

PUBLIC HEALTH

Planned Shifts Urged

Four six-hour work shifts arranged to interfere as little as possible with the individual worker's sleeping, meal and leisure time schedule. Aids war effort.

► **SHIFT CHANGES** at 4 a.m., noon and 8 p.m., with an alternate plan for four six-hour shifts called the red, white, blue, and gold or sunshine shifts, were advised by Prof. Nathaniel Kleitman, of the University of Chicago, at the Industrial Hygiene Foundation meeting at the Mellon Institute in Pittsburgh.

These plans for the multiple shifts needed in war plants cause least interference with the worker's normal sleeping, meal and leisure time schedule and consequently, Prof. Kleitman points out, will reduce fatigue, inefficiency and discomfort. Such shift arrangements have the added advantage of letting shift changes fall at times which are not community rush hours.

Our ordinary cycle of daytime work, evening leisure and night sleep is not inborn but something we learn to follow from early infancy. It can, therefore, be displaced forward or backward by following faithfully a new routine, Prof. Kleitman declared. It takes several weeks, however, for the new cycle to be established and this is "wholly impossible under the system which prevails in some establishments of weekly or bi-weekly shift rotation," Prof. Kleitman stated emphatically.

The rotation of shifts, followed as a measure of fairness to all workers, should be made once in several months, not weeks or days, Prof. Kleitman advises. The change can be staggered and made to coincide with short vacation periods, in line with the idea that vacations should be distributed around the entire year and not concentrated in the summer. The week-end break problem might be settled, he suggests, by having workers continue on a seven-day week for a number of weeks and then receive a week's vacation.

The shift schedules proposed by Prof. Kleitman are: Red (sunset) shift: Working hours from noon to 8 p.m. Evening and night free for leisure activities. Sleep from 1 or 2 to 10 a.m. Likely to appeal to young unmarried people who like their recreation late in the evening and late morning sleep.

White (Victory) shift: Working hours from 8 p.m. to 4 a.m. Sleep from about

5 a.m. to 1 p.m. Afternoon and early evening free for leisure. Most appealing to middle-aged persons whose social life has altered, whose children have grown up and who therefore would not be disturbed while sleeping during the morning.

Blue (Dawn) shift: Working hours from 4 a.m. to noon. Leisure in the afternoon. Sleep from about 7 p.m. to 3 a.m. Fits in well with schedules of families of intermediate age with small children. Father goes to bed in the early evening when the children do, has the afternoon free for leisure and playing with the babies.

For special situations Prof. Kleitman advises the four six-hour shifts with workers putting in seven days a week. After 20 weeks they will have worked as many hours as in 21 weeks at 40 hours and will have earned and received a week's vacation. Rotation of shifts can be made easily at the end of this vacation.

This plan calls for the Red shift: working hours 3 p.m. to 9 p.m., sleep from 1 or 2 to 9 or 10 a.m. White shift: working hours 9 p.m. to 3 a.m.; sleep from 5 a.m. to 1 p.m.; Blue shift: working hours 3 a.m. to 9 a.m., sleep from about 5 p.m. to 1 a.m.; Gold (sunshine) shift: working hours 9 a.m. to 3 p.m., sleep as usual, at night.

Science News Letter, November 21, 1942

ENGINEERING

Hoover Medal to Swope For Public Service

► **GERARD SWOPE**, president of the General Electric Company, will be the sixth recipient of the Hoover medal, awarded by a committee of the American Society of Civil Engineers, American Institute of Mining and Metallurgical Engineers, the American Society of Mechanical Engineers, and the American Institute of Electrical Engineers. The award will be made in January. The medal honors engineers for public service.

Science News Letter, November 21, 1942

The only Alaska *fur seals* alive in captivity are two in San Diego, Calif.

CHEMISTRY

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The latest edition of **OUT OF THE TEST TUBE**, the fascinating, up-to-date story of chemistry, includes the timely section, "Strategic Raw Materials," and points up chemistry's decisive role in this war.

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