

The Best Of

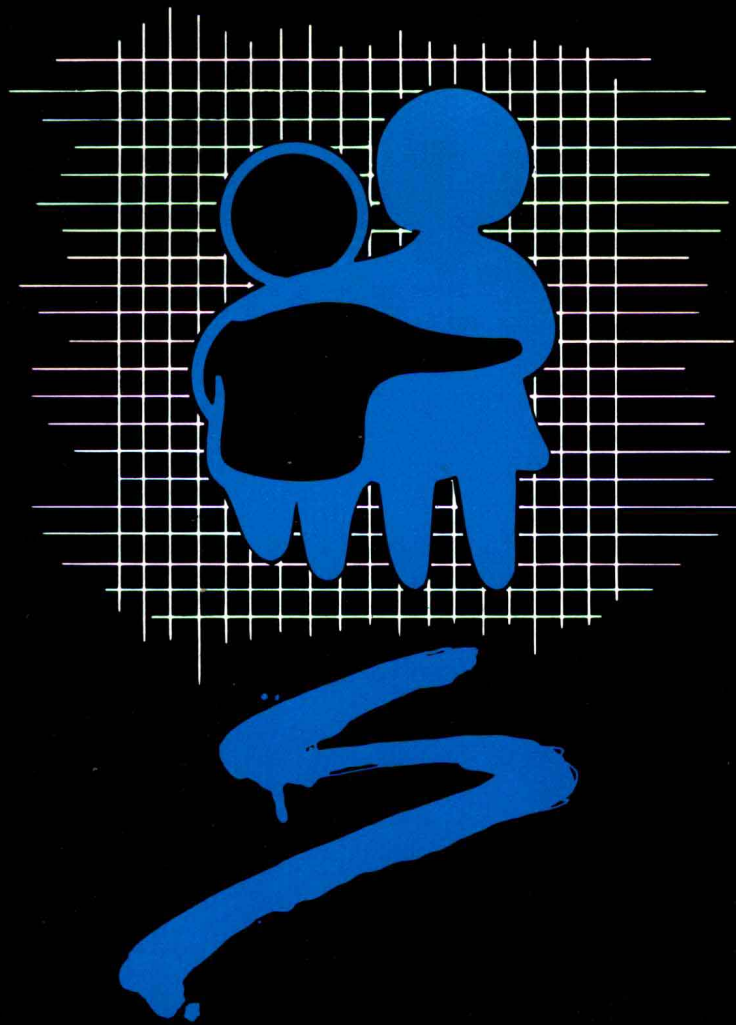
Children's Product Design



By Stewart Mosberg

and the editors of PBC International

The Best Of Children's Product Design



By Stewart Mosberg and the editors of

PBC International, Inc. ■ New York

Distributor to the book trade in the United States and Canada:

Rizzoli International Publications, Inc.

597 Fifth Avenue
New York, NY 10017

Distributor to the art trade in the United States:

Letraset USA

40 Eisenhower Drive
Paramus, NJ 07653

Distributed throughout the rest of the world by:

Hearst Books International

105 Madison Avenue
New York, NY 10016

Copyright © 1988 by PBC INTERNATIONAL, INC.

All rights reserved. No part of this book may be reproduced in any form whatsoever without written permission of the copyright owner, PBC INTERNATIONAL, INC. One School Street, Glen Cove, NY 11542.

Library of Congress Cataloging-in-Publication Data

Mosberg, Stewart.

The best of children's product design / by
Stewart Mosberg and the editors of PBC International.

p. cm.

Includes indexes.

ISBN 0-86636-067-0 : \$55.00

1. Design, Industrial. 2. Children's paraphernalia.

I. PBC.

International. II Title.

