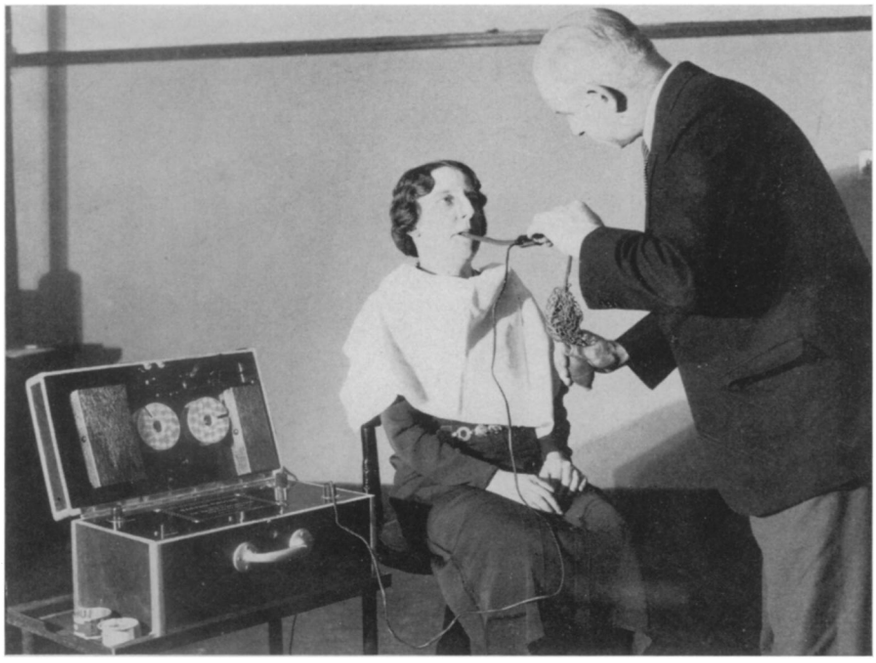

MOST CANDID CAMERA

Swallowed by the patient, this new tool of medicine photographs the inside of the stomach, showing ulcers or cancers.

PHOTOGRAPHY-MEDICINE

Candid Camera Photographs Interior of Human Stomach

Painful Ulcers So Small as To Be Hidden in Fold Of Stomach Lining Shown in Black and White or Color

CANDID camera photography has achieved a new angle in revelation of intimate details about one's person.

Not merely has it invaded the boudoir, where feminine beauty sits sans make-up and in hair curlers, but it now "shoots" human insides to find the cause of gnawing pains after eating.

Ordinary candid camera photography may destroy a reputation for beauty or dignity, but medicine's newest style of candid photography is expected to save suffering and life itself.

A painful ulcer so small or so hidden behind a fold of the stomach's lining as to be invisible to the penetrating X-rays may be found and recorded on black and white or color film.

Cancer may be detected by this new candid camera photography before it can be seen on X-ray pictures and in time for effective life-saving treatment. Efforts to save stomach cancer victims now frequently fail because the malignant growth has usually reached the hopeless stage by the time it is diagnosed.

Polypi, another kind of growth which produce no shadow on X-ray pictures, are caught by the pin-hole eye of the new candid camera and appear on the developed film.

Stomach inflammation, believed a forerunner in some cases of ulcers and cancer, can now be photographed.

Equally important, the candid photographs may show a normal, healthy stomach even though the patient complains of pain or other symptoms. In such cases the patient may be relieved of worry and the physician, instead of following false clues, can search beyond the stomach to find the true cause, and perhaps cure of the symptoms.

Thank a sword swallower for the gastroscope, of which the new medical candid camera is a modernized, photographic version. Physicians give credit in their scientific papers to a professional sword swallower who was the guinea pig on which early experiments were done.

The gastroscope might be called a stomach periscope. It is a flexible tube two and one-half feet long but no bigger around than one's finger. At the end of the tube is a small light and inside are 46 hand-ground lenses which, with the flexibility of the tube, enable the physician to see any part of the stomach he wants to examine for inflammation, ulcers, cancer or other condition.

Beautifully Clear Shots

This instrument shows the physician what the inside of one's stomach looks like. The stomach camera, called the Gastro-Photor, takes pictures, beautifully clear ones, of the inside of the stomach. At any time afterwards the physician can examine these, show them to other physicians in consultations, or use them to demonstrate stomach disease to medical students.

