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EDITORIAL

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Editorial on centennial feature about the toughness of glass

Volume 1 of the *Journal* had several papers on glass. Most of these involved optical glass manufacturing, in response to the then-critical need to expand domestic glass as optics formerly imported Germany and Austria-Hungary were unavailable. Only one paper addressed the mechanical properties of glass. This was in the November 1918 issue, where T.L. Sorey of the National Bureau of Standards reported on "strength tests of plain and protective sheet glass." The topic was protective glass, which at that time consisted of a sheet or plate of glass bonded with a layer cellulose nitrate. Sorey conducted flexural strength testing with a 25 cm span supported on wooden blocks, low speed impact testing with a 0.6 kg hammer swinging on a 60 cm wire, and examined the fracture patterns of glass "perforated by bullets from a regulation army rifle." The paper was quite practical in scope, but discussed variations in behavior in a systematic way.

In the century since Sorey's paper, the *Journal* has presented many key papers on the fracture of glass and our understanding is much more sophisticated on fracture and toughness, strength and strengthening, crack growth, and fatigue. This month we have a Centennial Feature by Tanguy Rouxel and Satoshi Yoshida on "The Fracture Toughness of Inorganic Glasses" that discusses in detail the current understanding of this fundamental parameter for a wide variety of glassy systems.

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