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INVENTION

Patents of the Week

A messenger's handbag that grips a would-be thief's hand and prevents his escape while alerting passers-by at the same time, earned a patent—By Elizabeth Hall

➤ A NEW MESSENGER'S handbag catches a would-be thief as he seizes the handle, alerts passers-by and summons the police at the same time. The handle grips the robber's hand, and three eight-foot long arms shoot out in all directions to prevent his escape.

The U.S. Patent Office issued patent 3,120,202 for this theft prevention device to John Walter Fisher of Woking, England. The person carrying the bag keeps a button on the handle depressed at all times. If anyone seizes the handle and pressure on the button is momentarily released, a spring releases a piston that explodes a blank cartridge.

At the same time, it pierces a container of liquid carbon dioxide gas under pressure which causes three things to happen: the rubber-coated handle collapses, gripping the thief's hand and preventing him from dropping the handle; the sound of the cartridge and the sudden escape of gas attracts by-standers; and the gas forces three long arms out of the bag in all directions, blowing a police whistle in the process.

The only way the thief can be liberated is to unlock the case and release the pressure. A bag employing these principles was recently demonstrated on nationwide television.

Floating Fire Extinguisher

A fire extinguisher that floats on top of gasoline, fuel oil and other liquids automatically puts out fires as soon as they begin. The tiny device consists of a domeshaped container on top of a larger one, each part containing the components of a fire-extinguishing foam.

The device is activated by the heat of a fire, which causes the plastic dome on top to soften and contract. The liquid inside ruptures the membrane that separates it from the lower container. The two liquids run together and react to produce an extinguishing foam that spreads over the burning gasoline.

Ernest D. Kaufman, Skokie, Ill., Richard Thistlewaite, Morton Grove, Ill., and Maurice G. Hughett, Golf, Ill., assigned rights to patent 3,120,273 to Cook Electric Company, Chicago, which has no immediate plans for manufacturing the device.

Agricultural Spray

A new temperature control spray protects crops and trees from sunburn and frostbite. It takes the place of current smudge pots, air circulating fans and water flooding techniques. Consisting of hydrated lime, bentonite, kaolin and Celite, the spray reflects the direct rays of too strong a sun in summer and insulates the crops against killing frosts in winter.

The spray does not wash away with the rain, reduces irrigation requirements, increases plant vigor, facilitates ripening and resists flaking and insects. Donald Aluisi and James R. Aluisi of Fresno, Calif., received patent 3,120,445 for the compound.

Freezeless Water Supply

A new method of insulating water pipes prevents them from freezing in cold weather. Cecil W. True of Watertown, S. Dak., earned patent 3,120,600 for his system in which a heat tape and layer of glass fibers are wrapped around the pipe.

A thermostat, attached to the part of the pipe in the coldest section of the ground, automatically activates an electric current through the tape when the ground temperature begins to drop. A vapor barrier wrapper on top of the glass fiber prevents moisture from condensing inside and heat from seeping through.

Other Significant Patents

A method of monitoring the fetal heartbeat during labor and childbirth in order to determine if a Cesarean section is necessary won patent 3,120,227 for Drs. Charles A. Hunter Jr., Robert J. Braunlin, Kenneth G. Lansford and Suzanne B. Knoebel, all of Indianapolis, Ind. The process has been used at an Indianapolis hospital for more than three years.

Tiny metal wire strands attached to airplane wings that dissipate the static which builds up during flight and are now used on all high speed jet planes in England won patent 3,120,625 for Henry R. Smith, Marlow, England. Rights were assigned to (Electrostatics) Ltd., also of Chelton Marlow.

• Science News Letter, 85:126 Feb. 22, 1964

TECHNOLOGY

Muffler Quiets Noisy Pneumatic Rock Drills

➤ THE AIR-SHATTERING, ear-splitting vibrations caused by pneumatic rock drills in underground tunnels and city streets are being muffled with a device developed by the U.S. Bureau of Mines.

The new muffler suppresses sound waves vibrating 200 to 2,000 times a second, the loudest and most objectionable created by rock drills. Miners and workers will no longer lose their hearing from the noise and will be able to hear warning shouts and emergency signals.

• Science News Letter, 85:126 Feb. 22, 1964