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DEVICE FOR THE PURIFICATION OF GAS, (U)

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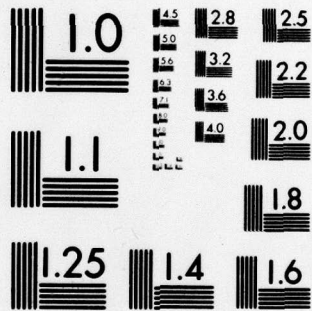
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NATIONAL BUREAU OF STANDARDS-1963-A

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DDC ACCESSION NUMBER

LEVEL

DATA PROCESSING SHEET

PHOTOGRAPH THIS SHEET

INVENTORY

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DEVICE FOR THE PURIFICATION OF GAS

By

Yu. I. Firstov, R. G. Sabirov, et al



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EDITED TRANSLATION

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20 December 1978

MICROFICHE NR: *FD-79-C-000032*

DEVICE FOR THE PURIFICATION OF GAS

By: Yu. I. Firstov, R. G. Sabirov, et al

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WP.AFB, OHIO.

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Date 20 DEC 19 78

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U. S. BOARD ON GEOGRAPHIC NAMES TRANSLITERATION SYSTEM

Block	Italic	Transliteration	Block	Italic	Transliteration
А а	А а	A, a	Р р	Р р	R, r
Б б	Б б	B, b	С с	С с	S, s
В в	В в	V, v	Т т	Т т	T, t
Г г	Г г	G, g	У у	У у	U, u
Д д	Д д	D, d	Ф ф	Ф ф	F, f
Е е	Е е	Ye, ye; E, e*	Х х	Х х	Kh, kh
Ж ж	Ж ж	Zh, zh	Ц ц	Ц ц	Ts, ts
З э	З э	Z, z	Ч ч	Ч ч	Ch, ch
И и	И и	I, i	Ш ш	Ш ш	Sh, sh
Й й	Й й	Y, y	Щ щ	Щ щ	Shch, shch
К к	К к	K, k	Ъ ъ	Ъ ъ	"
Л л	Л л	L, l	Ы ы	Ы ы	Y, y
М м	М м	M, m	Ь ь	Ь ь	'
Н н	Н н	N, n	Э э	Э э	E, e
О о	О о	O, o	Ю ю	Ю ю	Yu, yu
П п	П п	P, p	Я я	Я я	Ya, ya

*ye initially, after vowels, and after ъ, ь; e elsewhere.
When written as ě in Russian, transliterate as yě or ě.

RUSSIAN AND ENGLISH TRIGONOMETRIC FUNCTIONS

Russian	English	Russian	English	Russian	English
sin	sin	sh	sinh	arc sh	sinh ⁻¹
cos	cos	ch	cosh	arc ch	cosh ⁻¹
tg	tan	th	tanh	arc th	tanh ⁻¹
ctg	cot	cth	coth	arc cth	coth ⁻¹
sec	sec	sch	sech	arc sch	sech ⁻¹
cosec	csc	csch	csch	arc csch	csch ⁻¹

Russian	English
rot	curl
lg	log

DEVICE FOR THE PURIFICATION OF GAS

[Description of invention]

Yu. I. Firstov, R. G. Sabirov, Ya. Duvakin,
Ya. M. Shchelokov and V. P. Rychkov

The device pertains to devices for purifying gas from dust at raised and high temperatures (up to 1000°C) in the production of cast iron and steel.

A device for the purifying of gas from dust is known which contains a housing and a system for film refluxing of the gases with a flushing fluid. A shortcoming of the device is the lowering of the temperature of the gas being purified.

For the purpose of preserving the temperature of the gas being purified in the proposed device the system for film refluxing is equipped with a chamber for the melting of salts. It includes a feeding device and a heater.

The drawing depicts the longitudinal section of the proposed device.

It consists of a housing 1, settling tank 2 and melting chamber 3, equipped with a burner 4 and a hopper 5 for the salt.

