acid is used. It can be completely removed by dialysis against water at pH of 7 or 8. It does not precipitate amino acids and is no stronger a precipitant for polypeptides than is trichloracetic. The above method of preparation and use eliminates its usual disadvantage of instability and variability in precipitating power.

9671 P

Determination of Iodine in 5 cc. of Blood.

J. F. McCLENDON AND A. CALVIN BRATTON. (With the technical assistance of Ralph White and William Foster.)

From the Laboratory of Physiological Chemistry, University of Minnesota.

Four and one-half inches of ⅜″ Visking sausage casing is moistened at one end and tied to a frame. Five cc. of blood is run into the open end from a syringe or pipette. The open end is tied and the string attached to the other side of the frame, stretching the casing as much as it will bear, and it is dried 40 min. at 100° in an oven. It is then placed in a screw-feed stoking device with detachable water-cooled platinum tip and burned with 120 cc. of oxygen per minute in a platinum combustion tube heated by gas. The screw feed is advanced 1″ in 20 min. by motor. The combustion products are led through a pyrex absorber containing 3 sintered glass discs and 25 mg. of sodium azide in 10 cc. of water. At the end of the combustion the stoking tube is removed from the platinum tip, which is allowed gradually to heat, the gas flame is turned off, and the absorber contents and ash are transferred to a 100 cc. pyrex still, using 4 cc. N/10 NaOH and 10 cc. H_2O to rinse out. Most of the water is evaporated off while passing a small current of air to prevent bumping, and 3 cc. 6 *N* H_2SO_4 is introduced into the still. The iodine is distilled over into a 10 cc. receiver containing 1 cc. of bromine water without immersing the tip. The trap is flamed to prevent iodine remaining in drops of water in it. When SO_3 fumes appear in the still, the flame is reduced to 5 mm. and continued for 4 more minutes. After allowing the air to continue until all condensate has run down into the receiver, the tip is washed, volume made to 9 cc., and an air current blown through it in a steam bath for ½ hour to remove the bromine. Twelve and one-half mg. KI is introduced, the volume is made to 10 cc., and it is titrated with 0.001 *N* sodium thiosulfate in a Lochte-Hoover burette with divi-

sions of 0.001 cc. (while rapidly stirred) using an electrometric method for indicating the end-point. Burette readings are plotted against voltage, the curve showing a sharp angle at the end-point. Blanks are run on all the reagents and subtracted from the results. Human blood gave 0.1-0.7γ in 5 cc. On adding iodine, the following was recovered (Table I):

TABLE I.
Micrograms of Iodine in 5 cc.

Original content	Amount added	Amount recovered	% recovered
.5	5	4.81	88
.5	5	4.91	89
.5	5	5.33	97
.5	5	5.51	100

9672 P

A Simple Inexpensive Method for Concentrating Serum Under Sterile Conditions.

WILLIAM THALHIMER.

From Manhattan Convalescent Serum Laboratory, New York City.

Cellophane in sheets has been used for some time as a dializing membrane, and bags made of these sheets have been used as dializing bags.

Seamless tubes of cellophane, known commercially as sausage casings, also have been used for similar purposes.

Schwartzman[1] has made use of cellophane bags in the "preparation and preservation of immunologically active bacterial products."

Kendall[2] has used cellophane tubes for concentrating antiserums and antibody solutions with the aid of a very interesting, simple negative pressure dialysis apparatus which he has devised. Undoubtedly others have used cellophane for similar purposes.

Apparently it is not well known that cellophane can be sterilized in an autoclave at 15 pounds pressure for 30 minutes without changing any of its important characteristics.

It is very simple to make up cellophane bags out of cellophane tubing*—simply tied off with heavy twine at one end and with a

1 Morell, Sam, and Schwartzman, Gregory, *Science*, 1937, **86**, 130.

2 Kendall, Forrest E., *J. Exp. Med.*, 1930, **51**, 319.

*Cellophane sausage casings were generously furnished by Visking Casing Corp.