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# E. STRAUS 1921–1983

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Last July after I returned to Hungary from a meeting on number theory in the Netherlands, I heard the sad news that my friend and collaborator, E. Straus, died of a heart attack on July 12, 1983. I had known for a long time that he had diabetes and in fact we were together in 1948 in Princeton when this was diagnosed. I also knew that he had several earlier heart attacks. Nevertheless, I did not expect that the end would come so soon. I cannot write at such short notice a complete description of his far-reaching mathematical activities, so I will restrict myself to the history of our friendship and collaboration.

This is a very strong restriction since his most important work was probably on the connection between arithmetic and algebraic properties of entire functions, a subject about which I could only write after considerable preparation and for which there is now no time. Since I have been asked to finish this report in two to three weeks I must rely a great deal on my poor old memory. This last restriction is really my own fault; but, enough of the excuses, and let me start my subject. I will begin at the end. Let me state two of our relatively recent results which are "lost"; i.e., the proofs were supposed to be in more or less complete form in Ernst's possession, but we could find no trace of the manuscript and there is little hope that they can be found. Most likely they never existed. First, a result due to Ernst, Selfridge and myself.

Let $n > n_0(\varepsilon)$. Then

$$n! = a_1 a_2 \cdots a_n, \frac{n}{e}(1 - \varepsilon) < a_1 \leqq \cdots \leqq a_n \tag{1}$$

is always solvable in integers $a_1, \ldots, a_n$. This result is certainly not of great importance, nevertheless, it pleased us since it is the best possible. Since $n!^{1/n} = (1 + o(1))\,(n/e)$, it is clear that in (1), $(n/e)\,(1 - \varepsilon) < a_1$ cannot be replaced by $(n/e)\,(1 + \varepsilon) < a_1$. Nevertheless, we managed to prove a slightly stronger form of (1). Let $c$ be sufficiently large and $n > n_0(c)$. Then in (1), all the $a$'s can be taken to be larger than $(n/e)\,(1 - c/\log n)$.

Ernst claimed that he had a nearly completed manuscript of the proof of (1). Perhaps this manuscript was lost or, perhaps, his memory deceived