CORRIGENDUM

CORRIGENDUM TO "PERFECT SEMILATTICES"

B.M. Schein let us know that S_3 is not perfect. In fact, it is the smallest non-perfect semilattice. Consequently, Theorem 1 of the paper mentioned in the title (Semigroup Forum 33(1985), 23- 29) has to be corrected as follows.

Let S be a semilattice. Then the following are equivalent:

- (1) *S is perfect;*
- (4) *S is a chain.*

The proof is straightforward since, if $a, b \in S$ are non-comparable, then the Rees congruence modulo (b) is clearly not perfect. The conditions

(2) and (3) become

- (2) *S has no subalgebra isomorphic to S_3 ;*
- (3) *S has no homomorphic image isomorphic to S_3 or $\underline{2}^2$.*

They are obviously equivalent to (4).

B.M. Schein drew our attention to the fact that more general results have been obtained by V.A. Fortunatov for special semigroups, unfortunately in journals which are inaccessible for us.

For lattices the checking of perfectness may be restricted to the non-comparable classes. Hence we are led to consider the following weakening of perfectness in the class of semilattices: a semilattice $S = \langle S; \cdot \rangle$ is *weakly perfect* if it satisfies the condition

- (i') $\forall \theta \in \text{Con}(S), x \theta a_1 a_2 \text{ with } [a_1] \theta \text{ and } [a_2] \theta \text{ non-comparable}$
 $\Rightarrow \exists x_1, x_2 \in S: x_1 \theta a_1, x_2 \theta a_2 \text{ and } x_1 x_2 = x.$

With this new definition all the results of Section 1 remain true.

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