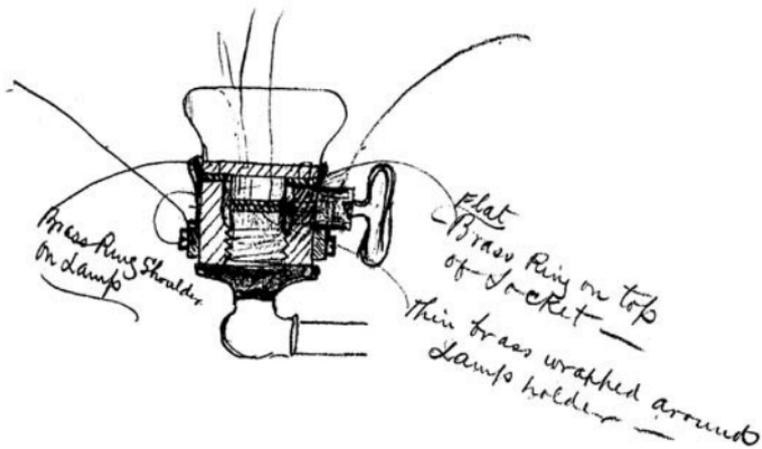
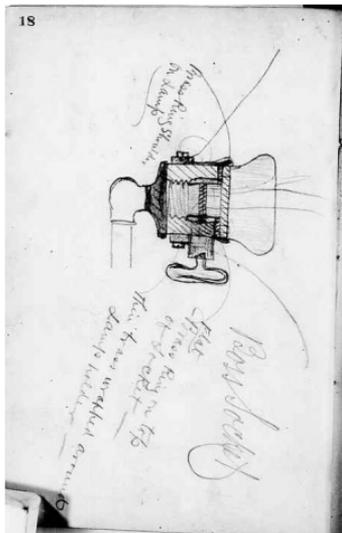


-1988-

[Menlo Park, September 14, 1880<sup>1</sup>]

*Notebook Entry:  
Electric Lighting*

Boss Socket<sup>2</sup>



X, NjWOE, Lab. N-80-09-11:18 (TAEM 39:254; TAED N153:10).  
Written by Edward Johnson.

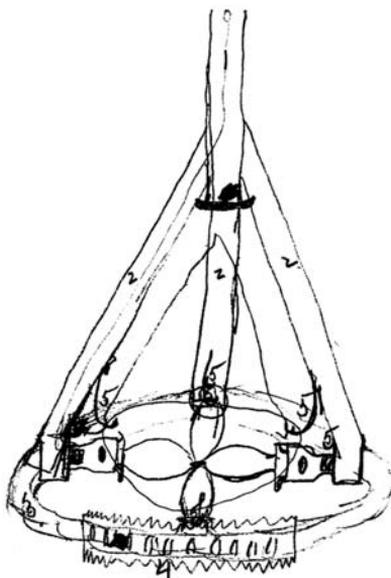
July-September 1880

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1. In his journal entry of this date Charles Mott wrote “Johnson sketched a new socket which is designated as ‘Boss socket’ in Book No. 153 pge 18 etc which is now being made by one of the new men in Shop.” Edward Johnson had arrived back in New York at the end of August and first came to the laboratory on the 31st. On 6 September he was again at the laboratory when Edison “made sketches of a number of styles and ways of running and concealing wires on gas chandeliers. Some devices being fitted to permit of the use of either Electric or Gas Light without interference with each other”; these sketches have not been found. On the 10th “Johnson produced a six light chandelier on which to experiment in artistically fitting with connections, wires &c for substituting the electric lamp and to arrange for use of both or either without as little change or disfiguring as possible” (Mott Journal N-80-07-10:130, 107, 116, 125, Lab. [TAEM 37:367, 355, 360, 364; TAED N117:65, 53, 58, 62]; Josiah Reiff to TAE, 28 Aug. 1880, DF [TAEM 53:207; TAED D8004ZET]). Johnson seems to have headed the development work on sockets and other fixtures, which were subsequently manufactured by Bergmann & Co., in which both Johnson and Edison were partners with Sigmund Bergmann (see their agreement dated April 1880, DF [TAEM 57:7; TAED D8101C] and Bergmann & Co. catalog, n.d., PPC [TAEM 96:185; TAED CA002C]). For the subsequent work on sockets and fixtures see the notebook kept by Johnson (N-80-09-11, Lab. [TAEM 39:245; TAED N153]; see also Mott Journal N-80-07-10:174, 188, 208, 223, 249, 255, 276-77; N-80-10-25:33-35; both Lab. [TAEM 37:389, 396, 406, 414, 427, 430, 440-41; 34:168-70; TAED N117:87, 94, 104, 112, 125, 128, 138-39, No60:33-35]; Johnson to Mitchell & Vance, 20 Sept. 1880; Charles Batchelor to George Merrill, 19 Oct. 1880, Lbk. 6:415, 475 [TAEM 80:308, 393; TAED LBo06415, LBo06475]). Edison filed four patent applications on sockets and fixtures in March 1881 and Johnson filed one for a socket in May 1881 and for a chandelier

*Edward Johnson's drawing  
of a chandelier design.*

*1 and 2 are square tubing,  
3 is round tubing, 4 is a flat  
scalloped ornamental band,  
and 5 is a hook on which  
the shade would rest.*



the following September (U.S. Pats. 248,420, 248,424, 251,553, 251,554, 251,596, 256,701).

2. This drawing and the one on the preceding page are the first extant evidence for a screw socket. In his reminiscences Wilson Howell describes its origins:

Mr. Edison and a number of his helpers were grouped under a hanging lamp in the laboratory one evening. Edison was talking of the introduction of his light into homes, factories, stores, and of the necessity of making the system “fool proof.” Pointing to the lamp overhead hanging by its two wires from the open conductors, he explained to us how dangerous such a method of attachment would prove in the hands of the public. He explained that it was necessary to devise an attachment which would be secure, “fool proof,” insulated and quick. He described what was needed in such vivid language that one who listened attentively to Mr. Edison was given a picture of the device needed. The “picture” was that of another and older lamp attached to its source of supply—a kerosene lamp “burner” attached to its fount by a screw thread. A sketch was hastily made of this “socket” and, when shown to Mr. Edison was pronounced by him to be exactly the device he (Mr. Edison) had in mind. [Wilson Howell reminiscences, pp. 6–7, *Pioneers Bio.*]