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Current U.S. Patents

"Microvision," an all-weather landing system, may solve landing problems in bad weather by permitting the pilot to see the runway inside the cockpit—By Ann Ewing

➤ AN ALL-WEATHER landing system that shows the runway inside the cockpit as a pilot would see it during a normal clear-weather night landing was granted a patent by the U.S. Patent Office.

Equipment for the system, called "Microvision," is now being built for tests by the Federal Aviation Agency this spring. If Microvision proves as successful in these FAA tests as it has in previous ones, the problem of not being able to land during bad weather should be solved for both commercial and military aircraft.

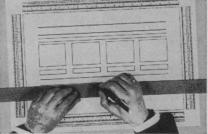
Microwave radio transmitters placed along the sides of a runway send an "image" of the runway to a receiver in the cockpit of an approaching plane. This microwave image is seen through a semi-transparent screen by the pilot in the plane at the same time he sees the actual view when he is sufficiently close to the ground.

For this device Paul A. Noxon, an engineer with Eclipse Pioneer Division of The Bendix Corporation in Teterboro, N.J., was awarded patent 3,230,819. He assigned rights to Bendix.

Using Microvision, the runway begins to come into focus at a distance of about seven miles from touchdown, appearing as a pattern of dots that represent the usual runway light beacons. The pattern, always seen in true perspective, becomes better defined



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as the aircraft gets closer to the runway. Both the ground-based and airborne equipment must be operating for the Microvision system to work. The receiving instrument in the airplane weighs less than 20 pounds, most of it for the optical projection system patented by Mr. Noxon.

Automatic Fingerprinting

An automatic method of identifying fingerprints has been devised by Walter K. French of Montrose, N.Y., who awarded rights to patent 3,231,861 to International Business Machines Corporation, New York.

The invention involves charting the skin ridge and depression pattern of a person's fingerprint, changing this pattern into electrical signals, and then comparing it with a standard fingerprint in order to use the deviations for identification.

Mr. French notes that cards using a signature for identification may be duplicated or forged. A fingerprint, footprint or handprint, however, provides a positive identification. The pattern is present at birth and lasts even after death unless accidentally or deliberately destroyed.

Other Interesting Patents

Two French inventors have come up with a way of getting rid of fog around airports, using turbojet engines spaced around the outside with their jets at an angle to the ground. Jean Henri Bertin of Neuilly-sur-Seine and Ernest Dubois of Fontenay-aux-Roses, France, assigned rights to patent 3,231, 195 to Societe Betin & Cie, Paris.

To help blind persons learn braille and practice reading with it, Carlos A. Irazoqui has devised an electronic apparatus that performs the same function as a human in-structor. He assigned rights to patent 3,230,644 to Electro-Mechanical Consultants, Inc., New York.

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

• Science News Letter, 89:110 February 12, 1966

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• Science News Letter, 89:110 February 12, 1966