The stomach camera is tubular, measuring seven-sixteenths of an inch in diameter and two inches in length. It is attached to a stomach tube five-sixteenths of an inch in diameter—the kind of stomach tube which physicians have been using for years to wash out poisons that may have been swallowed or to collect the contents of the stomach for diagnostic analysis.

When the gastroscope is used, the patient's throat is anesthetized, the instrument is passed down into the stomach and within a minute or two the doctor has made his examination.

The stomach camera is swallowed down, no anesthetic being necessary, the candid photographs are "shot," and within about 30 seconds the entire procedure is over. The films are developed later in the usual manner and prints made for the doctor.

The tiny camera that does this vital job of intimate candid photography is divided into two sections, a lower and an upper camera. Between them is an illuminating lamp producing a blue white light of about 20,000 candle power for 1/120th of a second. The lamp is automatically controlled and does not create dangerous heat. The camera itself operates on the principle of pin-hole optics, like the old-style cameras children used to have and has a universal focus. Each of the two cameras carries four films placed at 90 degree angles to each other, each film taking two pictures, so that 16 pictures, covering the entire circumfer-

ence of the interior of the stomach at two levels, are taken in a single automatic exposure of 1/120th of a second. Each of the 16 candid stomach pictures covers an area of the stomach as large as a man's hand.

Large numbers of candid camera "shots" of both normal and diseased stomachs will be shown to doctors at the meeting of the American Medical Association in New York City this month.

Science News Letter, June 8, 1940

GENERAL SCIENCE

Failure to Respect Individual Threat to All Civilization

Group of Scientists, Philosophers and Religious Leaders Plan Battle Against Totalitarian Thinking

UNITING in a cooperative effort to save democracy and intellectual freedom in the face of what they believe to be a serious threat from totalitarian thinking, a group of scientists, philosophers, and religious leaders met in New York to discuss plans for a national conference. The conference is to be held next fall and is an attempt to surmount the barriers of departmentalized thought which have so far hindered religious leaders and scientists from working in close harmony.

It is intended that the conference will be a permanent organization. Discussions will be arranged at various universities and colleges for the purpose of acquainting students with the philosophical and religious implications of scientific findings and also with the scientific approach to problems of philosophy, religion and ethics.

Civilization is threatened by the rise of totalitarian systems, the group meeting in New York declared. Science, philosophy, and religion face a common danger, for none of them can survive in an atmosphere of totalitarian thinking. They can survive, these men have decided, only in a world which respects the human worth of the individual.

Philosophy and religion contribute to the world of science a recognition of the dignity of the human individual and the rights of humanity, to live and to add to human knowledge. Science contributes a searching, experimental attitude that refuses to accept dogmas and limit experimentation.

All have a common stake in the democratic way of life.

Meeting in the group were Prof. Louis Finkelstein, of the Jewish Theological Seminary of America, Prof. Harold D. Lasswell, New York University, and Prof. Paul Weiss, Bryn Mawr College, representatives of a large group of scientists and religious leaders.

The purposes of the conference are explained in the following statement issued at the meeting.

"The founding members of the Conference on Science, Philosophy and Religion in Their Relation to the Democratic Way of Life realize that today civilization itself is threatened by the rise of totalitarian systems based on anti-scientific, anti-philosophic, and anti-religious dogmas; that Science, Philosophy, and Religion can survive only in a world which respects the human worth of the individual; and, at the same time, that each of these traditions can make a contribution to the concept of universal human worth. They believe, further, that the departmentalization of thought in democratic societies has been in part responsible for the weakness of democracy in the face of totalitarianism.

"Clearly the time has come when those who are helping to fashion an American way of life should try to meet one another, to reach a mutual understanding, and if possible to formulate the basis on which they may cooperate for the preservation of democratic ideals.

"There is no suggestion that any discipline should become subject to another; nor is there any thought of reducing the various religious traditions to a common denominator. But without surrendering its individuality, each tradition—philosophic, religious, or scientific—involved in the general purpose, could contribute to the creation of mutual respect and understanding and to a common approach to American democratic living."

Science News Letter, June 8, 1940

More than 150,000 *"Huns"*—Hungarian partridges—have been liberated in widely scattered regions of the United States.

The United States received no *synthetic camphor* imports in the first quarter of 1940—Germany was almost the sole source of that product.

WHAT THEY LOOK LIKE

These shots taken with the new stomach camera described on the facing page show (left) a stomach ulcer as it causes those gnawing pains; the ulcer healing (center) and a cancer of the stomach.