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[Newark,] July 20th 1875

*Notebook Entry:*  
*Autographic Printing*

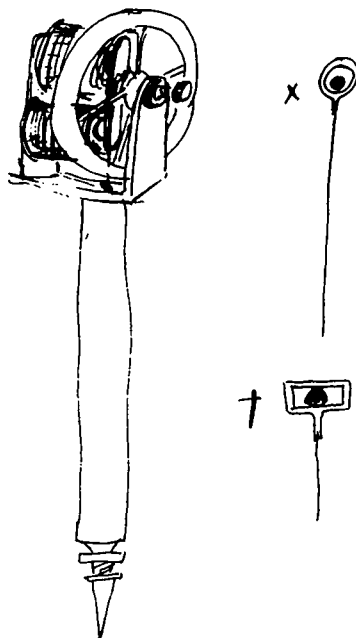
Copying Experiments

Have had a pen for pricking made to run with clockwork but found it no good so so had one made to run by electric Engine & it was finished today.<sup>1</sup>

*July-September 1875*

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Fig 1

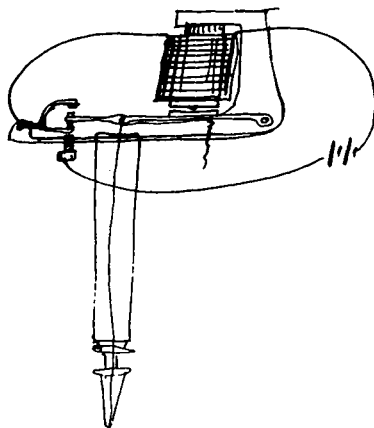


proceeded to night to try it, it worked well but ran pricke[d]<sup>a</sup> too slow the cam that moved the needle was made in this way X<sup>b</sup> With wri[-]ting slow we got along well but started Wurth<sup>2</sup> making a new cam like this T which he finished & then we went to work to get the press right for working We found that if We cov[er]ed?<sup>a</sup> the roller of press with cloth saturated with ink & rolled it over the copy it worked very good, also fastened the eop letter round the cloth covered roller, worked well. also laying a flat piec[e of? -]<sup>a</sup> saturated cloth [on the?]<sup>a</sup> [ ]<sup>c</sup> the letter over it then [tak?]<sup>a</sup> a copy [with?]<sup>a</sup> the roller running over [it?]<sup>a</sup> was good. Also in the common copying press it worked we[ll?]<sup>a</sup> most any way. After this we foun[d it?]<sup>a</sup> wanted very little pressure & then a[nother?]<sup>a</sup> new idea dawned on us to take a s[mall?]<sup>a</sup> printers roller with handle on it & cover [it with?]<sup>a</sup> saturated cloth we also took a book & [---]<sup>a</sup> the cover out large enough to take a shee[t?]<sup>a</sup> of foolscap we then pasted our letter on the inside of cover,<sup>d</sup> shut up the book & rolled the rolle[r?]<sup>a</sup> on the outside This was a perfect success & sample 1. was struck off this way with 100 others like it.<sup>3</sup>

We tried all the other anilines with Glycerine Olive oil, Molasses, some pretty fair as original,<sup>c</sup> but not so good Printers ink & oil no good.

We tried to write letter on parchment but the ink went right through it seems to combine.

Started Wurth on new [pen?]<sup>a</sup> to be made direct acting thus<sup>4</sup> getting more po[-]wer like drawing, the barrel als[o?]<sup>a</sup> to be shorter so that [the?]<sup>a</sup> pen will be easier to ha[n]dle?<sup>a</sup>

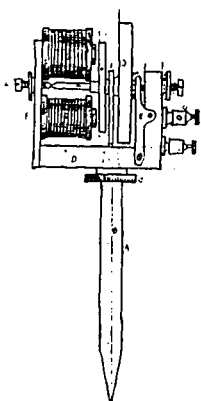


We propose to make ou[r?]<sup>a</sup> press etc to consist of a cabinet with iron frame attached, to paste the letter to, the cabinet to have a cloth top.

- A rubbing roller with handle
- 1 Bottle (pint) of ink.
- 1 Camel hair brush & porcelain boat the last three to go inside of cabinet.
- 1 Cell of Grenet battery
- 1 Pen & co[n]ne[ction?]<sup>a</sup>
- 1 [ ]<sup>a</sup>

Thos. [A Edis]on<sup>a</sup>  
Jas. A[d]ams<sup>a</sup>

Ch[as.]<sup>a</sup> Batche[lor]<sup>a</sup>  
Saml Edison <12 hr. each.><sup>f</sup>

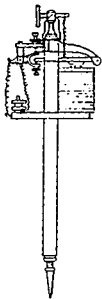


Edison's electric-pen design  
of 18 July 1875.

X, NjWoe, Lab., Cat. 1181:255 (*TAEM* 3:154). Written by Batchelor.  
<sup>a</sup>Document damaged. <sup>b</sup>“X” interlined above. <sup>c</sup>Document damaged; several words missing. <sup>d</sup>“of cover,” interlined above. <sup>e</sup>“as original,” interlined above. <sup>f</sup>Marginalia written by Batchelor; underlined twice.

1. In a separate notebook, Batchelor later made the accompanying drawing and labeled it “Edison’s Pen July 18 1875 for Autographic Press.” Cat. 1307:3, Lab. (*TAEM* 90:603).

2. Charles Nicholas Wurth (1841–1921) was a Swiss machinist who came to the United States in 1869 as a toolmaker for the Singer Sewing Machine Co. in Elizabeth, N.J. He began working for Edison in November 1870 as a machinist. He left Edison’s employ in September 1872 to return to Switzerland, at which time Edison wrote a letter of recommendation stating that Wurth had been in “charge of one of the floors our our manufactory for the past year, and has given satisfaction, we can recommend him as a steady and ingenious man” (letter of recommendation written by Edison on behalf of Edison and Unger, 21 Sept. 1872,



*Another electric-pen design,  
from 6 August 1875.*

Item 1-9, Box 1, EP&RI). Wurth came back to work for Edison in November 1873 and continued to work for him intermittently until 1910. "Wurth, Charles," *Pioneers Bio*.

3. Pasted on the facing page and labeled "Sampl 1" is an electric-pen copy of some of the opening lines of Shakespeare's *Richard III*:

Now is the winter of our discontent made glorious summer by this son of york and all the clouds that lowered upon our house are in the deep bosom of the Ocean buried grim visaged war has smoothed his wrinkled front but now instead of mounting barbed [Cat. 1181:254, Lab. (*TAEM* 3:154)]

4. The accompanying drawing, labeled "Copying pen," went to John Ott on 6 August 1875. Cat. 30,100, Scraps. (*TAEM*) Supp. III).