B28B

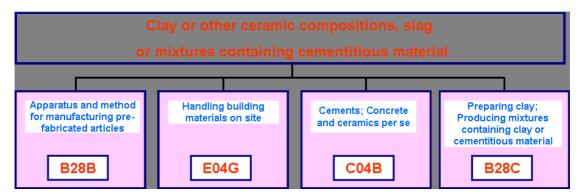
SHAPING CLAY OR OTHER CERAMIC COMPOSITIONS, SLAG, OR MIXTURES CONTAINING CEMENTITIOUS MATERIAL, e.g. PLASTER (foundry moulding B22C; working stone or stone-like material B28D; shaping of substances in a plastic state, in general B29C; making layered products not composed wholly of these substances B32B; shaping in situ, see the relevant classes of section E)

Definition statement

This subclass/group covers:

The methods and apparatus covered manufacture the shaped article at a location remote from it's intended use, i.e. a pre-fabricated article.

Relationship between large subject matter areas



Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

(a) clay or other ceramic compositions (b) slag (c) mixtures with water-setting properties given by clay, cementitious material, or slag.
ciay, comentitiode material, or ciag.

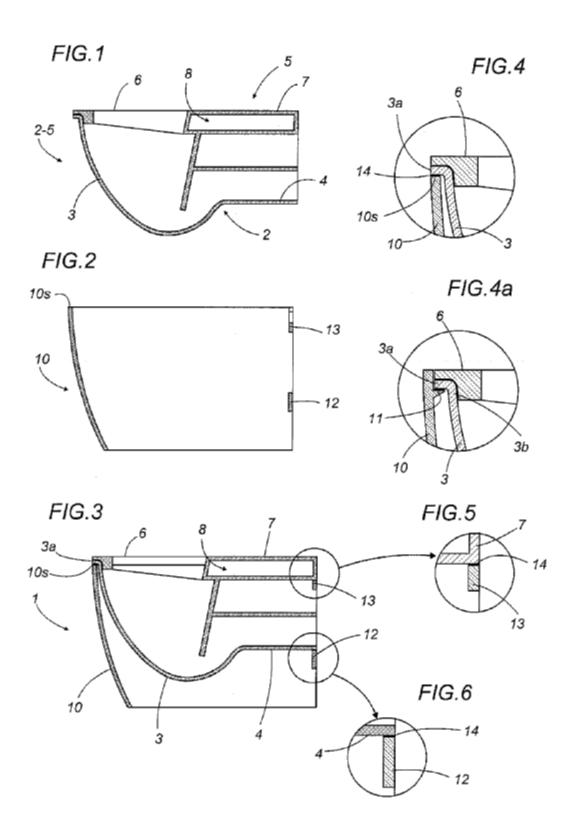
B28B 1/00

Producing shaped [N: prefabricated] articles from the material (using presses B28B3/00; shaping on moving conveyers B28B5/00; producing tubular articles B28B21/00; [N: producing articles with embedded elements B28B23/00])

[N: assembled from preformed elements]

Definition statement

This subclass/group covers:



This subclass/group does not cover:

Assembled from preformed parts	B28B 23/22
By building-up from preformed elements	B28B 21/70
To tiles, bricks or the like	B28B 19/0053

Special rules of classification within this group

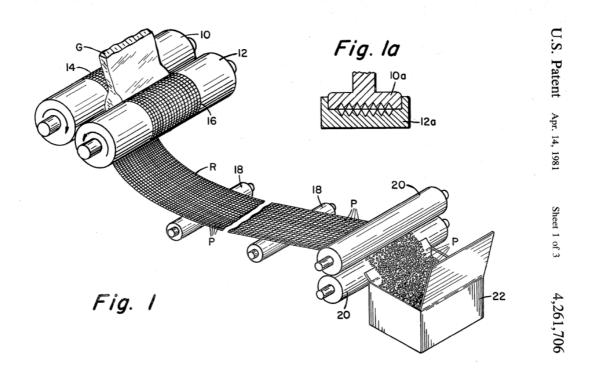
"The material" used to hold the assembled preformed elements together is as defined in the subclass.

B28B 1/004

[N: Devices for shaping artificial aggregates from ceramic mixtures or from mixtures containing hydraulic binder (from slag C04B5/00; composition of artificial aggregates C04B18/02)]

Definition statement

This subclass/group covers:

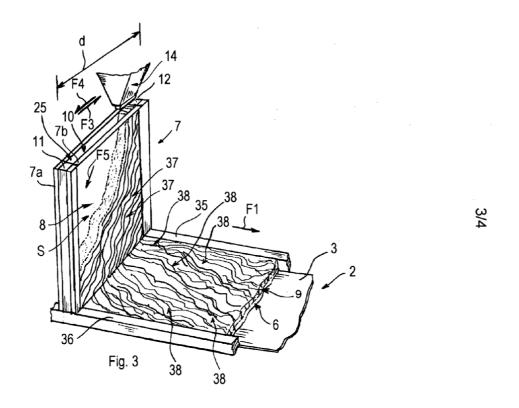


[N: Devices or processes for obtaining articles having a marble appearance (producing decorative effects B44C; design of stone surfaces, e.g. marble, B44F9/04)]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



Special rules of classification within this group

Characteristic features concerning the feeding of the material should be classified in <u>B28B 13/02</u>.

B28B 1/007

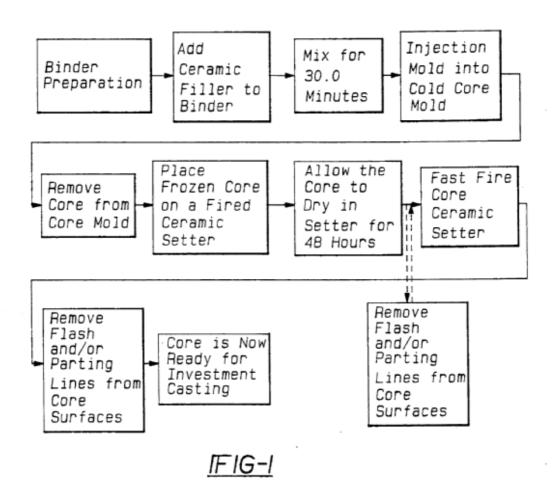
[N: by freezing the material]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

PCT/IB2007/002813



This subclass/group does not cover:

Manufacture of workpieces or articles from metallic powder characterised by the manner of compacting or sintering	
B freeze-casting or in a supercritical fluid	B22F 3/222

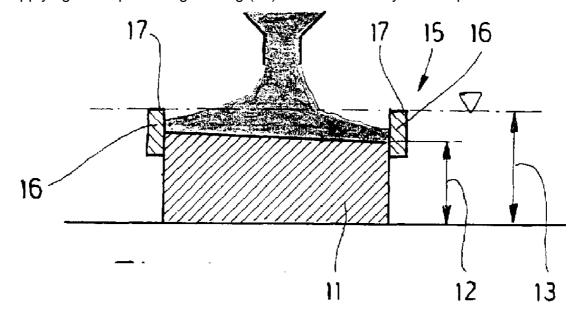
Forming processes; Processing powders of inorganic compounds preparatory to the manufacturing of ceramic products	C04B 35/622
---	-------------

[N: made from two or more materials having different characteristics or properties (casting for producing layered articles B28B1/16; feeding several succesive layers, optionally of different materials B28B13/022; coating B28B11/04; applying material to surfaces to form a permanent layer thereon B28B19/00)]

Definition statement

This subclass/group covers:

Making a base body (11) in a conventional manner with at least one external dimension (12), smaller than a corresponding desired dimension (13), applying a compensating coating (14) to the base body or its top.



B28B 1/02

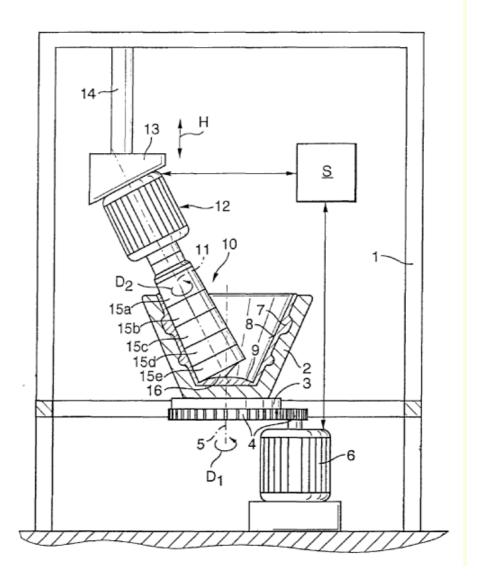
by turning or jiggering [N: in moulds or moulding surfaces on rotatable supports]

Definition statement

This subclass/group covers:

Potter's wheel and handtools associated with such a device.

Fig. 1



This subclass/group does not cover:

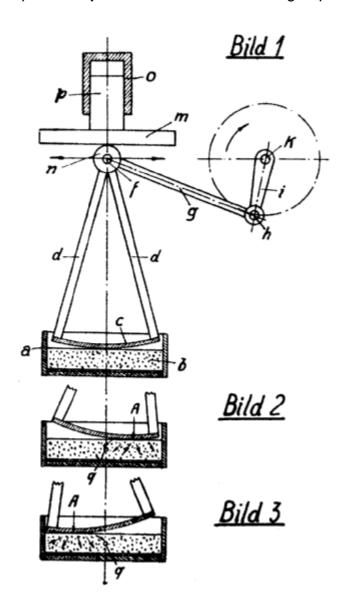
Methods or machines specially adapted for the production of tubular	B28B 21/00
articles	

by tamping or ramming (followed by pressing B28B3/02)

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



References relevant to classification in this group

This subclass/group does not cover:

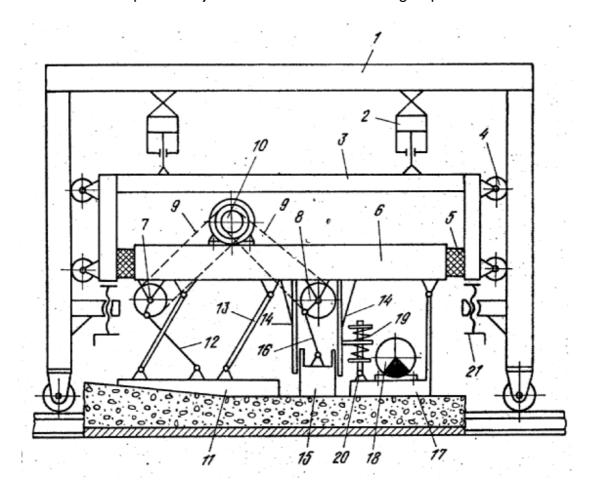
Tamping or ramming the material or	B28B 21/12
the mould elements to produce	
tunular articles	

[N: combined with vibrating or jolting]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



B28B 1/08

by vibrating or jolting [N: (of moulding sand B22C15/10; of concrete in general E04G21/063)]

Definition statement

This subclass/group covers:

WO85/05590 PCT/DK85/00051

3

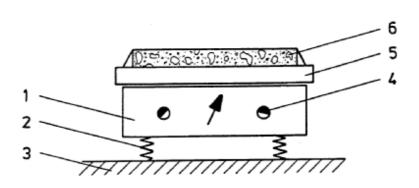


Fig. 3

References relevant to classification in this group

This subclass/group does not cover:

Operating with systems involving rotary unbalanced masses	B06B 1/16

Places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated into a larger system:

Vibrating for the prodcution of tubular	B28B 21/14
articles	

Informative references

Attention is drawn to the following places, which may be of interest for search:

Of concrete in general	E04G 21/063

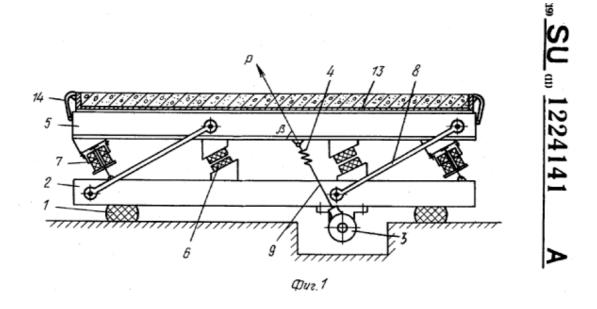
B28B 1/081

[N: Vibration-absorbing means]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



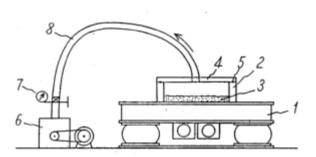
B28B 1/082

[N: combined with a vacuum, e.g. for moisture extraction (in general E04G21/061)]

Definition statement

This subclass/group covers:

Illustrative example of subject matter matter classified in this group:



Informative references

Attention is drawn to the following places, which may be of interest for search:

By vibrating the composition before or	B29C 67/244
during moulding	
	12

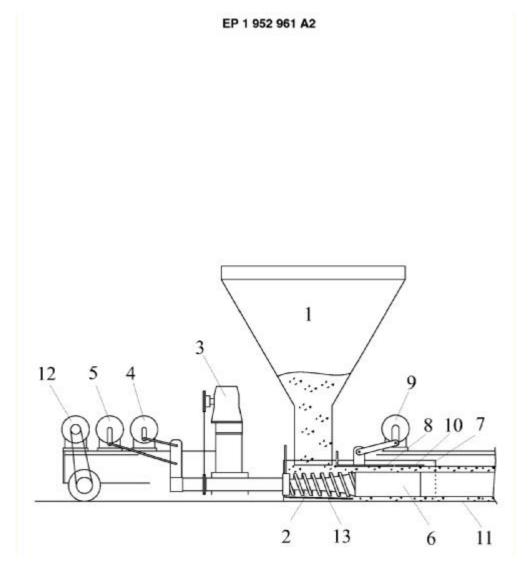
For humidifying or dehumidifying	B28B 7/46
For moisture extraction in general	E04G 21/061

[N: the vibrating moulds or cores being moved horizontally for making strands of moulded articles]

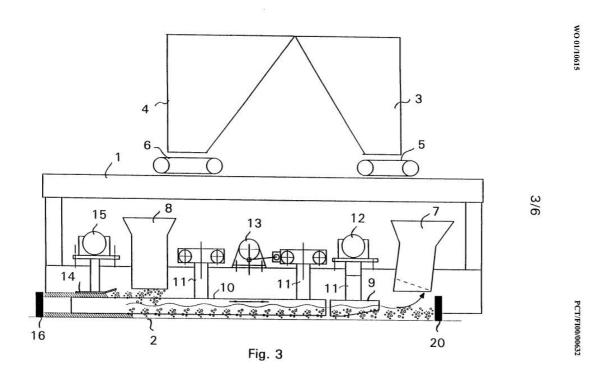
Definition statement

This subclass/group covers:

Slipform casting process having an extruder screw.



Slipformer technique:



This subclass/group does not cover:

Apparatus designed for railless operation	E01C 19/4893
The pipes being made in situ	F16L 1/038

Special rules of classification within this group

Slipform casting process having an extruder screw also to be classified in B28B 3/224 "self-propelled screw extruders" TBC.

B28B 1/087

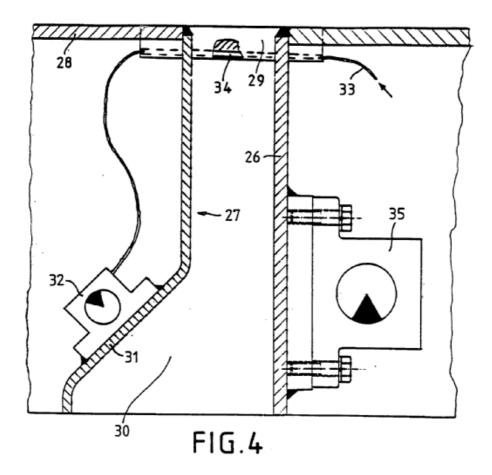
by means acting on the mould; [N: Fixation thereof to the mould]

Definition statement

This subclass/group covers:

ZEICHNUNGEN SEITE 2

Nummer: Int. Cl.⁵: Offenlegungstag: **DE 43 15 195 A1 B 28 B 13/04**10. November 1994



B28B 1/0873

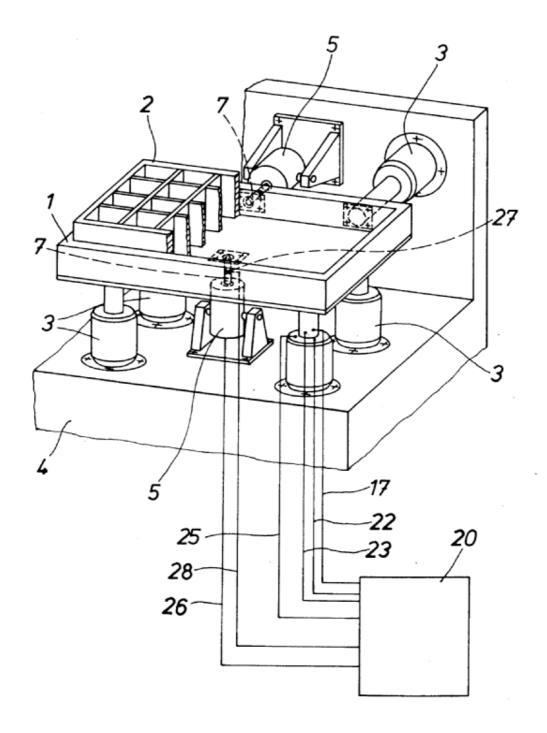
[N: the mould being placed on vibrating or jolting supports, e.g. moulding tables]

Definition statement

This subclass/group covers:

Nummer: Int. Cl.⁵: Offenlegungstag: DE 38 37 686 A1 B 06 B 1/00 10. Mai 1990

Fig.1



008 019/264

by means directly acting on the material, e.g. by cores wholly or partly immersed in the material [N: or elements acting on the upper surface of the material] ([N: B28B1/084 takes precedence;] internal vibrators for compacting concrete in situ E04G21/08)

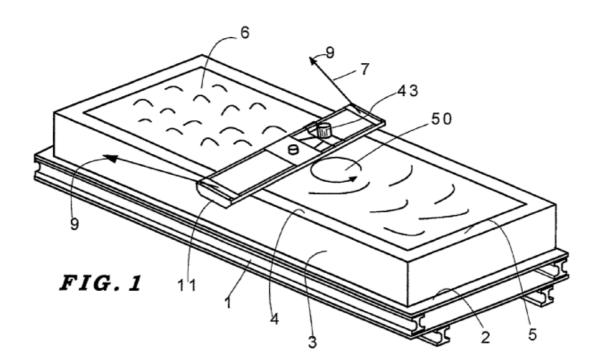
Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

ZEICHNUNGEN SEITE 1

Nummer: DE 196 39 955 A1
Int. Cl.⁶: B 28 B 1/29
Offenlegungstag: 2. April 1998



References relevant to classification in this group

This subclass/group does not cover:

The vibrating moulds or cores being moved horizontally for making strands of moulded articles	B28B 1/084
Adapted to impart a smooth finish to the paving, e.g. tamping or vibrating	E01C 19/40

finishers	
Making use of vibrating or jolting tools acting upon the surface of the concrete, whether or not provided with parts penetrating the concrete	E04G 21/066

Special rules of classification within this group

By cores wholly or partly immersed in the material is to be classified in <u>B28B</u> <u>1/0935</u>.

B28B 1/0935

[N: using only elements wholly or partly immersed in the material, e.g. cores]

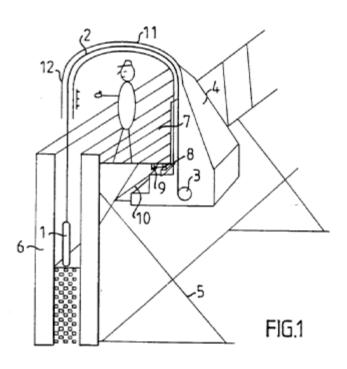
Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

WO 94/00281 PCT/SE93/00560

1/1



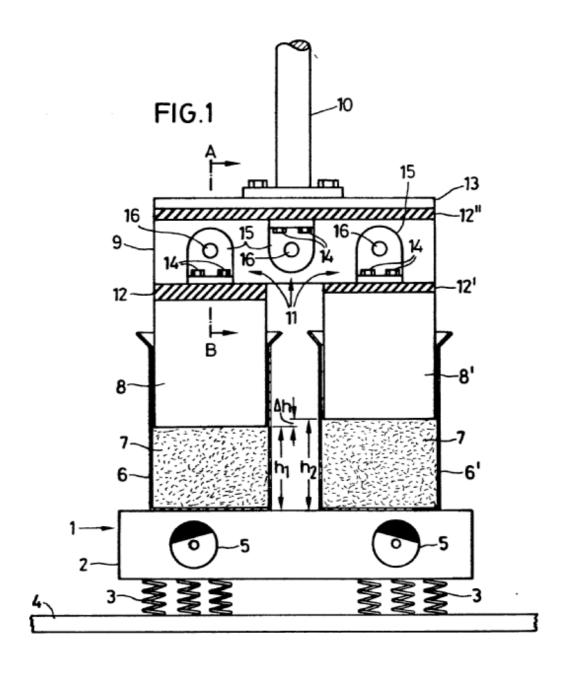
and applying pressure otherwise than by the use of presses

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

- 9 - Nummer: 34 45 936 Int. Cl.4: B 22 C 15/10 -1/2 - Anmeldetag: 17. Dezember 1984 Offenlegungstag: 26. Juni 1986



This subclass/group does not cover:

Wherein a ram exerts pressure on the	B28B 3/022
material in a moulding space;	
combined with vibrating or jolting	

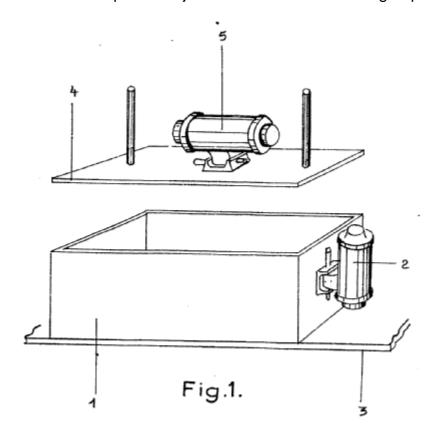
B28B 1/105

[N: this load also being actively vibrated or jolted]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



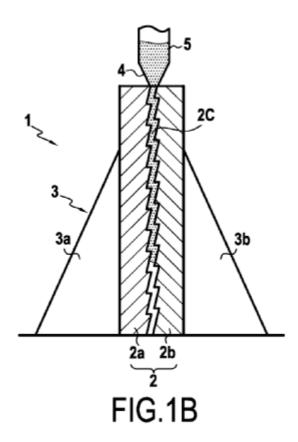
B28B 1/14

by simple casting, the material being neither forcibly fed nor positively compacted (for molten material B28B1/54)

Definition statement

This subclass/group covers:

Illustrative example fo subject matter classified in this group:

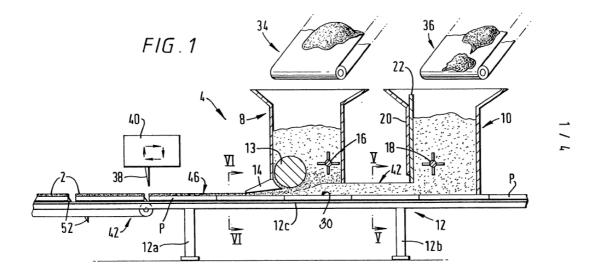


B28B 1/16

for producing layered articles (coating B28B11/04)

Definition statement

This subclass/group covers:



Special rules of classification within this group

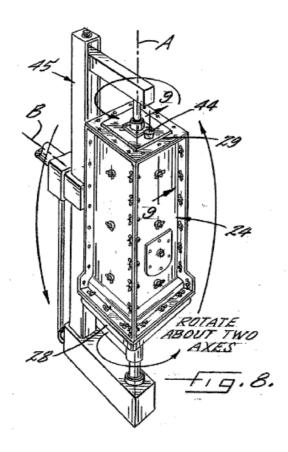
Layered products essentially	B32B 13/00
comprising a water-setting substance,	
e.g. concrete, plaster, asbestos	
cement, or like builders' material	

B28B 1/20

by centrifugal or rotational casting (slip-casting involving rotation of the mould B28B1/28; for molten material B28B1/54)

Definition statement

This subclass/group covers:



This subclass/group does not cover:

Manufacture of workpieces or articles from metallic powder by centrifugal forces	B22F 3/06
Shaping glass by centrifuging	C03B 19/04

Special rules of classification within this group

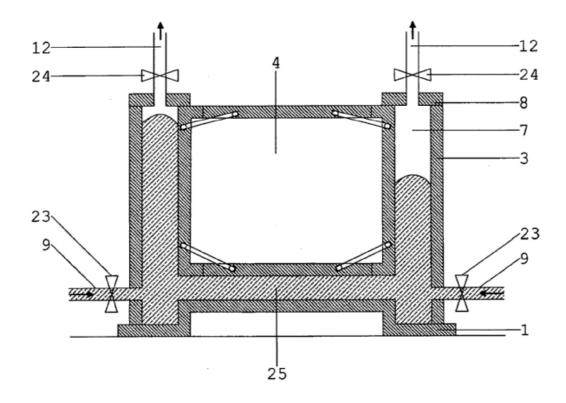
- B28B 21/00 centrifugal or rotational casting with methods or machines specially adapted for the production of tubular articles
- B28B 23/20 centrifugal or rotational casting wherein the elements are reinforcing members

by injection moulding [N: (injection moulding of ceramic slips B28B1/265; of tubular articles B28B21/38)]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



Informative references

Attention is drawn to the following places, which may be of interest for search:

Ма	nufacture of workpieces or articles	B22F 3/22
fror	m metallic powder by injection	
mo	oulding	

B28B 1/26

by slip-casting, i.e. by casting a suspension or dispersion of the material in a liquid-absorbent or porous mould, the liquid being allowed to soak into or pass through the walls of the mould; Moulds therefor (B28B1/52 takes precedence); [N: specially for manufacturing articles starting from a ceramic slip; Moulds therefor (of tubular articles B28B21/08)]

This subclass/group does not cover:

Slip casting of tubular articles	B28B 21/08
Specially adapted for producing articles from mixtures containing fibres	B28B 1/52

Special rules of classification within this group

For chemical aspects see: <u>C04B 33/28</u> slipcasting of clay-wares.

