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(71) Applicant (for all designated States except US): LINDE AKTIENGESELLSCHAFT [DE/DE]; Abraham-Lincoln-Strasse 21, D-65189 Wiesbaden (DE).

(72) Inventors; and
(75) Inventors/Applicants (US only): Horst CORDUAN [DE/DE]; Allinger Strasse 21, D-82178 Puchheim (DE). Dietrich ROTTMANN [DE/DE]; Oskar-Maria-Graf-Ring 33, D-81737 Munich (DE). Jürgen VOIT [DE/DE]; Mühlaustrasse 18, D-86938 Schondorf (DE). Christian KUNZ [DE/DE]; Wilhelm-Busch-Strasse 6, D-81477 Munich (DE). Wolfgang HAAG [DE/DE]; Stiftsbogen 73, D-81375 Munich (DE).

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(54) Title: METHOD AND DEVICE FOR PRODUCING COMPRESSED NITROGEN

(54) Bezeichnung: VERFAHREN UND VORRICHTUNG ZUR GEWINNUNG VON DRUCKSTICKSTOFF

(57) Abstract

The present invention concerns a method and device for producing compressed nitrogen by air classification at a low temperature in a rectifying apparatus presenting a pressure column (4) and a low pressure column (5). The air used (1, 3) is introduced in the pressure column (4). A liquid fraction containing oxygen is taken from the pressure column (4) and introduced in the low pressure column (5). The gas nitrogen (18) from the low pressure column (5) is condensed, at least partially, in a head capacitor through indirect heat transfer using an evaporating liquid (13). In order for the nitrogen from the pressure column to be obtained in the form of a compressed gas (24, 24, 29), a pressure is used which is higher than that needed for the operation of the low pressure column (5). The nitrogen (20) bleed from the low pressure column is exposed in that liquid state to a pressure higher than that of the low pressure column (5). The liquid (22) put under pressure is evaporated in an evaporator (23) through direct heat transfer involving a heat carrier (35), which produces a gaseous compressed nitrogen (24, 25, 29).