TS171.4.M68 1988

745.2-dc 19

88-60878

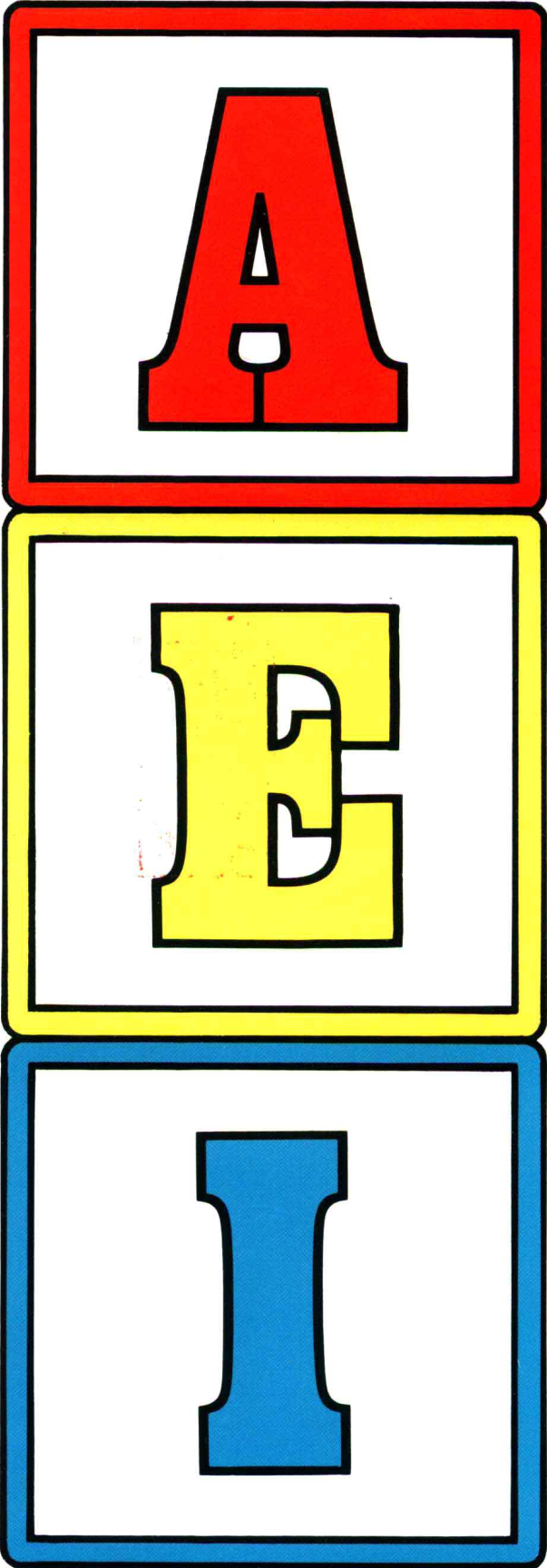
CIP

Color separation, printing and binding by
Toppan Printing Co. (H.K.) Ltd. Hong Kong

Typography by RMP Publication Services

Contents

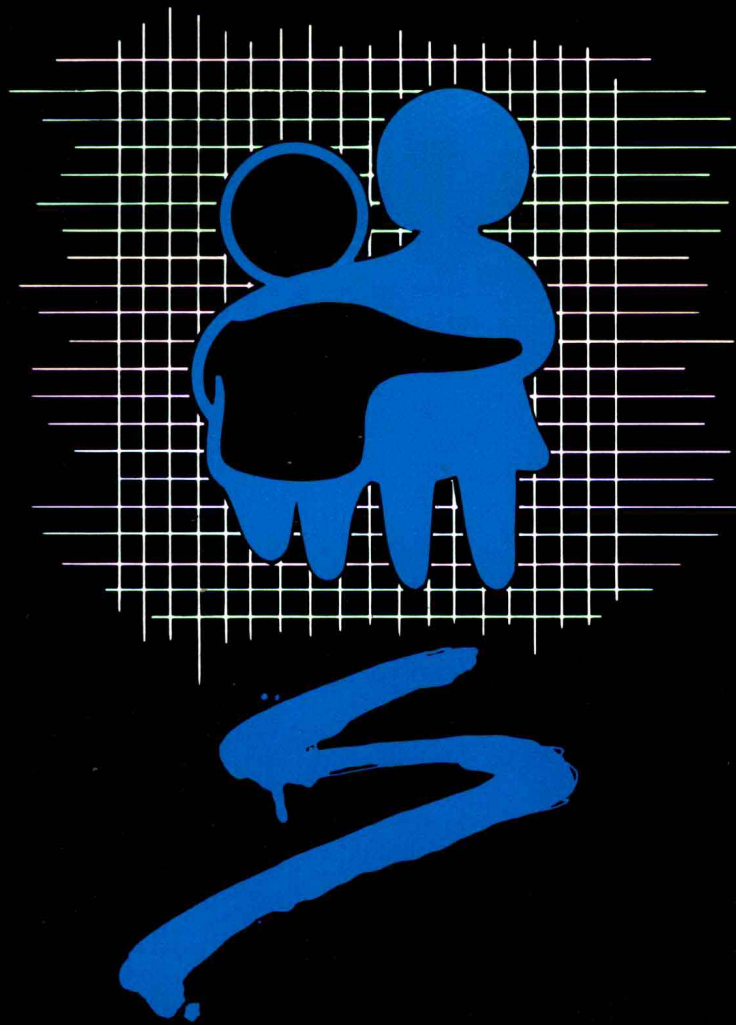
Foreword	8
Introduction	10
 Chapter 1	 12
Product Manufacturing Guidelines, Government Standards and Regulations	
 Chapter 2	 22
Toys–Recreational	
 Chapter 3	 64
Furniture	
 Chapter 4	 100
Toys–Educational	
 Chapter 5	 134
Environmental	
 Chapter 6	 146
Clothing	
 Chapter 7	 162
Safety/Health/Food	
 Index	 189



The Best Of

Children's Product Design

The Best Of Children's Product Design



By Stewart Mosberg and the editors of

PBC International, Inc. ■ New York

Distributor to the book trade in the United States and Canada:

Rizzoli International Publications, Inc.
597 Fifth Avenue
New York, NY 10017

Distributor to the art trade in the United States:

Letraset USA
40 Eisenhower Drive
Paramus, NJ 07653

Distributed throughout the rest of the world by:

Hearst Books International
105 Madison Avenue
New York, NY 10016

Copyright © 1988 by PBC INTERNATIONAL, INC.

All rights reserved. No part of this book may be reproduced in any form whatsoever without written permission of the copyright owner, PBC INTERNATIONAL, INC. One School Street, Glen Cove, NY 11542.

Library of Congress Cataloging-in-Publication Data

Mosberg, Stewart.

The best of children's product design / by Stewart Mosberg and the editors of PBC International.

p. cm.

Includes indexes.

