

## 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

## Barometer

## PRACTICAL!

## BEAUTIFUL!

## GUARANTEED!

## PLAN YOUR TOMORROW TODAY!

Highly decorative. This practical barometer prepares you for nature's ever changing moods 12 to 24 hours in advance. It's simple—if indicator hand falls—bad weather ahead. If it rises—look for the sun.

The beautifully lettered porcelain open-faced dial is 3 1/4" diameter. Instrument is set into block of Cherry-mahogany polished wood. This case is 5 1/4" outside diameter. All fittings are of bright, lacquered brass. Beautiful interior watch-like movement can be seen in operation at all times. Accurate German make. Dependable precision throughout. **With instructions—only \$4.90** plus 25c. postage and insurance.

## PROJECTION LENS

An outstanding value. Anastigmatic f1.3 four element system. Product of the Spencer Lens Co., 3" focus, 13/16" clear aperture, 1 1/4" OD. This lens is airspaced and not affected by heat. Can be used on 8 mm, 16 mm and 35 mm and double frame 35 mm sizes. 3.3X magnifier. Wonderful for many projection experiments. A \$9.50 value is yours for only \$2.00 postpaid.

## LUCITE BOX WITH COVER

Crystal clear lucite 2" x 2" box with radius of 1" on one side. Box and lid hold together tightly. Suitable for screws, seeds, dry chemicals, pins, gems, stones, powders and in fact anything which must be seen while stored in this box but which will not react chemically with lucite. Beautifully made costing twice our price to manufacture. 50c. per dozen postpaid.

## BANDAGE SHEARS

6" long of finest surgical steel bright chrome plated. Pre-war quality. Its blunt tip prevents nicking the skin. Not seconds, these instruments were made to sell for four times our price. Here is your chance to save money. Packed individually Bandage Shears, only \$1.25 plus 10c. postage.

Also in same quality steel and finish:  
Dressing forceps (blunt point) @ 65c. ea.  
Splinter forceps (sharp point) @ 75c. ea.

## STETHOSCOPE

Ford's model, regular, with hard rubber bell and ear tips. Metal parts chrome plated. Rubber is pure gum. Medical doctors, veterinarians, mechanics, students, experimenters, farmers, breeders, radio repair and TV men and many others can use this stethoscope which will be found excellent for transmitting low-pitched heart sounds and murmurs as well as machinery noises. \$2.50 postpaid.

## 50 POWER: POCKET SIZE HAND MICROSCOPE

A single powerful lens focuses upon a specimen flattened between two slips of glass. Focusing is done by turning this mounted lens in its screw mounting. A spring with clips holds the slide in place as the instrument is pointed at the light. Aluminum body is 1 1/4" long. Four glass slips are supplied. This makes an excellent microscope to examine flowers, plants, minerals, blood, etc., also linen fibres, paper, insects, etc. We have found also, that this small microscope will make an excellent high-powered eyepiece for telescope or microscope. Each @ 50c. plus 10c postage.

## SENSITIVE BUBBLE LINE LEVEL

For builders, farmers, carpenters, gardeners, homeowners, etc. 2" glass tube in metal mount with tube shield to prevent breakage. End lugs for attaching to string or straight edge mount. Stanley make. Nickel plated 75c. each postpaid.

## GENERAL UTILITY CYCLONE AND STORM LAMP

Indispensable in any emergency. Operates either on 3 flashlight batteries or 120 volts A.C. Comes in compact Bakelite case easy to carry camping and fishing. Ideal for bungalow or cottage when power fails. Price including 4 1/2 volt bulb, and extension cord, no batteries, \$5.00 postpaid.

## DRAFTSMAN DRAWING SET

For mechanical architectural and engineering drafting room use. Drawing set of good quality. Precision German make. Case is 6" by 2 1/4" pocket book style with snap-button lock, lined with green felt. Instruments include 4 1/2" Nickel plated Compass with divider, pen and pencil parts also 4 1/2" ruling pen, box to hold lead and needles as well as screwdriver. Six piece set PLUS 2" Nickel plated 180° protractor and paper rule in inches and millimeters. All for \$1.50 postpaid.

## PLUMMET-LAMP

Illuminated miners plumb-bob for mine or tunnel work or for use at night. A large plummet, upper part hollow to hold oil also has a tube with wick and extinguisher. Hung in gimbals by chain thus assuming vertical position always. When suspended from shifting center of a leveling-head it can be easily adjusted over a given point. An exceptionally beautiful job in brass and bronze throughout. Weighs 2 pounds. Made by Keuffel & Esser. Complete in case \$7.50 each plus 50c. postage and insurance.

## GLASS RETICLE, MOUNTED

1 1/2" diameter optically flat and plano-parallel reticule engraved for sighting. Mounting is magnesium of two piece construction dove-tailed accurately. Overall size about 2" by 3". Each \$1.00 postpaid.

Remit with order—No COD—No open accounts

## HARRY ROSS

## TELESCOPES - MICROSCOPES

Scientific and Laboratory Apparatus

70 West Broadway, Dept. N. L-4, New York 7, N. Y.



### EXAKTA "V"

35mm Single Lens Reflex Camera

One lens both for viewing and picture taking assures perfect sharpness, accurate exposure, maximum depth of field, and correct composition for color. You always see the exact image before you take the picture—whether the subject is an inch or a mile away, whether it is microscopic or gigantic, whether it is moving or stationary. Instantly interchangeable lenses permit telephoto, wide angle, close-up, copy and microscope photography. With 13.5 Zeiss Tessar "T" Coated Lens .....\$180.00 plus tax

Write Dept. 900 For Free Booklet "P"

**NATURE PHOTOGRAPHY WITH MINIATURE CAMERAS** by Alfred M. Bailey (Denver Museum of Natural History). This eminent explorer and scientist displays his finest Exakta photographs and others along with explanatory material. 35 full page photographs, 64 pages ..... 50c

EXAKTA CAMERA CO., 46 W. 29th St., New York 1, N. Y.