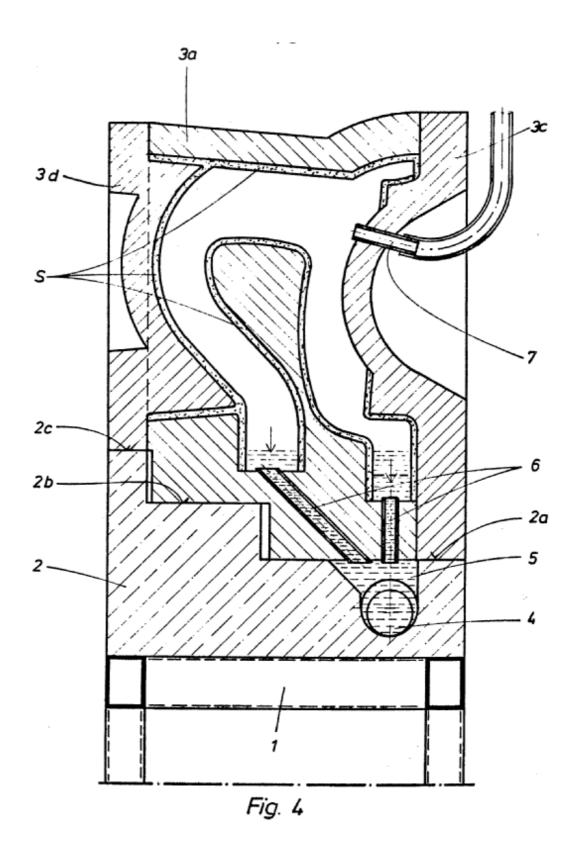
For manufacturing of workpieces or articles from metallic powder see: <u>B22F</u> 3/22 for producing castings from a slip.

B28B 1/261

[N: Moulds therefor (absorbent moulds in general B28B7/344)]

Definition statement

This subclass/group covers:



Informative references

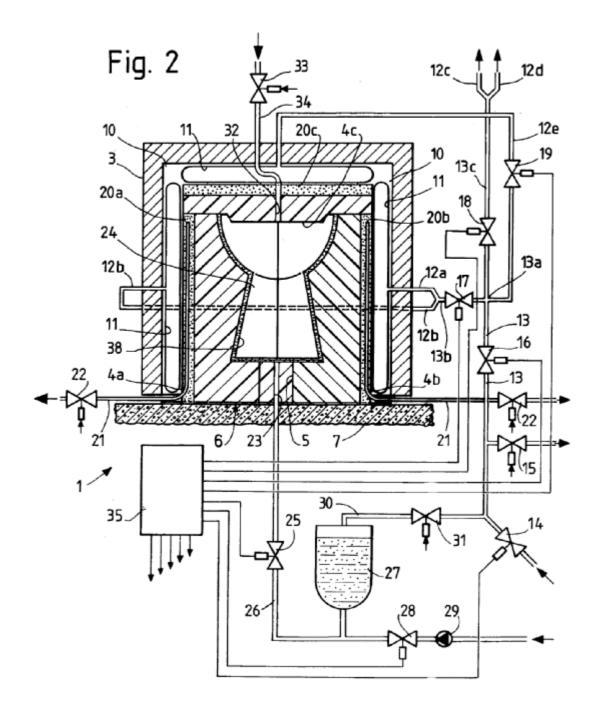
Attention is drawn to the following places, which may be of interest for search: Attention is drawn to the following places, which may be of interest:

Absorbent moulds in general	<u>B28B 7/344</u> 26
	_~

[N: Means for counteracting the pressure being applied on the slip or on the moulded article in the mould, e.g. means for clamping the moulds parts together in a frame-like structure (fastening means, clamping means for mould parts in general B28B7/00B5)]

Definition statement

This subclass/group covers:



Informative references

Attention is drawn to the following places, which may be of interest for search:

, ,	B28B 7/00B5
for mould parts in general	
	28

[N: by dipping moulding surfaces in the slip (in general B28B1/38)]

Definition statement

This subclass/group covers:

Oct. 11, 1932.

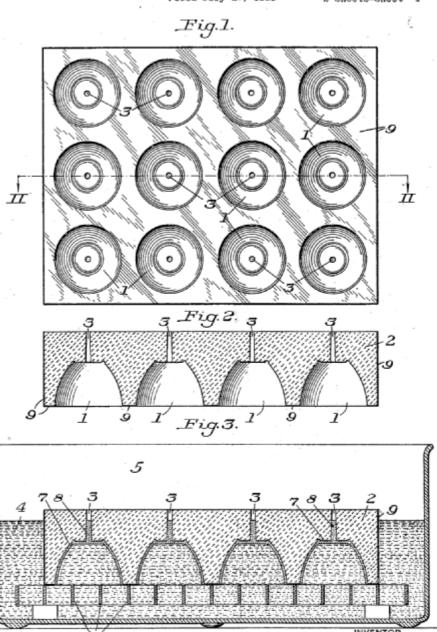
B. S. PURINTON

1,882,191

PROCESS AND, APPARATUS FOR CASTING CERAMIC ARTICLES

Filed July 27, 1931

2 Sheets-Sheet 1



Informative references

Attention is drawn to the following places, which may be of interest for search:

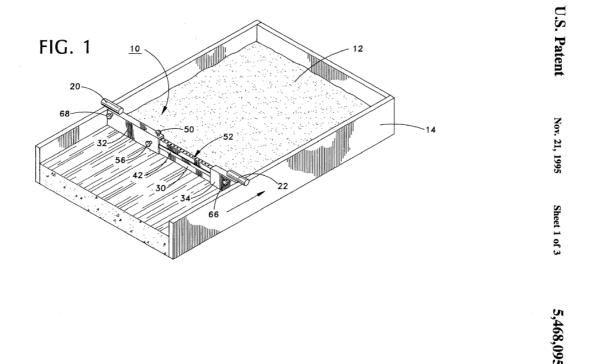
Dipping moulding surfaces in the slip	B28B 1/38
in general	

by profiling or strickling the material in open moulds or on moulding surfaces [N: (in rotary moulds B28B1/02; by means of profiled rollers B28B3/12, B28B3/123)]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



Special rules of classification within this group

Profiling or strickling in situ: <u>E01C 19/00</u> machines, tools or auxiliary devices for preparing or distributing paving materials.

B28B 1/32

by projecting, e.g. spraying (spraying in general B05B, D)

References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated into a larger system:

,	B28B 21/44
projecting, e.g. spraying	

Informative references

Attention is drawn to the following places, which may be of interest for search:

Spraying in general	<u>B05B</u>

B28B 1/34

by centrifugal force [N: (centrifugally acting implements for applying plaster or the like to walls E04F21/10)]

References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated into a larger system:

Producing tubular articles by	B28B 21/30
centrifugal moulding	

B28B 1/38

by dipping (in general B05C, D; [N: shaping from synthetic resin B29C41/14])

References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated into a larger system:

Producing tubular articles by dipping	B28B 21/46
I readoning tabanan antiolog by airpring	<u> </u>

Informative references

Attention is drawn to the following places, which may be of interest for search:

By dipping in general	<u>B05C</u>

B28B 1/40

by wrapping, e.g. winding

References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated into a larger system:

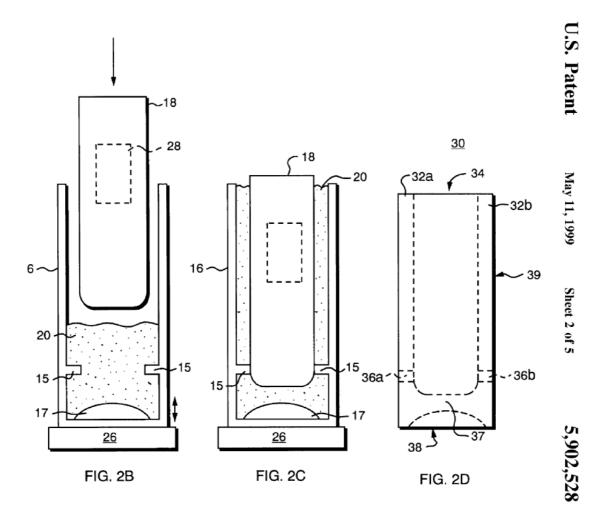
Producing tubular articles by	B28B 21/48
wrapping, e.g. winding	

B28B 1/44

by forcing cores into filled moulds for forming hollow articles

Definition statement

This subclass/group covers:



This subclass/group does not cover:

Removing the material from the filled mould	B28B 1/48, B28B 11/12
modia	

Special rules of classification within this group

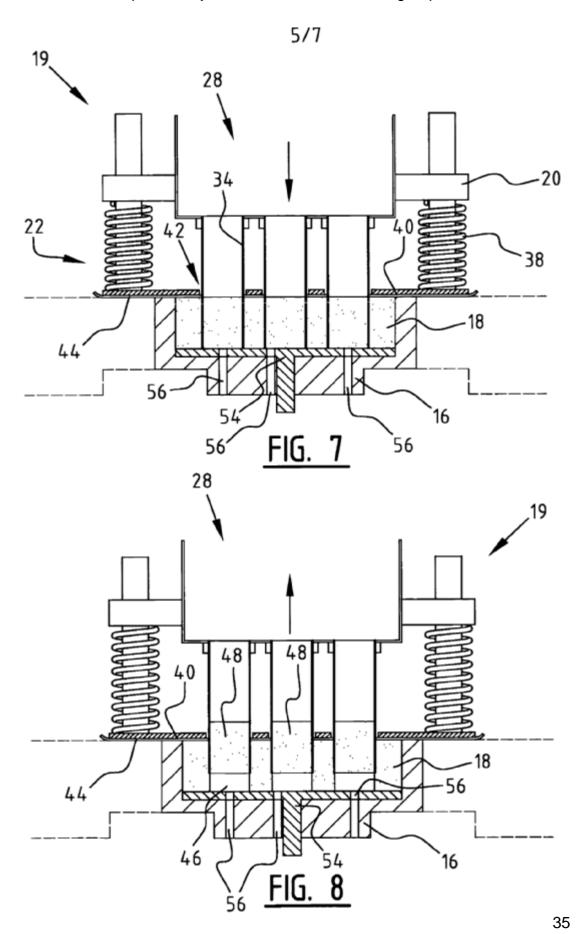
The cores being forced into the filled moulds displace the material inside the filled moulds.

B28B 1/48

by removing material from solid section preforms for forming hollow articles, e.g. by punching or boring

Definition statement

This subclass/group covers:

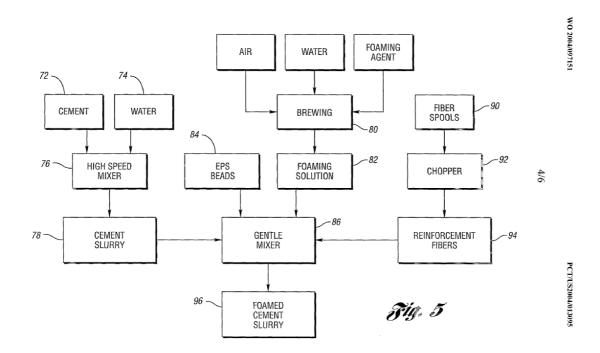


specially adapted for producing articles of expanded material, e.g. cellular concrete (chemical aspects [N: or making expanded aggregate] C04B)

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



Special rules of classification within this group

Mixers for producing cellular concrete:

- B28C 5/1269
- B28C 5/381
- <u>B01F</u>

Synonyms and Keywords

In patent documents the following abbreviations are often used:

ALC	Autoclaved lightweight concrete
PC	Porous concrete

In the patent documents the following expressions/words are often used as synonyms:

- "porous concrete",
- "(autoclaved) lightweight concrete",
- "cellular concrete",
- "foam(ed) concrete" and
- "aerated concrete".

B28B 1/526

[N: by delivering the materials on a conveyer of the endless-belt type]

Definition statement

This subclass/group covers:

WO 91/04142 PCT/DE90/00709

3/3

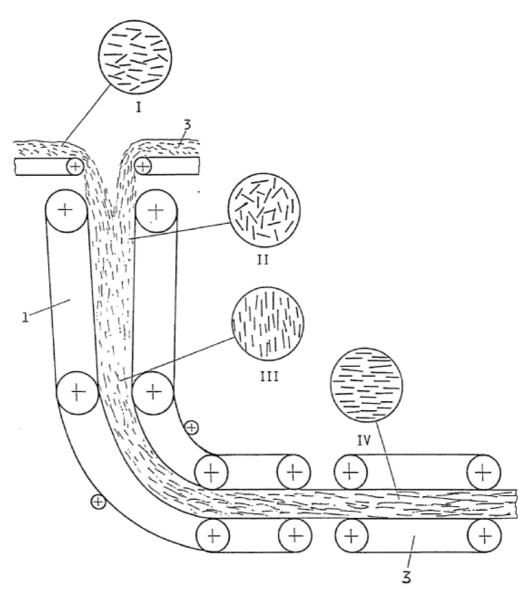


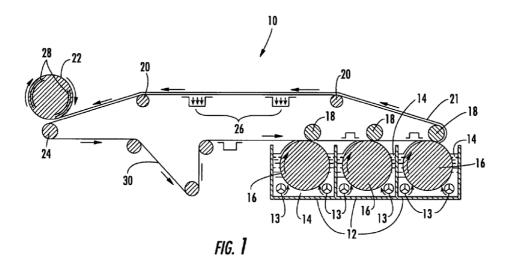
Fig. 3

B28B 1/527

[N: by delivering the materials on a rotating drum, e.g. a sieve drum, from which the materials are picked up by a felt]

Definition statement

This subclass/group covers:

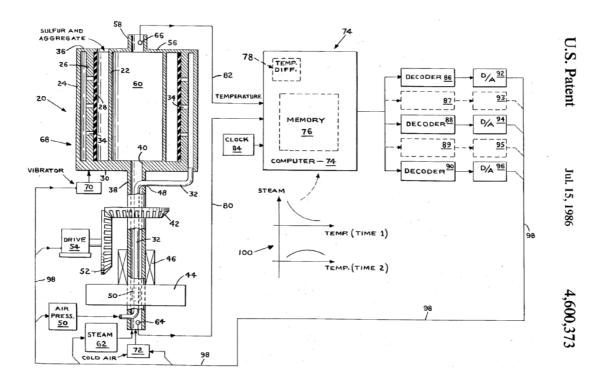


B28B 1/54

specially adapted for producing articles from molten material, e.g. slag [N: refractory ceramic materials] (chemical aspects C04B; [N: from molten bituminous material B29C])

Definition statement

This subclass/group covers: E.g. sulfur/sulphur concrete

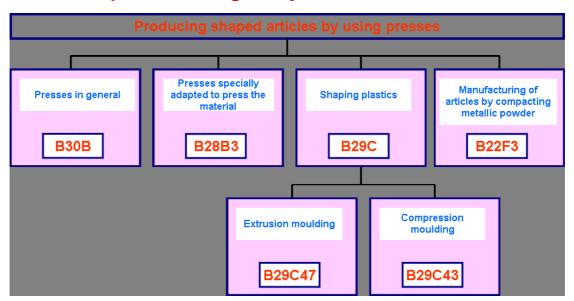


Apr. 21, 2005 Sheet 1 of 9

US 2005/0085148 A1

Producing shaped articles from the material by using presses (shaping on moving conveyers B28B5/00); Presses specially adapted therefor (presses in general B30B)

Relationship between large subject matter areas



References relevant to classification in this group

This subclass/group does not cover:

Drive systems for presses	<u>B30B</u>

Informative references

Attention is drawn to the following places, which may be of interest for search:

Manufacture of workpieces or articles from metallic powder characterised by the manner of compacting or sintering	
Extrusion moulding of plastics	<u>B29C 47/00</u>
Aspects related to presses in general	<u>B30B</u>

B28B 3/003

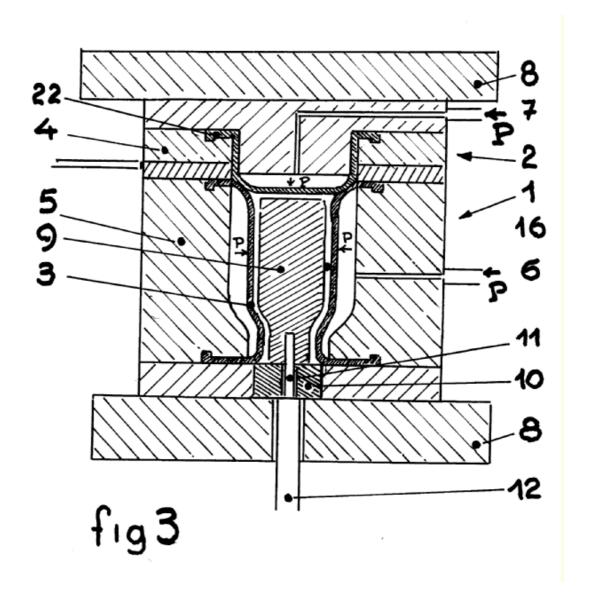
[N: Pressing by means acting upon the material via flexible

mould wall parts, e.g. by means of inflatable cores, isostatic presses (isostatic presses in general B30B5/02)]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



References relevant to classification in this group

This subclass/group does not cover:

Flexible or resilient parts on a press	B28B 3/024
ram, i.e. foamed or rubber parts.	

Informative references

Attention is drawn to the following places, which may be of interest for search: Attention is drawn to the following places, which mey be of interest for search:

Isostatic presses in general	B30B 5/02

Special rules of classification within this group

The flexible mould wall parts change shape due to an externally generated pressure (air, oil etc.) other than the reaction force caused by the pressing of a ram head.

