

THE BIG RUBBER TREE, SINGAPORE.

With the first number of the second volume of the "Agricultural Bulletin of the Straits and the Federated Malay States," 1903, a plate was published showing on the right, most of the oldest rubber trees of the Botanic Gardens, Singapore. Those which can be seen, counting from the extreme right, are numbers 1, 2, 3, 4, 5, 7, and 9 of the Gardens' trees: No. 6 and 8 stand a little back, and are not recognisable in the plate. The dimensions of the boles of these trees in the end of 1902, are given on page I.

Death has spread down the line from No. 5, which was blown over and died in 1905. Between 1905 and 1909 No. 4 died. In 1910 No. 3 died. And now the largest of all, No. 2 is dead. *Fomes semitostus* seems to have been the cause of the trouble; but none of its fructifications have appeared.

The trees were received as seedlings in Singapore in the year 1877, and were planted out in their present place soon after their arrival. They began to seed in 1881. It seems (Bulletin, ix, 1910, page 213) that some of the trees were tapped as early as 1889. It is recorded (Bulletin, ii, 1903, page 112) that between 1893 and 1902, they were very heavily tapped on various occasions; but it is probable that we should not now call the tapping which they had heavy. Tree No. 2, was tapped again as follows:—

- 18 times between March 26th and May 2nd, and, May 20th and June 6th, 1903.
- 17 times between January 23rd and February 28th, 1905, by herring bones as a member of a group of trees called "Experiment VII."
- 73 times between January 22nd and June 1st, 1906, by spirals, yielding 14 lbs. 7½ ozs. of dry rubber and 1 lb. 8 ozs. of scrap.
- 24 times between November 2nd and November 28th, 1906, by spirals; but the weight of the rubber is not recorded.
- 26 times between January 7th and February 6th, 1909, by spirals, yielding more or less 8 lbs. 7 ozs. of dry rubber.
- 54 times between September 6th and October 4th, and, between November 11th and December 6th, 1909, by spirals, yielding 14 lbs. 3½ ozs. of dry rubber.
- 37 times between January 2nd and February 12th, 1913, by spirals, yielding 11 lbs. of dry rubber.
- 29 times between December 18th, 1913 and January 30th, 1914, by spirals, yielding 7 lbs. of dry rubber in sheets, 1 lb. of clot and 2 lbs. of scrap.

The tree, however, has never been tested as a rubber yielder, being wanted for seed-producing, and always since 1903 tapped lightly.

Its latex seemed to clot more readily in later years than in the earlier.

It is extremely probable that it was tapped between 1906 and 1909, but records have not been found.

A plate in the Agricultural Bulletin, Vol. vii. 1908, issued with the July number, shows the first spiral tapping of the tree and the old herring bone scars. Another illustration of it from a photograph taken a little later by Mr. H. Overbeck, occurs in Mr. E. Mathieu's "Para Rubber Cultivation," 1909, page 125.

Successive measurements of the bole of the tree at three feet from the ground have been recorded as follows:—

1904, 6th May	...	...	9 feet	1½ inches.
1905, 8th May	...	...	9 "	3¾ "
1906, 8th May	...	...	9 "	5¾ "
1909, 5th May	...	...	10 "	½ inch.
1910, presumedly in May	...	...	10 "	1½ inches.
1911, 4th July	...	...	10 "	3 "
1913, 7th May	...	...	10 "	5¼ "
1914, 8th May at removal after death	...	...	10 "	5 "

These figures indicate that its increase of growth during the last five years has been at the rate of one inch in circumference per annum, and that for the five preceeding years it was at the rate of about two inches per annum.

When uprooted it was found to be 105 feet in height, which is not unusual; but as regards its girth we must count it an abnormality.

I. H. B.

SEVENTEEN YEARS OF TAPPING IN THE WATERFALL GARDENS, PENANG.

In the Waterfall Gardens, Penang, there is a Para Rubber tree, now 28 years old which has been tapped yearly since 1896, a record being kept of its individual yield. A history of it is given on page 385 of volume I, 1901-02, of the Agricultural Bulletin of the Straits and Federated Malay States, together with a plate. As the