

the better the soil's intake of water. Worst conditions obtain when overgrazing or fire have laid the soil bare. That is when the surface particles pack together under the pounding of raindrops and form a tight crust, which rolls further precipitation off almost as well as a tile roof, piling into the creeks and rivers to gorge them into destructive floods.

*Science News Letter, May 1, 1943*

## PUBLIC HEALTH

## Guard Health of High School Children

► "GUARD the health of boys and girls of high school age who are combining school with part-time jobs, who are working during vacation, or who are entering full-time employment."

That is the main theme of the May Day—Child Health Day platform of the U. S. Children's Bureau for this year.

First step parents can take to follow this advice is to have son or daughter thoroughly examined by the family doctor before starting on the job. The doctor may find some unsuspected health defect which would make it most unwise for the child to take on the extra strain of even a part-time job. If the doctor gives an okay on the health score, he probably will also give some advice about the type of work, and hours which the particular boy or girl can safely follow.

The average boy or girl of this age needs 9 or 10 hours of sleep every night, the U. S. Children's Bureau states. Parents are going to have a tough job many times in enforcing this rule. Every effort should be made to see that these older boys and girls do not impair their health by skimping on sleep.

By the time a boy or girl is old enough to start working, he should know the rules of good diet and know them so well that he follows them automatically. Parents may, however, need to drop a few tactful reminders about the importance of milk, fruits and vegetables and whole grain bread and cereals. The meals eaten at home should be planned each day to make up for any deficiencies in the meal or meals eaten away from home.

Posture also needs watching. Sitting or standing continually in a bad posture, stooping over a work bench for many hours, may result in a curved spine. Boys and girls of this age should not continuously use one set of muscles over and over for many hours daily.

*Science News Letter, May 1, 1943*

## PUBLIC HEALTH

## Examination Urged

The more than 3,000,000 children employed during the coming summer should be checked up on carefully before work certificates are granted.

► A PHYSICAL examination of every boy or girl should be made before he or she is granted a work certificate, Miss Katharine F. Lenroot, chief of the U. S. Children's Bureau, declared at a press conference.

The "special measures" for the protection of working boys and girls of high school age called for in President Roosevelt's proclamation of May 1 as Child Health Day were explained at the conference.

Under the stimulus of war, more than 2,000,000 boys and girls between 14 and 18 years of age were employed as of October, 1942, the Children's Bureau estimates. More than 3,000,000 were employed during the 1942 summer vacation. An even larger number is expected to be at work this summer.

The physical examinations, Miss Lenroot explained, are needed to make sure that a child with defects of vision or hearing, with incipient hernia, or with unsuspected tuberculosis or heart disease, is not subjected to work which will further impair his health. Many such children should not work at all. Others might

work in certain jobs under careful supervision.

Too long hours of work are another health hazard to boys and girls of high school age. The child labor laws of 42 states now have a maximum work week of 48 hours or less for workers up to 16 or 18 years in a varying range of occupations. No child under 18, the Children's Bureau maintains, should be permitted to work more than eight hours a day or 48 hours a week either on farms or on other jobs.

Part-time jobs after school should be limited so that the combined hours of school and work do not exceed this total, except that as school is likely to be different from a job and less strenuous, some boys and girls of 16 and 17 may be able to put in a total of 9 hours a day on school and job together.

Some jobs have basic health hazards, such as exposure to lead, carbon disulfide, chlorinated solvents and benzol, which Miss Lenroot pointed out, are more dangerous to boys and girls under 18 than to other workers.

*Science News Letter, May 1, 1943*

## ENGINEERING

## Walls of the Future

Homes may be built with walls of glass containing light-polarizing material in a sliding plate so that wall can be made opaque or transparent at will.

► HOMES of the future with sliding glass partitions that can be made transparent or opaque at will were envisioned by Dr. Alexander Silverman, head of the University of Pittsburgh chemistry department, in an address before the meeting of the American Ceramic Society in Pittsburgh.

By sandwiching light-polarizing material in glass, then crossing two plates in a double wall construction, an opaque partition will result. When one of the plates is slid back, the partition will become transparent, permitting light to stream in.

Colored plate glass walls with artistic

continuous metallized decorations was another possibility cited by Dr. Silverman. Electricity passing through the decorations would heat the room. Glass floors could be metallized like the walls or glass foot-warmers designed as has-socks could be used. If additional heat were necessary portable stoves of artistic metallized glass might be designed.

"A room at sixty degrees, insuring warm feet and uniform radiation toward the body from all sides, would be more comfortable," declared Dr. Silverman, "than today's home at seventy degrees or higher."

Glass construction combined with