B28B 3/02

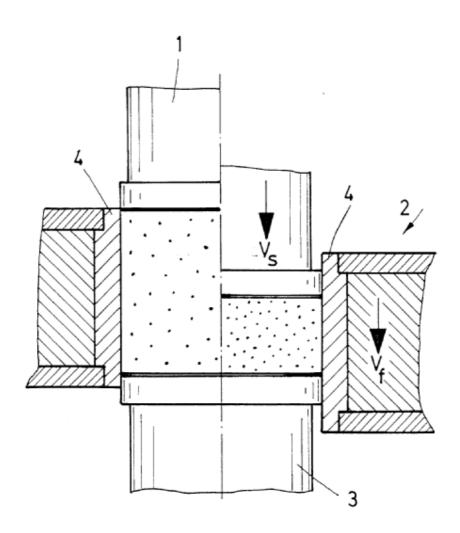
wherein a ram exerts pressure on the material in a moulding space; Ram heads of special form

Definition statement

This subclass/group covers:

Nummer: Int. Cl.⁵: Offenlegungstag:

DE 40 09 606 A1 B 30 B 11/02 11. Oktober 1990



Informative references

Attention is drawn to the following places, which may be of interest for search:

Using a ram exerting pressure on the	B30B 11/02
material in a moulding space	

B28B 3/021

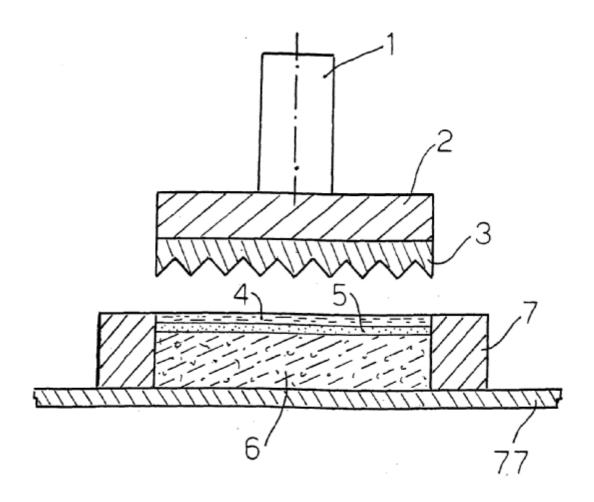
[N: Ram heads of special form]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

EP 1 541 308 A2

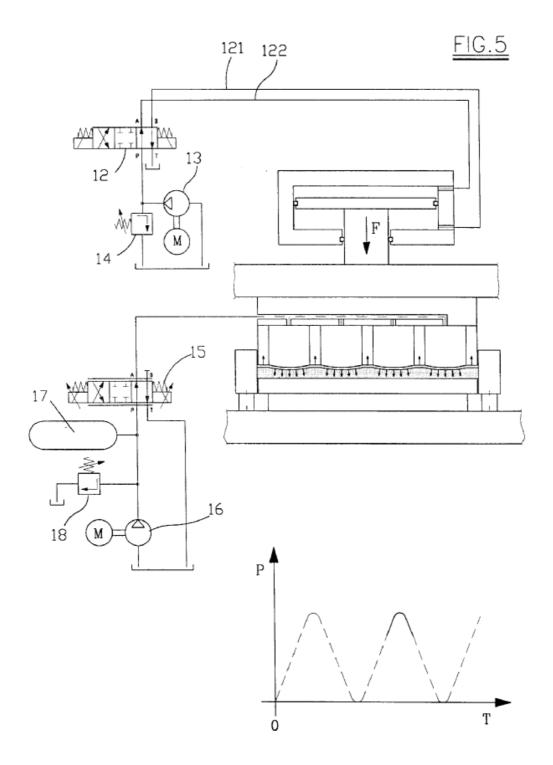


B28B 3/022

[N: combined with vibrating or jolting]

Definition statement

This subclass/group covers:



References relevant to classification in this group

This subclass/group does not cover:

Vibrating or jolting by means acting on the mould, i.e. vibrating tables	B28B 1/087
	15

Informative references

Attention is drawn to the following places, which may be of interest for search:

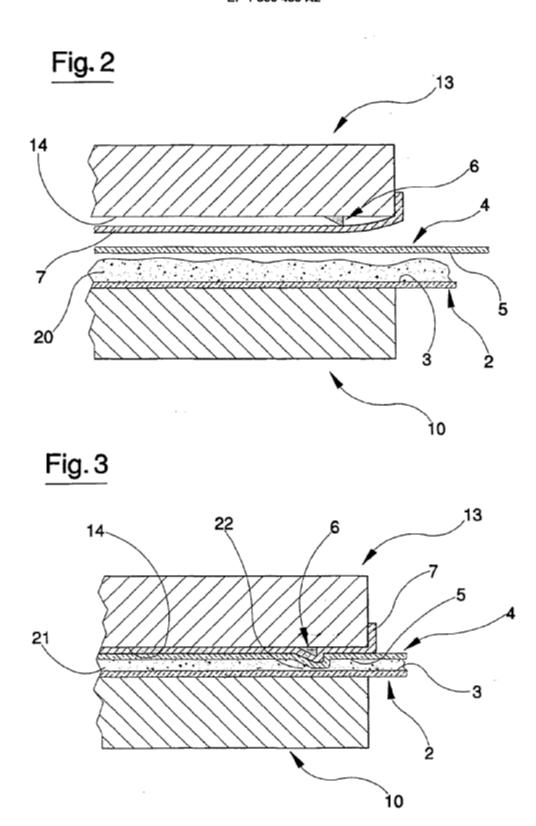
Using a ram exerting pressure on the material in a moulding space, whereby the material is subjected to vibrations	B30B 11/022
--	-------------

B28B 3/024

[N: the pressure on the material being transmitted through flexible or resilient wall parts, e.g. flexible cushions on the ramming surface, resilient wall parts pressing as a result of deformation caused by ram pressure]

Definition statement

This subclass/group covers:

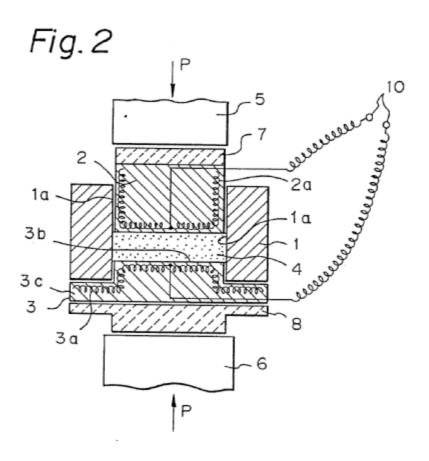


[N: Hot pressing, e.g. of ceramic materials]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



References relevant to classification in this group

This subclass/group does not cover:

Simultaneously compacting and sintering of workpieces or articles from metallic powder	B22F 3/14
Pressure sintering	C04B 35/645

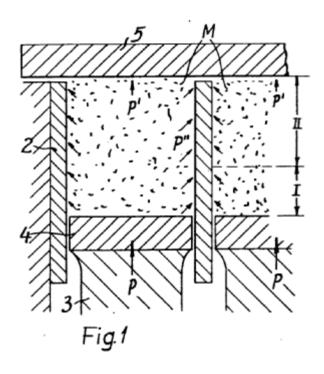
B28B 3/027

[N: using a bottom press ram actuated upwardly towards mould covers]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

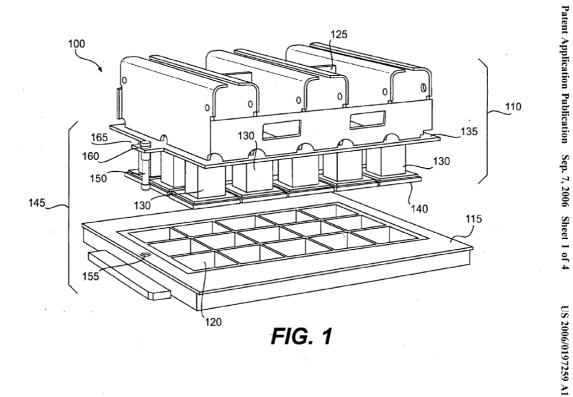


B28B 3/06

with two or more ram and mould sets

Definition statement

This subclass/group covers:

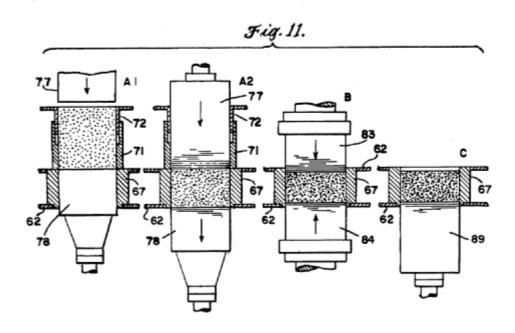


with two or more rams per mould

Definition statement

This subclass/group covers:

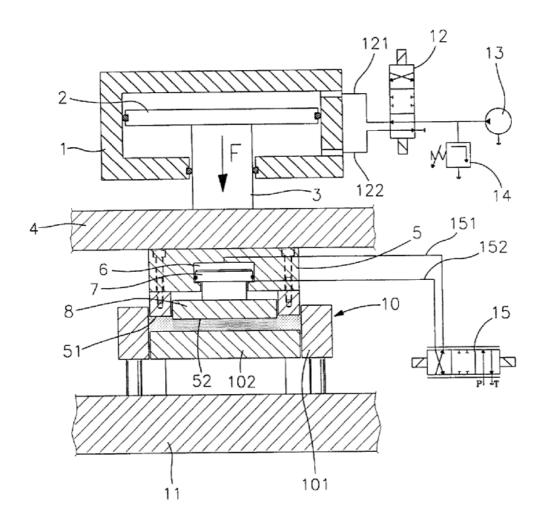
Wherein the ram heads work in opposite directions:



[N: The juxtaposed rams working in the same direction]

Definition statement

This subclass/group covers:

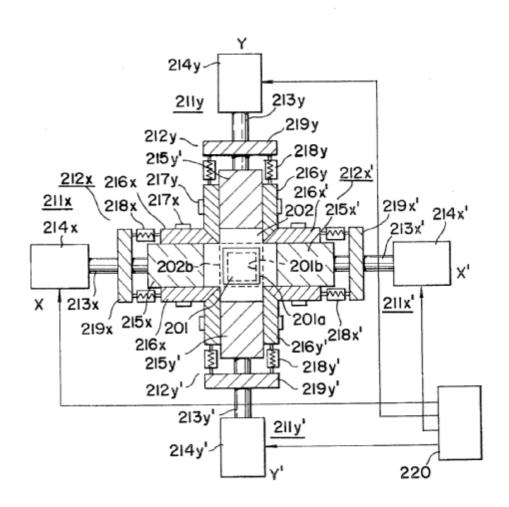


[N: The rams working in different directions]

Definition statement

This subclass/group covers:

FIG. 3

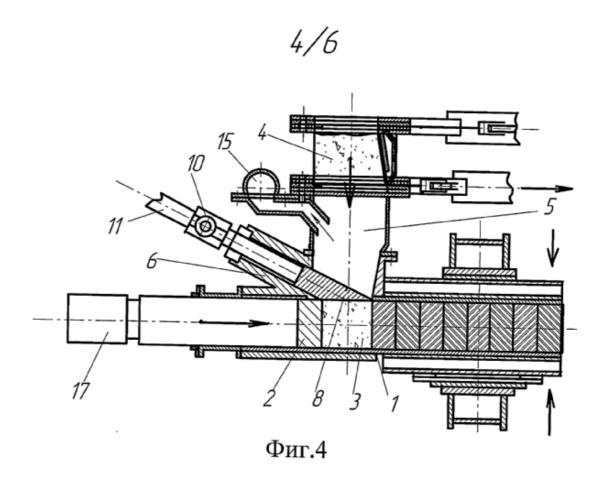


each charge of material being compressed against previously formed body

Definition statement

This subclass/group covers:

WO 2007/049992 PCT/RU2006/000556



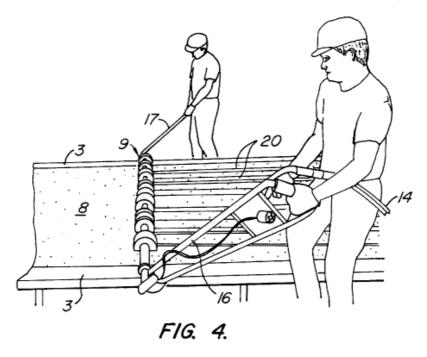
B28B 3/12

wherein one or more rollers exert pressure on the material

Definition statement

This subclass/group covers:

U.S. Patent Jun. 6, 2000 Sheet 4 of 5 6,071,458

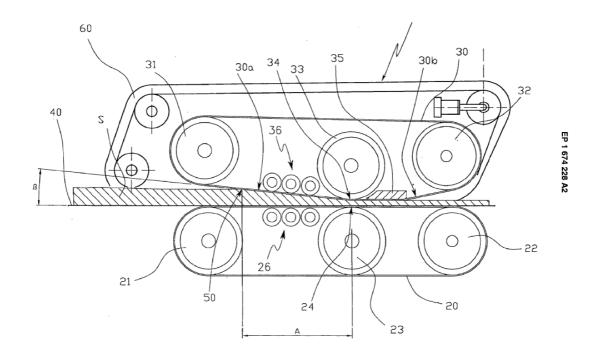


B28B 3/123

[N: on material in moulds or on moulding surfaces moving continuously underneath or between the rollers, e.g. on an endless belt]

Definition statement

This subclass/group covers:

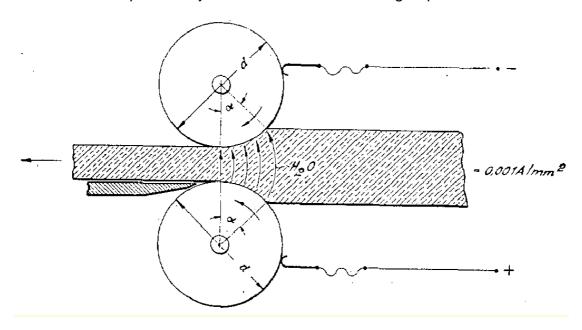


[N: on material passing directly between the co-operating rollers]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



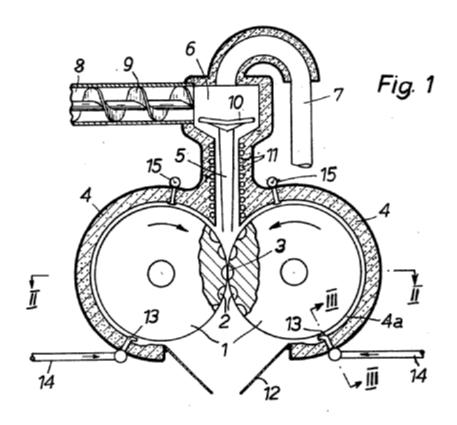
B28B 3/14

with co-operating pocketed rollers

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

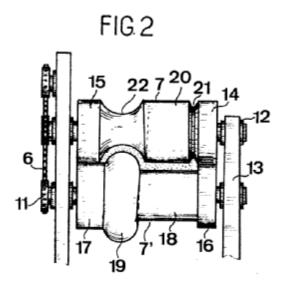


B28B 3/16

with co-operating profiled rollers

Definition statement

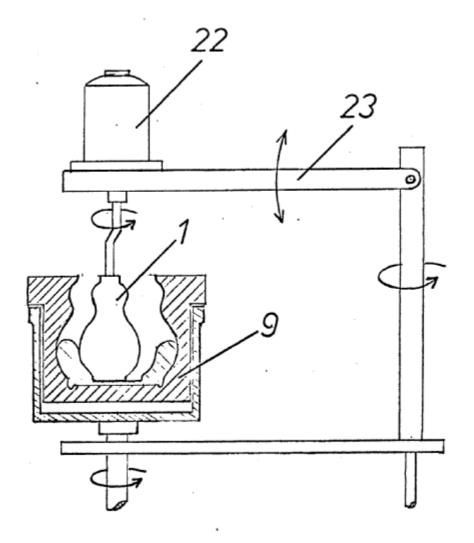
This subclass/group covers:



Roller-and-ring machines, i.e. with roller disposed within a ring and co-operating with the inner surface of the ring

Definition statement

This subclass/group covers:



wherein the material is extruded [N: (extrusion moulding of plastics B29C47/00)]

References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated into a larger system:

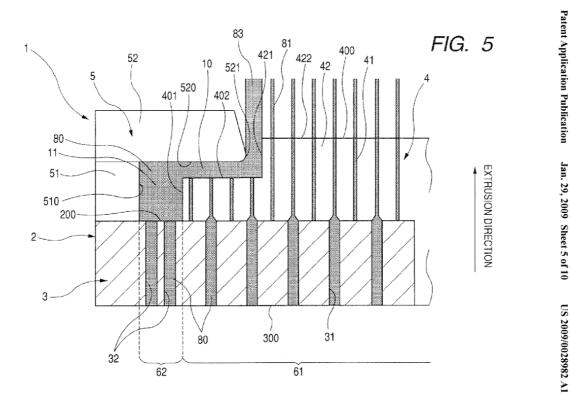
Producing tubular articles by	B28B 21/52
extruding	

B28B 3/20B

[N: for multi-channelled structures, e.g. honeycomb structures]

Definition statement

This subclass/group covers:



References relevant to classification in this group

This subclass/group does not cover:

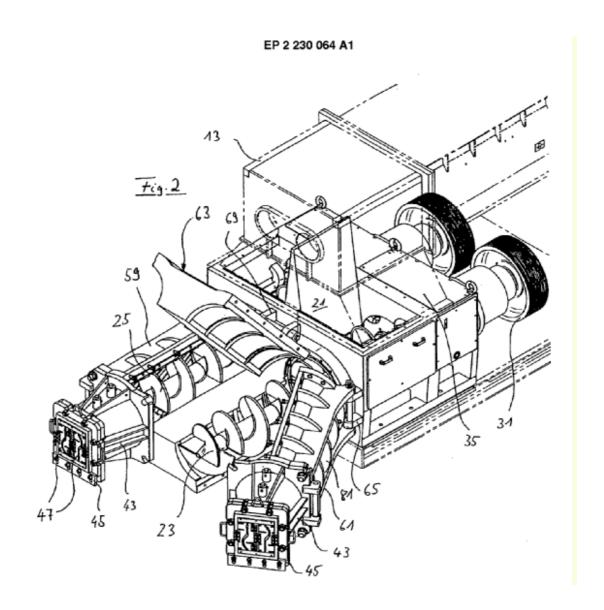
Extrusion dies for hollow (clay) bricks	B28B 3/26

B28B 3/22

by screw or worm

Definition statement

This subclass/group covers:



[N: Screw or worm constructions]

Definition statement

This subclass/group covers:

ZEICHNUNGEN SEITE 5 Nummer: DE 101 22 937 A1 Int. Cl.7: B 28 B 3/22 15. November 2001

Offenlegungstag:

Fig.6 52 53 51 530 510 69 12 515

B28B 3/24

by reciprocating plunger

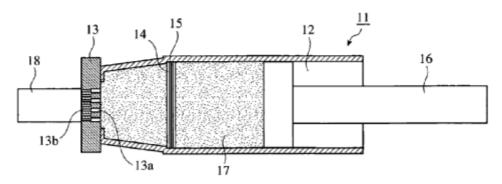
Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

EP 2 340 921 A1

Fig. 1



B28B 3/26

Extrusion dies

References relevant to classification in this group

This subclass/group does not cover:

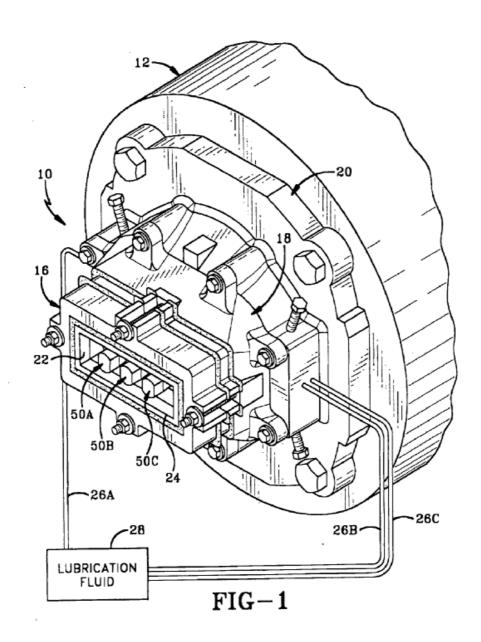
	B28B 3/20B
structures	

B28B 3/2618

[N: using lubricating means]

Definition statement

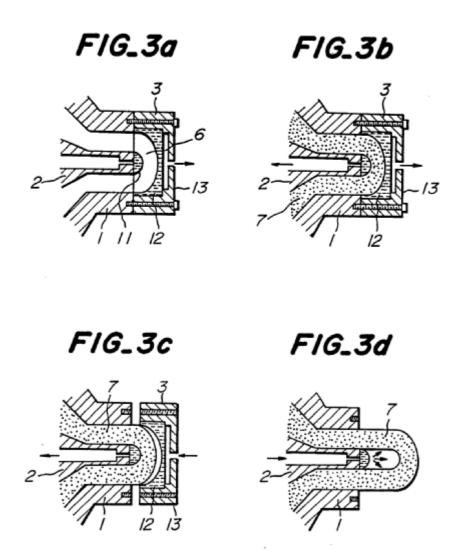
This subclass/group covers:



[N: using means for making hollow objects with transverse walls, e.g. hollow objects closed on all sides]

Definition statement

This subclass/group covers:

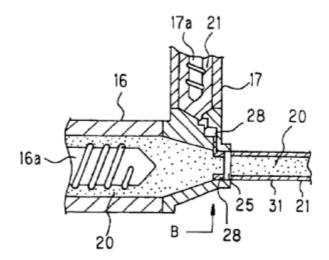


[N: using means for co-extruding different materials]

Definition statement

This subclass/group covers:

FIG.19(a)

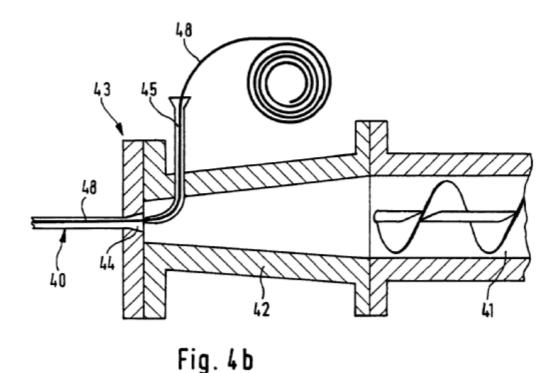


B28B 3/2645

[N: using means for inserting reinforcing members]

Definition statement

This subclass/group covers:



B28B 5/00

Producing shaped articles from the material in moulds or on moulding surfaces, carried or formed by, in, or on coveyers irrespective of the manner of shaping (shaping aspects see the relevant groups)

Definition statement

This subclass/group covers:

The moulds or moulding surfaces are transported along several station of activity, for example, first a mould is transported to a cleaning station followed by a casting station and finally by a demoulding station.

