

ENGINEERING STAFF AND ALIGNMENT.

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The engineering staff is organized according to the dis-  
gram on the next plate. The resident engineer has an office at  
the shaft. Under him is the assistant resident engineer and two  
assistant engineers, one in charge of each tube, and having  
direct control of the field party composed of instrument men, rodmen  
and tapemen. As the work has been carried on from both sides of  
the River at the same time, two separate organizations have had  
the work in hand each under a resident engineer.  
Inspectors are kept at the shafts all the time and have  
direct communication with the resident engineer's office by tele-  
phone.

The alignment may be considered as one of the real prob-  
lems with which the engineers have to deal. It is not the question  
of starting from the short base in the shaft that has caused the  
trouble but the variations of the tube in its soft bed of silt.  
These will probably cease when the screw piles are placed through  
the bottom of the tube as anchors. But it was too important to get  
the tubes together and joined up to take the time to place these  
piles while the tunnel was being driven. So the holes left  
for them in the segments, or rather between two segments, were  
temporarily caulked and left to wait for a more convenient time.