

TABLE H.

INSULATION TESTS of the COOK STRAIT CABLE for the Years ended 30th June, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, and 1877 respectively, showing the Resistance per knot after Two Minutes' Electrification in Megohms (British Association Units of Resistance).

Date.	No. 1 Wire.	No. 2 Wire.	No. 3 Wire.	Date.	No. 1 Wire.	No. 2 Wire.	No. 3 Wire.	Date.	No. 1 Wire.	No. 2 Wire.	No. 3 Wire.	Date.	No. 1 Wire.	No. 2 Wire.	No. 3 Wire.	
1867— Sept. 1 Sept. 30 Oct. 14 Nov. 14 Dec. 2	473 634 547 598 574 608	71 102 179 32.6 10.5	554 634 620 667 643 709	1869— Nov. 8 Dec. 3 1870— Jan. 22 Feb. 22 March 18 April 20 May 31 June 26 July 16 Aug. 16 Sept. 17 Oct. 20 Nov. 21 Dec. 21	582 638 526 417 442 344 430 456 517 473 508 471 505 480	8 3 22 22 18 20 31 26 16 17 20 21 21 21	5 2.5 2 3 3.4 3.06 8.6 4.46 3.93 2.3 1.7 8.7 5.5 10.2 7.7	1,253 1,159 865 707 967 619 812 871 622 893 763 1,108 1,069 1,149 1,121	1871— April 24 May 23 June 24 July† Aug. 25 Sept. 25 Oct.† Nov. 23 Dec. 28	508 489 717 751 517 517 641 570 579 596 676 553 649 687 826 818 ... 709	1.85 2.08 1.28 1.36 1.444 1.31 1.123 1.481 1.079 8.29 9.5 18.5 39.1 44.4 49.6 65.6 88.5 ... 173	1,003 955 1,288 ... 1,444 1,123 ... 1,481 1,079 981 1,073 938 979 1,173 1,146 1,476 1,735 ... 1,331	1872— Nov. 20 Dec. 30 1873— Jan. 24 Feb. 24 March 25 April 23 May 23 June 23 July 24 Aug. 23 Sept. 23 Oct. 21 Nov. 22 Dec. 24 1874— Jan. 24 Feb. 24 March 25 April 23 May 22 June 24 July 24 Aug. 24 Sept. 24 Oct. 23 Nov. 24 Dec.†	763 867 642 578 611 585 505 628 717 609 569 695 554 592 551 559 579	208 220 10.3 18.1 24.8 21.0 29.7 50.0 61.3 68.3 57.2 182.1 347.5 389.5 314.3 280.7 371.5 356.4	1,556 1,561 1,307 1,271 1,420 1,272 1,231 1,203 1,159 1,564 1,193 1,214 1,429 1,312 1,438 1,217 1,106 1,303
1868— June 7 Sept. 11 Sept. 17	930 630 697	5.5 22.5 63.5	1,094 946 1,000	1875— Jan. 23 Feb. 23 March 24 April 23 May 22 June 24 July 24 Aug. 24 Sept. 25 Oct. 24 Nov. 24 Dec. 23	628 611 628 636 719 636 712 562 749 679 812 692 622 ...	23 23 23 23 23 23 23 23 23 23 23 23 23 ...	94 1,695 1,274 44 30.4 37.6 41.9 120 165 161 187 205	1875— Jan. 23 Feb. 23 March 24 April 23 May 22 June 24 July 24 Aug. 24 Sept. 25 Oct. 24 Nov. 24 Dec. 23	883 764 719 636 712 562 749 679 812 692 622 ...	94 1,695 1,274 44 30.4 37.6 41.9 120 165 161 187 205	1877— Jan. 24 Feb. 24 March 24 April 24 May 24 June 23	313 347 584 379 363 396	130 365 826 313 222 211	360 418 717 545 386 432		
1869— March 27 April 19 May 17 May 17 June 22 July 27	467 483 532 531 522 649	26 30 31 14 15 9	729 748 950 963 931 1,104	1876— Jan. 21 Feb. 21 March 23	574 565 497	21 21 23	6.7 2.0 2.39	1,312 1,173 1,166	1871— Jan. 21 Feb. 21 March 23	574 565 497	6.7 2.0 2.39	1,312 1,173 1,166	1871— Jan. 21 Feb. 21 March 23	574 565 497	6.7 2.0 2.39	

* This test was taken with zinc to earth; all the others with copper to earth.

† No tests taken.

‡ Cable broken.

TABLE I.
INSULATION TESTS of SECOND COOK STRAIT CABLE for the Year ended 30th June, 1877, showing the Resistance per knot after two Minutes' Electrification in Megohms (British Association Units of Resistance).

LENGTH OF CABLE LAID—44.315 KNOTS.

Date.	Dielectric Resistance per Knot.		Copper Resistance per Knot in Ohms.	Inductive Capacity per Knot in Microfarads.	Remarks.
	Five Cells.	Fifty Cells.			
1877— March 12 " 24 April 24 May 24 June 23	... 3,341 4,000 ... 2,689	2,870 2,141 2,857 2,347 2,674	11.5085	.33853551	First test taken immediately after laying.