References relevant to classification in this group

This subclass/group does not cover:

	Machines or methods for applying the	B28B 19/0092
	material to surfaces to form a	
	permanent layer thereon, to webs,	
	sheets or the like	
ı		

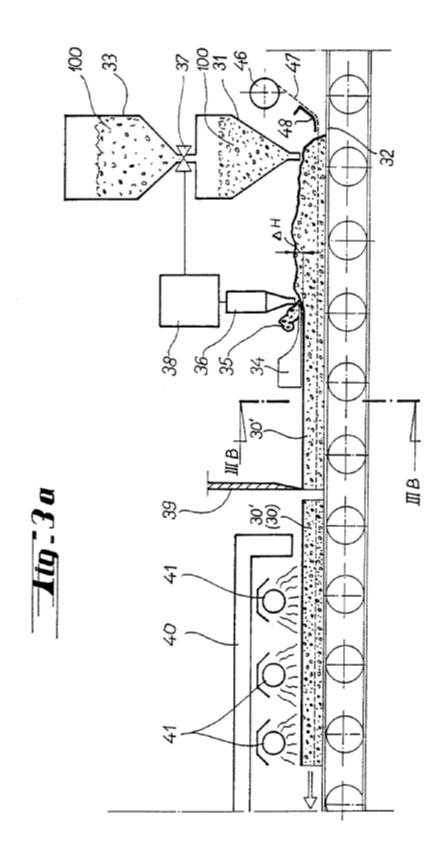
B28B 5/02

on conveyers of the endless-belt or chain type (in combination with pressing rollers B28B3/12)

Definition statement

This subclass/group covers:

Nummer: Int. Cl.⁶: Offenlegungstag: DE 196 14 820 A1 C 04 B 16/08 24. Oktober 1996



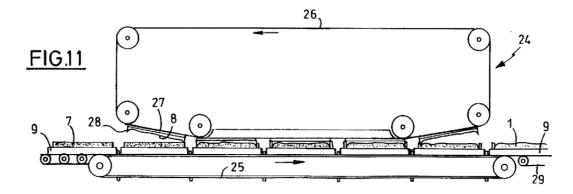
B28B 5/021

[N: the shaped articles being of definite length]

References relevant to classification in this group

This subclass/group does not cover:

Illustrative example of subject matter classified in this group:



B28B 5/022

[N: the moulds or the moulding surfaces being individual independant units and being discontinuously fed (feeding B28B13/0215 and sub-groups)]

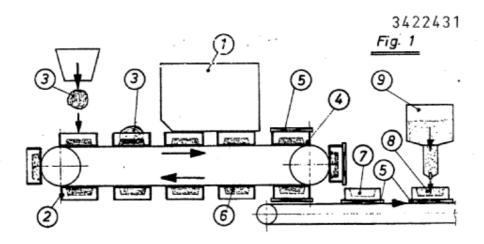
Definition statement

This subclass/group covers:

Nummer: Int. Cl.⁴: Anmeldetag:

Anmeldetag: Offenlegungstag: 34 22 431 C 04 B 33/13 16. Juni 1984

19. Dezember 1985



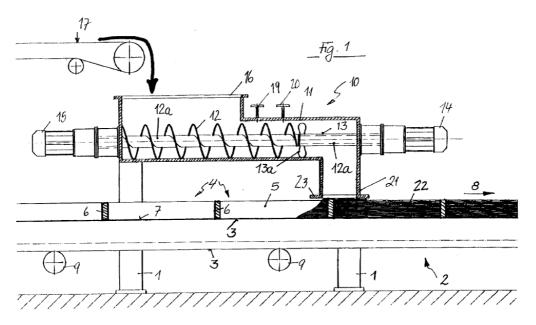
B28B 5/025

[N: the moulds or the moulding surfaces being divided by separating walls and being continuously fed (feeding B28B13/02)]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



S AZ

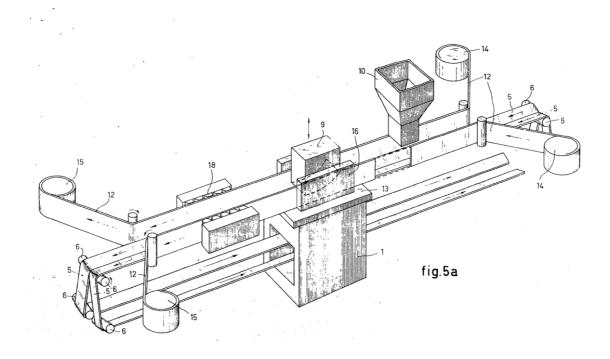
B28B 5/026

[N: the shaped articles being of indefinite length]

References relevant to classification in this group

This subclass/group does not cover:

Illustrative example of subject matter classified in this group:

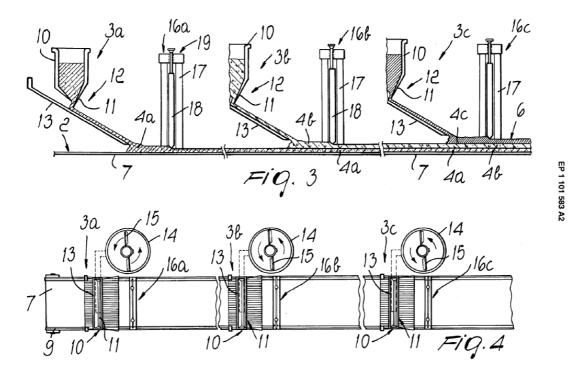


B28B 5/027

[N: the moulding surfaces being of the indefinite length type, e.g. belts, and being continuously fed (feeding B28B13/02)]

Definition statement

This subclass/group covers:

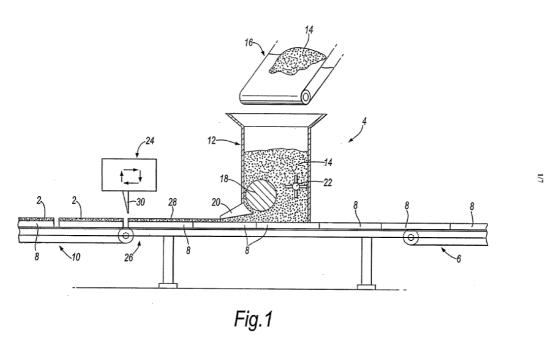


B28B 5/028

[N: the moulding surfaces being of definite length, e.g. succession of moving pallets, and being continuously fed (feeding B28B13/02)]

Definition statement

This subclass/group covers:

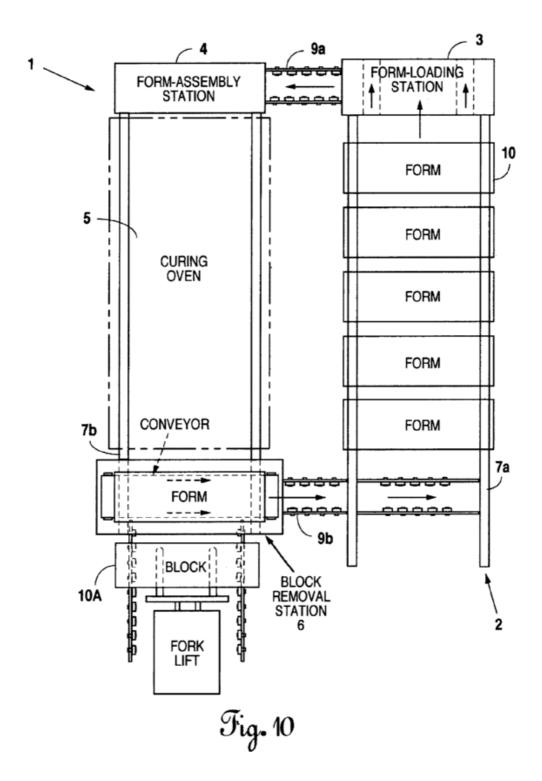


B28B 5/04

in moulds moved in succession past one or more shaping stations (on turn-tables B28B5/06)

References relevant to classification in this group

This subclass/group does not cover:



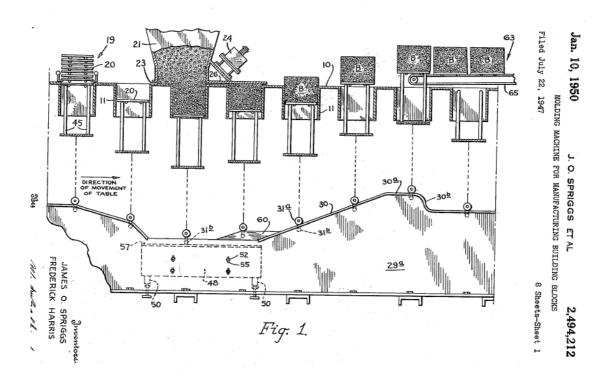
B28B 5/06

in moulds on a turn-table

References relevant to classification in this group

This subclass/group does not cover:

Illustrative example of subject matter classified in this group:

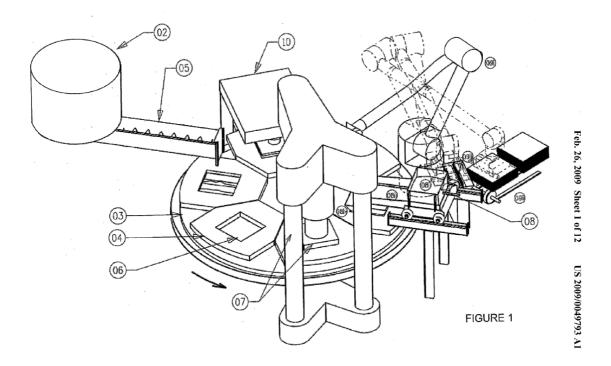


B28B 5/08

intermittently rotated

References relevant to classification in this group

This subclass/group does not cover:



B28B 5/10

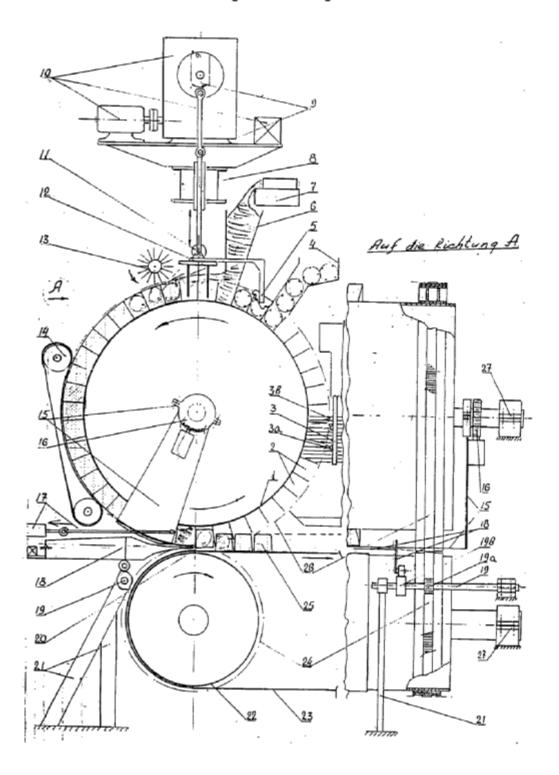
in moulds carried on the circumference of a rotating drum

References relevant to classification in this group

This subclass/group does not cover:

DE 100 59 449 A1 2004.03.11

Anhängende Zeichnungen



B28B 5/12

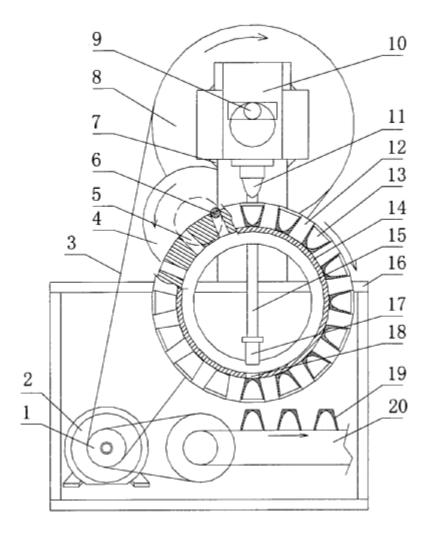
intermittently rotated

References relevant to classification in this group

This subclass/group does not cover:

Illustrative example of subject matter classified in this group:

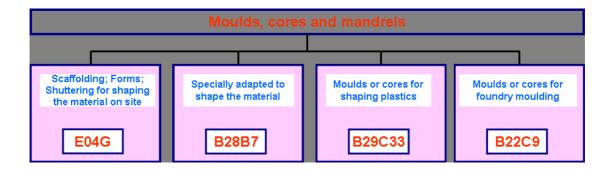
WO 2009/140852 PCT/CN2009/000436



B28B 7/00

Moulds; Cores; Mandrels (specially adapted for the production of the tubular articles B28B21/00; [N: for casting metals B22C9/00; moulds for plastic materials in general B29C33/00; falsework, forms or shutterings for forming buildings or parts thereof in situ E04G9/00 to E04G15/00])

Relationship between large subject matter areas



References relevant to classification in this group

This subclass/group does not cover:

Moulds or cores for casting metal	B22C 9/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

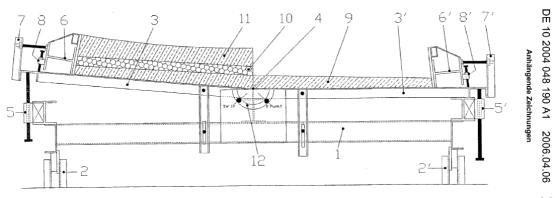
Falsework, forms or shuttering for forming buildings or parts thereof in situ	E04G 9/00 - E04G 15/00
Moulds for plastic materials in general	B29C 33/00

B28B 7/0032

[N: Moulding tables or similar mainly horizontal moulding surfaces]

Definition statement

This subclass/group covers:



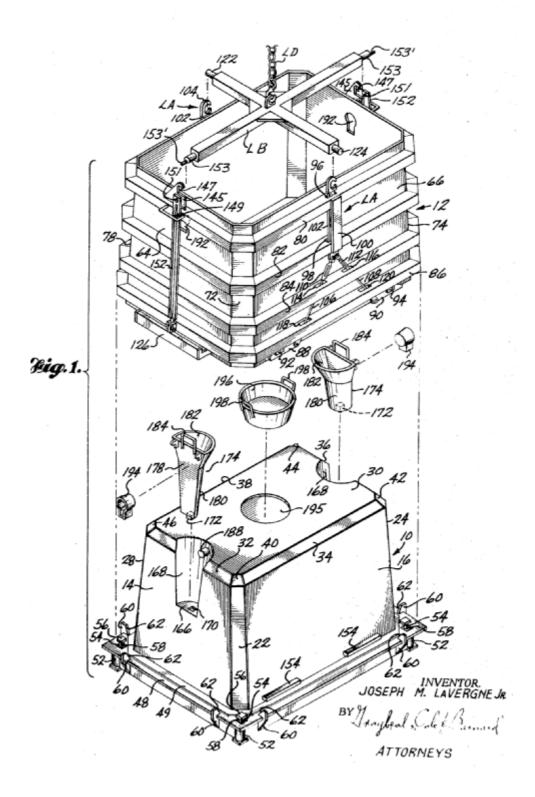
[N: the sidewalls of mould and moulded article moving only past each other, e.g. box-shaped moulds which are lifted off from the moulding]

Definition statement

This subclass/group covers:

E.g. sliding movement of the mould walls past the cast article.

SHEET 1 OF 3



B28B 7/0041

[N: the sidewalls of the mould being moved only parallelly away from the sidewalls of the moulded article]

Definition statement

This subclass/group covers:

WO 2006/076645 PCT/US2006/001344

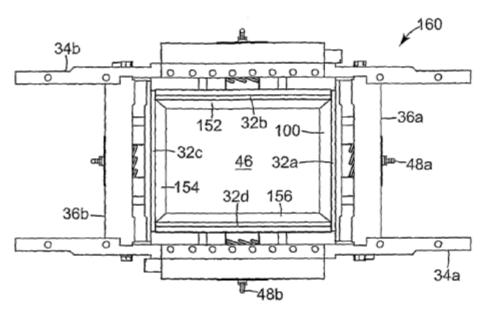


Fig. 4B

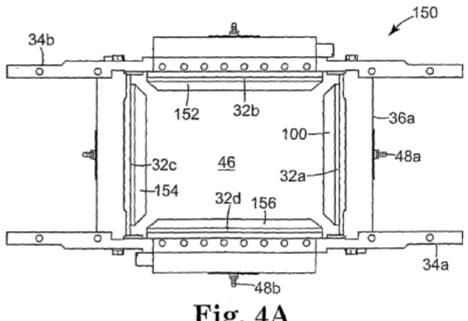


Fig. 4A

B28B 7/0044

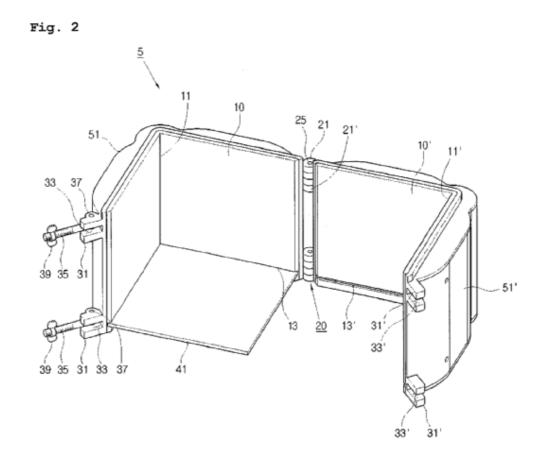
[N: the sidewalls of the mould being only tilted away from the sidewalls of the moulded article, e.g. moulds with hingedly mounted sidewalls]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

WO 2006/126784 PCT/KR2006/001413



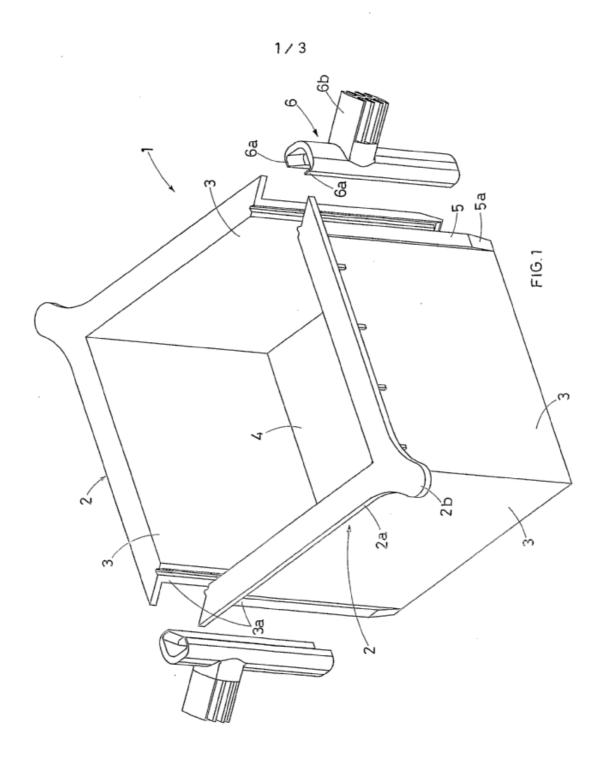
B28B 7/00B5

[N: Fastening means for mould parts, e.g. for attaching mould walls on mould tables; Mould clamps (clamping means specially adapted for counteracting a pressure being applied on a slip or on the moulded article in the mould B28B1/266)]

Definition statement

This subclass/group covers:

WO 2005/005116 PCT/IT2004/000371



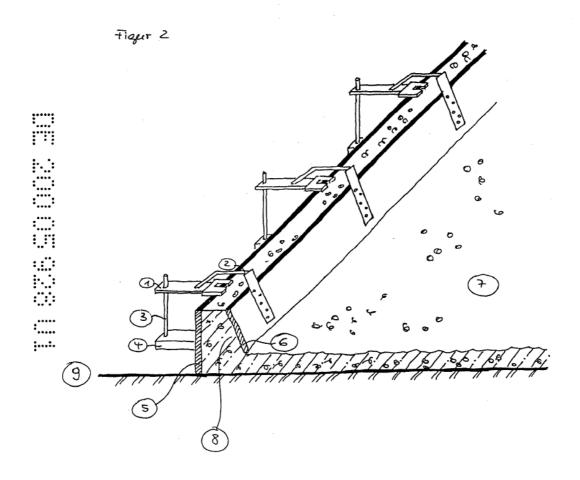
B28B 7/00B5B

[N: for attaching mould walls on mould tables]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



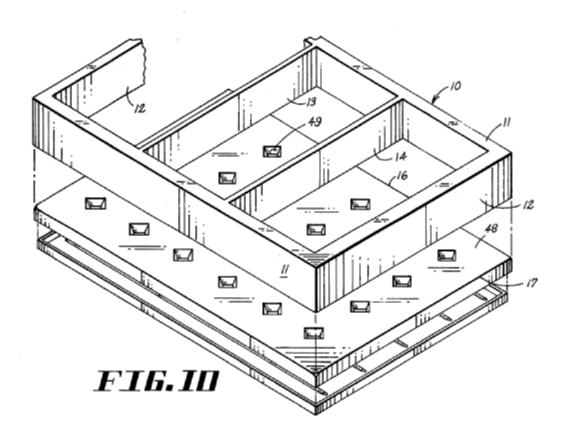
B28B 7/0055

[N: Mould pallets; Mould panels]

Definition statement

This subclass/group covers:

U.S.Patent June 6, 1978 Sheet 3 of 3 4,093,174

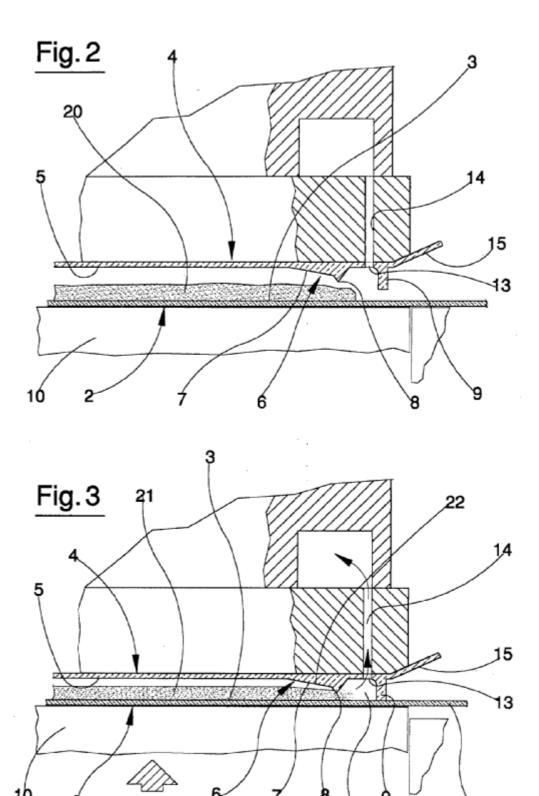


B28B 7/0058

[N: Moulds, cores or mandrels with provisions concerning the elimination of superfluous material; Moulds with burr-removing means provided therein or carried thereby]

Definition statement

This subclass/group covers:

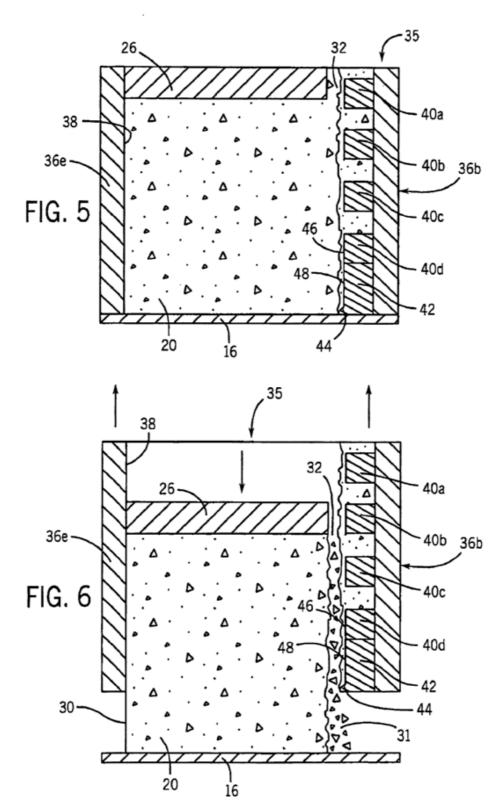


[N: Moulds, cores or mandrels specially adapted for mechanically working moulding surfaces during moulding or demoulding, e.g. smoothing by means of mould walls driven during moulding or of parts acting during demoulding]

Definition statement

This subclass/group covers:





