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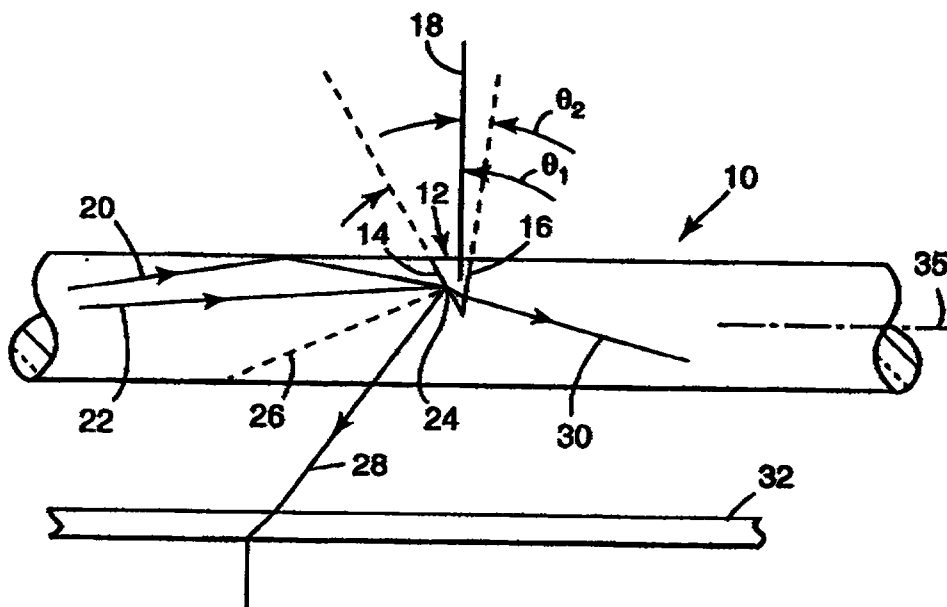
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(54) Title: **NOTCHED FIBER ARRAY ILLUMINATION DEVICE** ✓

(57) Abstract

An optical fiber having a core is disclosed. A notch having first and second sides is formed in the fiber and extends into the core. At least the portion of the interior of the notch adjacent the first side has an index of refraction less than that of the core. Light travelling at a first angle to the fiber axis and striking the first side will be totally internally reflected if the first angle is greater than a predetermined angle. If the first angle is less than the predetermined angle, a portion of the light will enter the notch and emerge through the second surface making a second angle to the first surface, the second angle being greater than the first.