

New Sequence Camera Gives Swing Analysis in Only Ten Seconds

A new unit, known as the Graph-Check Sequence Camera, produces eight stop-motion sequence pictures which a golf pupil sees in 10 seconds and then can study to correct mistakes immediately.

Built around the Polaroid Land 4 x 5 film holder, the camera features eight separate lenses and fast shutters. The user simply aims and shoots, each shutter clicking in automatic sequence at 1/1000th of a second. The 3000-speed Polaroid Land film records an eight-frame 4x5 picture which is completely developed and ready for viewing in only 10 seconds.

Quick Analysis

This camera makes possible for the first time photographic analysis of high-speed motion within seconds after the action has occurred.

According to Arnold Palmer, associated with Graph-Check, it is particularly ap-

plicable for golf instruction. He expects the new camera to be standard equipment in most of the nation's pro shops by the end of 1964. When used by the teaching professional, the student can see eight pictures of his swing right on the spot — with the club frozen at intervals in its arc from back-swing to follow-through. Flaws in the student's form become self-evident quickly without the need for lengthy verbal explanations. "This," says Palmer, "will be the camera's greatest advantage."

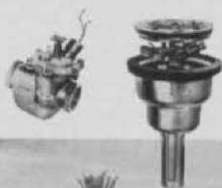
In addition to golf, the Graph-Check camera is an effective training aid for all outdoor sports where position and movement of hands, feet and body are of prime importance. Among the other sports are tennis, baseball, football, track and field, skiing, skating and diving. The camera reportedly will be sold in pro shops throughout the country.

Box Camara Simplicity

The new camera is so simple to operate (no need even to focus it) that persons with little or no photographic experience can master its use after just a few minutes of practice.

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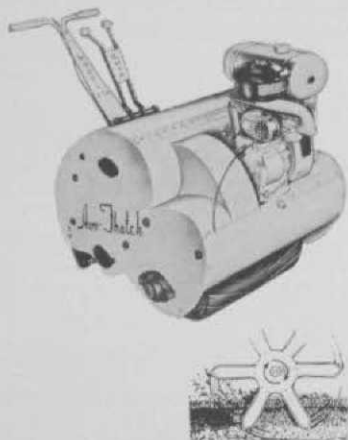
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The new Graph-Check Sequence Camera operates
with such box-camera simplicity that persons with
little or no photographic experience can master
its use after just a few minutes of practice.

the exposure; the user simply dials "Dull",
"Normal", or "Bright" — depending on
outdoor lighting conditions.

The second control regulates sequence
duration. All eight pictures may be taken
in as little as 1/10th of a second (to
capture the impact area of a golfer's
swing) or as long as four seconds (to
record all phases from address and back-
swing to the follow-through). When de-
sired, the sequence time may be extended
beyond this normal range, up to about
10 seconds.

Heart of the Camera

The heart of the camera is the Polaroid
Land 4x5 film holder. Designed and
marketed by Polaroid Corp. to adapt
4x5 press-type cameras to 10-second
photography, this holder is now in wide-
spread professional and industrial use.

The camera uses standard Type 57
Polaroid Land 4x5 film, which comes
in single-shot packets that contain all the
necessary ingredients to produce a fin-
ished picture on the spot: positive sheet,

negative sheet and a pod of developing chemicals.

Ten seconds after the film packet is removed from the camera it is peeled apart to obtain the finished eight-picture sequence print.

Technical Data

Exposure. — The Graph-Check Sequence Camera is designed for outdoor use. One knob adjusts the eight lens apertures simultaneously for proper exposure. The three settings correspond to average outdoor lighting conditions: Dull (f/16), Normal (f/26) and Bright (f/45).

Shutter Speed — There are eight identical spring-operated shutters of the single-leaf type. When the release is tripped, each shutter fires in automatic sequence at 1/1000th of a second.

Sequencing — Pneumatic sequence control permits variable timing. All eight pictures can be taken in as little as 1/10th of a second or as long as 4 seconds. Sequence duration can also be extended beyond this range, up to about 10 seconds, when desired.

Lenses — Eight 50mm. meniscus lenses provide flat field and high acutance at the focal plane, with minimum internal reflection. Normal aperture is f/26.

Focus — The universal-focus design produces tremendous depth of field. Pictures are sharp and clear from 3½ feet to infinity.

Film — The Graph-Check Sequence Camera uses standard Type 57 Polaroid Land 4 x 5 Packets, which develop finished pictures right on the spot in 10 seconds. Film speed index is 3200 (ASA daylight equivalent).

Picture Size — The overall size of print area is 3½" x 4½". Each of the eight frames measures 1½" x 1¾".

Caddie, Struck by Ball, Gets \$7,500 in Damages

An Atlantic City, N. J. jury recently awarded \$7,500 to an 18-year old caddie who was struck in the eye by a tee shot in 1959. The youth was sitting about 75 yards from the tee at Seaview CC when he was hit. He claimed he lost 50 per cent vision in his left eye as the result of the accident. The player, for whom the boy was caddying, contended he shouted a warning after the ball was hit, but conceded that he had been distracted just before the shot was made. The plaintiff claimed the player should have given a warning before driving.



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