

-1972-

[Menlo Park,] Aug 11 [1880] Wednesday eve

Mr. Edison wishes to start 200 lamps next Friday<sup>1a</sup>

Memorandum:  
Electric Lighting  
Demonstration Plans

Conductors.

The line leading along the turnpike to be wound with three layers of cloth tarred, then wound with marlain.

See that plenty of cloth and marlain are ordered and that men enough are put on the job.<sup>2</sup>

- seven days labor<sup>a</sup>
- cloth <OK><sup>b</sup>
- Marlain <OK><sup>b</sup>
- Tar <OK><sup>b</sup>
- labor
- rubber tape
- lines cut off

Machines<sup>a</sup>

3 [4?]<sup>c</sup> machines

Present lamp requires 115 volts machine must run 1100 revo. The exciter must run from main shaft.

3<sup>d</sup> machines probably enough since the lamps are so much higher resistance.

Must run 1100 revo.

The three machine in<sup>d</sup> position now will do the business of changed to multiple arc which can be done in a minute.

Meters<sup>a</sup>

Reg meters for

2 for 20 lights Edison Jordan<sup>3</sup>

1 for 30 lights laboratory<sup>a</sup>

Lamps

Glass must have Blowers <OK><sup>b</sup>

Pumps arrangement for bringing up lamps while on.

Pick out lamps. class the lamp post and number lamps accordingly.

5 classes according to distance

Meter<sup>a</sup>

The average E.M.F. is 115 Volts <sup>115</sup>/<sub>165</sub> Webers

1 mg. per hour

1/10 mg. per hour

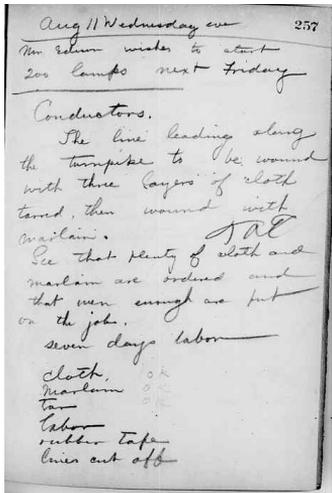
Houses<sup>a</sup>

In Mrs. Jordans relay the the wire out of sight.

Segredor<sup>4</sup>

Herrick<sup>5</sup>

Mills<sup>6</sup>



Hammer<sup>7</sup>  
Force<sup>8a</sup>

Davis' Hotel<sup>9</sup> Mrs. J Cornish's<sup>10</sup> Kuesie<sup>11</sup> Edisons<sup>a</sup>  
Drop wire used in twice<sup>c</sup> rubber tape solder joints. use lead  
safety clutches.

TAE

D, NjWOE, Lab., N-80-07-23:257 (*TAEM* 36:969; *TAED* N112:128).  
Written by Francis Upton; document multiply signed. <sup>a</sup>Followed by di-  
viding mark. <sup>b</sup>Marginalia written by Upton. <sup>c</sup>Canceled. <sup>d</sup>Obscured over-  
written text. <sup>e</sup>Interlined above.

1. There is no extant record of 200 lamps being started on Friday,  
13 August.

2. On 14 August Charles Mott reported "Men wrapping conductors  
with Muslin tarred and then wound with Marlin and again tarred."  
Mott Journal N-80-07-10:81, Lab. (*TAEM* 37:342; *TAED* N117:40).

3. That is, for Edison's house and for Sarah Jordan's boarding house.

4. John R. Segredor was an out-of-work would-be inventor when he  
first contacted Edison in April 1879 to tell him some of his ideas and to  
ask for a job at the laboratory, indicating that "if I can get a position that  
will pay my board I will be satisfied." Edison apparently offered to let  
him come to Menlo Park for a limited period in order to work up some  
of his ideas. He was at Menlo Park by the end of May when a time sheet  
shows him working on a "telephone order." Another time sheet shows  
that he was working on electric light experiments in mid-October. The  
next indication of his presence at the laboratory is a note by Edison on a  
10 March 1880 letter from a man who was having trouble getting an Edi-  
son dynamo, which he had built after reading the *Scientific American* ar-  
ticle about it, to work properly. In response Edison told Segredor to  
make a diagram of the connections. Soon thereafter he left Menlo Park.  
This notebook entry indicates that he had returned to Menlo Park by  
sometime in the summer. In early September Edison sent him to Florida  
to gather plant samples for possible use as filaments (see Doc. 1984). Se-  
gredor to TAE, 22 April and 4 May 1879 and 3 May 1880; Clay McDill  
to TAE, 10 Mar. 1880; all DF (*TAEM* 49:888; 49:894; 53:365, 301;  
*TAED* D7913S, D7913V, D8007U, D8006H); Time Sheets, NjWOE.

5. Albert B. Herrick (1860–1938) began working at Menlo Park on  
28 August 1879. He was primarily involved with lamp experiments in  
the laboratory and the lamp factory. He left Edison's employ in January  
1881 to study mechanical engineering and chemistry at the Stevens In-  
stitute. After leaving school in 1884 he worked briefly for the Baltimore  
& Ohio Railroad Co. and then for two years with the Brush-Swan Elec-  
tric Co. In 1886 he established the manufacturing business of A. B. Her-  
rick & Co. in New York City. Two years later he became chief electrician  
for Bergmann & Co. After the formation of Edison General Electric he  
became chief electrician of the Schenectady plant. When the company  
merged into General Electric he was made chief electrician of that com-  
pany's departments but soon left to form the engineering partnership of  
Herrick & Burke in New York City. "Albert B. Herrick," *Pioneers Bio.*

6. Possibly William Mills, who joined the laboratory staff in 1880 but about whom nothing further is known. Jehl 1937–41, 545.

7. William J. Hammer (1858–1934) joined the Menlo Park laboratory staff in December 1879 after working for a year as an assistant to Edward Weston at the Weston Malleable Nickel Co. in Newark. At the laboratory Hammer helped with conducting tests and keeping records of experimental lamps and in 1880 Edison appointed him chief electrician of the lamp factory. In the fall of 1881 he went to London to assist Edward Johnson with the construction of the Holborn Viaduct central station (becoming its chief engineer) and the installation of the Edison exhibit at the Crystal Palace Exposition, where he designed the first electric sign spelling out Edison’s name in electric lights. In 1883 he became chief engineer of the German Edison Co. He returned to the United States in 1884 to work for the Edison Electric Light Co. and then served as chief engineer and general manager of the Boston Edison Electric Illuminating Co. He also had charge of several of Edison’s exhibits, including the 1889 Paris International Exposition. In 1890 he established himself as an independent construction and consulting engineer in New York City. Hammer did significant research on radium, including developing the first radium-luminous paint. Hammer was also noted for his pioneer work on electric signs and for the historic lamp collection he amassed. “Hammer, William J.,” *Pioneers Bio.; ANB*, s.v. “Hammer, William Joseph.”

8. Martin Force.

9. A boarding house kept by a Scotchman named Davis near the railroad tracks in Menlo Park. Jehl 1937–41, 38.

10. Probably the Cornish grocery store, which was in the same building as the Menlo Park post office. Marshall c. 1931, 113.

11. The John Kruesi and Charles Batchelor families lived in a divided house across Christie Street from the Edison family home. Jehl 1837–41, 220 (see map).

*A map of Menlo Park showing several key buildings. Taken from Francis Jehl’s Menlo Park Reminiscences.*

