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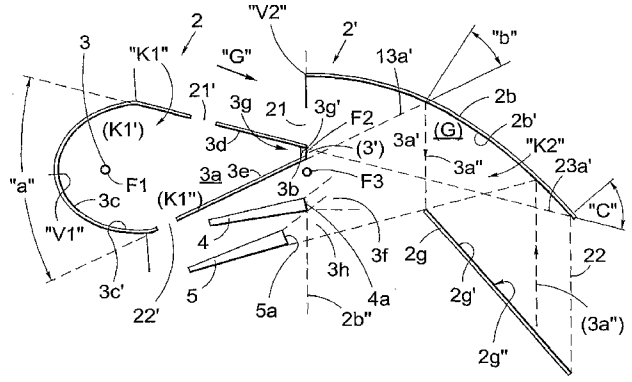
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(54) Title: A GAS CELL



(57) Abstract: The present invention relates to a gas cell which is included in a gas sensor and adapted to establish the presence of a gas and/or for determining the concentration of one such gas (G), comprising a cavity (2') which is delimited by wall portions that have light reflecting properties and which is intended to enclose a volume ((G)) of said gas, and further comprising a light source (3) which is adapted to emit a light bundle (3a') directed for reflection between cavity-associated and opposing wall portions, wherein a light bundle (3a") is comprised of light rays which are reflected in a concave wall mirror surface (2b') and adapted to be directed onto one or more light receivers (4, 5) which function to detect an absorption wavelength corresponding to the gas sample ((G)). The concave curved wall mirror surface (2b') is adapted to reflect an obliquely received divergent light bundle (3a') from the light source (3) onto a flat grating-allocated cavity-associated wall surface (2g') whose reflecting surface includes or is structured as a Littrow arrangement (2g"). The light bundle (3a") is adapted to fall onto the flat wall surface (2g') at an angle which lies close to the Blaze angle of the grating wherewith, inter alia, an absorption wavelength corresponding to the chosen gas sample ((G)) and present in the light bundle (3a") is caused to be reflected and diffracted ((3a")) by said flat wall surface (2g") in a straight opposite direction so as to be reflected again in said curved mirror surface (2b') and directed diffracted towards each of said light receivers (4, 5).

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