

## MS 113

Records relating to the invention and use of the Bridges Lee photo-theodolite, 1894-1904

### Manuscript material by Bridges Lee

/1 1898 [or later] "Photographic surveying apparatus" / J. Bridges Lee [Concerns the Bridges Lee photo-theodolite, listing the relevant patents (11, 958 and 14, 460 of 1894; 21, 117 of 1896) and summarising exhibition, publication, sales, manufacture, price and costings. Manufacturers mentioned are Troughton & Simms, and Casella]

Draft letter, holograph signed. 7 leaves

/2 1894 Diary concerning negotiations with instrument makers, 1894 Jun 20 - Oct 2 and Dec 3 - 7. [Begins with the filing of patent (11, 958?) on 1894 Jun 20 and covers his difficulties in getting an instrument made by professional firms. Chiefly concerned with unsatisfactory manufacture by Elliot Bros., St Martin's Lane, London and, eventually, more successful negotiations with Hicks of Hatton Garden]

37 leaves used, bound

### Patents for photo-theodolite

/3 1894 British Patent No. 11, 958 of 1894. Provisional and complete specifications entitled 'A new combination of camera and compass, so designed and arranged as to record photographically the magnetic bearings of objects photographed'

/4 1894 Jun 20 Letters patent

/5 1894 British Patent No. 14, 460 of 1894. Provisional and complete specifications entitled 'An improved instrument for surveying with the aid of photography'

/6 1894 Jul 27 Letters patent

/7 1896 British Patent No. 21, 117 of 1896. Provisional and complete specifications entitled 'Improvements in instruments for surveying with the aid of photography'

/8 1896 Sept 23 Letters patent

/9 1894 Oct 19 French Patent No. 243, 778. [British equivalent is /5 (above). Documents relating to patent application, grant and renewal: Brevet d'invention "Système d'appareil perfectionné pour lever des plans à l'aide de la photographie", 1895 Apr 2 (application 1894 Oct 19); accompanied by duplicate 'mémoire descriptif' and 3 duplicate drawings on cloth; draft ms. 'mémoire descriptif'; 4 receipts for patent renewal payments, 1895 - 1900]

/10 [Unidentified patent material. 3 sheets patent drawings of photo-theodolite, not apparently related to any of the patents listed above, with unidentified print of the instrument, with instructions for draughtsman on verso]

#### **Published material and trade literature**

/11 [Advertisement for J. Bridges Lee who "gives private lessons and lectures to classes on natural and experimental sciences and law". Also gives bio-graphical details]

1p on 2 leaves

/12 [Advertisement] "New photo-theodolite as designed by Mr Bridges Lee MA and constructed by L. Casella, London".

1 sheet

/13 1898 "Bridges Lee photo-theodolite: a series of views from two stations overlooking Trafalgar Square, London" [issued by] L. Casella, instrument maker. [6 views and map of the area with sight lines]

2 sheets

/14 1895 May "Photo-topographic camera: note by Bridges Lee, the inventor" [in] The Photogram, Vol 2, No. 17, p. 115

/15 1898 Feb "Applied photography: application No. II, To surveying" [in] The Photogram, Vol 5, No. 50, p.47-49. [Not written by Bridges Lee but quotes his opinions]

/16 1902 Jan 15 "The geometric interpretation of photographs as applied to surveying and other purposes". J Bridges Lee [in] The Builders' Journal & Architectural Record, Vol 14, No. 362, p.378-381, [with 2 sheets of plates, loose. Describes the photo-theodolite and its uses]

/17 1902 Apr 18 "Photography as applied to architectural measurement and surveying". J. Bridges Lee [in] Journal of the Society of Arts, Vol 50, No. 2578, p.493-504, [with loose map of Trafalgar Square]

/18 1902 Jul 3 "Photography as applied to architectural measurement and surveying". [Abstract of paper in /17. In] Nature, Vol 66, No. 1705, p.235-236

/19 1902 "Photography as an aid to the exploration of new countries". J. Bridges Lee, M.A., F.G.S. [Reprint from] Journal of the African Society, 1902, p. 302-310

/20 1904 "The photographic camera as an aid for exploration record and measurement". J. Bridges Lee. [Reprint from] Transactions of the Civil and Mechanical Engineers' Society, 1904, p.16-22, [read 1903 Dec 3]

#### **Photographic plates and lantern slides**

- /21 [Box of 7 lantern slides showing views across Trafalgar Square, taken with photo-theodolite, as published in several of the papers above]  
8.1 x 8.1cm
- /22 [Glass plate negative of the map of Trafalgar Square, with sighting lines. As published in papers above and includes photograph of dog at side of plate]  
16.5 x 12cm
- /23 [Glass plate negative of a lake, taken with photo-theodolite]  
8.2 x 10.8cm  
[3 glass plate negatives of Trafalgar Square views, taken with the photo-theodolite. All 10 x 13cm]
- /24 Nelson's Column
- /25 St. Martin's-in-the-Fields
- /26 National Gallery

**Inv.no.** 1971-44