

A method for preparing feathers for eyewear won Glaser a patent last week. A small strip of resin or adhesive is spread on the feather barbs, which can then be separated from the shaft in one piece. The feather-lids can be attached to the eyes the same way ordinary artificial lashes are fastened.

Patent 3,362,417.

SAFETY

Alarm Warns Drowsy Driver

For the drowsy driver, a device that sounds a buzzer when his eyes close could be a lifesaver.

A battery-powered alarm actuated by a small attachment to the eyelid won a patent last week for a couple of Georgians, George W. Currey of Macon and Aaron L. Welsh of Warner Robins.

The power supply and buzzer fit in a case attached to a headband. A time-delay circuit keeps the buzzer from sounding in less than a quarter of a second, so that ordinary blinking doesn't set it off.

A thin vertical wire taped to the eyelid makes contact with two hollow metal rings separated by an insulator and attached to the cheek. With the eye open no contact is made.

Patent 3,363,242.

MOPS

Floor Scrubber Fits on the Feet

Mopping floors can be less strenuous if the mop can be attached to the foot, according to a newly patented invention by Ann Muecke of Milwaukee, Wis.

Using the patented Tootsie Mops, the floor scrubber can avoid bending and pushing a mop handle, according to the inventor. In one form, the foot mops include a means to squeeze fresh soapy water through the mop from a can hooked to the belt.

Patent 3,362,775.

27 january 1968/vol. 93/science news/103