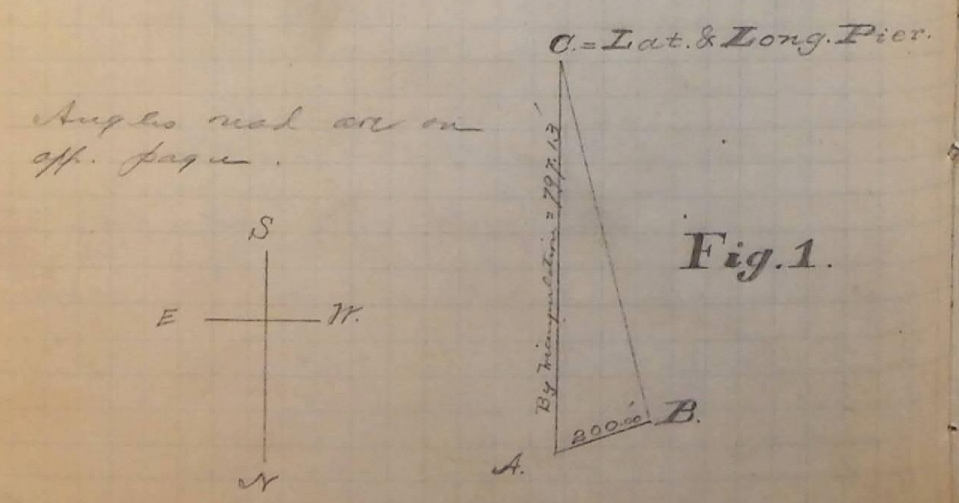


Results of Triangulation to determine the location of City Hall Spire from the Observatory. Work done May 20 1891.

I found the meridian mark as set by the Gov. on the Ry. bank of the N. C. Ry. had been destroyed, but as the engineers of the N. S. C. & G. S. were camped at the Obs. and had Transit instrument set upon the Lat. and Long. mark they gave meridian lines for hubs for base line with which to make the necessary triangulation.

The observations were as follows, Set two hubs on meridian and at an undetermined distance north of the Obs. thus requiring the triangulation shown in Fig. 1. Base line measured with Standard Steel & Brightly 200. ft. Tape, 68° F. and 16 lbs. tension.



Vernier "A."				Vernier "B."			
Quadrant				Quadrant			
1	2	3	4	1	2	3	4
72° 31'		= Angle				31 1/4	
	30'			30 1/4			29 1/2
		30'			29 1/4		
			29'				
92° 59 1/2		= Angle				59 1/2	
	58 1/2			59 1/2			59'
		59 1/2			59'		
			59'	59' 00"			

The mean of the above given for the angles:—

A = 72° 30.09
 B = 92 59.28
 C = 14 30.63
 180° 00'00.

(over)