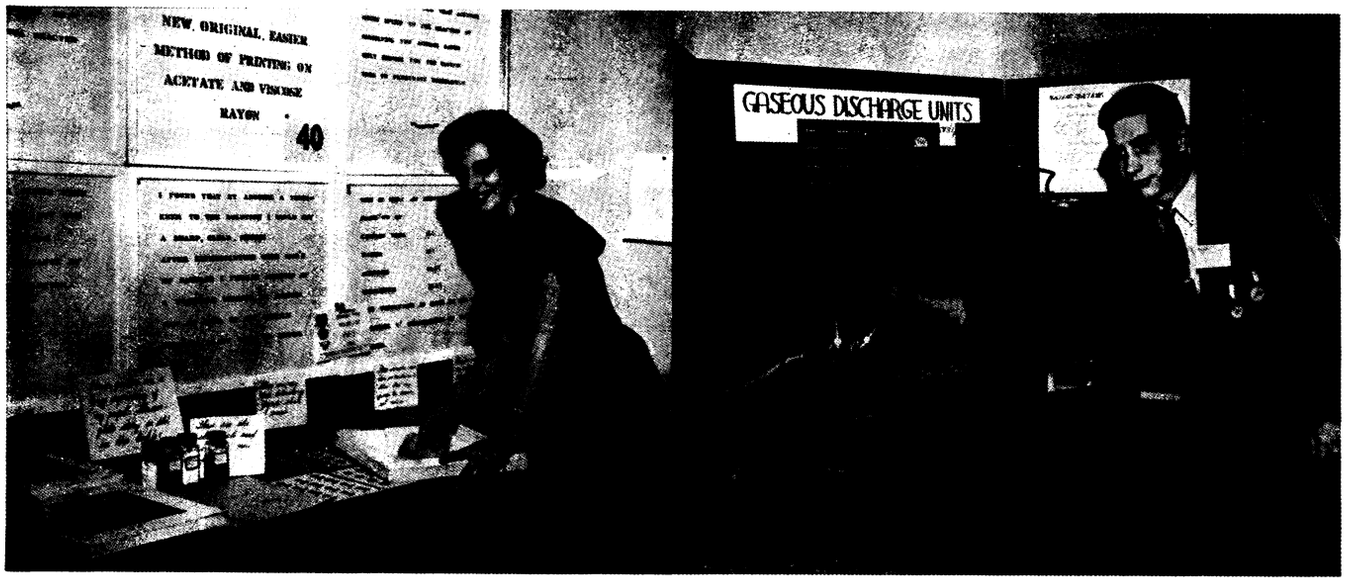

PHYSICISTS—Doris Jean Hermes, left, demonstrating a new method of printing on acetate and viscose rayon. Raymon P. Oberly, right, is presenting his gaseous discharge unit.

BIOCHEMISTRY

Red Color Test Spots Cancer Involved Chemical

➤ A RED COLOR method of measuring a compound believed involved in cancer has been devised by Dr. H. S. Bennett of the University of Washington, Seattle, working under a grant from the American Cancer Society.

The compound is called sulfhydryl and consists of an atom of hydrogen with an atom of sulfur. It appears to be the compound which turns on and off enzyme systems essential to the life and growth of cells, both normal and cancerous. It may do this by forming bonds which tighten or relax components of the protein molecule or which bind the protein molecule to other chemicals which make it function.

Some scientists elsewhere have tentatively concluded that patients with cancer and some other diseases have more sulfhydryl in their blood than healthy persons.

To measure accurately the concentrations of sulfhydryls in specimens of blood and other tissues, Dr. Bennett adds a red mercury compound to protein. This stains the sulfhydryl groups red so that under the microscope they "stand out like flags at Stalin's birthday party," as one observer puts it.

Muscles showed between six and seven times as much sulfhydryl as did blood proteins when the groups were counted by Dr. Bennett's colorimetric tests.

Science News Letter, May 17, 1952

GENERAL SCIENCE

Scientist Shortage Pinch

➤ ARMED FORCES procurement agencies and the large corporations which are expected to produce the weapons are now definitely feeling the pinch of the shortage of scientific, engineering and technical manpower.

The shortage, which almost certainly will soon be evidenced in slower production, is graphically illustrated by two examples: One large company, 95% of its work being for the Armed Forces, tried to hire 700 scientists and engineers from this spring's crop of graduates. So far they have commitments from only 72 seniors. The dean of engineering of one school, with 116 engineering graduates coming up, reported that 220 firms actually sent representatives to his campus to recruit graduates. That is about one-half a graduate per firm.

"Even though salary offers in industry are approximately $50 per month higher than a year ago," said Dr. M. H. Trytten, director of the Office of Scientific Manpower of the National Research Council, "many of these young men are considering offers of direct commissions in the Armed Forces.

"This is causing real concern in those divisions of the military establishment which must contract for equipment and for its installation," he went on.

On top of this, the number of engineering graduates this year will be considerably below that of 1951, which in turn was far short of the number of jobs waiting to be filled. Similar shortages in the number of graduating scientists and technicians exist.

Draft calls are expected to go up after July 1, when the rate at which men are discharged will sharply increase. This will add to the problems of industries producing materiel for the Armed Forces.

Dr. Trytten hopes that this combination of circumstances will "secure concerted action regarding the establishment of a consistent national policy for the proper utilization of technically qualified personnel."

In the past, he has advocated the establishment of a national scientific personnel board which could direct such personnel to where they are most needed—to the Armed Forces, to industry or to the colleges and universities.

Science News Letter, May 17, 1952

MEDICINE

Radiation Blood Damage Spares Transfused Cells

➤ THE MECHANISM that destroys red blood cells and causes anemia following exposure to irradiation, from atom bombs or X-rays, is selective.

It acts to destroy cells in the body at the time of the irradiation but does not act against normal red cells introduced by transfusion after the irradiation.

A technique of telling the difference between the normal, transfused cells and the original cells in the blood by how they clump together showed this difference in the cell-destroying mechanism, Drs. Scott N. Swisher and Frank W. Furth of the University of Rochester School of Medicine and Dentistry reported to the American Federation for Clinical Research meeting in Atlantic City.

Science News Letter, May 17, 1952