



### YOU CAN RUN IT

*This railroad at the New York Museum of Science and Industry can be operated by visitors. James T. Dye of the Museum staff is putting finishing touches on one of the tunnels.*

GENERAL SCIENCE

## Vitamin K Can Prevent Fatal Hemorrhage of Babies

### Prothrombin, Missing During First Week of Life, Leaves Infant Exposed to Dangerous Bleeding

**B**ABIES, who used to be in danger of bleeding to death from trifling causes during the first week of their lives, are now much safer, thanks to the recently discovered vitamin K, Drs. Armand J. Quick and Arthur M. Grossman of the Marquette University School of Medicine told colleagues at the meeting of the American Association for the Advancement of Science in Milwaukee.

The danger comes from lack of a substance called prothrombin, which plays a vital role in making a clot across a wound and thereby checking hemorrhage. Normal adults have it, and so do babies just after they have been born. But for some unknown reason babies from two days to about a week old undergo a pronounced and dangerous prothrombin slump.

How dangerous bleeding can be during the first week of life was recognized in the Mosaic law, Dr. Quick reminded his hearers. Circumcision of male infants was obligatory, but the operation-ceremony was forbidden until the baby was eight days old.

The recently discovered clot-promoting vitamin K can be used for the safeguarding of new babies who are shown to be dangerously short of prothrombin. Feeding of a concentrate rich in this vitamin will fend off the danger of hemorrhage.

After the first week, the prothrombin content of the blood rises as steeply as it had dropped on the first day of life. Drs. Quick and Grossman suggested that vitamin K is being manufactured in the baby's intestine by the new population of germs taken in with the first feedings of milk.

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### Diet Wards Off Surgery

**A** REALLY enlightened diet will not only prevent the so-called deficiency diseases, it will ward off many of the conditions that nowadays make surgical operations necessary, declared Dr. Victor G. Heiser of New York City, in the eighth Maiben Lecture, delivered at an evening session.

"There is every reason to believe," he

ENGINEERING

## Boys—and Boys Grown Up—May Operate Railroad

**T**HE DREAM of small boys—and the secret wish of many a small boy grown up—to be a railroad man is nearing realization at the New York Museum of Science and Industry where visitors soon will be able to operate, themselves, an entire model railroad system.

Multiple participation by visitors will be possible, for separate buttons control five trains which range from miniatures of puffing freights to the latest in streamlined speedsters.

Over 400 feet of track intertwine through a miniature landscape complete with waterfalls, farmhouses, churches, schools and industrial plants.

Automatic block signals and crossing gates move as the trains speed by, and a coal elevator dumps and loads coal cars on a siding.

The exhibit will be on display indefinitely to allow visitor participation in the exhibit which supplements the Museum's display of historic model locomotives and cars that show the railroad's evolution from earliest times to the present.

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said, "that the nation that can regulate its food consumption in accordance with scientific principles may not only produce a larger percentage of sound, healthy people, but at a cost infinitely less, and by inference become the leaders of the world."

He told of large-scale experiments with colonies of white rats, which lived in perfect health as long as they were given a physiologically adequate diet, but which, when placed on rations of what might be called the "civilized poverty" level, proceeded to develop such surgical conditions as sinus trouble, infection of the middle ear, gastric ulcer, kidney and bladder stones, gangrene, heart diseases and bad teeth.

Correct eating need not be expensive eating, Dr. Heiser urged: "All too often we eat far too much of a substance that is not needed, and still suffer from hunger if a needed substance is not present in sufficient quantity."

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### Pseudo-Arteriosclerosis

**A** DISEASE that has the same apparent effects as arteriosclerosis, yet in which the arteries are not hardened, was described by (*Turn to page 14*)