by condition 2^o. Thus we can assume that the indices i and j satisfy the inequality (1). Further, we can assume also that the point p belongs to one, and the point q to the other of the links D_i and D_j.

Denote by D'_s and D'_v the links of the chain $\mathcal{D}_{n+1}$ which contain points p and q, respectively. Additionally we assume that $p \in D_i$. In the opposite case, i.e. if $p \in D_j$, the further part of the proof runs in the same way (with changing of the roles of the links D_i and D_j as well as D_{i+1} and D_{j-1}).

So,

$$p \in D_i \cap D'_s \quad \text{and} \quad q \in Dj \cap D'_v,$$

whence we infer, by virtue of condition 3^o and the definition of folding of chains, that there are two links D'_t and D'_u in the chain $\mathcal{D}_{n+1}$ which lie between the links D'_s and D'_v in the same order and which satisfy the inclusions (2). The union of the links of the chain $\mathcal{D}_{n+1}$ distinct from the link D'_u is a not connected set (see above) containing the point p in one component, and the point q in the other. Since the continuum K' joins the points p and q and is contained in the union K_{n+1} of all links of the chain $\mathcal{D}_{n+1}$, hence K' must pass thru the link D'_u. Thus there is a point

$$x \in K' \cap D'_u$$

(Figure E). We shall prove that the point x does not belong to the continuum Y. Indeed, if it would be $x \in Y$, then by the same reason as previously for the continuum K' the continuum Y would have to pass thru the link D'_t. Then there would exist a point

$$y \in Y \cap D'_t,$$

which would be in the link D_{j-1} according to (2). But the neighbor links D_j and D_{j-1} have their diameters less than $\frac{1}{n}$ by condition 2^o, and therefore we would have

$$\rho(y, q) < \frac{2}{n} < \frac{3}{n} < \eta,$$

which is impossible because $y \in Y$.

So, the point x belongs to the set $K' \setminus Y$ and to the link D_{i+1} simultaneously. The neighbor links D_i and D_{i+1} have diameters less than $\frac{1}{n}$, whence it follows that

$$\rho(p, x) < \frac{2}{n} < \varepsilon.$$

Since ε was an arbitrary positive number, hence, in this way we have proved in that there are points of the set $K' \setminus Y$ which lie arbitrarily closely to the point p. The point p was an arbitrary point of the continuum Y. Thus we have proved that the continuum Y is nowhere dense in K', and the proof of hereditary indecomposability of the continuum K is finished.

An example of a chain crooked in a chain with 7 links is on Figure F.

14.1.3 Dyadic Selenoid

The *Dyadic Selenoid* is obtained easily :-)