

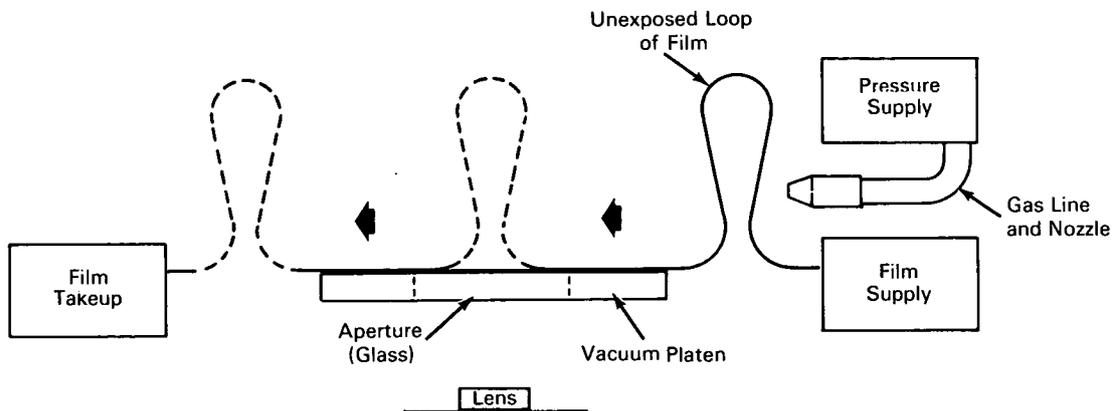


AEC-NASA TECH BRIEF



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Gas Pressure Feeds Film into Camera at High Speed



The problem:

To feed film smoothly into a camera so that 2 successive lengths can be exposed within 50 milliseconds. An existing mechanical changer which operates at 50 milliseconds is complicated and can rip or scratch the film.

The solution:

A blast of gas blows a loop of unexposed film as a wave across a vacuum platen, thereby picking up exposed film and laying down new film.

How it's done:

Each length of film is held to the platen by vacuum holes around the platen aperture. A loop of unexposed film is unreeled from a film supply so that it stands directly in front of a gas manifold and on one side of the platen. After the first length of film is exposed, a blast of gas (air, nitrogen, etc.) from the manifold blows the standing loop as a wave across the platen.

The moving wave of film breaks the vacuum, laying down unexposed film on the platen and carrying away exposed film to a take-up reel.

Notes:

1. This technique can be readily applied to multiple aperture cameras as well as to various types of films.
2. This technique should eventually be capable of allowing two successive lengths of film to be exposed within 25 milliseconds of one another.
3. Inquiries concerning this innovation may be directed to:

Office of Industrial Cooperation
Argonne National Laboratory
9700 S. Cass Avenue
Argonne, Illinois 60439
Reference: B66-10474

(continued overleaf)

Patent status:

Inquiries about obtaining rights for commercial use
of this innovation may be made to:

Mr. George H. Lee, Chief
Chicago Patent Group
U.S. Atomic Energy Commission
Chicago Operations Office
9800 S. Cass Avenue
Argonne, Illinois 60439

Source: P. J. Keigher
Particle Accelerator Division
(ARG-97)