

One can simply say that, during the bounce, the force on the ball is the reaction force from the ground to the equal air-pressure force on the contact area. Alternatively, one can correctly say that the total force on the casing of the ball in contact with the ground is zero (it is not accelerating), and in this description the force on the casing is the unbalanced pressure force on that part of the upper surface opposite to the part of the casing in contact with the ground. In the book, I give both descriptions. Each has its merits and both, of course, give the same correct answer.

A full account of the dynamics is given in the book, the first chapter of which is devoted to the ball and the bounce.

John Wesson
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McCullen replies: John Wesson's second version of the force analysis on the ball casing requires us to envision that the ball is pushed up by the internal pressure of the contained air on the upper part of the casing. But of course the total effect of that pressure on the whole casing is zero, as his analysis confirms. Splitting its effect into parts just confuses the issue—and therefore any statement about the cause of the bounce—for the reader.

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Next-Generation Discriminating Reader

This unposed, candid photograph shows our two-year-old grand-

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daughter, Audra Cerny, reading a copy of PHYSICS TODAY. Note that other scientific publications were available on the step behind her, but they did not attract her attention.

We believe it's never too early to expose children to the good stuff. Perhaps we have another physicist in the family.

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Corrections

November 2003, page 13—Vit Klemes is no longer affiliated with the National Hydrology Research Institute, formerly in Saskatoon, Canada. He is retired and living in Victoria.

November 2003, page 76—The LTT-h low-temperature transformer does not come in four separate models; it incorporates four transformer modes in the one model. ■