ISBN 0-86636-067-0 : \$55.00

1. Design, Industrial. 2. Children's paraphernalia.

I. PBC.

International. II Title.

TS171.4.M68 1988

745.2—dc 19

88-60878
CIP

Color separation, printing and binding by
Toppan Printing Co. (H.K.) Ltd. Hong Kong

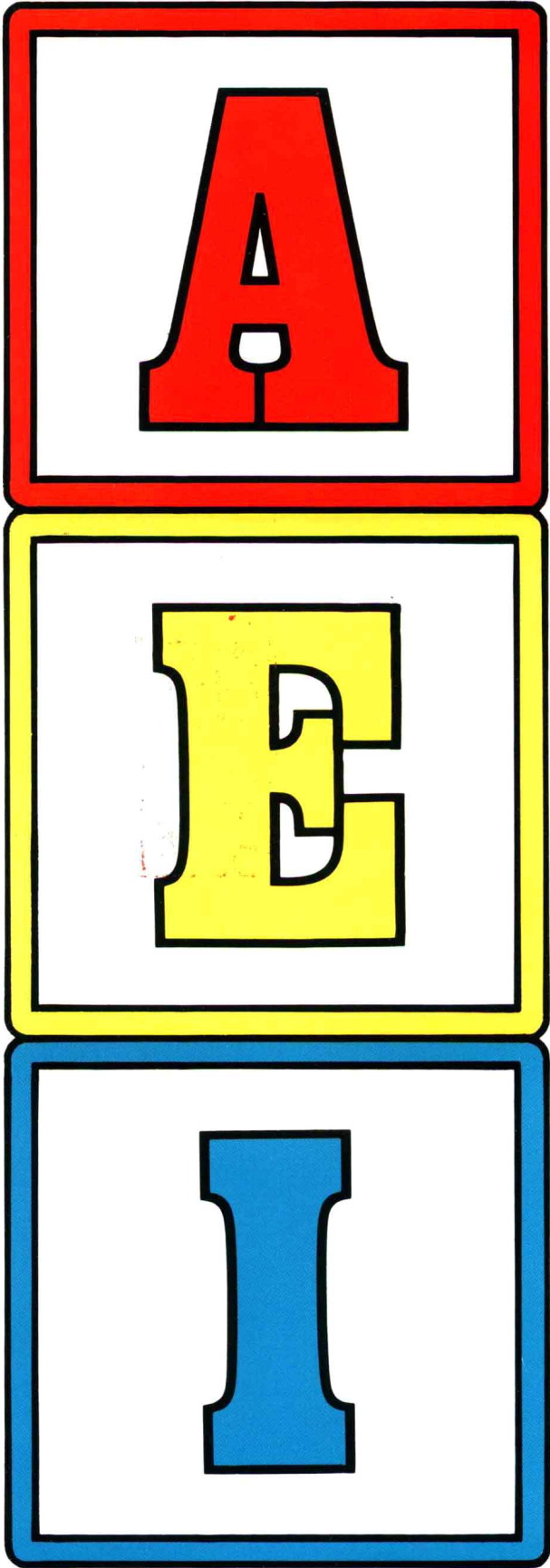
Typography by RMP Publication Services

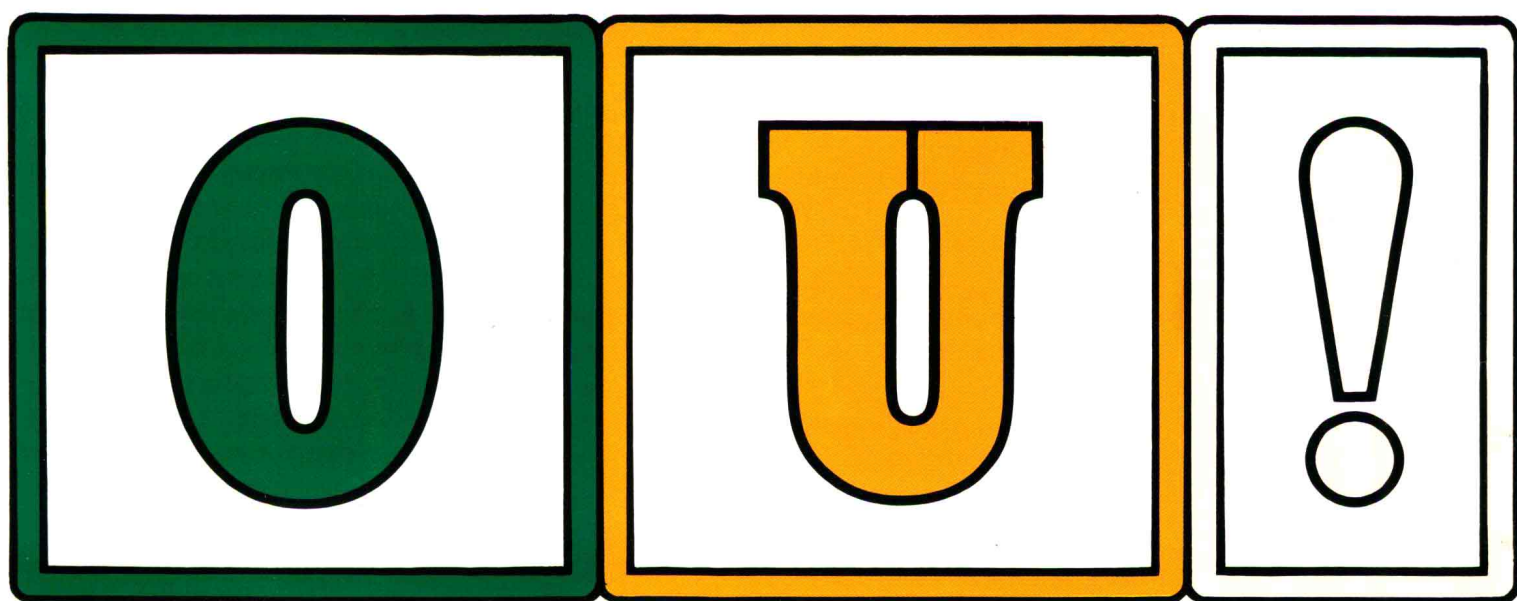
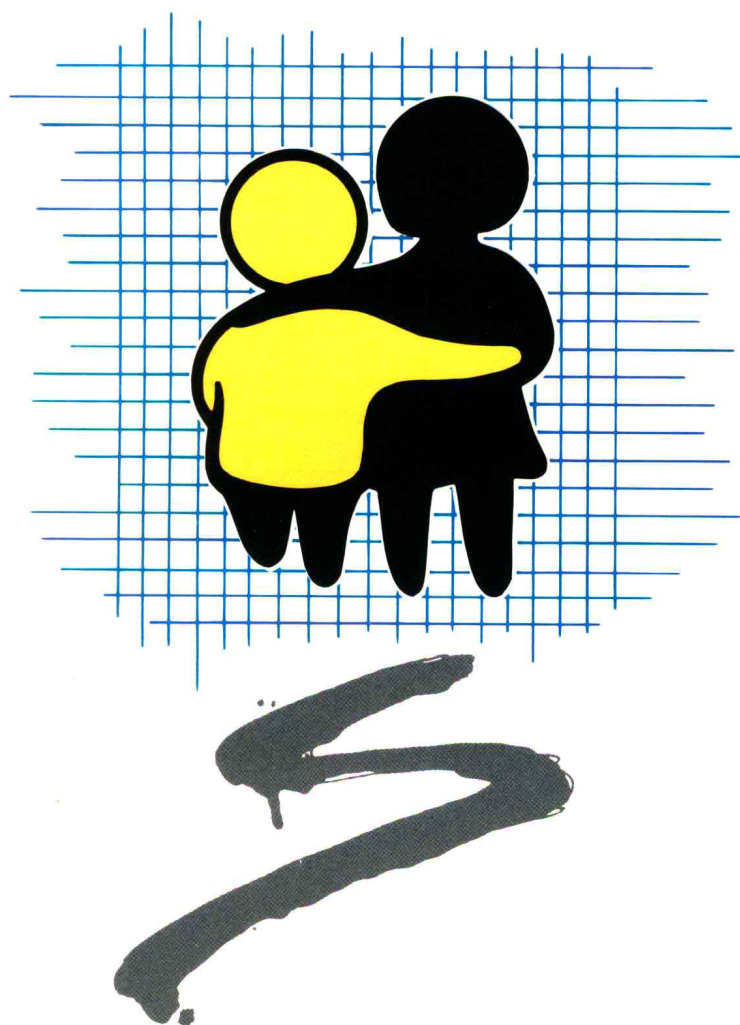
STAFF

MANAGING DIRECTOR	Penny Sibal-Samonte
CREATIVE DIRECTOR	Richard Liu