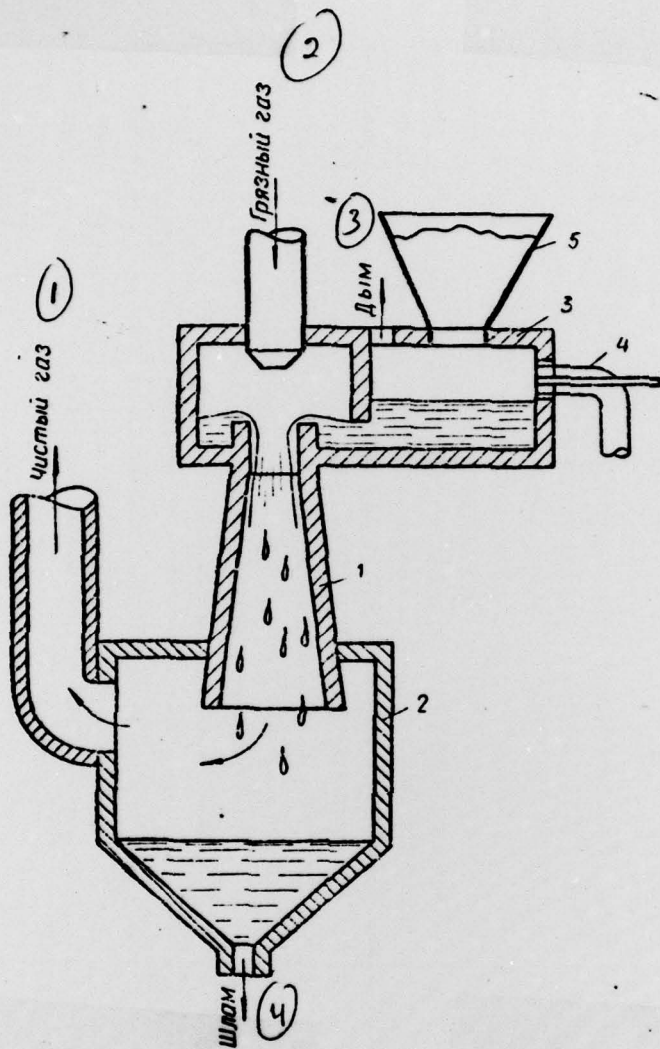
A solid salt, for example NaCl , KCl , Na_2CO_3 , K_2CO_3 , NaOH and KOH , is melted in the melting chamber and then used as the dust-trapping liquid during the high-temperature purification of open-hearth, converter and blast-furnace gases.

Thanks to this the temperature potential of the purified gases is preserved and the necessity of a system of circulating water

supply and water purification is excluded. The melted salt together with the trapped dust from the settling tank proceeds to separation. The salt is regenerated and used repeatedly for the purification of gases.

Object of the Invention

A device for the purification of gas from dust, containing a housing and a system for the film refluxing of gases with a flushing liquid, a melt of salts for example, characterized by the fact that for the purpose of preserving the temperature of the purified gas the system of film flushing of the gases is equipped with a chamber for the melting of salts which includes a heater and a feeding device.



Key: (1) Clean gas; (2) Dirty gas; (3) Smoke; (4) Residue.

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A210 DMAAC	2	E017 AF/RDXTR-W	1
B344 DIA/RDS-3C	9	E403 AFSC/INA	1
C043 USAMIIA	1	E404 AEDC	1
C509 BALLISTIC RES LABS	1	E408 AFWL	1
C510 AIR MOBILITY R&D LAB/FIO	1	E410 ADTC	1
C513 PICATINNY ARSENAL	1	FTD	
C535 AVIATION SYS COMD	1	CCN	1
C591 FSTC	5	ASD/FTD/NIIS	3
C619 MIA REDSTONE	1	NIA/PHS	1
D008 NISC	1	NIIS	2
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P005 DOE	1		
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