

MEDICINE

# Multiple Sclerosis Laid To Blood That Clots Too Easily

## Reverse of Bleeders' Disease Caused by Too Much Fibrin Results in Clots in Small Veins of the Brain

**B**LOOD that clots too easily, a condition quite the reverse of hemophilia, the bleeding condition made famous because it afflicts members of European royalty, was put forward as the fundamental cause of the hopeless nerve disease, multiple sclerosis.

Experiments indicating this blood abnormality plus such outside influences as injury or infection cause the mysterious nerve disease were reported by Drs. Philip Solomon, Mary E. Dailey and Tracy J. Putnam of Harvard Medical School and Boston City Hospital at the meeting in Atlantic City, N. J., of the American Society for Clinical Investigation.

Pinning the disease onto a blood condition gives an entirely new and possibly more hopeful approach to the attack on the disease, since medical scientists have till now concentrated their efforts on finding an infection or poison which might be the cause of the malady.

### Increasingly Common

Multiple sclerosis, once considered a rarity in America, is today becoming increasingly common, according to medical authorities. A patient rarely dies of the disease but he may be virtually helpless over a long period of years. Its most marked symptom is a progressive inability to walk. It is characterized by episodes of weakness from each of which a marked recovery is made, although the patient is left slightly weaker each time until paralyzed. Hardening of disk-like patches on the nerves gives the disease its name, multiple sclerosis, which translates into "many hardenings."

The discovery that a blood condition is at the base of this nerve disease rests on recent research of Dr. Putnam's. He found evidence that the disease is due to many blood clots forming in the small veins of the brain and spinal cord and obstructing these blood vessels.

Following this lead, Dr. Putnam's colleagues investigated the blood of multiple sclerosis patients to find whether it clotted more easily than blood of healthy persons.

A large proportion of the patients, they found, had more fibrin in their blood than normal persons. Fibrin is the essential portion of blood clots. The blood of multiple sclerosis patients does not ordinarily clot any more rapidly than that of normal persons. Its clotting, however, is greatly increased when the patients are given adrenalin or typhoid vaccine.

### Explains Onset

This explains for the first time, Dr. Solomon pointed out, the well-known fact that the onset or increases in severity of multiple sclerosis are often associated with injury, operation, exposure, infection, immersion, pregnancy or severe emotional excitement.

Any of these factors, but probably chiefly infections and injuries, occurring

to persons whose blood clots more easily than normal, probably cause the numerous blood clots in veins of brain and spinal cord which, in turn, bring on the disease.

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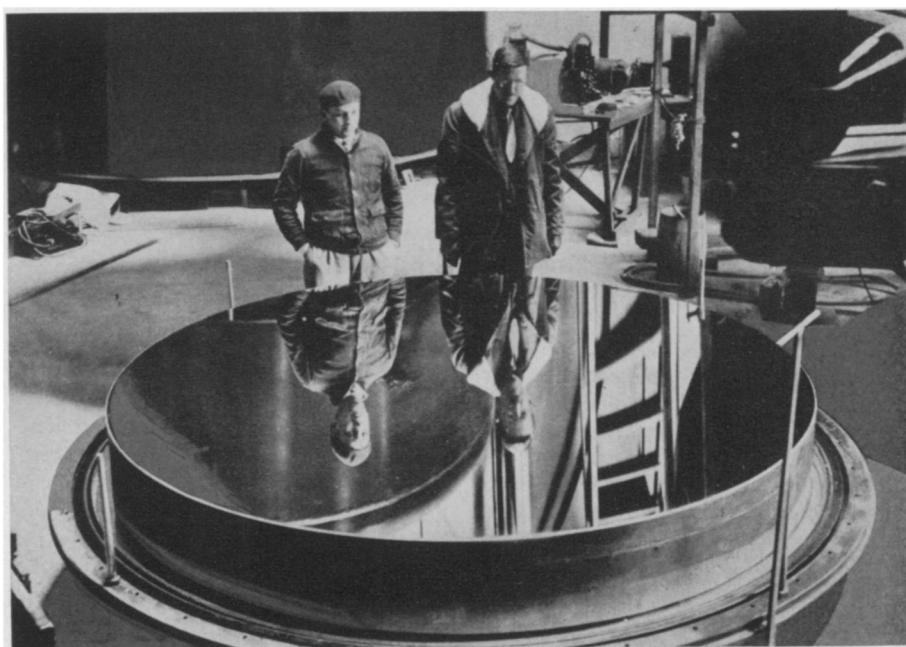
## Convulsions in Childbirth Laid to Lack of Protein

**F**AULTY diet was blamed for many of the cases of convulsions in mothers at childbirth in a report by Dr. Maurice B. Strauss of Thorndike Memorial Laboratory, Boston City Hospital, at the meeting of the American Society for Clinical Investigation.

These convulsions are characteristic of a group of diseases known as toxemias, which accounts for one-fourth of all maternal mortality, Dr. Strauss explained.

Feeding a diet containing a large proportion of protein foods in the early stages of this disorder, together with the injections of certain extracts, caused all symptoms to subside in the patients studied, Dr. Strauss reported.

"If the expectant mother does not eat enough protein food—meat, fish, eggs and milk—instead of losing weight she gains weight excessively, but this weight



### GOOD JOB WELL DONE

*Drs. John Strong and Enrique Gaviola of California Institute of Technology inspect the gleaming surface of the great 100-inch mirror of the famous Mt. Wilson Observatory telescope, just coated with aluminum instead of the customary silver. Dr. Gaviola, professor from Buenos Aires on leave in this country on a Guggenheim exchange fellowship, assisted Dr. Strong in applying the aluminum by the latter's evaporation technique. Also assisting in the gigantic operation, which increases the light-gathering power of the telescope, were Milton L. Humason and Ferdinand Ellerman of the Observatory staff.*