B28B 7/007

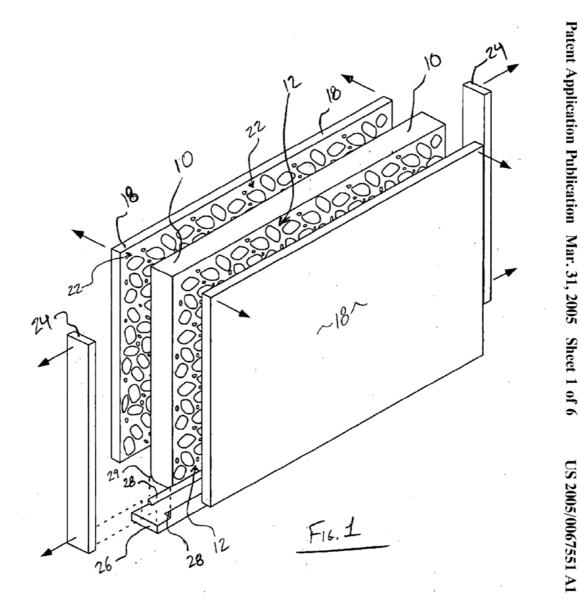
[N: with moulding surfaces simulating natural effets, e.g.

wood or stone]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

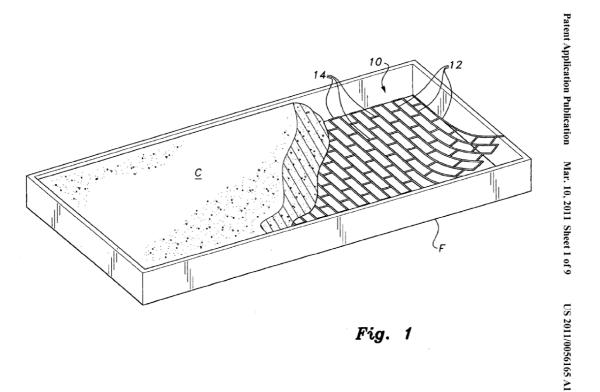


B28B 7/0073

[N: with moulding surfaces simulating assembled bricks or blocks with mortar joints (B28B7/007 takes precedence)]

Definition statement

This subclass/group covers:



References relevant to classification in this group

This subclass/group does not cover:

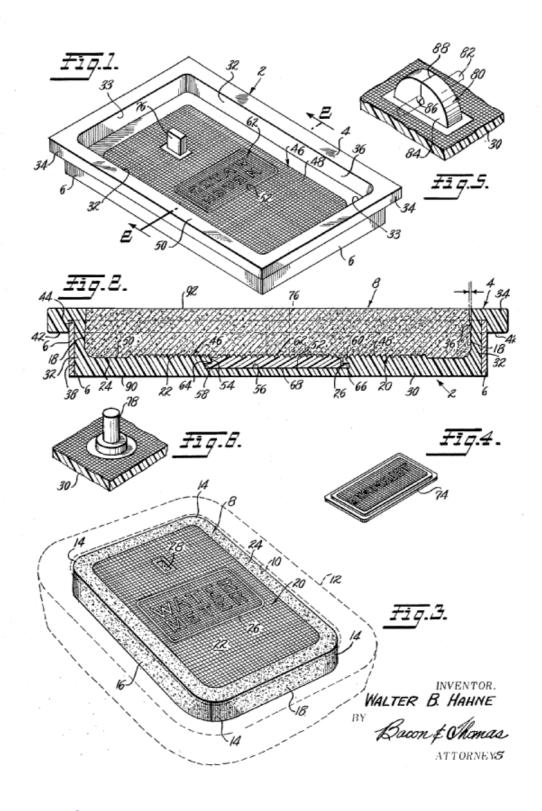
With moulding surfaces simulating natural effets	B28B 7/007
natural ellets	

B28B 7/0076

[N: with surfaces for moulding letters or marks]

Definition statement

This subclass/group covers:



[N: with surfaces for moulding interlocking means, e.g.

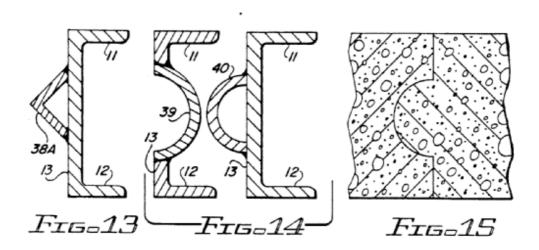
grooves and ribs]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

U.S. Patent July 26, 1994 Sheet 3 of 3 5,332,191



B28B 7/0082

[N: with surfaces for moulding parallel grooves or ribs (B28B7/0073, B28B7/0079 takes precedence)]

References relevant to classification in this group

This subclass/group does not cover:

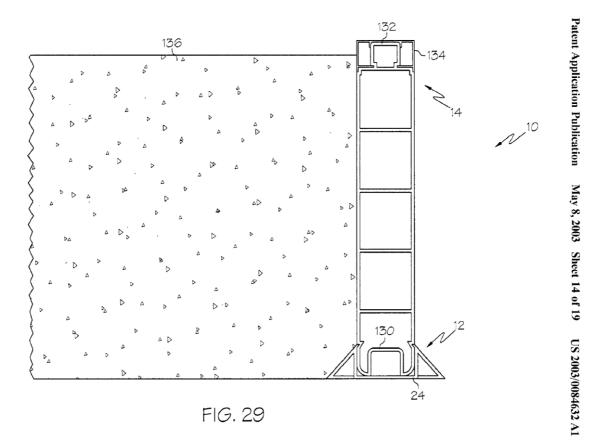
With moulding surfaces simulating assembled bricks or blocks with mortar joints	B28B 7/0073
With surfaces for moulding interlocking means	B28B 7/0079

B28B 7/0085

[N: with surfaces for moulding chamfers]

Definition statement

Illustrative example of subject matter classified in this group:



B28B 7/0088

[N: Moulds in which at least one surface of the moulded article serves as mould surface, e.g. moulding articles on or against a previously shaped article, between previously shaped articles]

Definition statement

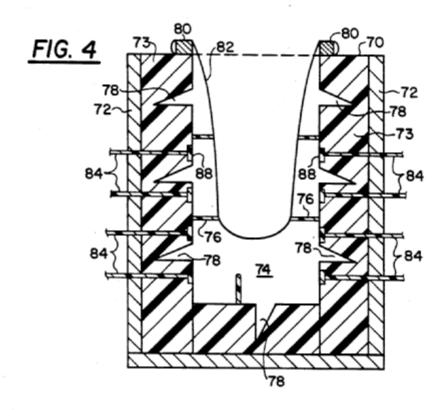
This subclass/group covers:

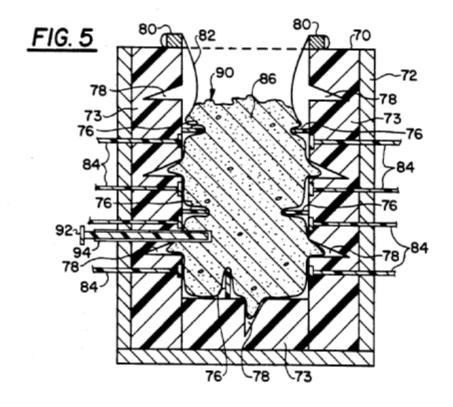
Wherein the surface of the moulded article which serves as a mould surface either becomes part of the final product or the two or more cast articles are seperated from each other e.g. flat concrete panel which serves as a moulding surface for the next flat concrete panel to be cast.

[N: Transformable moulds allowing the change of shape of an initial moulded preform by preform deformation or the change of its size by moulding on the preform]

Definition statement

This subclass/group covers:





[N: Press moulds; Press-mould and press-ram assemblies]

Definition statement

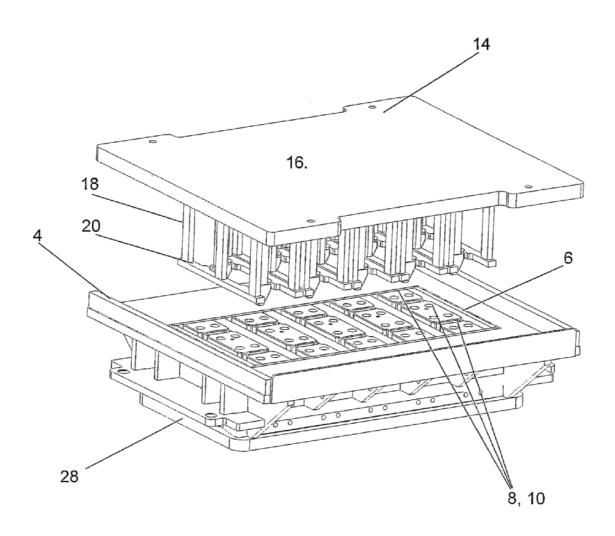
This subclass/group covers:

Illustrative example of subject matter classified in this group:

WO 2004/071732 PCT/DK2004/000099

1/7

Fig. 1



B28B 7/02

Moulds with adjustable parts [N: specially for modifying at will

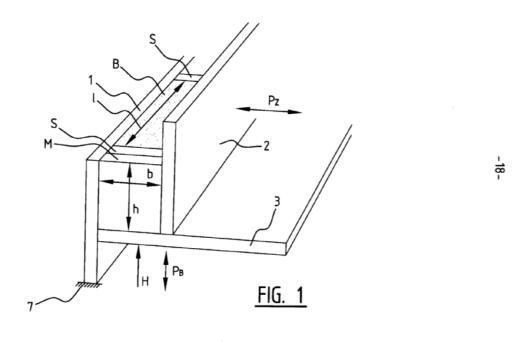
BE-2008/060

the dimensions or form of the moulded article]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

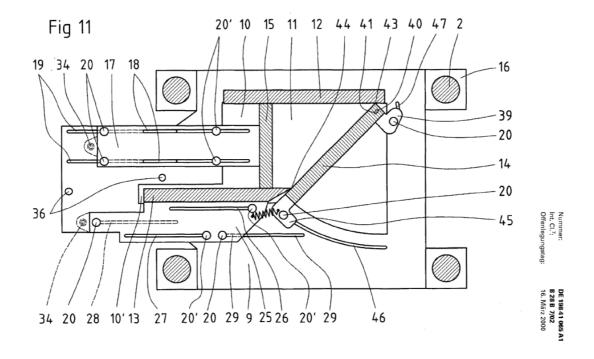


B28B 7/04

one or more of the parts being pivotally mounted

Definition statement

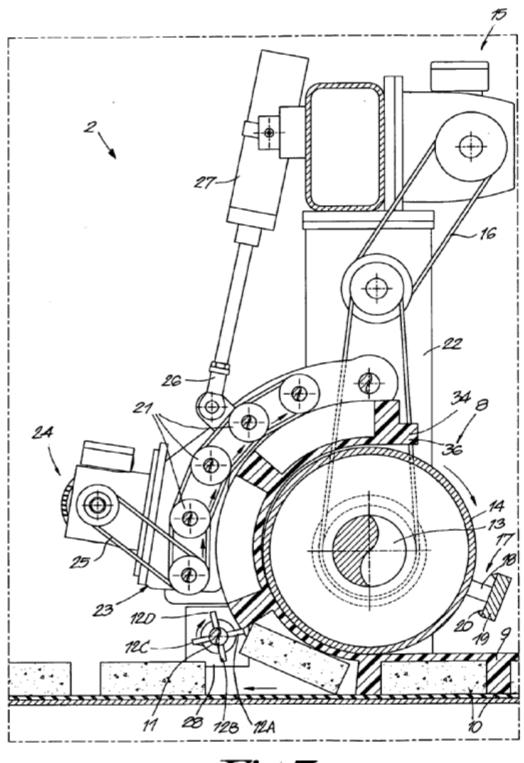
This subclass/group covers:



Moulds with flexible parts

Definition statement

This subclass/group covers:



Eio.3

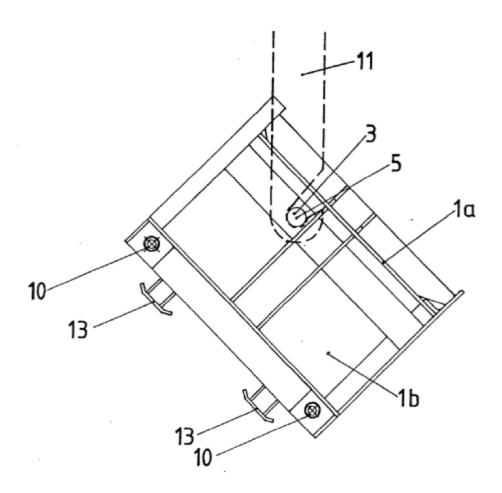
Moulds provided with means for tilting or inverting

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

DE 20 2006 015 274 U1 2007.01.25



B28B 7/082

[N: Tiltable moulding tables or similar moulding surfaces (specially for casting and erecting walls or parts thereof during construction work E04G11/32)]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

EP 1 555 098 A2

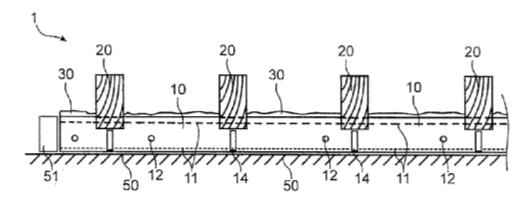


Fig. 1

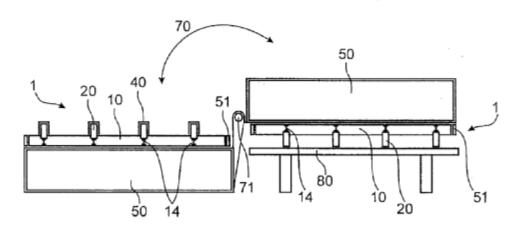


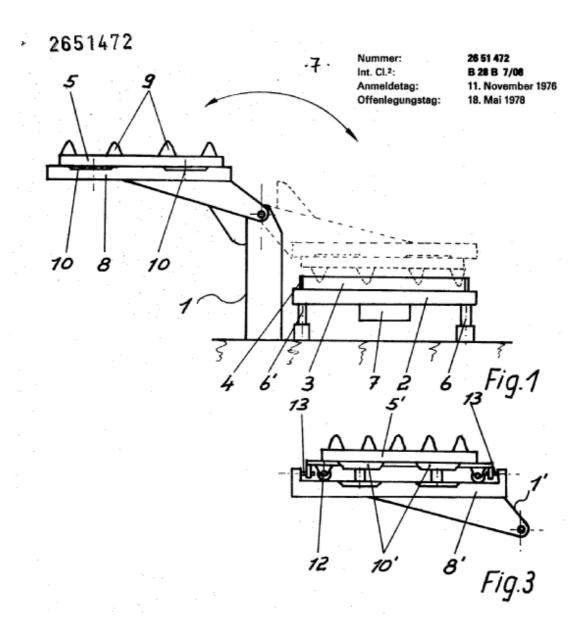
Fig. 2

B28B 7/085

[N: for making double wall panels]

Definition statement

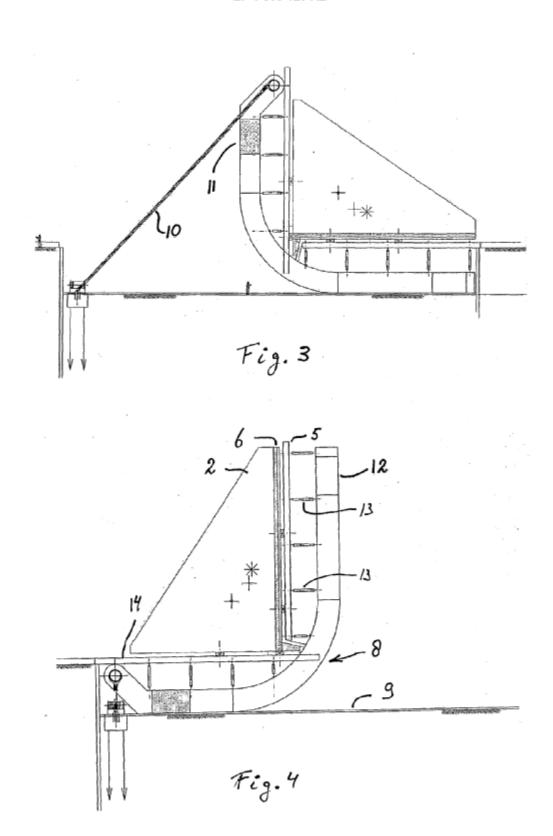
This subclass/group covers:



[N: using rocker or rolling means]

Definition statement

This subclass/group covers:



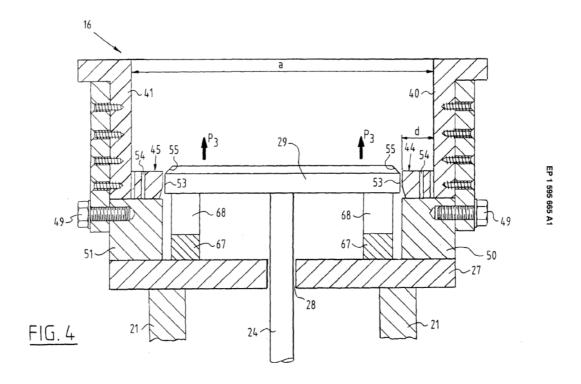
B28B 7/10

Moulds with means incorporated therein, or carried thereby, for ejecting [N: or detaching] the moulded article ([N: flexible moulds bent open for ejecting B28B7/06; ejecting by tilting or inverting the mould B28B7/08;] devices, not forming part of the mould, for ejecting the moulded article B28B13/06)

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

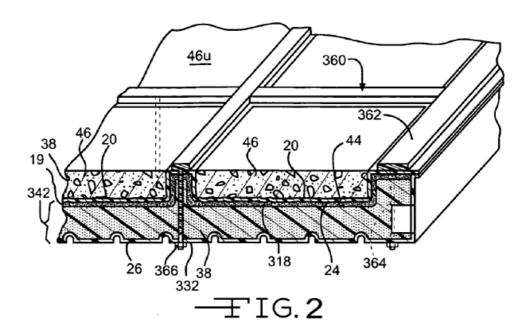


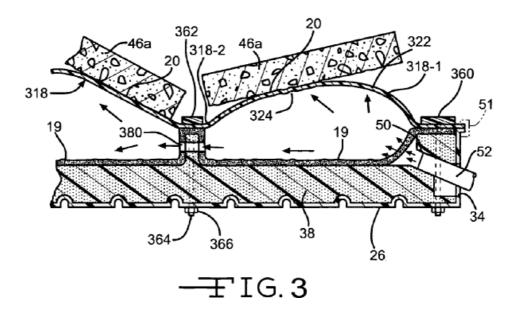
B28B 7/12

by fluid pressure, [N: e.g. acting through flexible wall parts or linings of the moulds]

Definition statement

This subclass/group covers:



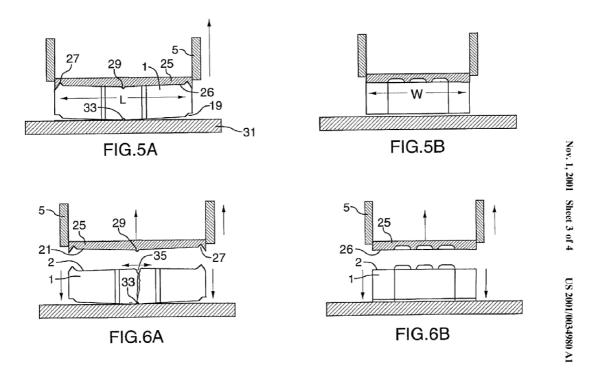


Moulds with means incorporated therein, or carried thereby, for cutting the moulded article into parts ([N: for expanded material B28B1/506;] cutting means independent of the mould B28B11/14)

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

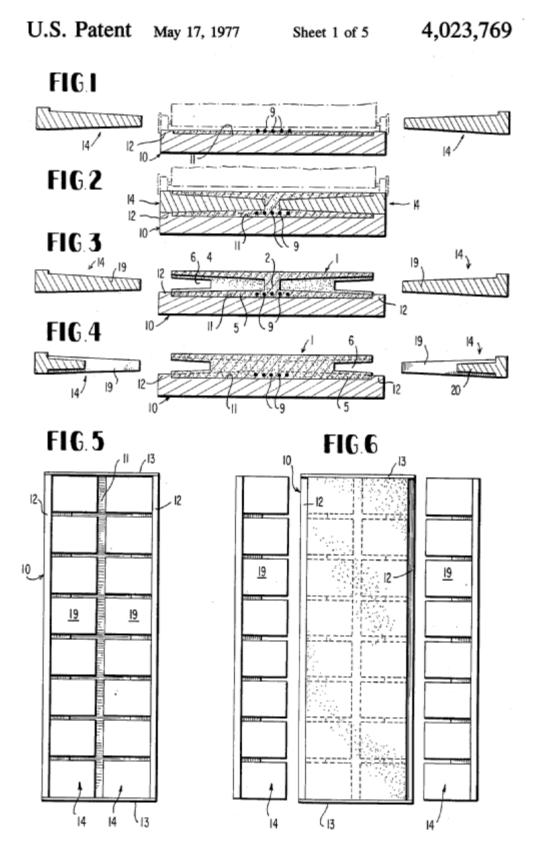


B28B 7/16

Moulds for making shaped articles with cavities or holes open to the surface, [N: e.g. with blind holes]

Definition statement

This subclass/group covers:



B28B 7/162

[N: for building blocks or similar block-shaped articles]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

Fig.1

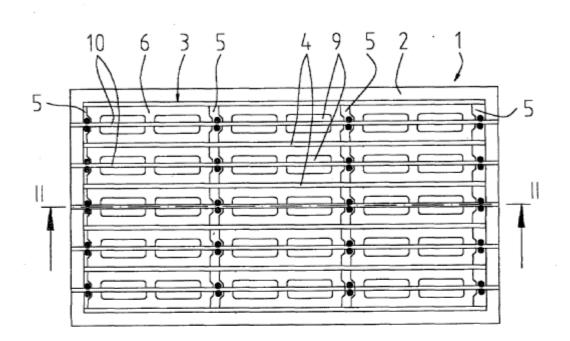
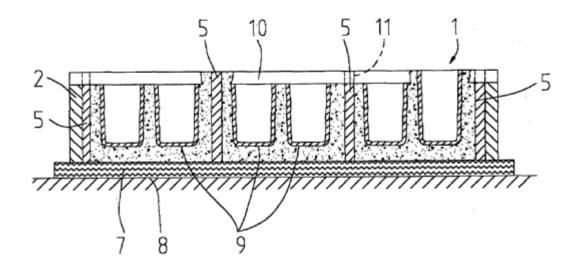


Fig.2



B28B 7/164

[N: for plates, panels, or similar sheet- or disc-shaped articles]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

