The interference with the circulation must be such as to produce a lesion of the whole organ so that not only will the organism be deprived of the normal function of the pancreatic cells, as after extirpation of the organ, but also every cell will become diseased and begin to act abnormally and injuriously to the organism.

## 36 (179)

The pathology of function: an experimental laboratory course.

## By HAVEN EMERSON.

[From the Physiological Laboratory of Columbia University, at the College of Physicians and Surgeons.]

To fill the gap between physiology and histology on the one hand and pathology as usually taught upon the other, the following experimental procedures were given in a three weeks course on some common disorders of function and the physiological methods of detecting them and treating them.

I. Peripheral arterial blood pressure in man varied by the following procedures:

During digestion.

Variations of position.

Attempted defecation.

Adrenalin administration.

Amyl nitrite administration.

Faradic stimulation of nares.

Inhalation of ammonia.

Exercise.

Hyperpnea.

Administration of coffee.

2. Pericardial effusion imitated by saline solution introduced into the pericardial sac.

Myocardial changes produced by injecting alcohol into the heart muscle.

- 3. Aortic stenosis.
- 4. Aortic regurgitation.
- 5. Pleural effusion.

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- 6. Extremely high vascular pressure causing acute cardiac dilatation resulting in pulmonary edema, produced in a mammal by large doses of adrenalin.
- 7. Pneumothorax.
  Hydro-pneumothorax.
  Pneumo-peritoneum.

  Their physical signs and their effects upon blood pressure, heart action and respiration.
- 8. Pneumo-peritoneum.
  Hydro-peritoneum.
  Gastro-intestinal distension with air.

  Studied in detail, as indicated for No. 7.
- 9. Heat, cold and hemorrhage in their relation to respiration, circulation and the etiology and treatment of "shock."
- 10. Intracranial pressure and the results of its increase upon respiration and general blood pressure.
- 11. Acute bronchitis, produced by the administration of chlorine gas as an irritant in the inspired air.
- 12. Heat, cold and counter-irritation in their relation to temperature and circulation in the superficial and deeper portions of the body.
- 13. Renal secretion and general blood-pressure as affected by Amyl nitrite, Adrenalin, Heat, Cold,
  - Vagus stimulation.
- 14. Capillary circulation as affected by pressure locally and vasoconstriction generally.
- 15. Mitral stenosis.
- 16. Secretion of bile as affected by changes in blood pressure and the use of cholagogues.

## 37 (180)

The influence of alcohol on the composition of urine.

## By F. C. HINKEL and WILLIAM SALANT.

[From the Laboratory of Biological Chemistry of Columbia University, at the College of Physicians and Surgeons.]

About twenty years ago Schumoff and Simanowski showed that oxidation in the body is markedly diminished after the