FINANCIAL DIRECTOR	Pamela McCormick
ASSOCIATE ART DIRECTOR	Daniel Kouw
EDITORIAL MANAGER	Kevin Clark
ARTISTS	William Mack Kim McCormick

Contents

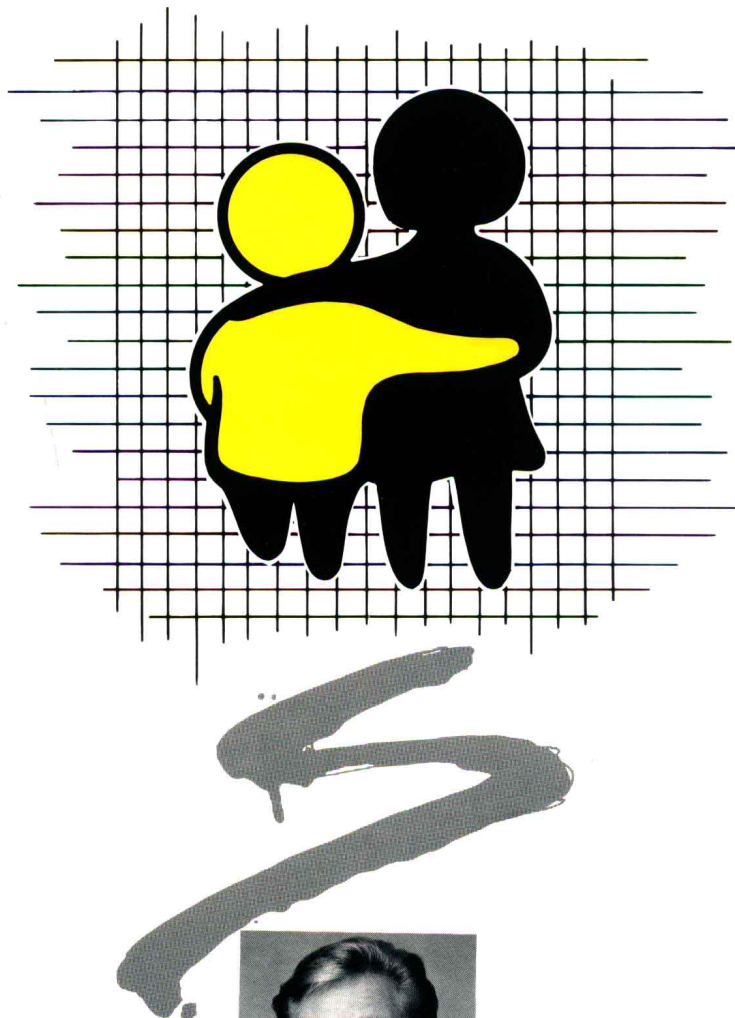
Foreword	8
Introduction	10
 Chapter 1	 12
Product Manufacturing Guidelines, Government Standards and Regulations	
 Chapter 2	 22
Toys–Recreational	
 Chapter 3	 64
Furniture	
 Chapter 4	 100
Toys–Educational	
 Chapter 5	 134
Environmental	
 Chapter 6	 146
Clothing	
 Chapter 7	 162
Safety/Health/Food	
 Index	 189





