

## THE DETECTION OF SUGAR IN URINE.

BY THOMAS BIRT, M.D.

The employment of the fermentation-test for the detection of sugar in the urine is, I am afraid, not so frequently used as it should be. This arises from some little difficulty in the manipulation. To obviate this, I have devised a simple and inexpensive apparatus, which is very easy to use, and gives trustworthy results. It consists of a couple of ounce-and-a-half vials, with their corks, and an empty used sardine tin. The lid of the tin is bent at right angles with its cavity, and affords a support to the two vials, an elastic band or two being used to retain them in their proper vertical position, while the cavity of the tin receives a portion of the urine under examination sufficient to cover the inverted ends of the bottles, thus forming an extemporaneous pneumatic trough, allowing the whole concern to be put in any situation where the required temperature can be maintained. The vials are two of the ordinary "long series" ounce-and-a-half size. The corks are of unequal length, and each has a triangular notch, about one-twelfth of an inch deep, cut through the entire length of one of its sides. This constitutes the whole of the mechanism. In using, the bottles are to be filled to the very brim with the suspected urine. To the vial which takes the longer cork, a little yeast is to be added; the cork is then forced in level with the neck of the bottle. The notch in the cork allows the superfluous urine to escape. The bottle can then be inverted without a particle of air entering, and placed mouth downwards in the stratum of urine contained in the hollow of the tin. The other bottle is to be treated in the same way; but no yeast is to be put in it, and it is to be placed side by side with the other. The bottle containing the yeast is recognized by its longer cork; and if sugar be present, at a sufficient temperature fermentation soon commences. Gas is evolved, and is retained in the upper part of the bottle, while an equal bulk of urine is expelled through the slit in the cork. The bottle with the shorter cork having no ferment added to its contents remains full and unaffected, affording

a striking means of comparison. By always using the longer cork for the bottle to which the yeast is added, no mistake can occur. The whole affair, being bound together by the elastic bands, can be safely carried about and exposed to the requisite temperature. The thing is thus done as easily as the copper or other tests. A little modification would afford a quantitative result.—*Brit. Med. Journal.*

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## THE RENAL FORM OF TYPHOID FEVER.

BY DR. CHARLES ANOT.

1. "The typhic process affects the kidney in the same manner as the other organs (brain, medulla, lungs); hence the necessity of admitting a renal form, alongside of the cerebral, cerebro-spinal, and thoracic forms.
2. Recognized by M. Gubler, remarked by M. Albert Robin, and confirmed by M. Hardy, this form has not yet been the subject of a complete description.
3. It possesses a special symptomatology (slight diarrhoea, considerable prostration, extreme adynamia, earthy paleness of the integuments, abundant epistaxis, precocious delirium, very elevated temperature, and but slight exanthematous eruption) and a special urological syndrome (bloody colouration of urine, odour of boiled bread, constant sediment formed by reduced white globules, and casts; albuminuria in considerable quantity).
4. The ordinary form is differentiated from the renal form by a greater intensity of the abdominal phenomena, by a more abundant diarrhoea, by a less precocious delirium, by less elevated temperatures, and by a more confluent exanthematous eruption. The urine is of an orange colouration, sediment is not constant, and is chiefly composed of urates, fat, and phosphates. Albuminuria is not abundant and is transient.
5. The isolated and agminated follicles of the intestine are affected in small number. The kidneys, although voluminous, present the alterations of interstitial nephritis.
6. The renal form may be mistaken for an ordinary typhoid, and, in certain cases, for a primary renal affection.
7. The course and duration of the disease vary; the termination is generally fatal.
8. Variations occurring in the quantity and in the composition of the urine render the prognosis favourable or the reverse.
9. The patient should be placed upon a milk diet, and above all things the use of cold baths must be interdicted."—*L'Union Médicale.*