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Georgia 30518 (US). **GERSON, David** [US/US]; 313 Bristol Trace, Alpharetta, Georgia 30022 (US).

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(74) Agent: **HOLLAND, Christopher**; Smith, Gambrell & Russell LLP, 1230 Peachtree Street, N.E., Suite 3100, Promenade II, Atlanta, Georgia 30309 (US).

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(71) Applicant (for all designated States except US): **FATS, INC** [US/US]; 7340 McGinnis Ferry Road, Suwanee, Georgia 30024 (US).

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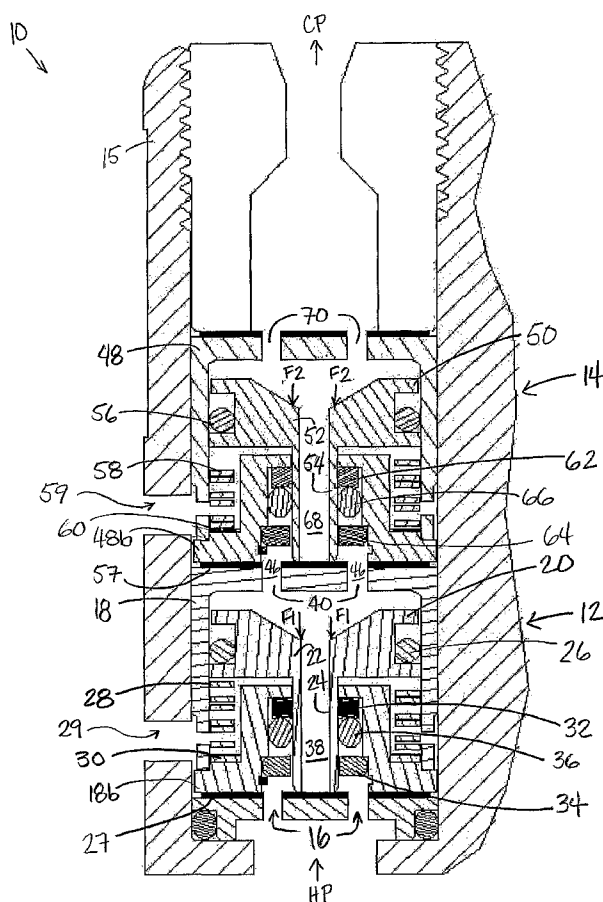
(72) Inventors; and

(75) Inventors/Applicants (for US only): **WILSON, Henry, Martin, Jr.** [US/US]; 2070 Skylar Leigh Drive, Buford,

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(54) Title: TWO-STAGE GAS REGULATING ASSEMBLY



(57) Abstract: A gas regulating assembly controlling the pressure of gas from a gas reservoir to a pneumatically-operated device includes a primary housing surrounding a pair of gas regulators. The gas regulators are aligned in series within the primary housing between an inlet to receive high pressure gas and an outlet for releasing a controlled pressure gas. Each gas regulator includes a sealable valve that defines an input and an output, with each valve including a piston having a cylinder and a rod. A spring is adjacent said piston to force said piston cylinder away from said corresponding inlet, and a shim proximate said spring to adjust the force applied by said spring on said piston cylinder. Each valve allows gas to traverse the corresponding gas regulator until a predetermined pressure is achieved in the respective outlet of the respective gas regulator, at which point the predetermined pressure will close the corresponding valve.



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International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - F16K 31/12 (2007.01)

USPC - 137/505

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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USPC - 137/14, 137/505, 137/505.12, 137/814

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

USPTO EAST System (US, USPG-PUB, EPO, DERWENT), MicroPatent, Google Patents

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,755,254 A (CARTER et al) 26 May 1998 (26.05.1998) entire document	1-20

☐ Further documents are listed in the continuation of Box C.

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"&" document member of the same patent family

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Blaine R. Copenhaver

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