Foreword

The ABC's of Children's Design



Richard Chesler

Richard Chesler brings a diversified background to the design profession: He began his professional career as a package designer in 1964 with the Shulton Corp. His interest in graphics and industrial design led him to the Art Center College of Design where he received his Bachelor of Science degree in industrial design, with honors in 1974. Richard then went to work for Raymond Lowey and Fisher Price Toys. With his reputation as an outstanding designer already established, he formed The Design Source in New York City, in 1976.

Richard is a member of the Package Design Council, The Art Directors Club and has led design seminars and workshops throughout the U.S. and Europe, as well as taught special classes at Parsons School of Design and the School of Visual Arts in New York.

I have found designing for children a wonderful and rewarding challenge. However, designing for children under the age of six is not as simple as it may appear.

When considering a design for a children's product, whether it be a toy or clothing, we must think about it with a different attitude than we would when designing an adult's product. In the many studies of children's products that I have been involved with over the past 25 years, I have found that all studies have consistently focused on the same important factors, no matter what the location. These studies have shown that the purchaser is one of the most important factors. Most kids do not buy their own products, although they may have a strong preference due to television advertising. The purchase, however, is usually made first by Mom, then Grandma, then Dad. This means that when we are designing for kids, we are also designing for Mom, Dad and Grandma, which brings into the design process many more parameters to think about.

What is important to both child and Mom has been identified through mother testing focus groups, and through observation of children at home or in a special study center, corporate nursery or day care center specially set up for observation.

From my research, I have found that color is an important factor in children's design. Color preference varies with different age groups. Ages up to nine months respond to bright, hot, fluorescent colors. Children nine months to three years of age respond to primary colors. After the age of three, children start to pick a favorite color. Girls often prefer purples and pinks, while boys like wild magentas and blues. Remember that, although age and color perception is important

in children's design, Mom may hate hot pink.

Testing children and mothers has also shown that simplicity in design is important. Parents are reluctant to buy their preschoolers a product with lots of parts. The exceptions are play sets with storage areas and construction sets. Storage is important for clean up, and good basic play value is important to the preschooler.

Another major factor is safety. When designing clothes, for example, parents are concerned with durability, fire resistance and toxicity. All fabrics should be tested for fire retardance, toxic dyes, durability and safety when put in the mouth. Plush, for example, could be dangerous if the fur comes out during or after it has been chewed.

Through observation of children playing with toys, we have discovered the importance of eliminating pinch points. Any opening, such as the wheel well on a toy truck, should be one-quarter of an inch away from the tire. Any less can cause a nasty pinch to a little finger. Swallow size for small parts must also be considered, and the length of a cord is important to prevent choking.

Besides safety, ease of use is also an important factor. For example, velcro on clothing has become an excellent way for young children to begin dressing themselves without the age-old button problem.

Where the product will be marketed and to whom is the next major factor. Will the product be advertised through television advertising and directed at children or will advertising be directed at parents through magazines? At this point, I always work closely with my client's marketing department for as much information as I can get about the product's marketing program. For example, if we are working on a baby rattle for a three-

month-old we will design the product for the baby and the package for the parent. For baby, we must consider safety, size, color, toxicity, motor control and the product's overall quality. For the parent, all of these factors are important, but we must first get his or her attention at the marketplace.

Recently we designed a line of video boxes for children from three years of age and up to be marketed for a major Japanese company in video stores throughout the United States. Our design focus on the package had to be appealing to the parent, fall into the video store marketing trends, and yet look like a children's product.

Our approach was to understand the video market for young children by examining the juvenile book market, because of the familiarity they have with books. After much research and preliminary concept work, we decided on a booklike approach with our package design. Our reasoning was that the parent was also familiar with the books and such a design would take a bit of the confusion out of the purchase in the video stores with thousands of the same size packages. The color and graphics were designed with the ultimate consumer in mind—the child.

