
A Diary of Mechanical Difficulties: Hair

Carole Oles

1 JANUARY 1855

Last night I hardly slept, having realized that today I must put some wires into my transit. I have risen at dawn to begin. First I remove the collimating screws, then draw out the tube and find a brass plate screwed on the diaphragm which contains the lines. At first I am puzzled — which screws hold the diaphragm in place! I take time to study it and see I need turn only two. Out comes the plate with its three wires where five should be. I take hairs from my own head, picking white ones because I have no black to spare. I put in two by sticking them with sealing wax dissolved in alcohol. I adjust them firmly in the grooves, when I see wax on one of the hairs. That will make it coarser, and it is already coarse enough. I clean my camel's hair brush and begin to wash the hair with clear alcohol. But I wash a wire out—then another, and another. Now I must put in five perpendicular ones besides the horizontal which, like the others has frizzled up and melted away. After an hour I have them all in, when a rude motion raises them and I must begin over. It is one o'clock when I get them in again. I try to replace the diaphragm. The sealing wax is not dry, and I send the wires agog. This time they do not jump from the grooves, so I hasten to remove the brass plate and set them parallel. I give up for the day.

This is nice ladylike work: to manage such slight threads and turn such delicate screws. But I shall seek something finer than my hairs. They look parallel now but magnified, a very little crook will seem a billowy wave, and a faint star will hide in one of the abysses.

15 JANUARY 1855

Not only are the hairs too coarse, but they are variable and curl themselves up at a change of weather. I wrote to George Bond at Harvard to ask how to get spider lines. He replies that the web from cocoons should be used and that I will have difficulty finding them this time of year. I remember at once having seen in the Atheneum two I carefully left undisturbed. I take a ladder and climb to their corner lodging, armed with a shoebox. At home I find them perfect and unroll them. But fearing I may not be able to manage them, I take some hair from Charles' head. He is under a year old and his hair is remarkably fine. I make the perpendiculars from spider's webs breaking them time after time until finally I get them all in, cross the five with a horizontal from Charles' head, and wait 24 hours. Exposure to weather does not change spiderwebs: plainly used to chill, made to endure it. But Charles' hair has never felt cold greater than that of the nursery, nor change more decided than from his mother's arms to his father's. Charles' hair knots up into a decided curl.

N.B. He may expect ringlets.

Reprinted, with the author's permission, from *Night Watches, Inventions on the Life of Maria Mitchell*, by Carole Oles, published by Alice James Books, Cambridge, Mass., 1985. Ms. Oles writes that the piece is mainly quoted from Maria Mitchell's diary. "I've cast Maria's words so as to achieve certain metrical effects; I've also invented dramatic details such as her anxious sleeplessness and the homey shoebox — both in character, I thought, with the person I came to know and admire through her diaries and journals."