three blood culture bottles, and a rack of 40 slides (or 80 back to back).

Additional inserts are made to take the standard $\frac{5}{8}$ in. test tubes, the $\frac{3}{8}$ in. tubes, a single row of bijou bottles, and for those no longer using the bulb pipette there are simple trough inserts to take the straight-sided 20 and 50 c.mm. pipettes.

Moreover, the firm producing the unit is prepared to manufacture, quite cheaply, additional inserts to special designs. In fact the most controversial rack, that for cotton-wool, spirit, and prickers, has already been made in four different patterns. A gap of any size can be created by simple trough inserts or by small screw clamps on the tray sides.

Designed primarily for the clinical laboratory worker, it may also be of use in other branches of the laboratory world.

The "technitray" has been manufactured for us by Messrs. Luckham Ltd., of 591, Kingston Road, Raynes Park, London, S.W.20.

The Protides of the Biological Fluids

The 7th colloquium will be held at St. John's Hospital, Bruges, on May 1-3, 1959.

1. Special Topics:

- (1) Nutritive value of protein and protein subnutrition
- (2) Biosynthesis of proteins
- (3) The role and metabolism of carnitine
- (4) Foetal protein

2. General Topics:

A. Biochemical:

- (1) Amino-acids
- (2) Polypeptides
- (3) Proteins: lipo-, glyco-, and heteroproteins. Proteins with specific activity in connexion with coagulation, immunity, hormonal activity

B. Medical:

Diagnosis in blood, urine, C.S.F.
Therapy and nutrition

C. Technical:

- (1) Chemical methods such as chromatography, polarography, electrophoresis
- (2) Microbiological methods

Round-table Subjects:

- (1) Technical advances in the analysis of proteins and related substances
- (2) Advances in the pathology of proteins, polypeptides, and amino-acids

For further information apply to Dr. Peters, Bruges.

Seventh Congress of the International Society of Haematology

The International Society of Haematology held its seventh congress at the Palace of Congresses in Rome from September 7 to 13, 1958, under the presidency of Professor GIOVANNI DI GUGLIELMO.

The main topics included immuno-haematology, the haemorrhagic diseases, leukaemia, the spleen and the reticulo-endothelial system, anaemia, isotopes in haematology, vitamin B₁₂, anticoagulants, haemophilia, blood and blood-forming cell cultures, haematological genetics, and paediatric haematology.

Immuno-haematology

Some of the modern views on immuno-haematology and on acquired or auto-immune haemolytic anaemia were outlined by J. H. JANDL (Boston, U.S.A.). These anaemias are characterized by the adsorption on to the red cell surface of substances of a protein nature diminishing the suspension stability of red cells. Antigen-antibody complexes adhere to the red cell envelope and cause direct agglutination by antiglobulin serum. Sensitized red cells are filtered by the spleen and agglutinated red cells by the liver. J. DAUSSET (Paris) reviewed antileucocytic auto-immunization, which can be allergic or spontaneous. Allergic antibodies are usually antinuclear, as in disseminated lupus erythematosus, and they can be estimated by complement-fixation and leuco-precipitation tests. W. J. HARRINGTON (St. Louis, U.S.A.), describing immune reactions of platelets, stated that the lack of suitable serological procedures hampered progress in this field. The platelet has a complex antigenic structure and is highly susceptible to auto-immune reactions. Antibodies against platelet antigens can be natural or immune, complete or incomplete, of auto- or iso-type, or agglutinins or lysins. Steroid therapy inhibits antibody production and splenectomy removes the site of antibody production. H. E. WILSON (Ohio, U.S.A.) used rabbit antisera against human leucocytes to test leucocytic agglutinins, particularly after blood transfusions. It was found that these leucocytic agglutinins are predominantly in the γ globulin range and are inhibited by the albumin fraction. R. T. SILVER (Maryland, U.S.A.) found that the overall antibody response of leukaemic patients against typhoid, mumps, influenza, diphtheria, and tetanus antigens was less than in normal controls.

Haemorrhagic Diseases

Christmas factor and Hagemann factor mutually correct each other, as observed by J. P. SOULIER (Paris, France). In haemophilia, said F. KOLLER (Zurich, Switzerland), in one and the same family only mild or only severe cases are found. J. B. GRAHAM (U.S.A.) found that mothers of patients with

Christmas disease showed few definite signs of haemorrhagic disorder. A. A. SHARP (Oxford, England) discussed the breakdown of the normal haemostatic mechanism associated with the lack of normal blood fibrinogen as a complication of pregnancy.

