$$(18)\qquad C_{ij} = \frac{N_{ij}\left\{ \sum_{k=1}^{n} U_{xk}^{(i)} N_{ik} \right\}^{(n-2)/2}}{D^{(n-1)/2}}.$$

Now by a well known property of Jacobians,*

$$(19)\qquad \sum_{j=1}^{n} \frac{\partial C_{ij}}{\partial x_j} = 0.$$

Hence, if in (19) the expressions on the right of (18) be substituted for C_{ij}, we will have the differential equation satisfied by $U^{(i)}$ alone. It is readily seen that the form of this equation is independent of the index (i) and hence the n functions

$$U^{(1)}, U^{(2)}, \cdots, U^{(n)}$$

satisfy the same differential equation, which may be looked upon as a generalization of Laplace's equation to curved n-space.

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THE NON-EXISTENCE OF A CERTAIN TYPE OF REGULAR POINT SET†

BY R. L. WILDER

In a paper not yet published,‡ I have shown that a regular§ connected point set which consists of more than one point and remains connected upon the omission of any connected subset, is a simple closed (Jordan) curve. As a simple closed curve is a bounded point set, it is clear that there does not exist any unbounded regular connected point set which remains connected upon the omission of any connected subset.

* Muir, *Theory of Determinants*, vol. 2, p. 230.

† Presented to the Society, December 29, 1926.

‡ See, however, this Bulletin, vol. 32 (1926), p. 591, paper No. 35.

§ That is, connected im kleinen.