Patent Application Publication Jun. 24, 2004 Sheet 3 of 3

US 2004/0118070 A1

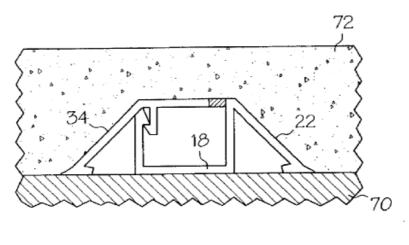


FIG. 4

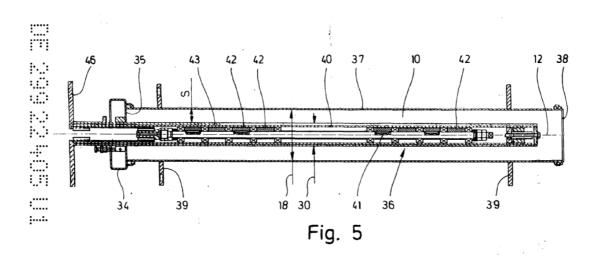
B28B 7/166

[N: for oblong articles, e.g. hollow masts]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

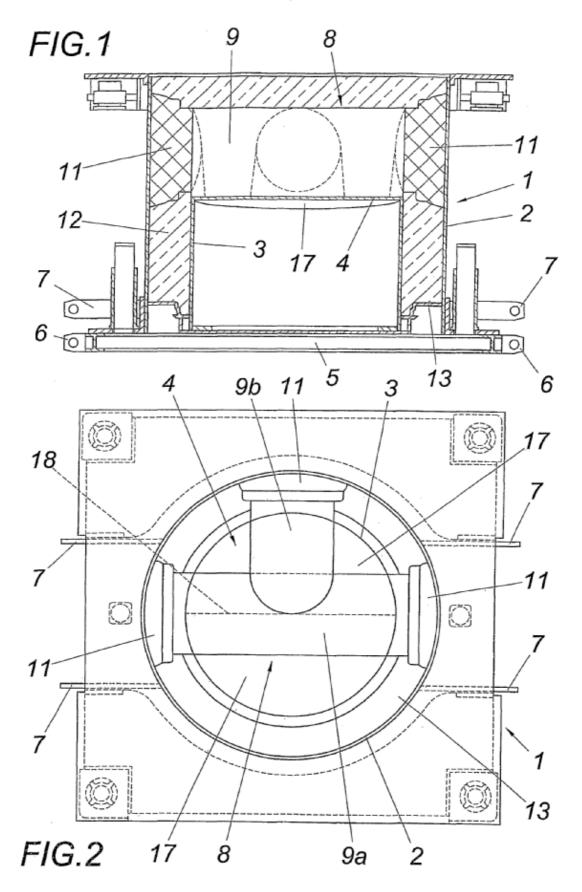


B28B 7/168

[N: for holders or similar hollow articles, e.g. vaults, sewer pits]

Definition statement

This subclass/group covers:

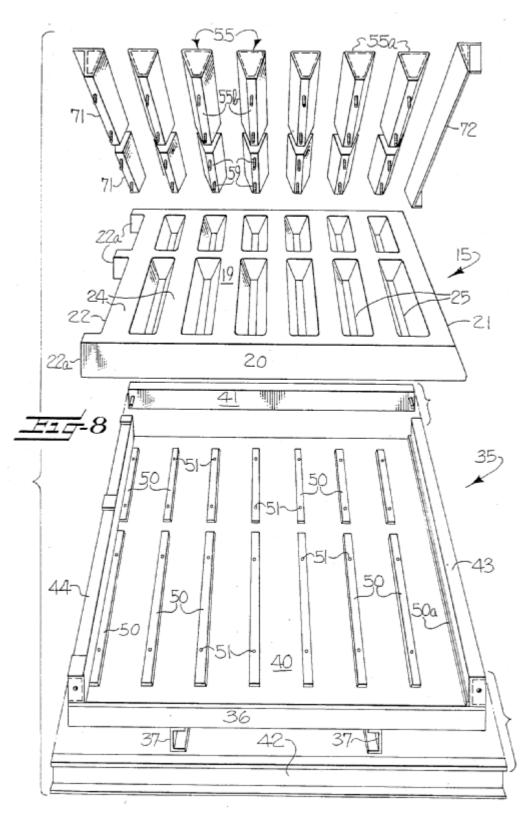


the holes passing completely through the article

Definition statement

This subclass/group covers:

U.S. Patent Jan. 1, 1991 Sheet 3 of 4 4,981,428



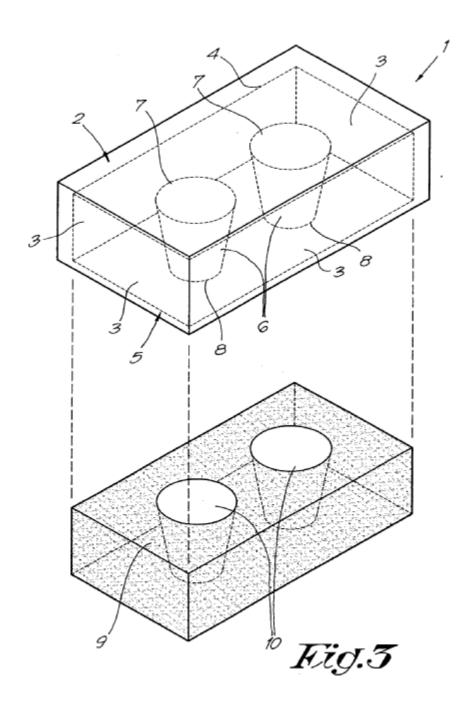
B28B 7/183

[N: for building blocks or similar block-shaped objects]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



B28B 7/186

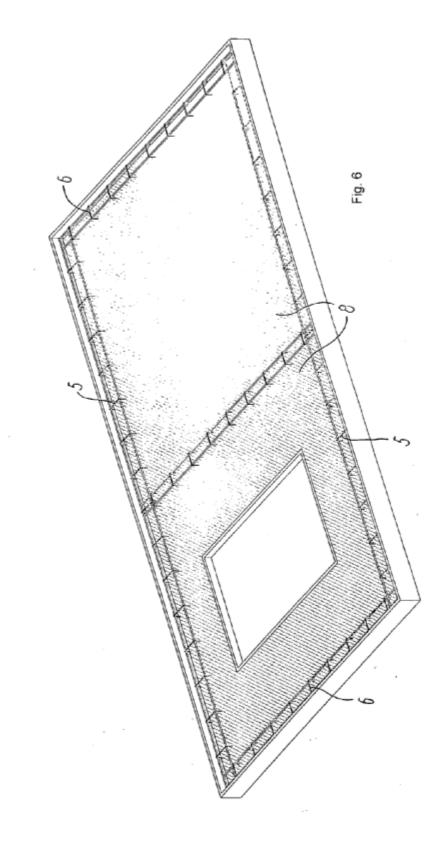
[N: for plates, panels or similar sheet- or disc-shaped objects, also flat oblong moulded articles with lateral openings, e.g.

panels with openings for doors or windows, grated girders]

Definition statement

This subclass/group covers:

EP 2 224 071 A2



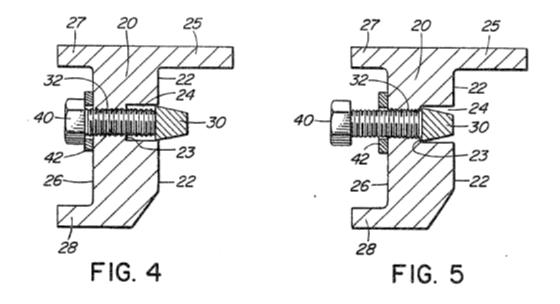
B28B 7/20

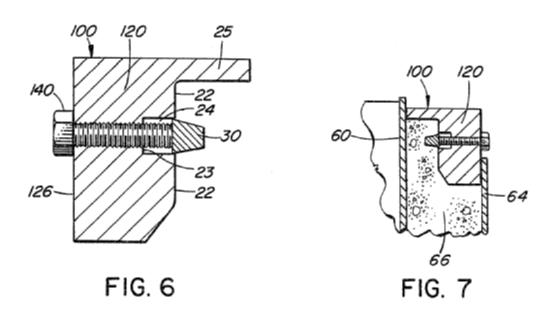
Moulds for making shaped articles with undercut recesses, e.g. dovetails

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:





B28B 7/22

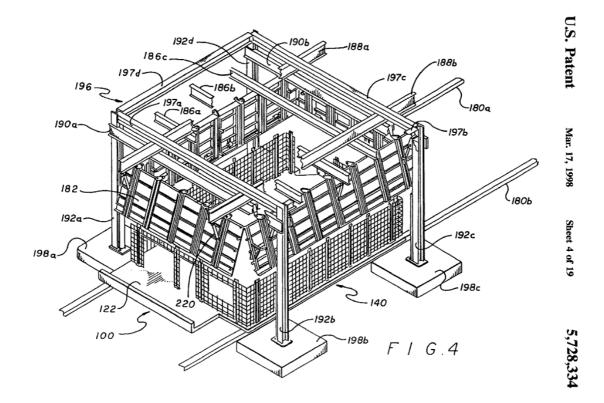
Moulds for making units for prefabricated buildings [N: e.i. units which each comprise an important section of at least

two limiting planes of a room or space, e.g. cells (for making rooms or entire buildings in situ E04G11/02)]; Moulds for making prefabricated stair units

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

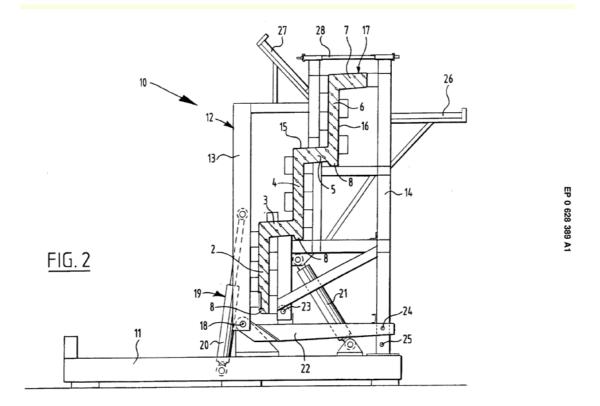


B28B 7/225

[N: for making stairs or stair units comprising more than one step (in situ E04G13/06)]

Definition statement

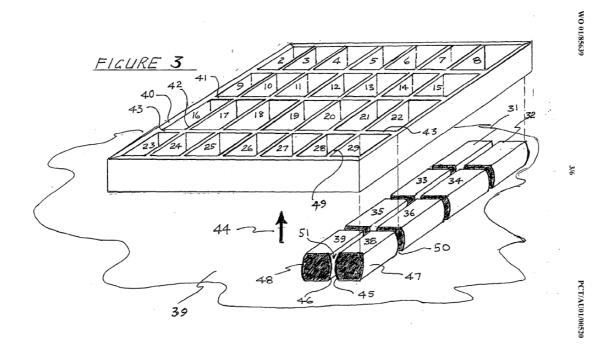
This subclass/group covers:



Unitary mould structures with a plurality of moulding spaces, [N: e.g. moulds divided into multiple moulding spaces by integratable partitions, mould part structures providing a number of moulding spaces in mutual co-operation (assemblies of individually complete moulds B28B7/26)]

Definition statement

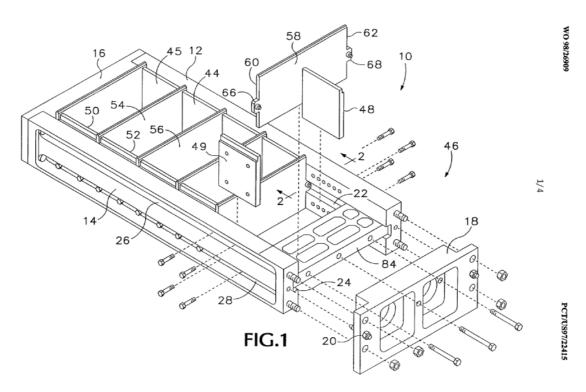
This subclass/group covers:



[N: Detachable assemblies of mould parts providing only in mutual co-operation a number of complete moulding spaces]

Definition statement

This subclass/group covers:



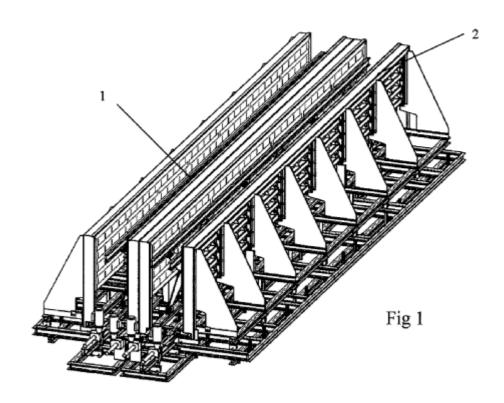
[N: for making plates, panels or similar sheet- or disc-shaped objects]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

1/4

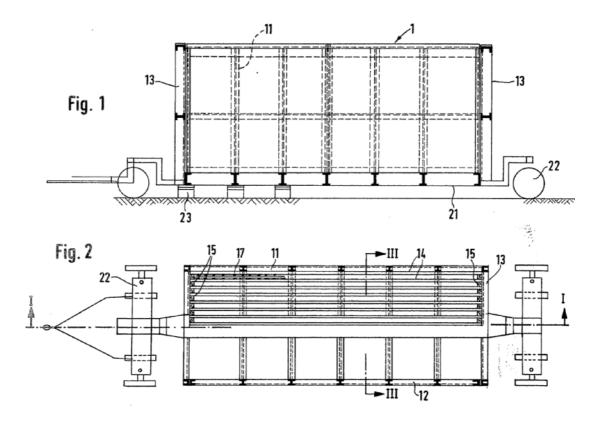


B28B 7/245

[N: using transportable mould batteries]

Definition statement

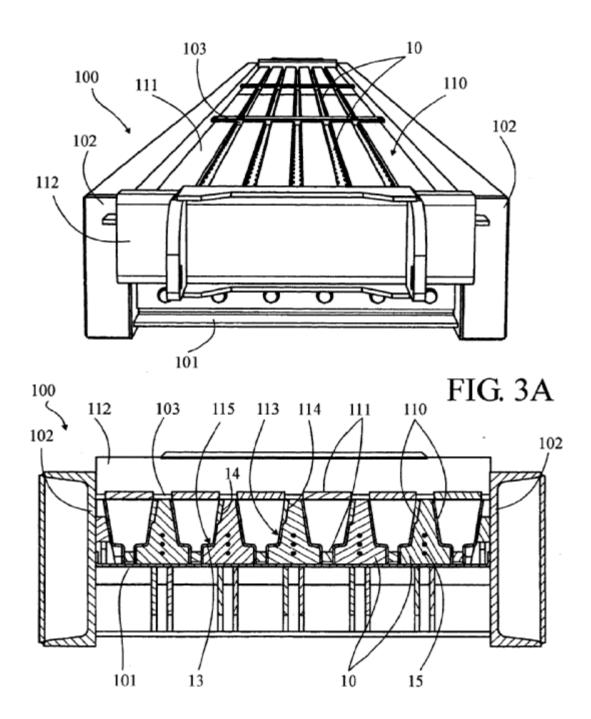
This subclass/group covers:



[N: for making oblong objects, e.g. girders]

Definition statement

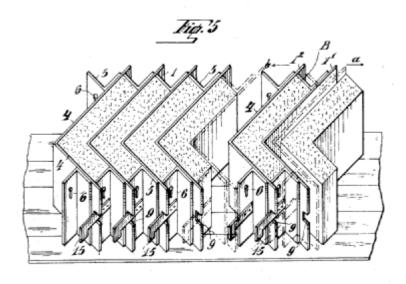
This subclass/group covers:



[N: using angle-shaped mould parts, e.g. L-parts]

Definition statement

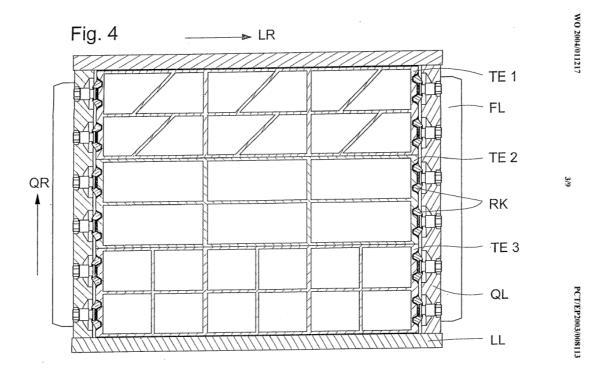
This subclass/group covers:



Assemblies of separate moulds [N: i.e. of moulds or moulding space units, each forming a complete mould or moulding space unit independently from each other]

Definition statement

This subclass/group covers:

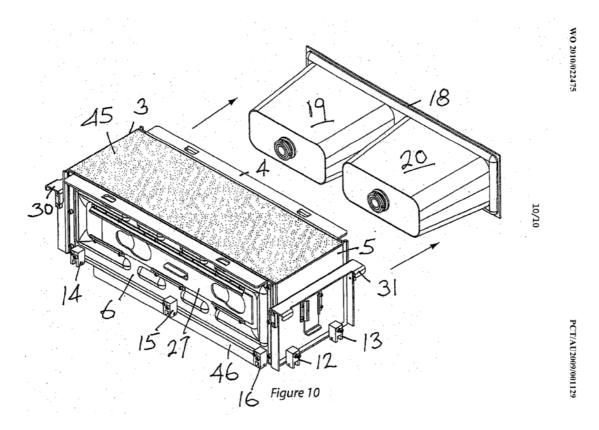


Cores; Mandrels [N: (B28B1/44 takes precedence; of special materials in general B28B7/34; cores for making blind holes in situ E04G15/04; for making recesses E04G15/06)]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



References relevant to classification in this group

This subclass/group does not cover:

Embedding lost cores, see	B28B 23/0068
By forcing cores into filled moulds for forming hollow articles	B28B 1/44

Informative references

Attention is drawn to the following places, which may be of interest for search:

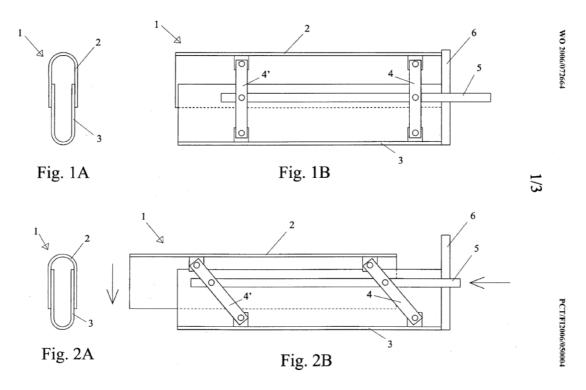
Of special materials in general	B28B 7/34

adjustable, collapsible, or expanding [N: (for making tubular objects B28B21/88)]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated into a larger system:

Adjustable, collapsible or expansible	B28B 21/88
cores for the production of tubular	
articles	

B28B 7/303

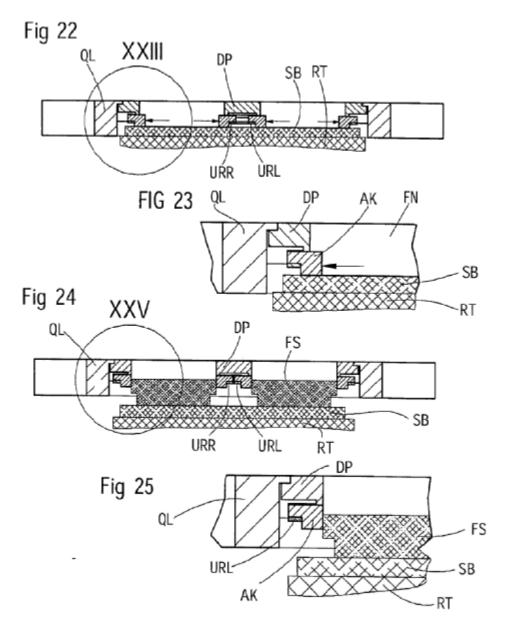
[N: specially for making undercut recesses or continuous

cavities the inner section of which is superior to the section of either of the mouths]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



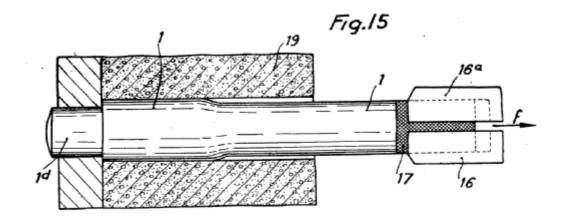
B28B 7/306

[N: pliable or extensible]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



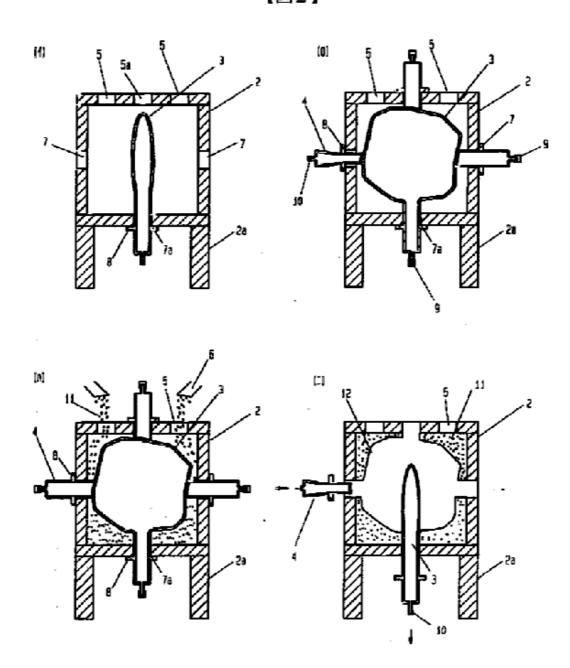
B28B 7/32

inflatable [N: (connection of valves to inflatable elastic bodies B60C29/00)]

Definition statement

This subclass/group covers:

【図2】



References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated into a larger system:

Using inflatable cores for the	B28B 21/20
production of tubular articles	

[N: specially for making moulded articles from concrete with exposed aggregate]

Definition statement

This subclass/group covers:

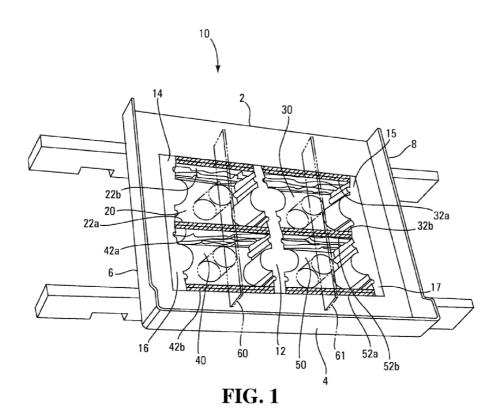
For example wax paper or a retarder directly applied to the surface moulding cavity.

B28B 7/366

[N: Replaceable lining plates for press mould]

Definition statement

This subclass/group covers:



[N: with liquid material, e.g. lubricating]

References relevant to classification in this group

This subclass/group does not cover:

Specially for making moulded articles	B28B 7/342
from concrete with exposed	
aggregate.	

B28B 7/40

characterised by means for modifying the properties of the moulding material

Definition statement

This subclass/group covers:

The properties of the moulding material are modified while the article is still in contact with the mould, core, mandrel.

