ABSTRACTS OF COMMUNICATIONS.

Western New York Branch.
Sixth meeting.

Rochester, New York, April 14, 1923.

198 (2158)

A method for the study of liver metabolism.

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A method has been described which allows one to obtain 8-10 pieces of liver of the size of one gram under entirely physiological conditions. A special apparatus has been constructed consisting of one part which is sewn in into an opening of the peritoneal cavity just below the sternum and of a cover which can be screwed off. Three days after the operation the animal can be considered as normal. It has a normal food intake. No disturbances in the motility of the bowels have been observed. By screwing off the cover of the window nearly every lobe of the liver can be reached. Bleeding is entirely avoided by using slightly heated scissors or Squibbs thromboplastin. The animal shows no signs of excitement or pain. No increased adrenaline production with following hyperglycemia occurs. If all operations are performed aseptically one can remove the window and the animal will survive. A further advantage of this method is that solutions can be injected directly into the stomach.

Five lantern slides were shown, illustrating the usefulness of this method. In two experiments the free sugar in the liver was determined simultaneously with the bloodsugar after the administration of adrenaline. One experiment was given showing the effect of ingestion of 5 grams of glucose on the free sugar and glycogen in the liver and the bloodsugar. Two similar experiments were shown when glucose and iletin were given at the same time.