



U.S. CONSUMER PRODUCT SAFETY COMMISSION  
WASHINGTON, DC 20207

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April 7, 2005

Ms. Joan M. Lawrence  
Subcommittee Chairman, ASTM F15.22  
Toy Industry Association Inc  
1115 Broadway Suite #400  
New York, NY 10010

Dear Ms. Lawrence:

Enclosed are two In-Depth-Investigations (IDIs) regarding children who had fingertips cut or severed by children's folding chairs.\* In IDI 040505CCCC2491, a 2-year-old male severed a fingertip when the chair he was seated in folded up. In IDI 040927CWE5011, a 2-year-old male partially amputated a finger when the folding chair collapsed.

The children's folding chairs are similar in each case, consisting of a metal frame with padded seat and back cushions (see Figure 1). These chairs all employ spring-loaded "automatic" locking pins (see Figure 2). In each case, the lock on these chairs was not properly set, or the pin was disabled because it was stuck inside the chair frame (see Figure 3).



Figure 1. Children's Folding Chair

\* Please note that the views expressed in this letter are those of CPSC staff and have not been reviewed or approved by, and may not necessarily reflect the views of the Commission.



Figure 2. Spring-Loaded Locking Pin Mechanism



Figure 3. Disabled Locking Pin

ASTM F963-03 *Standard Consumer Safety Specification for Toy Safety*, states in Section 4.13:

“4.13 Folding Mechanisms and Hinges—These requirements are intended to eliminate possible crushing, laceration, or pinching hazards that might occur in folding mechanisms and hinges of toys intended to support the weight of a child. Toys shall meet the

requirements specified in 4.13.1 and 4.13.2 after they are tested in accordance with 8.5-8.10. Requirements for toy chests are contained in 4.27.

4.13.1 Folding Mechanisms – Toy furniture and other toys in which a folding mechanism, arm, or bracing is intended to support a child shall have a safety stop or locking device to prevent unexpected or sudden movement or collapse of the article, or have adequate clearance to provide protection for the fingers, hands, and toes from crushing or pinching hazards in the event of sudden movement or collapse of the article.”

The U.S. Consumer Product Safety Commission (CPSC) staff is concerned that the requirement for folding mechanisms and hinges does not adequately address the hazards we are seeing with folding chairs currently on the market. While the chairs in the IDIs have locking mechanisms, the locking mechanisms can be inadvertently defeated or disabled. The supervising adult may not realize that the locking mechanism no longer works and, therefore, may not properly lock the chairs in the open position. CPSC staff is requesting that the subcommittee review the enclosed IDIs and consider revisions to the standard to address similar incidents.

Sincerely,

Vincent J. Amodeo

Enclosures:

IDI 040505CCC2491  
IDI 040927CWE5011

cc:

Katharine E. Morgan, Committee Staff Manager, ASTM F15  
Colin B. Church, CPSC EXHR