NOTE ON BORIC ACID IN MILK SAMPLES.

By E. G. CLAYTON.

(Read at the Meeting, March 1, 1899.)

BORIC ACID was tested for qualitatively in 403 samples of milk received by me for analysis during the years 1893-98, and the following is a record of the results :

Total number of samples, 403 ; of these 164, or 40·6 per cent., contained boric acid. Thus :

In 1893, of	45 samples,	28 contained boric acid, or 62·2 per cent.
„ 1894, „	28	„ 17 „ „ „ 60·7 „
„ 1895, „	92	„ 43 „ „ „ 46·7 „
„ 1896, „	62	„ 29 „ „ „ 46·7 „
„ 1897, „	108	„ 37 „ „ „ 34·2 „
„ 1898, „	68	„ 10 „ „ „ 14·7 „
	<hr/> 403	<hr/> 164

In the table on the opposite page the samples are classified according to quality, and the relative amounts of boric acid added. The numbers of adulterated, doubtful (that is, poor or inferior, or *probably* adulterated), and genuine samples are also shown. Watered milks and samples with the fat abstracted are indicated respectively by the letters w and s; both sophistications together are shown by w/s. The figures demonstrate a gradual diminution in the use of boric acid, possibly owing to the introduction of formaldehyde, which, however, was not tested for in any of these samples.

DISCUSSION.

The PRESIDENT desired to ask by what method the author had tested for boric acid. He himself had latterly found that the most expeditious way was one which had been described several years previously in the ANALYST (xvi., 180), viz., to heat 0.5 c.c. of the milk in a dish with a little weak and slightly acid tincture of turmeric. The reaction was thus obtained more readily than by any other method that he had tried.

Mr. CLAYTON said that he had tested the ash after acidification by hydrochloric acid with turmeric paper, confirming the test by applying alkali to the turmeric paper after drying. The alkali used was generally potash, but sometimes ammonia.