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**Sokolov**

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(54) **CONSTRUCTION KIT ELEMENT (VARIANTS) AND CONSTRUCTION KIT**

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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

6,050,044 A \* 4/2000 McIntosh ..... **A63H 33/086**  
446/124  
6,648,715 B2 \* 11/2003 Wiens et al. .... **A63H 33/062**  
446/121  
7,648,407 B1 \* 1/2010 Sorensen ..... **A63H 33/084**  
446/120

FOREIGN PATENT DOCUMENTS

RU 2441686 C2 10/2012  
RU 2468848 C1 12/2012  
SU 1507411 A1 9/1989

\* cited by examiner

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(57) **ABSTRACT**

The invention relates to construction kit elements for use in children's building sets and in puzzles. A construction element according to a first variant comprises a flat rectangular base and a connecting unit. The connecting unit is comprised of four groups of projections. The projections of the first group are tubular and have an annular cross-section. The projections of the second group are tubular and have a square cross-section. The projections of the third group are in the form of rectangular plates with projecting shoulders. In the fourth group the projections are disposed in the corners of the base and are in the form of L-shaped members. A second variant of the construction kit element comprises three of the four groups of projections. The variants of the invention provide construction kit elements with enhanced functional capabilities.

**19 Claims, 21 Drawing Sheets**