B28B 7/42

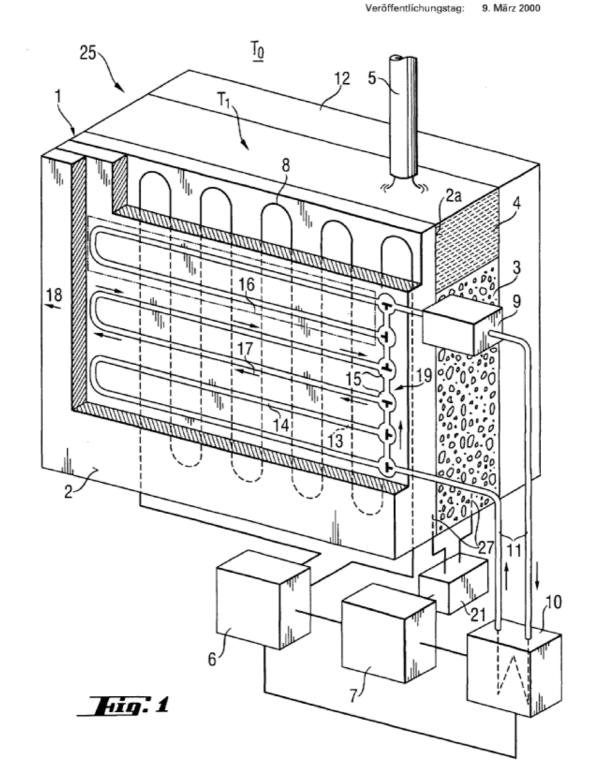
for heating or cooling, e.g. steam jackets, [N: by means of treating agents acting directly on the moulding material]

Definition statement

This subclass/group covers:

ZEICHNUNGEN SEITE 1

Nummer: Int. Cl.⁷: DE 198 37 110 C1 B 28 B 7/42 9. März 2000



References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated into a larger

system:

Moulds with heating or cooling means for the production of tubular articles	B28B 21/78

B28B 7/44

for treating with gases or degassing, e.g. for de-aerating [N: (treating with hot gases or vapour B28B7/42)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

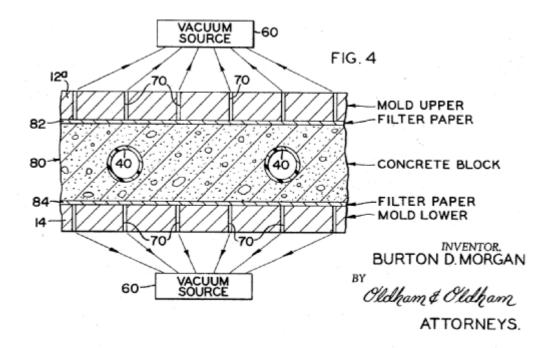
For chemical aspects of treating with	<u>C04B</u>
gasses, for example treatment of	
concrete with CO2-gas.	

B28B 7/46

for humidifying or dehumidifying

Definition statement

This subclass/group covers:



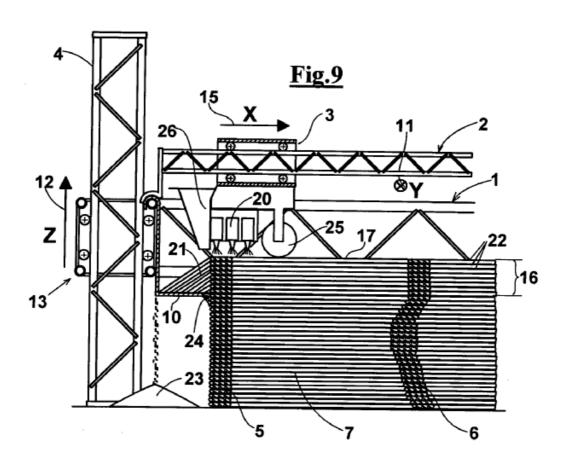
[N: Applying setting liquid to dry mixtures]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

WO 2009/037550 PCT/IB2008/002425 4/10



Informative references

Attention is drawn to the following places, which may be of interest for search:

Rapid manufacturing and prototyping	B29C 67/0081
of 3D objects by using a combination	
of solid and liquid materials	

B28B 11/00

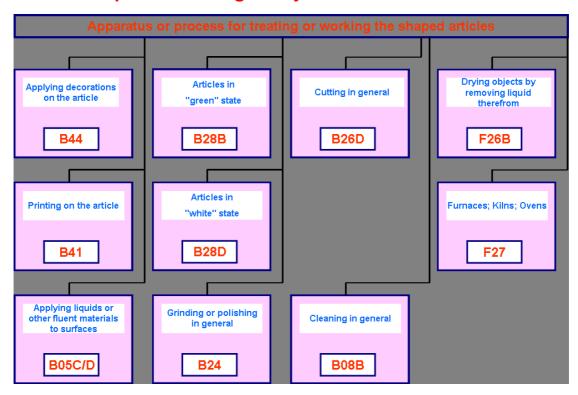
Apparatus or processes for treating or working the shaped [N: or preshaped] articles (specially adapted for tubular articles B28B21/92; decoration or surface treatment in general B05, B44; compacting concrete in situ in connection with building E04G21/06; drying F26)

Definition statement

This subclass/group covers:

The shaped articles being treated or worked are still in a green state.

Relationship between large subject matter areas



References relevant to classification in this group

This subclass/group does not cover:

Places excluded by precedence rules:

B28D working stone or stone like materials

Informative references

Attention is drawn to the following places, which may be of interest for search:

Grinding; Polishing	B24
Drying	F26

Furnaces; Kilns; Ovens; Retorts	F27
Decoration or surface treatment in general	B44, B05

B28B 11/003

[N: the shaping of preshaped articles, e.g. by bending (B28B11/08 takes precedence)]

Definition statement

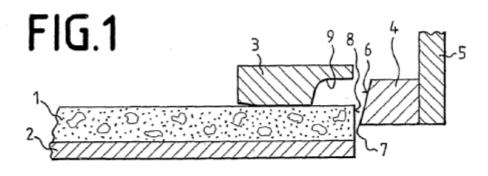
This subclass/group covers:

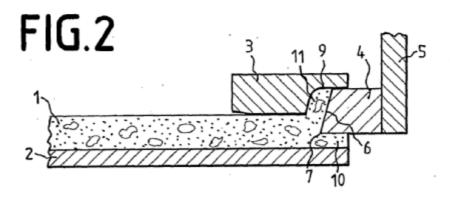
Illustrative example of subject matter classified in this group:

WO 2006/094759

PCT/EP2006/002079

1/5





References relevant to classification in this group

This subclass/group does not cover:

For reshaping the surface	B28B 11/08
	139

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated into a larger system:

1 1 5	B28B 21/98
tubular articles	

B28B 11/006

[N: Making hollow articles or partly closed articles]

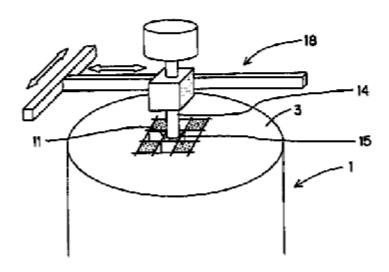
Definition statement

This subclass/group covers:

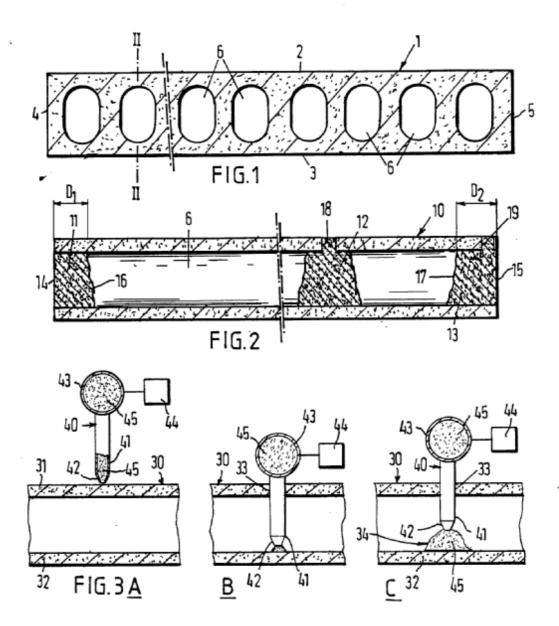
Plugging ceramic honeycomb filters.

(10) 特開2006-116483(P2006-116483A)

【図2】



and other techniques



Informative references

Attention is drawn to the following places, which may be of interest for search:

Honeycombs characterised by the	B01D 46/24F6P
plugs	

B28B 11/02

for attaching appendages, e.g. handles, spouts

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

EP 0 371 589 A1

FIG. 6 (a)

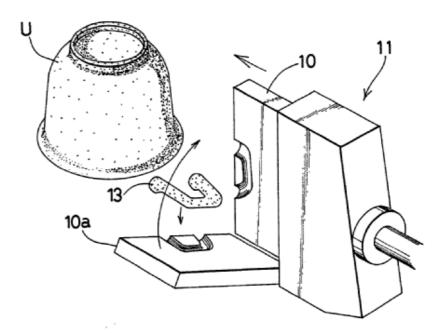
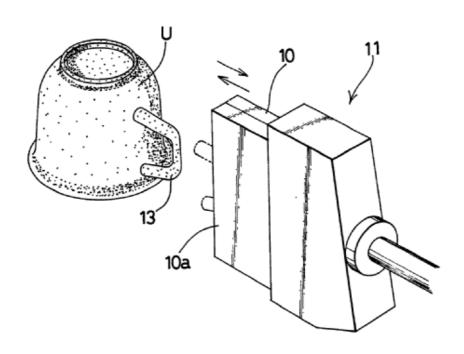


FIG. 6 (b)



B28B 11/04

for coating [N: or applying engobing layers] (glazing, engobing C04B)

Relationship between large subject matter areas

In case the coating has a decorative purpose classify also in: <u>B28B 11/001</u>

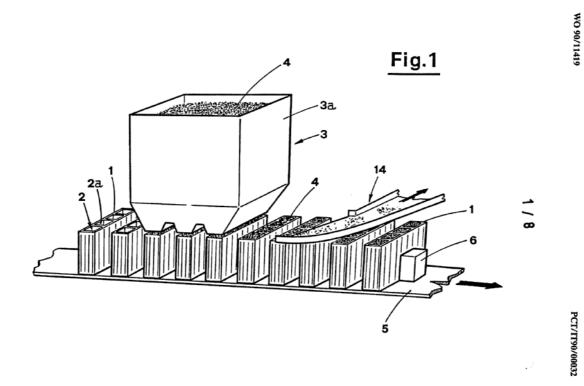
B28B 11/042

[N: with insulating material]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

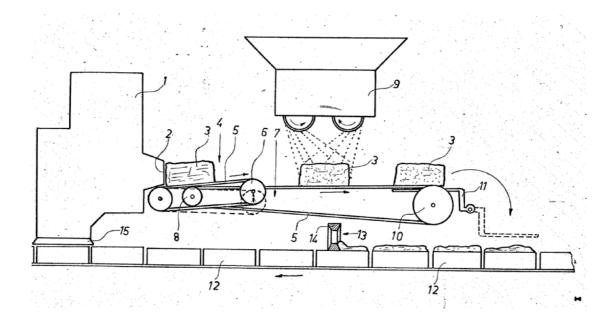


B28B 11/06

with powdered or granular material, [N: e.g. sanding of shaped articles]

Definition statement

This subclass/group covers:



B28B 11/08

for reshaping the surface, e.g. smoothing, roughening, corrugating, making screw-threads

Definition statement

This subclass/group covers:

Working the surface of a formed green article or intermediate product which can still be (partly) in the mould or which has been demoulded,

References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated into a larger system:

Methods or apparatus for smoothing,	B28B 21/96
roughening, corrugating of tubular	
articles	

Informative references

Attention is drawn to the following places, which may be of interest for search:

General field for grinding and	B24
polishing	

B28B 11/0863

[N: for profiling, e.g. making grooves]

References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated into a larger system:

Profiling of plates such as asbestos cement sheets	B28B 11/0827
Cernent Sheets	

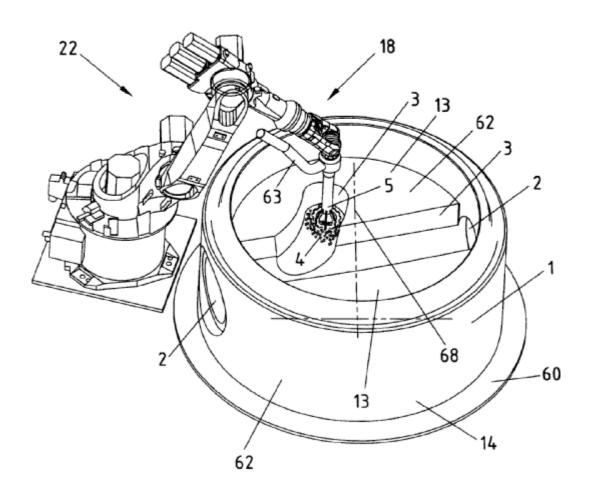
B28B 11/12

for removing parts of the articles by cutting

Definition statement

This subclass/group covers:

Fig.1



References relevant to classification in this group

This subclass/group does not cover:

By removing material from solid section preforms for forming hollow articles, e.g. by punching or boring	B28B 1/48
--	-----------

Attention is drawn to the following places, which may be of interest for search:

Cutting; details common to machines	<u>B26D</u>
for severing	

B28B 11/125

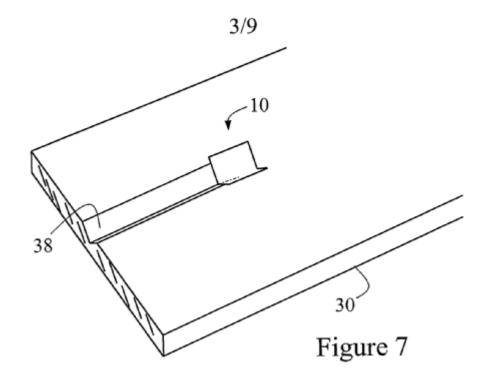
[N: Cutting-off protruding ridges, also profiled cutting]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

WO 2005/011937 PCT/AU2004/000945



B28B 11/14

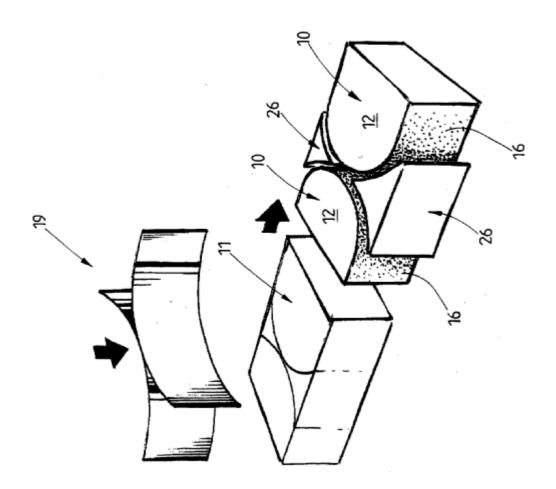
for dividing shaped articles by cutting

Definition statement

This subclass/group covers:

Dividing a pre-form by a cutting action in two or more products.

DE 10 2006 022 267 A1 2007.11.15



Informative references

Attention is drawn to the following places, which may be of interest for search:

Separating article from each other per	B28B 17/0018
se	

B28B 11/145

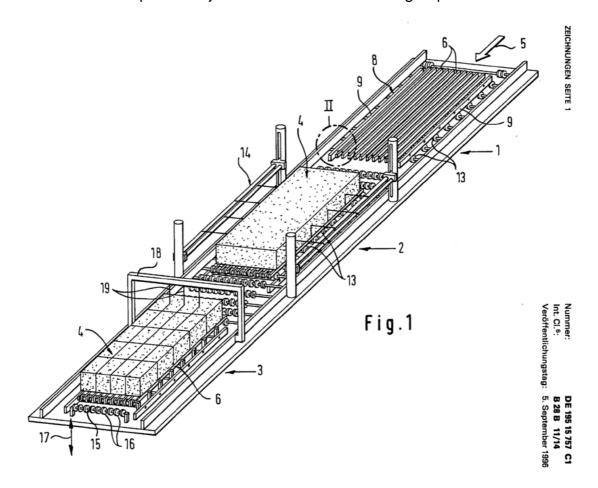
[N: for dividing block-shaped bodies of expanded materials,

e.g. cellular concrete]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



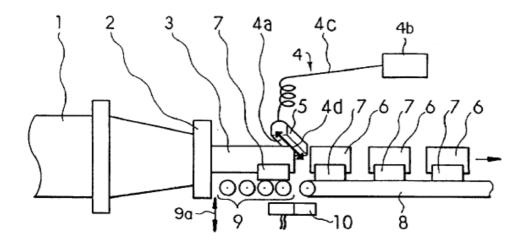
B28B 11/16

for extrusion [N: or for materials supplied in long webs]

Definition statement

This subclass/group covers:

FIG. 1A



B28B 11/18

for removing burr [(N: combined with the mould B28B7/0058)]

References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated into a larger system:

Methods or apparatus for removing burr from tubular articles	B28B 21/96

B28B 11/22

for cleaning

References relevant to classification in this group

This subclass/group does not cover:

,	B28B 7/386
mandrels	

Attention is drawn to the following places, which may be of interest for search:

Cleaning in general	<u>B08B</u>

B28B 11/24

for curing, setting or hardening (processes for influencing or modifying the setting or hardening ability of mortars, concrete or artificial stone compositions, in general C04B40/00)

References relevant to classification in this group

This subclass/group does not cover:

Mould, cores and mandrels characterised by means for modifying the properties of the moulding material	B28B 7/40

Informative references

Attention is drawn to the following places, which may be of interest for search:

Pressure vessels, e.g. autoclaves	<u>B01J 3/04</u>
Processes for influencing or modifying the setting or hardening ability of mortars, concrete or artificial stone compositions, in general	C04B 40/00
Drying objects by removing liquid therefrom	<u>F26B</u>
Furnaces; Kilns; Ovens, Retorts	F27

B28B 11/243

[N: Setting, e.g. drying, dehydrating or firing ceramic articles

(B28B11/242 takes precedence)]

References relevant to classification in this subclass/group

This subclass/group does not cover:

By passing an electric current through	B28B 11/242
wires, rods or reinforcing members	
incorporated in the article	

Informative references

Attention is drawn to the following places, which may be of interest for search:

Processing powders of inorganic compounds preparatory to the manufacturing of ceramic products	C04B 35/00
--	------------

B28B 13/00

Feeding the unshaped material to moulds or apparatus for producing shaped articles; Discharging shaped articles from such moulds or apparatus (feeding or discharging devices incorporated in, or operatively associated with, a particular type of shaping apparatus, or specially designed to supply materials to a particular type of shaping apparatus, see the relevant groups for the apparatus)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Feeding material to presses	B30B 15/30
Filling moulds with powder	B22F 3/004

B28B 13/02

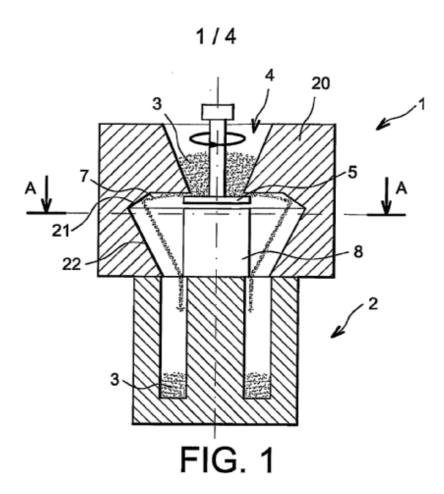
Feeding the unshaped material to moulds or apparatus for producing shaped articles

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

WO 2005/051576 PCT/FR2004/050618



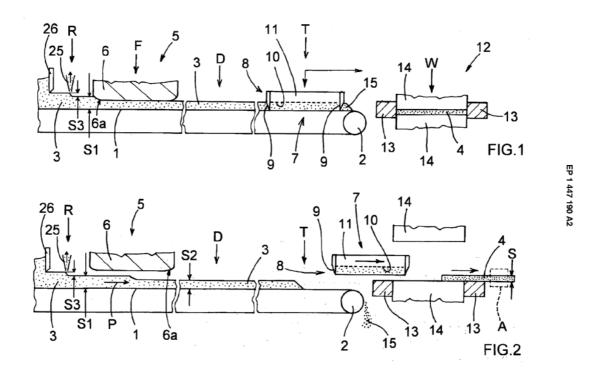
B28B 13/0205

[N: supplied to the moulding device in form of a coherent mass of material, e.g. a lump or an already partially preshaped tablet, pastil or the like]

Definition statement

This subclass/group covers:

The coherent mass of material has been pre-shaped, -formed, -compacted in a seperate apparatus



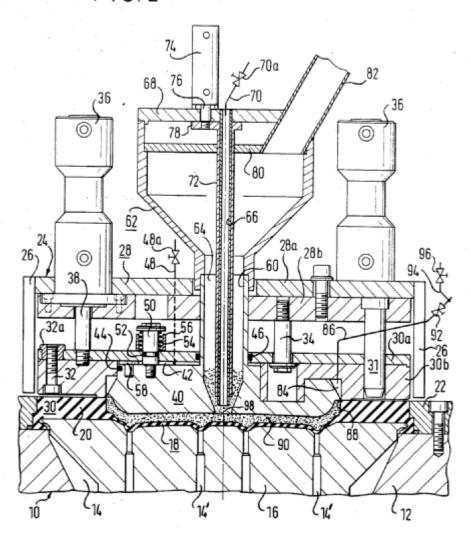
B28B 13/021

[N: by fluid pressure acting directly on the material, e.g. using vacuum, air pressure]

References relevant to classification in this group

This subclass/group does not cover:

F1G. 2

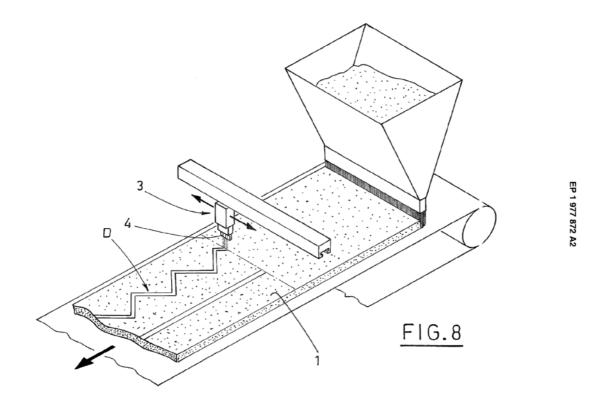


B28B 13/022

[N: Feeding several successive layers, optionally of different materials]

Definition statement

This subclass/group covers:



References relevant to classification in this group

This subclass/group does not cover:

