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A STAND FOR THE GRINDING AND POLISHING OF ASPHERICAL SURFACES, (U)
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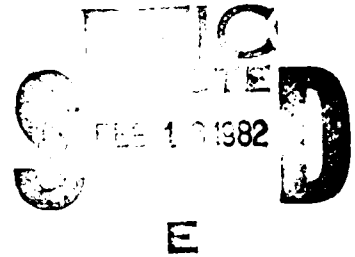
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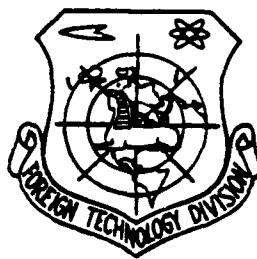
FOREIGN TECHNOLOGY DIVISION



A STAND FOR THE GRINDING AND POLISHING
OF ASPHERICAL SURFACES

by

N.P. Zakaznov, V.V. Gorelik, L.V. Ivanov



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EDITED TRANSLATION

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By: N.P. Zakaznov, V.V. Gorelik, L.V. Ivanov

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U. S. BOARD ON GEOGRAPHIC NAMES TRANSLITERATION SYSTEM

Block	Italic	Transliteration	Block	Italic	Transliteration
А а	<i>А а</i>	A, a	Р р	<i>Р р</i>	R, r
Б б	<i>Б б</i>	B, b	С с	<i>С с</i>	S, s
В в	<i>В в</i>	V, v	Т т	<i>Т т</i>	T, t
Г г	<i>Г г</i>	G, g	У у	<i>У у</i>	U, u
Д д	<i>Д д</i>	D, d	Ф ф	<i>Ф ф</i>	F, f
Е е	<i>Е е</i>	Ye, ye; E, e*	Х х	<i>Х х</i>	Kh, kh
Ж ж	<i>Ж ж</i>	Zh, zh	Ц ц	<i>Ц ц</i>	Ts, ts
З з	<i>З з</i>	Z, z	Ч ч	<i>Ч ч</i>	Ch, ch
И и	<i>И и</i>	I, i	Ш ш	<i>Ш ш</i>	Sh, sh
Я я	<i>Я я</i>	I, y	Щ щ	<i>Щ щ</i>	Shch, shch
К к	<i>К к</i>	K, k	Ъ ъ	<i>Ъ ъ</i>	"
Л л	<i>Л л</i>	L, l	Ы ы	<i>Ы ы</i>	Y, y
М м	<i>М м</i>	M, m	Ь ь	<i>Ь ь</i>	"
Н н	<i>Н н</i>	N, n	Э э	<i>Э э</i>	E, e
О о	<i>О о</i>	O, o	Ю ю	<i>Ю ю</i>	Yu, yu
П п	<i>П п</i>	P, p	Я я	<i>Я я</i>	Ya, ya

*Ye initially, after vowels, and after ъ, ь, elsewhere.
When written as ѣ in Russian, transliterate as yě or ɛ.

RUSSIAN AND ENGLISH TRIGONOMETRIC FUNCTIONS

Russian	English	Russian	English	Russian	English
sin	sin	sh	sinh	arc sh	arsinh
cos	cos	ch	cosh	arc ch	arcosh
tg	tan	th	tanh	arc th	artanh
ctg	cot	cth	coth	arc cth	arcoth
sec	sec	sch	sech	arc sch	sech
cosec	csc	csch	csch	arc csch	csch

Russian English

rot curl
lg log

A Stand for the Grinding and Polishing of Aspherical
Surfaces

Originators of the invention: N. P. Zakaznov, V. V. Gorelik,
L. V. Ivanov.

Applicants: Moscow Institute of Geodesy, Aerial Photography
and Cartography Engineers and the Krasnogorsk
Mechanical Plant.

Stands are known for the grinding and polishing of optical components, which (the stands) contain a tool with variable curvature, connected by means of a crank mechanism with an articulation.

The proposed stand is distinguished from the known stands by the fact, that it is equipped with a copying mechanism, and the crank mechanism is connected with the latter by means of an articulation, which makes it possible to increase the processing accuracy and to obtain aspherical surfaces of different radii.

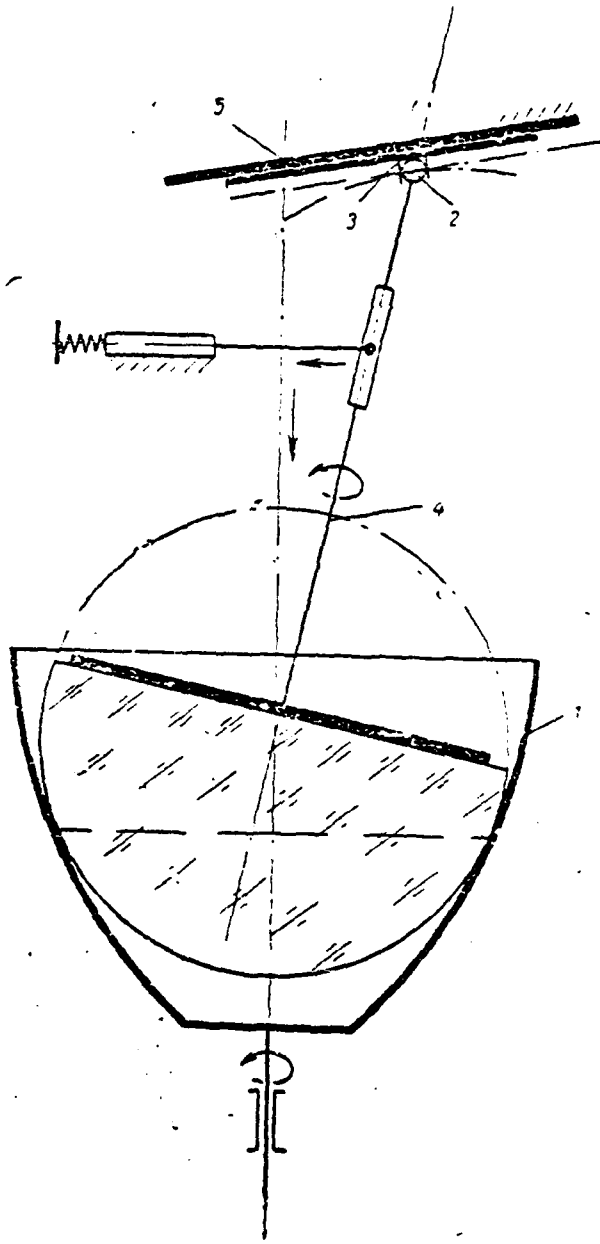
The stand being described is schematically depicted in vertical cross section in the drawing.

For the shape forming of aspherical surfaces tool 1 is employed, which is turned with the aid of articulation 2, , placed in housing 3 and which imparts motion to crank mechanism 4, connected by housing 3 with copying device 5.

A surface of the required curvature is obtained, in this case, by maintaining the pre-calculated depth of the mutual immersion of the tool and the work-piece, monitored during the processing. The turning of the component (under the effect of the spring and the copying device) by a specific angle, the magnitude of which depends on the shape of the copying device, corresponds to any, as little as necessary, movement of a component with a convex surface downward.

The Patent Claims:

The stand for the grinding and the polishing of aspherical surfaces of optical components, which contains a tool with variable curvature of the working surface, connected by means of a crank mechanism with an articulation, which is distinguished by the fact, that, for the purpose of obtaining surfaces of different radii of curvature and increasing the processing accuracy, the stand is equipped with a copying device, and the crank mechanism is connected with the latter by means of an articulation accommodated in the housing.



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