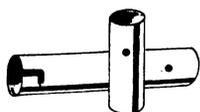


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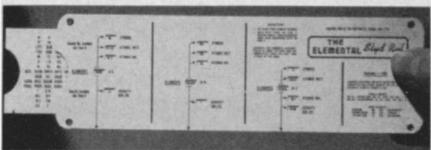
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INVENTION

Patents of the Week

A system that, combined with a computer and local television station, will increase the number of television channels available for viewing earned a patent—By Elizabeth Hall

➤ A SYSTEM for increasing the number of television channels available by sending fewer pictures on a narrower channel than now used earned patent 3,108,155 from the U.S. Patent Office.

Instead of transmitting the standard 30 picture frames per second from the main transmitter to local television stations, only a fraction of the 30 pictures, six for example, would be transmitted each second.

However, at least 30 frames per second must appear on the home television set or a viewer will see a flickering picture, Jacob Rabinow of Rockville, Md., inventor of the system, told SCIENCE SERVICE. At the local television station, each two successive frames received at the slow rate would be scanned line-by-line by a computer and repeated five times, each time using a smaller fraction of the first picture and a larger fraction of the second until one fades into the other.

The in-between pictures would be filled in at the local station, and the full 30 pictures would then be relayed to the home television set. As far as the viewer is concerned, the picture would look the same as if the full 30 frames had been transmitted from the network station.

The number of television channels would also be increased because the bandwidth required to transmit six pictures, for instance, is narrower than needed for 30. Patent rights were assigned to the Rabinow Engineering Company, Inc., of Rockville, Md. No plans have been made for future use of the system.

Flavor Pocket Cake

An angel food cake filled with colored marshmallow-lined air pockets for decoration and flavor won patent 3,108,003 for Frank C. Powers of Storm Lake, Iowa.

Colored marshmallows are added to an ordinary cake batter, preferably an angel food batter that contains thousands of air cells produced by whipped egg whites. When the marshmallow-flavored cake is baked, the marshmallow appears as a thin colored lining on air pockets about a half inch in diameter.

Natural Gas Leak Detection

A fast and efficient way for detecting a gas leak in an urban area earned patent 3,107,517 for three Texas inventors. The gas analyzer that samples the content of the atmosphere is mounted in a truck that follows the path of the gas pipelines beneath the streets.

A probe attached to the truck almost at the surface of the road sucks in the atmospheric gases with a blower. The gas is carried to the analyzer and blown out

again. The probe can be extended to reach areas inaccessible to a truck.

This enables gas company officials to find a leak quickly without drilling at certain intervals to find the suspected leak.

The method was invented by Edward R. Loyd, Martin C. Kelsey and James F. Rollins of Dallas, who assigned patent rights to Rayflex Exploration Company, also of Dallas.

Sound Simulation System

Two Ohio inventors have designed devices for simulating the noises of jet aircraft to use in training jet pilots. The devices, awarded patent 3,107,438 include the means of simulating the starter noise, turbine whine, after-burner, ventilation, random flight noise, tire screech and crash sounds.

Melvin E. Church of Akron and Daniel D. Lomaz of Cleveland, Ohio, assigned patent rights to the U.S. Navy.

Star Energy Identification

Three New York inventors have developed a navigation system that automatically recognizes stars and other cosmic bodies, navigates toward these stars, or uses these stars as navigation guides in space travel.

Patent rights were assigned to Polarad Electronics Corporation, Long Island City, N. Y. The system has been licensed to Federal Scientific Corporation, which is further developing it for the Air Force. The energies radiated by different stars are used to identify the stars for navigating the vehicle.

Dr. David Lawrence Jaffe of Great Neck, N. Y., and Alan Ross and Abraham Sonnenschein of Bayside, N. Y., developed the system, which was awarded patent 3,100,264.

Other Significant Patents:

A remotely controlled parking meter by which a shopper or businessman, for example, could extend the parking time by dialing the number of the meter from a department store or business district. Marie F. McGinnis of Denver, Colo., received patent 3,107,769 for this system.

A two-level intersection of highways eliminating the three-level interchange and large-area cloverleafs for which Arturo Olivero Cedenno of Mexico City, Mexico, earned patent 3,107,590.

An edible toy ball for dogs consisting of safe, digestible rawhide instead of rubber. Kurt Beck of Westphalia, Germany, received patent 3,107,651 for this animal plaything.

An encapsulated mailbox encased in a plastic, transparent sheath that protects it from rain, serves as a house sign and can be lit with a fluorescent light inside. Michael G. Penta of Freeport, N. Y., was awarded patent 3,107,848.

• Science News Letter, 84:302 Nov. 9, 1963