

MEDICINE

Electricity in Blood Clotting

Positive and negative electrical charges on blood chemicals may have part in blood clotting. Specially designed glass cell used in studies.

► **POSITIVE AND** negative electrical charges on molecules of chemicals in the blood may play a part in the mechanisms that make blood clot and keep it from clotting.

Studies on this new approach to the clotting problem were reported by Dr. Irving S. Wright of Cornell University, New York, at the meeting of the American Heart Association in Atlantic City, N. J.

Dr. Wright, like many other medical men, has for years worked on the problem of keeping blood from clotting in the blood vessels with serious consequences to the heart or brain.

He told of studies, using a specially designed glass cell, on the forces that tend to keep the fibrinogen molecules and other constituents of the blood separated and to keep them from sticking to the walls of the blood vessels and blocking them.

"Following the very fundamental law that two objects with similar electrical charges are mutually repulsive," Dr. Wright said, "it has been suggested that such mutual repulsion may play some part in preventing the components of the blood from coming together for clot formation."

"Our work has shown that, at least within certain limits, the anticoagulants (anti-clotting drugs) tested increased the negative electrical charges, thus inhibiting the initial steps of clotting. However, much work must still be done before physical factors, including electrical charges of repulsion and attraction, can be conclusively established as playing a significant role in blood clotting."

Even now, with present methods, deaths and complications from clotting diseases

can be reduced to a significant degree, Dr. Wright said. Among medicines doctors now can use in such conditions, he said, are heparin and dicumarol. Two newer anti-clotting drugs, tromexan and paritol, have not yet been used enough, in his opinion, for scientists to give them a final evaluation.

Science News Letter, June 16, 1951

MEDICINE

Polio Danger Period Month After Immunizing "Shots"

► **BABIES AND** children who need immunizing "shots" to protect them against diphtheria and whooping cough and perhaps other diseases should have these at least one month before the polio season starts.

This period, one month, is the time after the immunizing shots that a person is most likely to be in danger of getting paralyzing poliomyelitis, if exposed to the disease, the American Public Health Association warns today.

After one month "there is no evidence," the association states, that this effect of the shots persists.

Science News Letter, June 16, 1951

INVENTION

New Titanium Processing Methods Patented

► **NEW METHODS** for purifying and chlorinating titanium, important and strategic metal, used mostly in airplane metal alloys, received patents 2,555,361 and 2,555,374. Both assigned to the National Lead Company, New York, the first was received by Walter K. Nelson and Helmut Epsenschied and the second by Lancelot W. Rowe and Sandford S. Cole. All four inventors are from Metuchen, N. J.

Finely divided titanium can be chlorinated under the new system, according to the inventors. Titanium oxide and chloride are passed through a restraining bed of lesser reactivity than the titanium oxide. By the other method, crude titanium tetrachloride, usually too impure for use, can be purified through reducing the vanadium content. This is done by a process of mixing the titanium tetrachloride with a lead base substance and distilling the mixture.

Science News Letter, June 16, 1951

WALL

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