



U.S. CONSUMER PRODUCT SAFETY COMMISSION
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July 3, 2006

Mr. Bill Perdue
ASTM F15.30 Subcommittee Chair
c/o American Home Furnishings
High Point, North Carolina 27261

RE: Subcommittee Ballot Item – Revision to F1427, Standard Safety Specification for
Bunk Beds

Dear Mr. Perdue:

The U.S. Consumer Product Safety Commission (CPSC) staff would like to comment¹ on
the following F15.30 subcommittee ballot language:

“4.1 Vertical Protrusions:

All vertical protrusions along the top inside (Diagram 1) surfaces of any individual
component (including but not limited to bed end structures and guard rails) of the upper bunk
shall not extend more than 3/16 inch (5 mm) above the upper edge of the adjacent surface.
Ladder stiles (uprights) shall not extend more than 3/16 of an inch (5 mm) above the upper
edge of the adjacent surface.

Any cap used along the top surface of the upper bunk shall not have a vertical protrusion
greater than 3/16 inch (5 mm) at the edge of the protrusion above the upper edge of the
adjacent surface. The cap shall have a maximum height of no more than 20% of the width or
diameter of the cap (Diagram 2). At no point shall the cap overhang the post. The cap shall be
designed so that the minimum height of lift to allow horizontal disengagement of the cap from
the post shall be 1 1/4" (32mm), or a fastening mechanism may be used that will prevent the
disengagement of the cap from the post.

¹ These comments are those of the Consumer Product Safety Commission staff. They have not been reviewed or
approved by, and may not necessarily reflect the views of the Commission.

Rationale:

The intention of this requirement is to minimize the potential for a vertical protrusion entangling or ensnaring the occupant's clothing and thereby presenting the possibility of a strangulation hazard.

The 3/16 inch (5 mm) dimension is believed to be the tightest tolerance that is achievable in mass production of bunk beds."

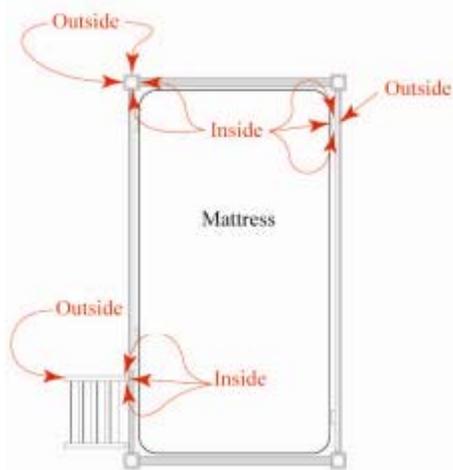
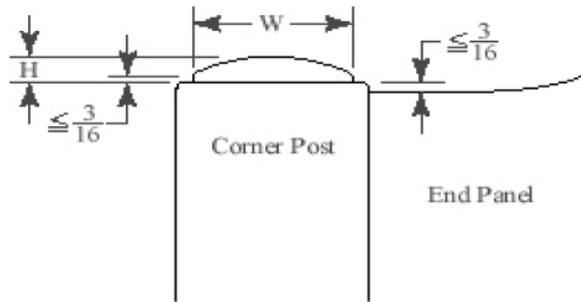


Diagram 1



$$H_{\max} = W \times 20\%$$

Diagram 2

CPSC Staff Comments:

CPSC staff recommends deleting the word 'inside' from the first sentence of the ballot language and deleting Diagram 1. Staff believes that vertical protrusions from the top bunk, whether originating at the inside surface, top surface, or outer surface, pose the same potential strangulation hazard of ensnaring articles worn by an occupant upon descent from the top bunk.

In addition, CPSC staff recommends wording to prevent potentially hazardous cap shapes such as the figure shown below in Figure 1.

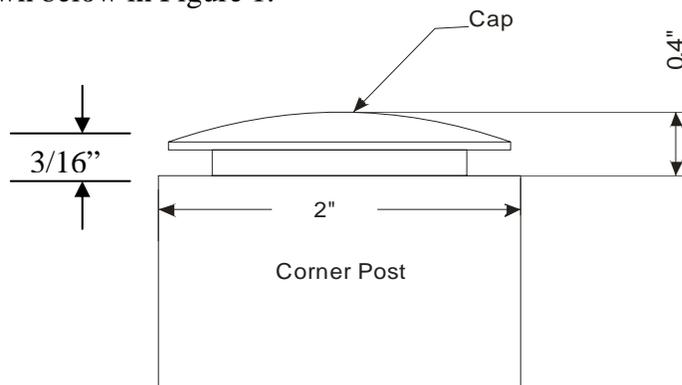


Figure 1

A cap, such as that pictured, could pose a strangulation hazard and remain within the height, width and diameter parameters of the proposed requirements. Therefore, CPSC staff

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recommends adding the following phrase to the existing sentence, “At no point shall the cap overhang the post *or increase in width or diameter from the base of the cap.*”

CPSC staff also recommends that the cap, which is designed to prevent finial use when the beds are bunked, be required to be firmly attached rather than allowing for minimum lift height for disengagement. CPSC staff believes that a nonattached cap could be partially lifted and create an undesirable shape as shown in Figure 1. This shape could pose a potential strangulation hazard of ensnaring articles worn by an occupant upon descent from the top bunk. CPSC staff recommends using language similar to Section 6 of ASTM F 1487, Standard Consumer Safety Performance Specification for Playground Equipment for Public Use: “The cap shall be designed so that *removal requires the use of tools.*”

Please contact me if you have any questions or would like to discuss these comments.

Sincerely,

Susan Bathalon

Enclosure(s)

Cc: Ms. Katharine Morgan
ASTM F15 General Manager
Colin Church
CPSC Voluntary Standards Coordinator