In the publishing field we must deal with other design factors including type size, language, color, and, most importantly, art style. For preschoolers under age five there is a feel of art style that the parent and children enjoy. We might call it a fun, or cartoon look. However, if these books are to be used in schools we must be careful of state regulations on art standards. For example, showing an animal with clothes on may be taboo. And, in New York and other states you need an ethnic balance, which is usually 60 percent western European

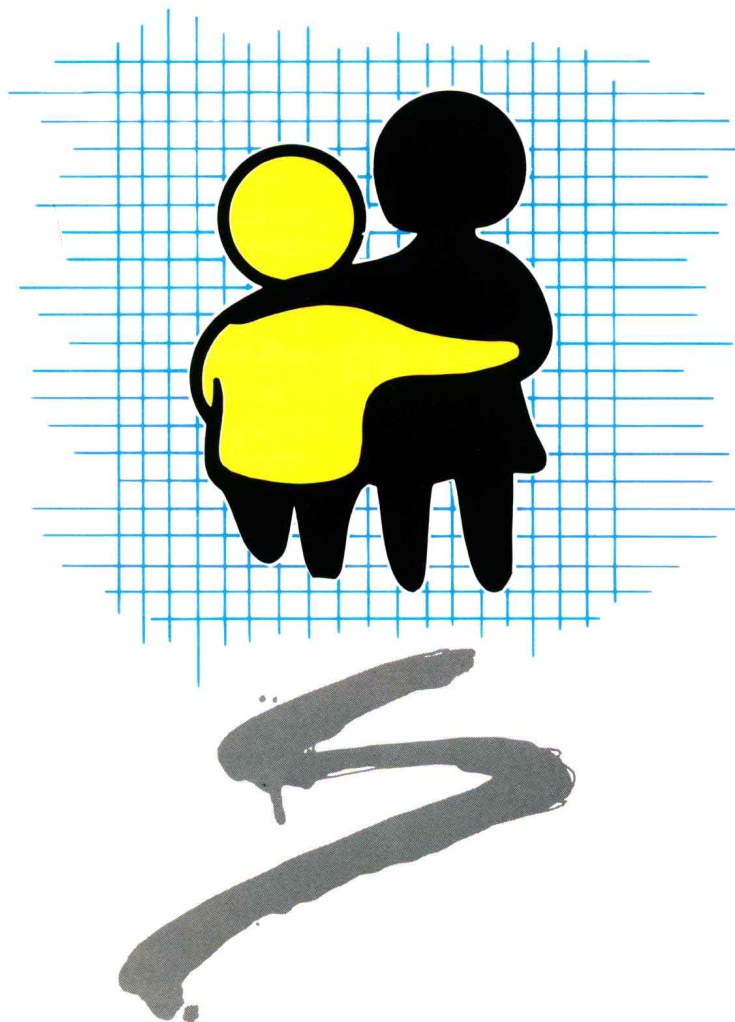
and 40 percent non-western. Of the 40 percent, 15 percent are Black, 13 percent are Hispanic, 10 percent are Asian, and 2 percent all others. When doing any designing for children you must know the law and current standards, especially in the public school industry when it comes to what will be in a classroom.

Other factors to consider in marketing are licensed characters and older children. The popularity of such licensed characters as Mickey Mouse on a product or fashion will play a major role in the purchase by the parent as well as in the preschooler's enjoyment. The characters seen on television and in books become a part of a child's everyday life. Marketing departments usually have the latest information on which characters are the hottest for that year. Older children, age 6 to 16, also play a part in the world of design for preschoolers by their visual look as well as through the preschoolers' interest in emulating what older children eat, drink, wear, watch on television, listen to in music and play with in toys.

The market has expanded to such an extent that there are now major trade magazines that specialize in children's marketing for fashions, accessories, toys, videos and so on!

Designing for children is involved. There are many major factors that must be considered in a good, safe design, at both the marketing and the retail level, as well as in what the child will enjoy.

Introduction



Human beings, in their capacity to reason, know few things in life are guaranteed. The knowledge of this comes from experience; our own and that of our ancestors.

One *is* certain, however—if you're reading this, you were a child once or you are one now.

The promise held out to us as children is at once fascinating and challenging.

Designing for children holds the same promise for adults.

Designers of children's products have the opportunity to deliver on that promise—sometimes we succeed.

We have progressed (sometimes regressed) through the ages because of our ability to pass our experiences along from one generation to another. Our very survival as a species is related to our ability to avoid danger and stay out of harms way.

Teaching the young to remain safe is vital to survival. But, alas, humans are not the only species to teach their offspring how to survive. What truly separates us from other species is our success in going beyond mere survival. We have profited from our experiences and built on them.

Good design to me is an amalgam of the past, present and future—we learned to make fire, domesticate animals and farm the land. Eventually, we bartered this knowledge with each other and added to our experience by sharing knowledge.

In a sense, this book is about our ability to learn from the past. What really interests me about design is not so much what we create, by why we create.

Good design is more than moving products from factory to showroom to checkout counter. A real need should be filled by the product. How well a design meets the need will affect its ultimate value.

Designing for children requires a very special focus. When selecting products to include in this book, one criteria had priority over all others—*relevancy*. It was essential that the inclusions be designed specifically for children, not just be scaled down versions of adult products.

