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FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OHIO
A DEVICE FOR MOLDING SHAPED PARTS OUT OF FIBER-CEMENT SLABS, (U)
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FOREIGN TECHNOLOGY DIVISION



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OUT OF FIBER-CEMENT SLABS

By

R. I. Lipkin and V. S. Osipov



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PREPARED BY:

TRANSLATION DIVISION
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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 з	З з	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 ё in Russian, transliterate as yë or ë.

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

A DEVICE FOR MOLDING SHAPED PARTS
OUT OF FIBER-CEMENT SLABS

R. I. Lipkin and V. S. Osipov

It is impossible to mold articles of varied configuration in the known devices designed for molding parts out of the fiber-cement slabs, for example asbestos cement, which include vacuum-box-punch, which interacts with a stretched elastic strip positioned under it which is supported by rollers.

The purpose of this invention is to provide the possibility for molding parts of varied configuration out of a fiber-cement slab.

This is achieved by the fact that the rollers of the device are mounted on a frame and some of them are constructed with the capability of fixed displacement along the frame.

The drawing shows this installation.

The installation includes the blank feed conveyer 1, carriage 2 which has two hydraulic cylinders 3 and 4 to which a flat vacuum box 5 a shaped vacuum-box-punch 6 are attached from beneath, and carriage 7 with container 8 for the finished shaped parts.

The flat vacuum box is divided into sections along the width and its working area can be regulated by the check valves 9, depending on the width of the blank.

The vacuum-box-punch determines the shape of the finished part. Depending on the nomenclature of the manufactured articles, it is necessary to have a set of shaping vacuum boxes.

During the assembly the vacuum-box-punch is inserted into frame

10 on guides 11 and it is secured to the position by screws 12 after which the hose 14 from the vacuum system 15 is connected by means of coupling 13.

Frame 10 is secured on hydraulic cylinder 4.

Hydraulic cylinders 3 and 4 are activated simultaneously by the power supply system 16 and 17.

The molding of shaped parts is accomplished on frame 18 with the stationary 19 and moving 20 rollers mounted on it. An elastic belt 22 is stretched over these rollers by means of weights 21, springs, etc.

Depending on the shape of the part the moving rollers 20 are mounted along the guide by moving them through the grooves of the frame and by securing them with handle 23.

The installation operates as follows.

The blank, which was pre-cut according to the size of the finished part, is transported by conveyer 1 under the flat vacuum box 5 which is lowered by the hydraulic cylinder 3. The vacuum box attaches itself to the blank by means of suction and rises to its original position. Carriage 2 moves to the position on the extreme left, hydraulic cylinder 3 lowers the vacuum box 5, the vacuum is cut off, and the blank is placed onto belt 22. Carriage 2 with vacuum box 5 goes after the next blank.

At the moment when the flat vacuum box lowers to the blank, the vacuum-box-punch also lowers to the blank which is on the elastic belt.

The molding process is as follows.

The vacuum box places the slab onto the elastic belt.

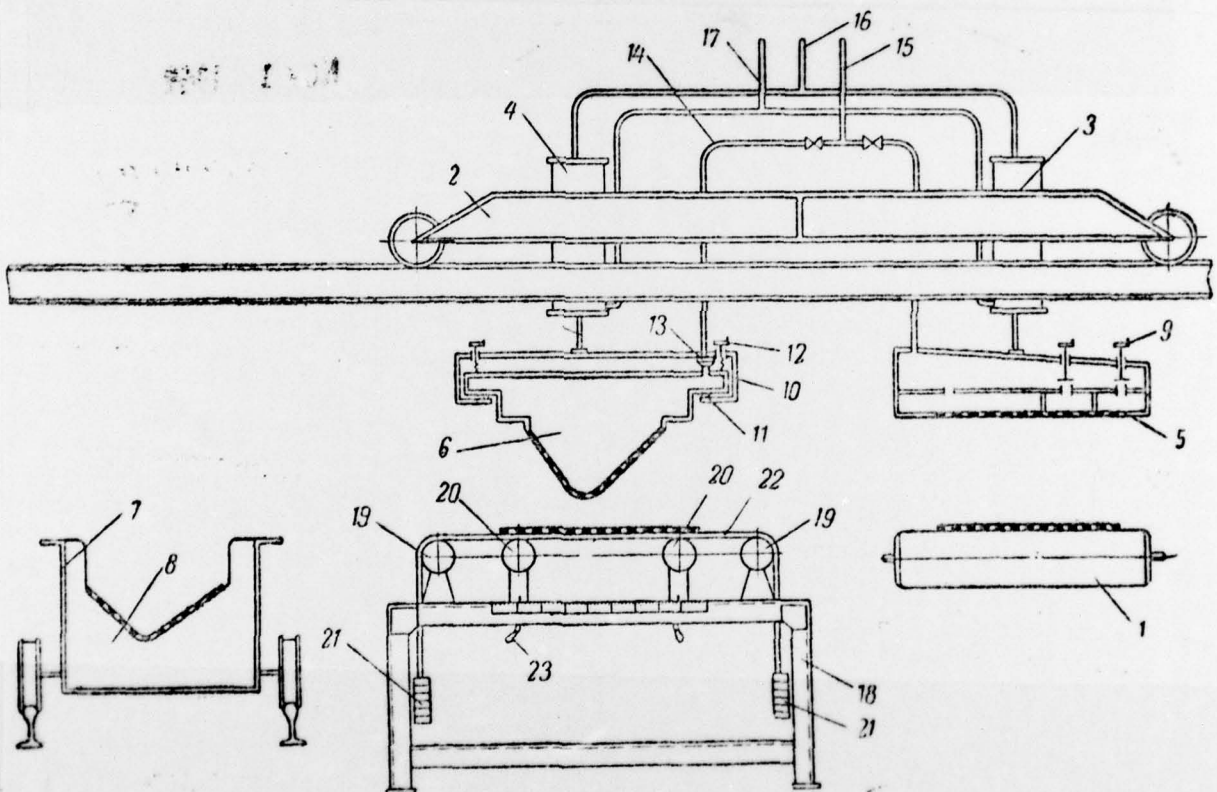
The vacuum-box-punch 6, while lowering to the moving rollers 20, molds the blank between the vacuum-box-punch and the elastic belt. At the end of the travel of the vacuum-box-punch the vacuum is turned on. The shaped part is sucked up by the vacuum-box-punch and is raised.

As carriage 2 travels to the extreme left position the part is transferred and is placed into the removable container 8.

The loaded container is removed by the carriage to a location where the parts are hardened and then removed.

Object of the invention

The device for molding shaped parts out of a fiber-cement slab, which includes a vacuum-box-punch, which interacts with an elastic belt stretched over the rollers and which is arranged under it, is distinguished by the fact that in order to provide the possibility for molding parts with a varied configuration, the rollers are mounted on a frame; in this case, some of them are constructed with a possibility of a fixed displacement along the frame.



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