

*Notes on the Clinical Examination of the Blood and Excreta.* By SIDNEY COUPLAND, M.D., F.R.C.P., Physician to the Middlesex Hospital, and Lecturer on Practical Medicine in the Medical School; Late Examiner in Medicine at the Examining Board for England. Third edition. London: H. K. Lewis, 136 Gower St., W.C.

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## Births, Marriages, Deaths.

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### BIRTH.

HARRINGTON.—On Monday, November 13th, the wife of Dr. A. Jerome Harrington, of a daughter.

MACHELL.—At 95 Bellevue avenue, Toronto, on the 7th December, the wife of Dr. Henry T. Machell, of a son.

### MARRIAGE.

MACNAUGHTON—BLEZARD.—At the residence of the bride's father, Thursday morning, Nov. 10th, 1892, by Rev. S. B. Philips, P. MacNaughton, M.D., Westwood, to Janet Helen, eldest daughter of Thos. Blezard, Esq., M.P.P., Otonabee.

### DEATHS.

OLVER.—At Mimico, on November 25th, Maggie Scott, youngest daughter of Dr. J. B. Olver.

OLVER.—At Mimico, on December 8th, Wm. Henry Hall, youngest son of Dr. J. B. Olver, aged 15 years.

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## Miscellaneous.

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### ON THE DIGESTIVE FERMENT OF THE CARICA PAPAYA IN GASTRO-INTESTINAL DISORDERS.

BY DR. FRANK WOODBURY.

During the past year, having devoted considerable attention to the clinical applications of papoid, especially in digestive disorders, I have had the satisfaction of witnessing a number of very interesting results, to which I wish briefly to direct attention. The successful application of physiological data must be my excuse for again directing attention to a remedy which has been studied by such eminent investigators as Wurtz and Bouchet, Finckler, Rossbach, Roy and Wittmach, and one, furthermore, the physiological and therapeutical actions of which, at the present day, may be re-

garded as pretty fully established. If I have little of novelty to offer as regards the agent employed, I may at least point out very briefly some of the clinical uses and the conditions of its successful employment. If I accomplish this modest task the labour will not be in vain, since success in therapeutics depends upon the pharmaceutical preparation and mode of administration, in many instances, as much as it does upon the selection of the proper remedy.

There were two considerations that especially led me to study the clinical applications of the juice of the papaw to disorders of digestion. The first was the relatively large number, both in private practice and clinical service, of patients otherwise enjoying good health, but complaining of digestive disorders. The second was the following statement of Lauder Brunton's, which I encountered some years ago:

"In the West Indies a tough beefsteak is rendered tender by rubbing it with the juice of a fresh papaw fruit, which contains a ferment, having an action very much like the trypsin of the pancreas."

The line of argument that would naturally be followed by the mind after receiving such a statement would be this: "A tender beefsteak is more easily masticated and digested than a tough one; consequently an agent possessing the power of making this change must be of considerable value as an aid to digestion when weakened from any cause."

Before considering the therapeutics of this unique remedy, however, I may briefly summarize its physiological actions and other properties.

Papoid is a fine, cream-white powder, almost devoid of odour and taste, freely soluble in both water and glycerine, and claimed to be of uniform digestive activity. The physiological actions of papoid as a digestive agent have been thoroughly established. It acts upon albuminoids, hydrating them and converting them ultimately into peptones, as fully demonstrated by George Herschell. It converts starch with great promptness, the ultimate product being maltose. It emulsifies fats. Moreover, Herschell declares that it has a direct tonic action on the stomach, stimulating the secretion of gastric juice or pepsinogen. Papoid, according to the same authority, is distinctly