

H-1381 12/1/80. 115
 Lot of 10 Bambos 8x17 sheet
 Bal. 209278312.296.287.200.001.276.245
 300.286.274.296. 076.
 Dec 1st 1880
 The lamps made for
 Laboratory from this date
 will be Bamboos—8x17
 thousandths—5 hours carbon-
 ization—and will be num-
 bered consecutively
 commencing at 1.
 All will be under 400 ohms
 resistance when cold—
 Platinum Clamps.—
 Chas Batchelor

-2027-

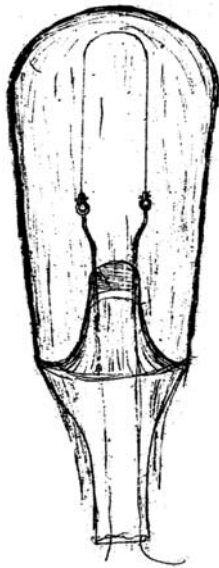
Notebook Entry:
Electric Lighting

[Menlo Park,] Dec 1st 1880

The lamps made for laboratory from this date will be Bam-
 boo—8 × 17 thousandths—5 hours carbonization—and will
 be numbered consecutively commencing at 1. All will be un-
 der 400 ohms resistance when cold—¹ Platinum clamps.—²

Chas Batchelor

X, NjWOE, Lab., N-80-09-28:115 (*TAEM* 36:515; *TAED* N106:56).
 Written by Charles Batchelor.



Drawing of 12 October of
the proposed new shape of
"Edison's Electric Lamp."

1. This limit was presumably to avoid excessive "electrical carrying";
 see Doc. 2033.

2. It is not clear what prompted Batchelor to issue this directive but
 during the preceding week he had received from the lamp factory dozens
 of bast and bamboo filaments carbonized in slightly varying ways. The
 decision to use only platinum clamps was made on or before 26 Novem-
 ber, when Charles Mott reported that glass blowers in the factory were
 "removing the carbons from four or five hundred lamps in which they
 had been secured by clamps other than Platinum to put them in Plat-
 inum clamps and Pear shaped globes with wires through the flat seal."
 This form of globe was suggested in mid-October as being less expen-
 sive. Edison adopted the design after a satisfactory trial a few days later,
 and at the end of November he applied for patent protection on it.
 N-80-09-28:109-15; Mott Journal N-80-07-10:222, 160, 163; N-79-08-
 28:205; all Lab. (*TAEM* 36:512-15, 37:413, 382-83; 35:1154; *TAED*
 N106:53-56, N117:111, 80-81; N088:100); U.S. Design Pat. 12,631.

During the second week of December experiments were made with
 fractional lengths of the standard carbon "for use in series or instead of
 one across in multiple arc." On 15 December Alex Welsh, who assisted
 in the lamp factory, noted that "From this day all regular carbons are to
 be distinguished as follows. A. 6 in[ches]— B 3— C. 2. D 1½ by direc-
 tion of Mr. Batchelor." Subsequent records of lamp tests generally use
 these letter designations. Mott Journal N-80-07-10:245, N-80-09-
 28:129-35, both Lab. (*TAEM* 37:425, 36:522-25; *TAED* N117:123,
 N106:63-66).