impossible. But under certain suppositions, the correctness of which afterwards must be proved, we can proceed in two ways. Either we guess the position of guidewire and see whether under all the different influences it will reach a final deflection of 128.095 feet—or else we assume the final position of saddles and work backward, calculating the rise of the cable which would take place if the superstructure were removed. The assumed position of saddles must afterwards be verified, which generally will require two or three trials and repetitions of the calculation. We proceed after the second method and consider therefore the following problem :

(*See Fig.* 27.)

Let AM be half the cable in its final position of the span $2l$ and deflection x_1 loaded symmetrically per lineal foot with q_1, q_2, q_3 and q_4 over the spaces λ_1, λ_2, λ_3 and λ_4. The load q_1 represents the weight of superstructure per lineal foot; q_2, q_3 and q_4, the same, less supporting power of stays within the spaces