It goes without saying that any number of the extremities of the intervals $a_i b_i$ ($i = 0, 1, \cdots, k$) may lie at singular points provided that the conditions above stated for the point e_1 are satisfied at each of these points.

It should be noticed that the generalized Lamé's equation, whether looked at from Heine's* or from Klein's† standpoint, has as the exponents of each of its finite singular points the values 0, $\frac{1}{2}$, so that in this case any or all of the intervals $a_i b_i$ may reach up to singular points.‡

We will note in conclusion that the cases we have just mentioned by no means exhaust the important applications of Theorems IV and V. For instance, the degenerate forms of Lamé's equation where two or more singular points coincide come immediately under Theorem IV.

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THE CONSTRUCTION OF SPECIAL REGULAR RETICULATIONS ON A CLOSED SURFACE.

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INTRODUCTORY.

THE reticulations whose existence is here to be discussed are called regular because of two properties : the number of termini of edges assembled in one vertex is the same for all vertices of the reticulation, and the number of edges in the boundary of a face is the same for all faces. These two numbers, r and s, together with p, the deficiency of the supporting surface, shall be assumed to characterize the reticulation sufficiently for present purposes. Of regular reticulations classified on this basis, only a finite number of classes are possible on a surface of given deficiency. Some of these possible classes, if $p > 2$, are derivable from those of lower deficiency ; those not so derivable are properly

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* Handbuch der Kugelfunctionen, vol. I., p. 445.

† Cf. my book : "Ueber die Reihenentwickelungen der Potentialtheorie," p. 114.

‡ It is in fact easy to see that they may turn back at the singular points and thus cover parts of the x-axis more than once. Cf. p. 123 of my book just referred to.