J. HUGUES (Liège, Belgium) observed that certain antihistamine drugs inhibit proper clot formation. H. D. WALLER (Marburg, Germany) showed that the sources of energy for platelets are derived from glycolysis. W. LEHMANN (Kiel, Germany) re-examined some of the patients in the Aaland islands with Willebrand-Jürgens' thrombopathy and found that many are deficient in anti-haemophilic globulin. M. M. WINTROBE (U.S.A.) found that 11 cases of a series of 66 with idiopathic thrombocytopenic purpura were of the self-limiting type and did not require treatment. In chronic cases splenectomy is the only practical measure currently available; steroid therapy has a very limited application. J. SABLINSKI (Warsaw, Poland) said that among a series of 111 haemophilic patients, 42 were sporadic cases. In Poland the incidence of haemophilia is 1 in 50,000. H. A. WURZEL (U.S.A.) examined the coagulation defects in 102 patients with uraemia, and showed some defect, but other factors play a major part in this bleeding tendency.

Leukaemia

The myeloproliferative syndromes, with particular reference to Di Guglielmo's disease, were the subject of the Adolfo Ferrata lecture given by W. DAMESHEK (U.S.A.), who divided this disease into three stages, e.g., "erythraemia," that is, erythroblastosis, "erythro-leukaemia," that is, erythroblastosis and myeloid hyperplasia, and myeloblastic leukaemia. He suggested that the anaemia was due to ineffective erythropoiesis and possibly to some haemolytic component as a result of haem diversion. E. NEUMARK (London, England) described the haematological and morbid anatomical changes in a series of seven cases of erythraemic myelosis. The infiltration in liver and spleen and other organs differs from that seen in myeloid leukaemia. Most of the cells in the marrow and other tissues are not megaloblasts, but abnormal erythroblasts. J. H. BURCHENAL (U.S.A.), who used purine antagonists, folic acid antagonists, and steroids in a group of 253 children with acute leukaemia, reported that the average survival had been increased to over a year. M. M. WINTROBE (U.S.A.), in an Adolfo Ferrata lecture on the changing aspect of clinical investigation illustrated by a study of acute leukaemia, said that pharmacological advances had increased the survival rate of patients with acute leukaemia, but efforts in myeloblastic leukaemia had failed almost completely. F. H. BETHELL (U.S.A.) reviewed 500 cases of leukaemia in adults and found that during recent years the myelomonocytic (Naegeli) variant of acute myeloid leukaemia had increased most. Symposia on the aetiology and chemotherapy of leukaemia were held.

The Spleen and the Reticulo-endothelial System

Increased susceptibility to infection after splenectomy was studied by C. A. DOAN (Columbus, U.S.A.), who used a Foshay-killed tularaemia vaccine. He found hypogammaglobulinaemia and atypical globulin patterns in some patients, but he concluded that the underlying disease was much more important than the presence or absence of the spleen for the development of specific antibodies. F. REIMANN (Istanbul, Turkey) examined patients with portal hypertension haematologically and by a catheter during operation. The splenic material contained two to three times the number of neutrophils than the blood, perhaps due to their retention in the spleen.

Anaemia

No major abnormality of globin synthesis was found in thalassaemia by C. V. MOORE (U.S.A.), who investigated the biosynthesis by the incorporation of tagged protoporphyrin into haem. M. BALDINI (U.S.A.) in an investigation of erythrokinetic methods in various blood dyscrasias concluded that the determination of the faecal urobilinogen was of little value. M. BESSIS (Paris, France) followed the iron metabolism by the use of the electron microscope. When red cells are ingested by reticular cells, molecules of ferritin can just be appreciated in groups of four little dots by the electron microscope. M. POLLYCOVE (U.S.A.) examined cases with refractory anaemia and erythroid hyperplasia by following the fate of plasma-bound radio-iron. Erythropoiesis in pernicious anaemia, thalassaemia, and Di Guglielmo's disease, though hyperplastic, is largely ineffective because of erythron destruction in the marrow. F. RENDA (Ankara, Turkey) found that iron given parenterally to women in the last three months of pregnancy complicated by iron-deficiency anaemia did not benefit the foetus.

Isotopes in Haematology

G. B. JERZY GLASS (New York, U.S.A.) found that following the administration of vitamin B₁₂ containing Co⁶⁰ the maximal uptake of radioactivity by the liver was seven to 20 days after the start of the treatment and remained at that level for some time. The storage of radioactivity in the liver remained constant for a long time and only decreased by 1-10% per month. The deposition of radioactive vitamin B₁₂ was reduced in a third of a series of patients with liver disease and abolished in a few cases. This may explain the high vitamin B₁₂ blood levels in some cases of liver disease. K. A. AAS (Oslo, Norway) found that Cr⁵¹ tagged normal platelets when transfused to patients with idiopathic thrombocytopenic purpura only survive a day or less compared with the normal of nine to 11 days.

E. NEUMARK.