Following *relevancy*, the other criteria used to measure the success of the products were:

- *Ergonomics*—the design of a product should be easy to use by its intended audience. In the case of children's products they should be scaled to small hands, fingers, feet, toes and so on! For children, this often means just the opposite of small parts; sometimes oversized elements are more appropriate!

Note: I chose birth to 5 years as the age range for the product targets, because these are the formative years. By age 6, most children are so far developed physically and mentally, that they are capable of performing many adult-oriented activities.

- *Esthetics*—more than just “pretty” colors or shapes, children's products should be inviting and attractive.

Although infants do not yet possess the sophistication to distinguish subtle variations of colors (nor can many adults), I believe there are far more colors available to the designer than just the primary and secondary palettes.

- *Materials*—an excellent design can sometimes be weakened by the choice of materials in which it is manufactured.

Too often I have seen wonderful concepts become mediocre because the manufacturer wanted to keep the cost down. True, lower cost

means more accessibility to a wider audience; but what is gained in volume is lost in quality.

Selecting materials is based on numerous factors; cost is only one of them.

- *Durability*—A product should resist breakage (as much for pass-along use as safety).
- *Ease of Manufacture*—Using the correct material lessens down time in production and ultimately keeps cost in line. *Ergonomics* and *esthetics* are often affected by materials.
- *Relevancy*—mentioned earlier, it is a key concern of mine. Having worked within the toy industry for over 15 years, I saw countless products manufactured and sold with little regard for their intrinsic value.

“Wind-up Toys” are examples of products we can probably do without. As entertainment they have limited appeal to all but the youngest child. They are not interactive and beyond teaching a child to turn the wrist clockwise have little redeeming value. I am not saying all products for children must be educational. We all need to be entertained now and then.

Yet, the toy industry has the opportunity more than any other to mold, shape and assist in the development of tomorrow's adults. Fantasy can be healthy, but how many robots, sci-fi war toys and dolls that create tomorrow's “buy me, give me, get me,” consumerism do we need?

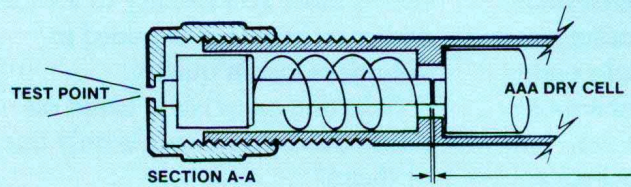
We do not live in a perfect society. The products in this book have been selected because in some way they illustrate progress and innovation, or have perpetuated tradition by maintaining touch with our past while contributing to our future.

—Stewart Mosberg, FPDC

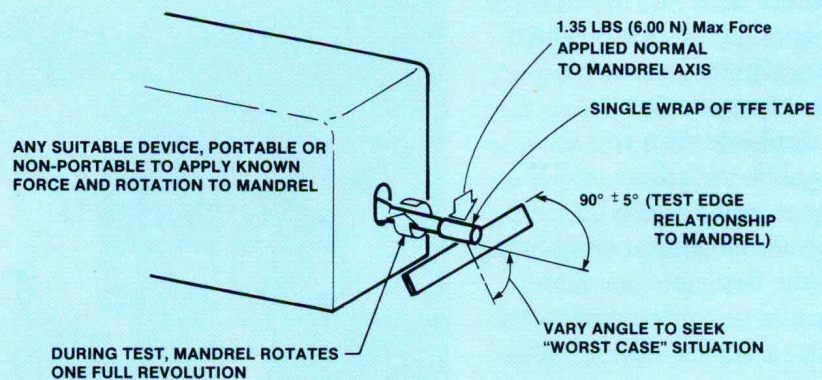
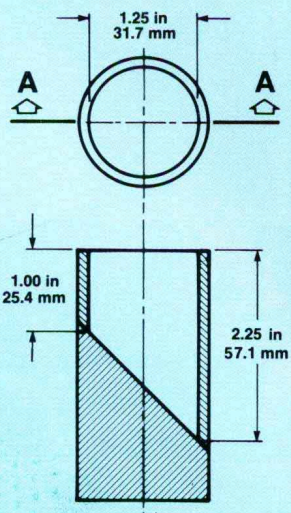
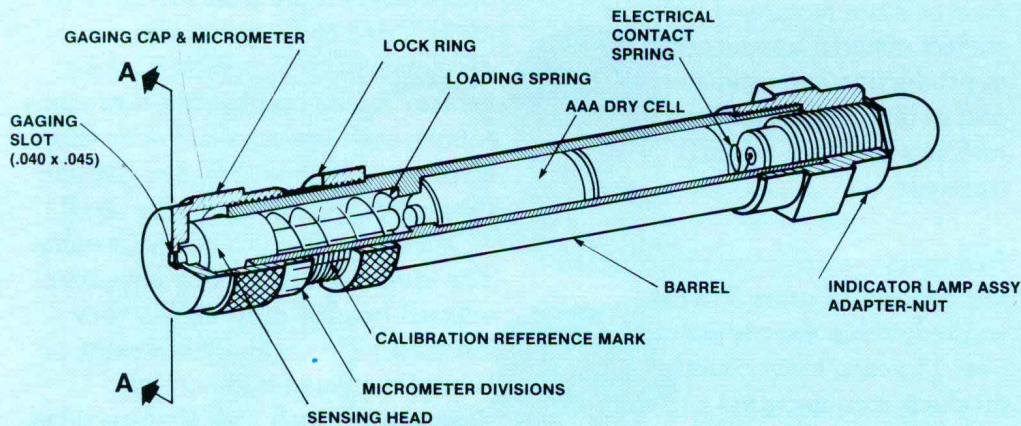


