CORRECTION TO MY PAPER "ON THE EXISTENCE OF UNRAMIFIED SEPARABLE INFINITE SOLVABLE EXTENSIONS OF FUNCTION FIELDS OVER FINITE FIELDS" IN NAGOYA MATHEMATICAL JOURNAL VOL. 13 (1958)

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1.1. In the above referred paper we have said that, for the proof of the theorem, it is sufficient to prove lemmas 1 and 2. But it is not correct. A correct proof is given in the followings.

We assume that

1° $q \geqq 11$,

2° $g_K > 1$,

3° L/K is an unramified separable normal extension which is regular over k,

4° $\mathfrak{G}$ is a subgroup of $J_L(\quad, k)$ such that $L(\mathfrak{G})/K$ is normal and $J_L(\quad, k)/\mathfrak{G}$ is of type $(\overbrace{l, \ldots, l}^{t})$, where l is a prime number,

5° $[L(\mathfrak{G}) : L] = l^s m$, where $(l, m) = 1$.

Instead of lemma 2, we must prove the following lemmas:

LEMMA 3. *If $G(L(\mathfrak{G})/L)$ is contained in the center of $G(L(\mathfrak{G})/K)$, there exists a subgroup $\mathfrak{G}'$ in $J_L(\quad, k)$ such that* i) *$L(\mathfrak{G}')/K$ is normal and* ii) $[L(\mathfrak{G}) : L(\mathfrak{G}')] = l$.

LEMMA 4. *If there exists b in $J_{L(\mathfrak{G})}(\quad, k)$ such that $a(\varepsilon_\nu) + (\delta_{J_{L(\mathfrak{G})}} - \eta(\varepsilon_\nu))b \in A_{L(\mathfrak{G})/L}(\quad, k)$ for every $\varepsilon_\nu \in G(L(\mathfrak{G})/L)$, then there exists* $\mathfrak{G}_1$ in $J_{L(\mathfrak{G})}(\quad, k)$ *such that* i) *$L(\mathfrak{G})(\mathfrak{G}_1)/K$ is normal and* ii) $L(\mathfrak{G})(\mathfrak{G}_1) \supsetneqq L(\mathfrak{G})$.

LEMMA 5. *If $[L(\mathfrak{G}) : L] = l$, there exists b in $J_{L(\mathfrak{G})}(\quad, k)$ such that $a(\varepsilon) + (\delta_{J_{L(\mathfrak{G})}} - \eta(\varepsilon))b \in A_{L(\mathfrak{G})/L}(\quad, k)$, where ε is a generator of $G(L(\mathfrak{G})/L)$.*

LEMMA 6. *If $[B_{L(\mathfrak{G})/L}(\quad, k) : \{0\}]$ is not coprime to m, then there exists $\mathfrak{G}_1$ in $J_{L(\mathfrak{G})}(\quad, k)$ such that* i) *$L(\mathfrak{G})(\mathfrak{G}_1)/K$ is normal and* ii) $L(\mathfrak{G})(\mathfrak{G}_1) \supsetneqq L(\mathfrak{G})$.

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