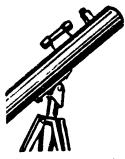


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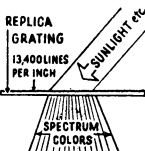


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## DEMOGRAPHY

# See Harm in Birth Rate

➤ INDIA'S explosive population growth could bring economic suicide to that country unless checked.

Human fertility is a potent force that will control India's destiny during the next 30 years, reports Robert C. Cook, director of the Population Reference Bureau, Inc.

"The leadership of Asia in the years ahead could go to that nation which first comes to grips with the dilemma of too-rapid population growth. No other advance would give so great an impetus to economic development," Mr. Cook said in the Bureau's journal, *Population Bulletin* (Dec.).

Analyzing a study on the high cost of high fertility in India, Mr. Cook concluded that the challenge for India and her people is also the challenge for Asia: Can the reproductive pattern of teeming millions be re-oriented to a small family within a generation?

The study was made by Princeton University's Office of Population Research with the support of the International Bank for Reconstruction and Development. It was conducted by Dr. Ansley J. Coale, associate professor of economics at Princeton, and

Dr. Edgar M. Hoover, visiting professor of economics at Harvard University.

The urgent necessity for a rapid reduction in India's birth rate is supported by considerable economic evidence. If the present high rate continues and the death rate continues to decline, her population will almost double by 1986. Nearly 800,000,000 people would then live in an area about two-fifths the size of the United States.

Such a great increase would more than wipe out any economic gains made under India's present or future five-year plans. Sheer numbers of people will have thwarted the planned breakthrough to a better life.

However, if births should miraculously start to decline at once and continue downward to half their present level by 1981, India's high hopes for economic development might well be realized. Even though her population would increase from nearly 400,000,000 today to about 600,000,000 by 1986, a substantially higher percentage would be in the productive age levels of from 15 to 65.

Science News Letter, December 27, 1958

## MEDICINE

# Plastic Mask Aids Surgery

➤ THE GAUZE mask that the surgeon wears in the operating room will soon be replaced in many hospitals by a new rubber plastic mask.

The new mask resembles a false face. It is much more effective against the spread of staphylococcal bacterial organisms, Dr. Claude R. Hitchcock of the Minneapolis General Hospital told SCIENCE SERVICE. Gauze masks allow about 120 times as much bacteria leakage as do the new plastic masks, he said.

Dr. Hitchcock and his partner in this project, Dr. Joseph Kaiser, also from General Hospital, began working on this project when staphylococcus outbreaks began in the surgery rooms. At one time, a Minneapolis hospital reported that one in every 33.5 operations resulted in the patient's suffering an infection after surgery. The rate is now one in every 56 operations, Dr. Hitchcock said.

The mask is expected to cost approximately \$2. It is washable, comes in men's and women's sizes, has disposable side-filters to allow air to enter, and ties in the back the same as gauze masks.

Dr. Hitchcock said he advises that anyone entering the operating room should wear this mask to insure complete safety from bacterial organisms. This includes nurses and all visitors to the operating room, such as students.

Previously designed plastic masks had proved to be too uncomfortable, Dr. Hitchcock said. Comfort is a prime consideration when designing such masks, because it is not unusual for the surgeon to spend from six to eight hours a day in the operating room.

Results of tests with various mask combinations showed that single gauze masks allowed an average of 145 colonies of bacteria to filter through within a five-minute period of breathing. Double gauze masks, a combination used by some hospitals, allowed passage of an average of 43 colonies. An average of only 1.2 colonies got through the new plastic masks.

The masks will be available to physicians by Jan. 1, 1959. They are being produced by the Phelan Manufacturing Company of Minneapolis.

Science News Letter, December 27, 1958

## ORNITHOLOGY

# Rare Warbler Caught By Camera's Eye

See Front Cover

➤ AN UNUSUAL harbinger of spring is this country's rarest breeding songbird, Bachman's Warbler, which was sighted on the outskirts of Charleston, S. Car., late this spring.

As the new year begins, even while winter is still with us, it is a happy reminder of the season to come.

The photograph on the cover of this week's SCIENCE NEWS LETTER is believed to be the first one ever taken of Bachman's Warbler. It was taken by John H. Dick. The bird is about four inches long, with an olive back, yellow breast and a jet black bib and cap.

Science News Letter, December 27, 1958