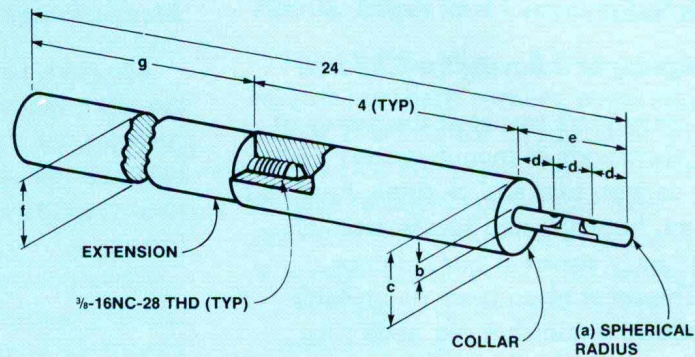
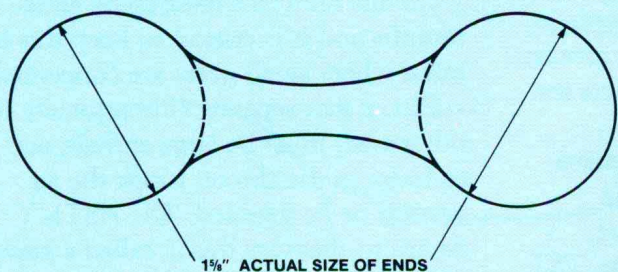
Chapter 1

Product Manufacturing Guidelines, Government Standards and Regulations



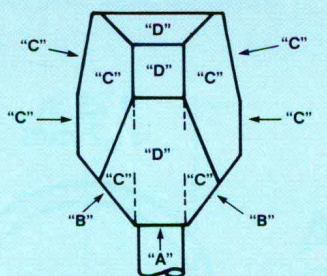
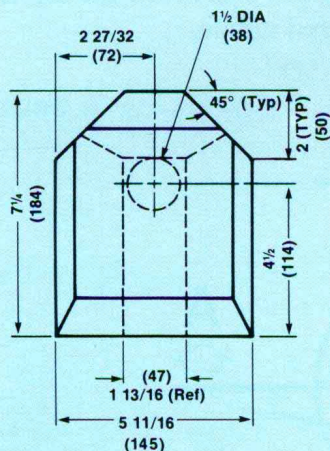
GAP IS CLOSED UPON INSERTION OF SUFFICIENTLY SHARP POINT TO PASS THRU GAGING SLOT & DEPRESS SENSING HEAD .005. ELECTRICAL CIRCUIT IS THEREBY COMPLETED & INDICATOR TEST LAMP LIGHTS—SHARP POINT FAILS TEST.



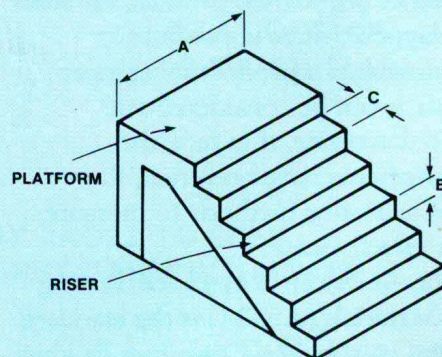
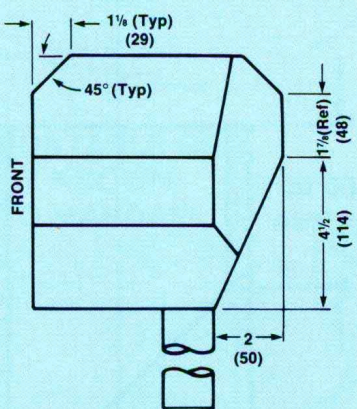
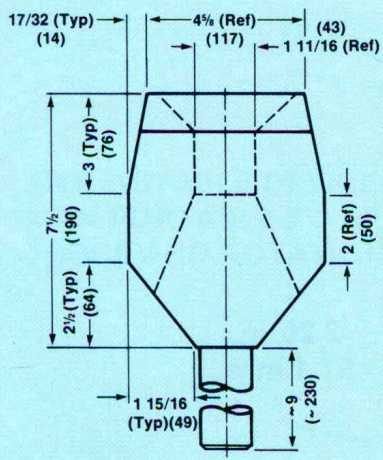


	a	b	c	d	e	f	g
(CHILDREN 0-36 MONTHS INCL.)	PROBE A	.110	.220	1.020	.577	1.731	1 18 9/32
(CHILDREN 37-96 MONTHS INCL.)	PROBE B	.170	.340	1.510	.760	2.280	11/2 17 25/32

ALL DIMENSIONS IN INCHES



REAR VIEW—IDENTIFYING SURFACES



DIMENSIONS

"A" SHALL NOT BE LESS THAN 3 FT. (0.92 mm)

"B" SHALL NOT BE LESS THAN 7 IN. (180 mm)

"C" SHALL NOT BE MORE THAN 9 IN. (230 mm)