

F.B.I.'s No. 2 Man Invents

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WASHINGTON, July 25—
The No. 2 man in the Federal Bureau of Investigation was awarded a patent this week for equipment to operate emergency windows and exits in aircraft and space vehicles. Clyde A. Tolson, associate director, devised the invention on his own time, but has given the Government a free license to use it in space and aeronautics.

**Patents
of the
Week**

In Patent 3,456,387, Mr. Tolson comments that space history "includes tragic situations where occupants perished because of inability to make emergency exits from the stricken spacecraft."

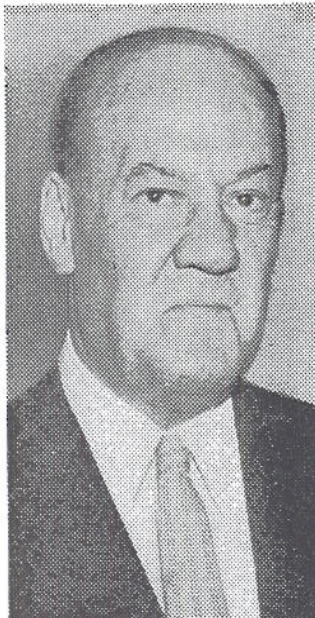
He adds that his invention would make it possible for emergency escape exits to be instantly opened without any action on the part of the occupants.

Mr. Tolson proposes sensors inside a spacecraft to detect such conditions as temperature, pressure and oxygen and carbon dioxide concentration, as well as others to report the situation outside. There is also a computer to weigh one set of considerations against another.

In an emergency, if going out would subject the astronauts to a fatal vacuum, radiation or water environment, the computer would decide to open doors into a fireproof internal compartment rather than to open windows.

Potential survivors in emergency aircraft landings, Mr. Tolson says, have been fatally trapped by an ensuing fire. The computer could be programmed to open only those windows not totally blocked by flames.

Mr. Tolson does not know whether any Government use



Clyde A. Tolson, who has received patent on emergency escape equipment.

of his equipment has been made or is planned. This week's patent adds the aircraft and spacecraft features to two earlier patents on remotely controlled closures, including casement sashes.

According to published reports, Mr. Tolson supplied the White House during the Johnson Administration with a window closer for bedside operation by pushbutton and time clock. The White House press office was unable this week to provide any information on the matter.

In 1960, Mr. Tolson patented a bottle cap that does not require an opener and can be resealed to keep the carbonation from escaping.

Since 1938, the inventor has been the righthand man to J. Edgar Hoover, the director of the F.B.I., and, since

1947, has held the associate director title.

Sonic Demolition

Albert G. Bodine Nuys, Calif., who patents on the energy, was this week applyir

Space-Emergency System