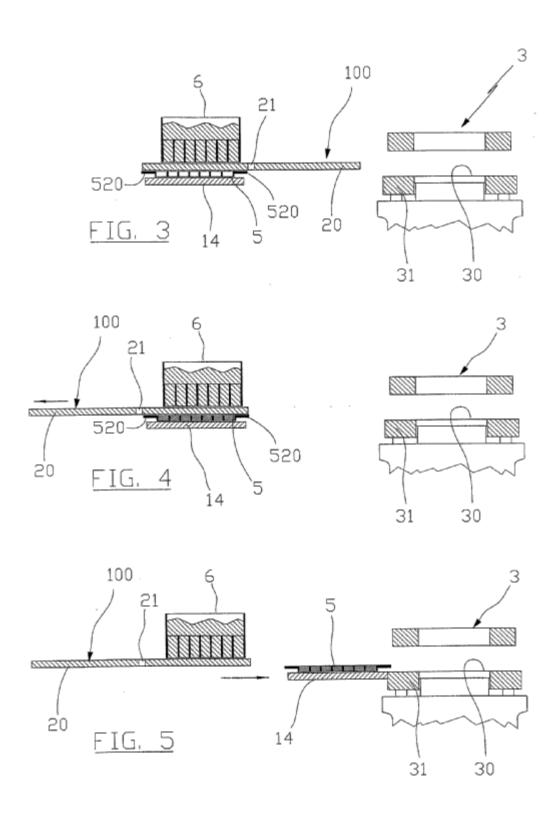
Producing layered article by simple	B28B 1/16
casting	

B28B 13/023

[N: by using a feed box transferring the moulding material from a hopper to the moulding cavities]

Definition statement

This subclass/group covers:



Attention is drawn to the following places, which may be of interest for search:

By using feed frames or shoes with relative movement	B30B 15/304

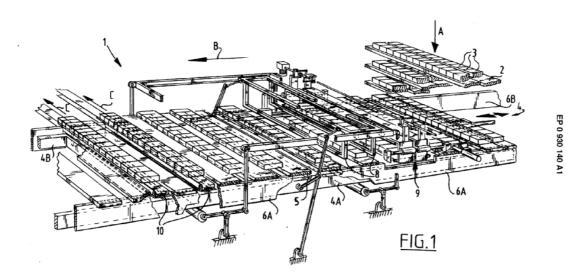
B28B 13/04

Discharging the shaped articles ([N: discharging tubular articles after shaping B28B21/90;] conveying systems for ceramic mouldings B65G49/08)

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated into a larger system:

Methods or apparatus for discharging	B28B 21/90
after shaping tubular articles	

B28B 13/06

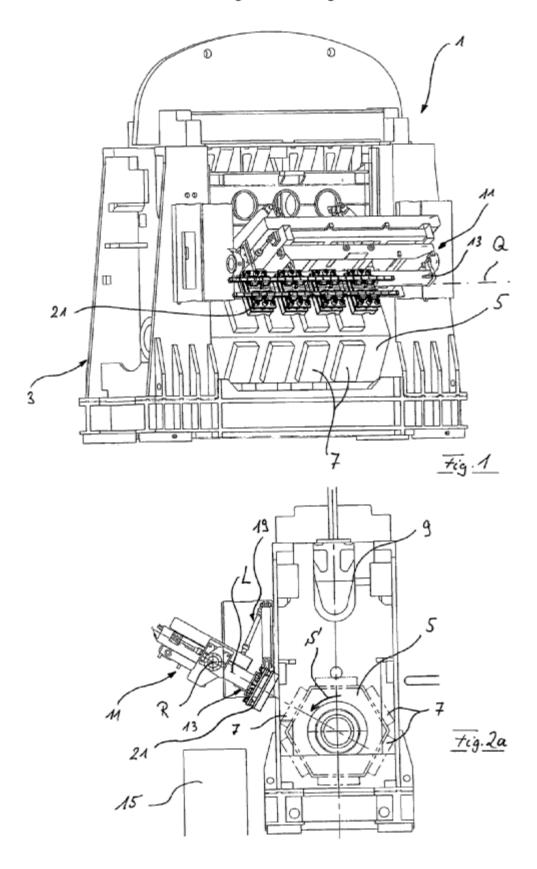
Removing the shaped articles from moulds (by means incorporated in, or carried by, the moulds B28B7/10)

Definition statement

This subclass/group covers:

DE 10 2009 013 382 A1 2010.09.23

Anhängende Zeichnungen



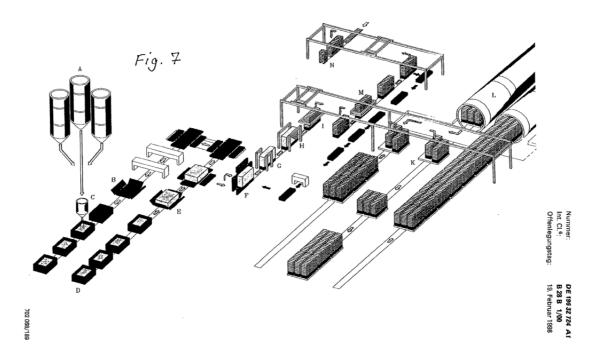
B28B 15/00

General arrangement or lay-out of plant [N: Industrial outlines, plant installations]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



B28B 15/002

[N: Mobile plants, e.g. on vehicles or on boats]

Definition statement

This subclass/group covers:

e.g. mobile plants that can be broken-down for transport.

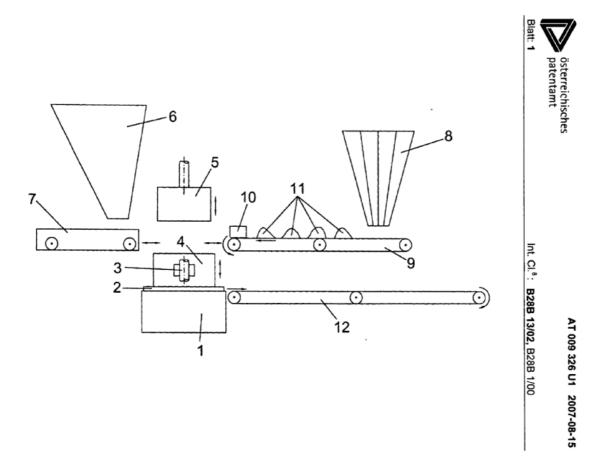
B28B 15/005

[N: Machines using pallets co-operating with a bottomless mould; Feeding or discharging means for pallets (Feeding pallets for making a continuous moulding surface B28B5/025, B28B5/028)]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

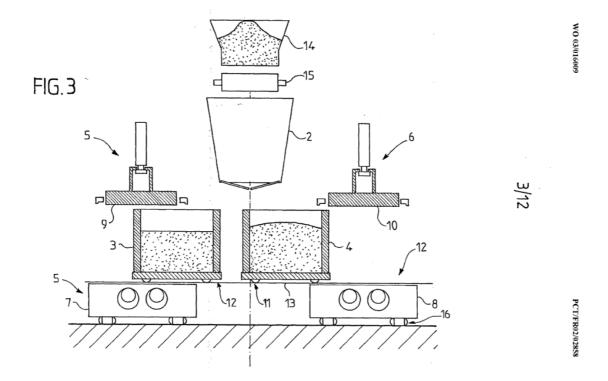


B28B 15/007

[N: Plant with two or more identical shaping or moulding devices]

Definition statement

This subclass/group covers:



B28B 17/00

Details of, or accessories for, apparatus for shaping the material; Auxiliary measures taken in connection with such shaping (moulds HYPERLINK "sfpluscla://ECLA/B28B7/00" B28B7/00; after-treatment HYPERLINK "sfpluscla://ECLA/B28B11/00" B28B11/00; feeding or discharging HYPERLINK "sfpluscla://ECLA/B28B13/00" B28B13/00; arrangements for embedding elements in the material HYPERLINK "sfpluscla://ECLA/B28B23/00" B28B23/00; details, accessories, or auxiliary measures special to any one type of shaping, machine or method of shaping, see the relevant groups for such machines or methods)

B28B 17/0018

[N: Separating articles from each other]

Definition statement

This subclass/group covers:

Fig. 4

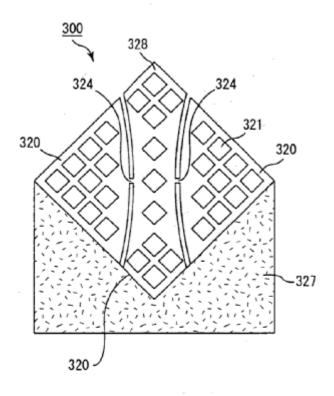
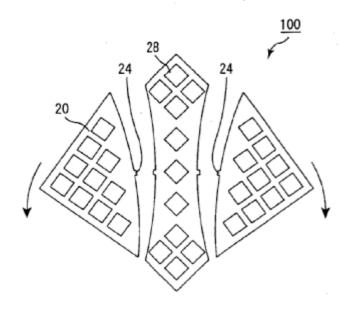


Fig. 5

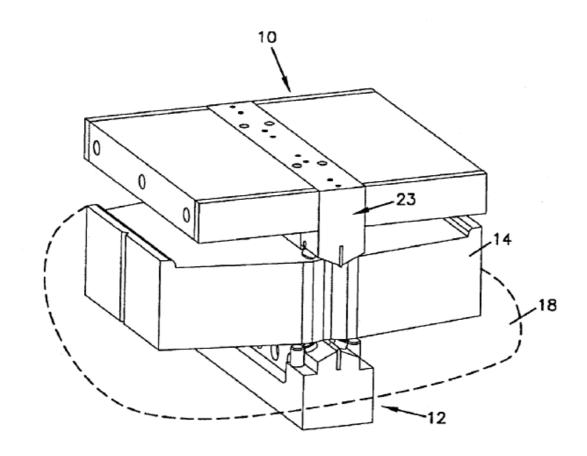


B28B 17/0027

[N: Accessories for obtaining rubblestones]

Definition statement

This subclass/group covers: E.g. block splitting assembly



Informative references

Attention is drawn to the following places, which may be of interest for search:

Cutting by pressing stone or stone-like materials	B28D 1/222

B28B 17/0036

[N: Cutting means, e.g. water jets]

Definition statement

This subclass/group covers:

This subgroup is complementary to <u>B28B 11/12</u>, <u>B28B 11/14</u> and subgroups.

Attention is drawn to the following places, which may be of interest for search:

Cutting in general	<u>B26D</u>

B28B 17/0045

[N: Tensioning devices for cutting means]

References relevant to classification in this group

This subclass/group does not cover:

Tensioning means for cutters in	B26D 1/48
general	

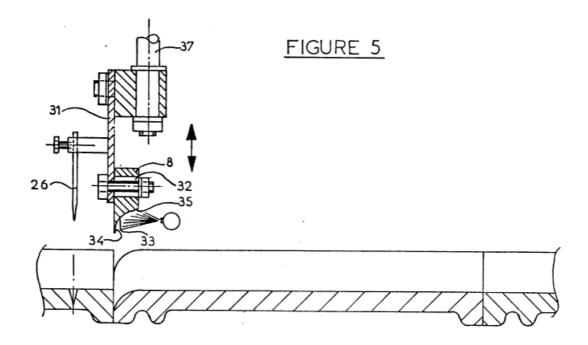
B28B 17/0054

[N: Cleaning devices for cutting means]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



B28B 17/0063

[N: Control arrangements]

Definition statement

This subclass/group covers:

Control arrangements for both product inspection and operating conditions.

Informative references

Attention is drawn to the following places, which may be of interest for search:

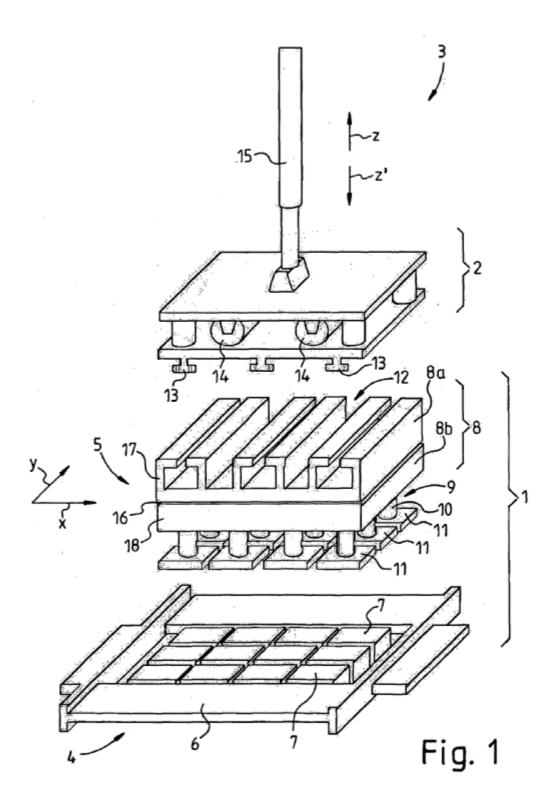
Measuring; Testing	G01
Controlling; Regulating	G05

B28B 17/009

[N: Changing the forming elements, e.g. exchanging moulds, dies]

Definition statement

This subclass/group covers:



Attention is drawn to the following places, which may be of interest for search:

Mounting of dies, platens or press	B30B 15/026
rams	
	168

B28B 17/02

Conditioning the material prior to shaping [N: (for mixtures containing clay or cement B28C)]

References relevant to classification in this group

This subclass/group does not cover:

Mixing per se	<u>B01F</u> , <u>B28C</u>

B28B 19/00

Machines or methods for applying the material to surfaces to form a permanent layer thereon (making shaped articles on mandrels B28B1/30; applying liquids or other fluent materials to surfaces in general B05C; glazing or engobing C04B; applying the material to walls or other fixed structures, see the relevant classes of section E)

Informative references

Attention is drawn to the following places, which may be of interest for search:

Layered products essentially	B32B 13/00
comprising a water-setting substance	

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

In this group, the following terms are used with the meaning indicated:

The material	(a) clay or other ceramic compositions; (b) slag;(c) mixtures with water-setting properties given by clay, cementitious material, or slag.
Surfaces	any kind of surface not restricted to any type of material

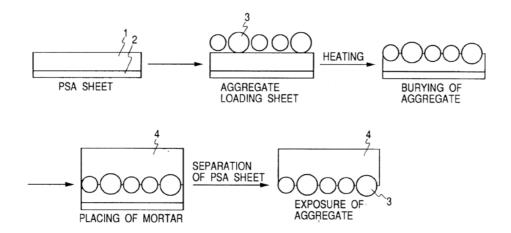
B28B 19/0007

[N: for producing articles with exposed aggregate]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



B28B 19/0023

[N: Lining the inner wall of hollow objects, e.g. pipes]

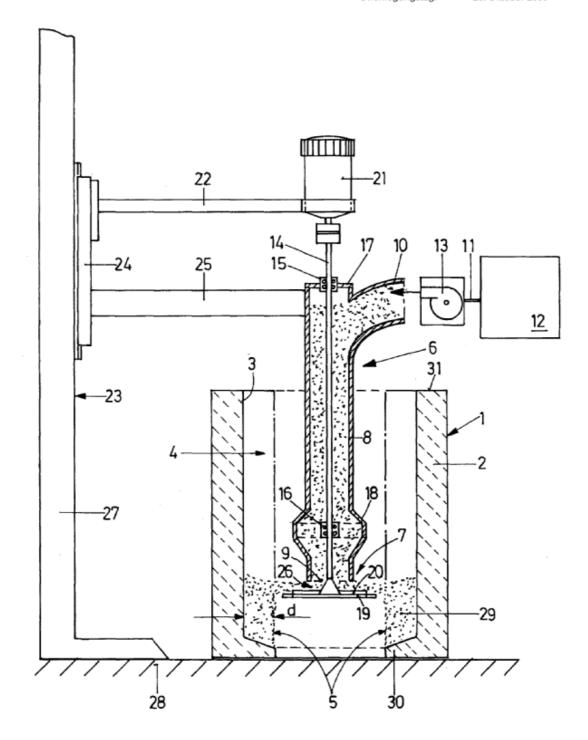
Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

EP 0 594 303 A1

Nummer: Int. Cl.⁷: Offenlegungstag: DE 199 17 669 A1 B 28 B 1/24 26. Oktober 2000



References relevant to classification in this group

This subclass/group does not cover:

Incorporating steel tubes in the production of tubular articles	B28B 21/58

Attention is drawn to the following places, which may be of interest for search:

Devices or appurtenances for use in, or in connection with, pipes or pipe systems	F16L 55/00
Protection of pipes or pipe fittings against corrosion or incrustation	F16L 58/00

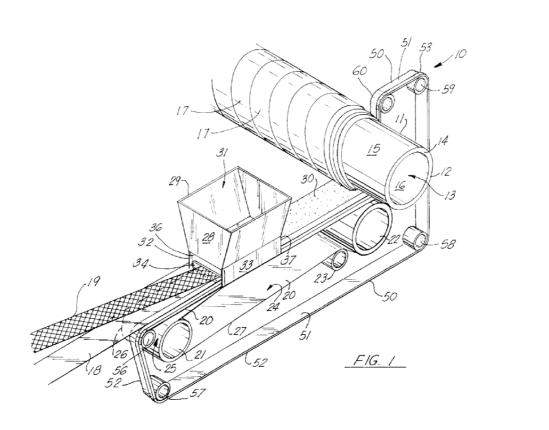
B28B 19/0038

[N: lining the outer wall of hollow objects, e.g. pipes]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



References relevant to classification in this group

This subclass/group does not cover:

Mar. 30,

Incorporating steel tubes in the production of tubular articles	B28B 21/58

Attention is drawn to the following places, which may be of interest for search:

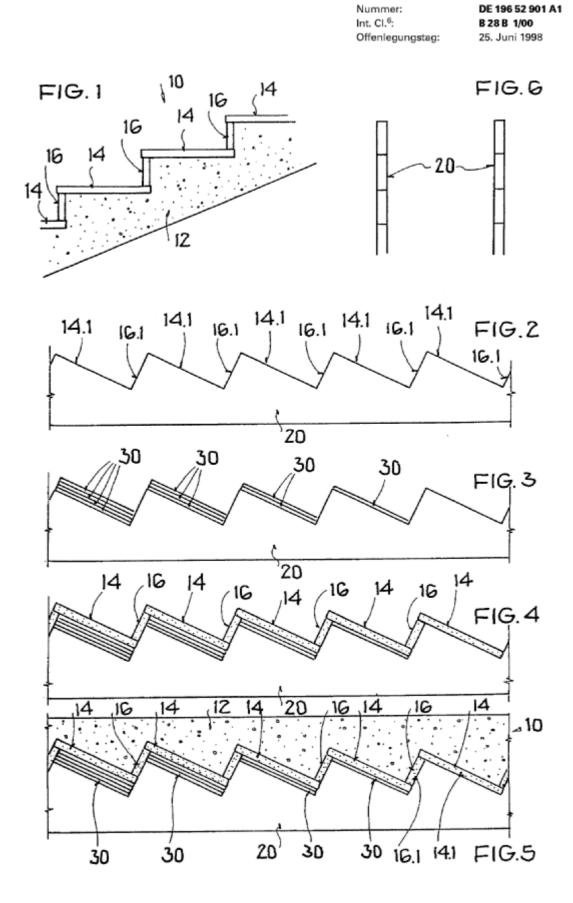
Devices or appurtenances for use in, or in connection with, pipes or pipe systems	F16L 55/00
Protection of pipes or pipe fittings against corrosion or incrustation	F16L 58/00

B28B 19/0053

[N: to tiles, bricks or the like]

Definition statement

This subclass/group covers:



Relationship between large subject matter areas

References relevant to classification in this group

This subclass/group does not cover:

Apparatus for handling the smaller	E04C 2/042
elements or the hardenable material;	
bricklaying machines for prefabricated	
panels	

Informative references

Attention is drawn to the following places, which may be of interest for search:

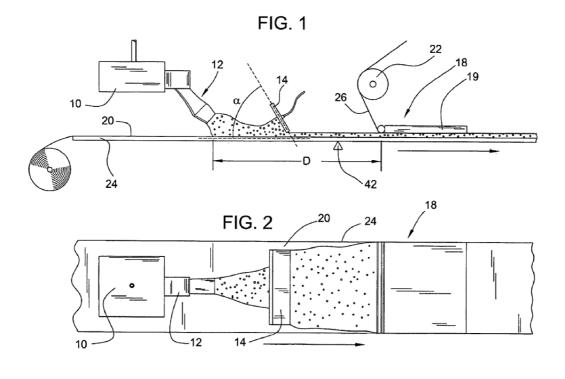
Bricklaying machines in general	E04G 21/22

B28B 19/0092

[N: to webs, sheets or the like, e.g. of paper, cardboard]

Definition statement

This subclass/group covers:



Relationship between large subject matter areas

In case the webs, sheets or the like are also reinforcing members, also classify in:

- <u>B28B 23/0006</u> The reinforcement consisting of aligned, non-metal reinforcing elements.
- B28B 23/02 In case of reinforcements made of metal.

Final products per se: <u>E04C 2/043</u> Building elements of plaster.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Methods or apparatus for laminating	B32B 37/00

B28B 21/00

Methods or machines specially adapted for the production of tubular articles

Informative references

Attention is drawn to the following places, which may be of interest for search:

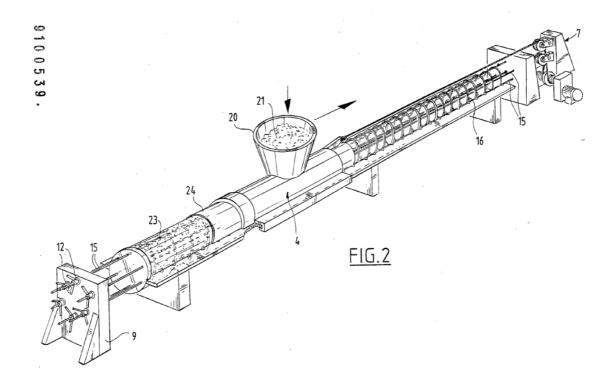
Pipes Joints or fittings for pipes	<u>F16L</u>

B28B 21/06

into moulds having sliding parts (B28B21/26 takes precedence; forms, shutterings, or falsework for making rooms as a whole, whole stories, or whole buildings in situ E04G11/02)

Definition statement

This subclass/group covers:



References relevant to classification in this subclass/group

This subclass/group does not cover:

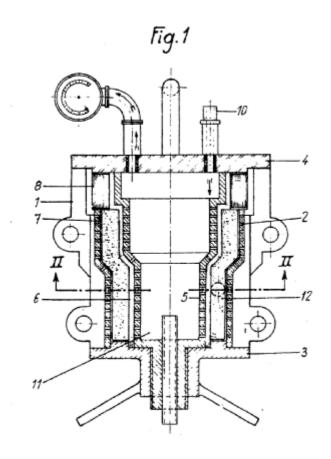
With a packer head serving as a	B28B 21/26
sliding mould or provided with guiding	
means for feeding the material	

B28B 21/08

by slip-casting; Moulds therefor

Definition statement

This subclass/group covers:

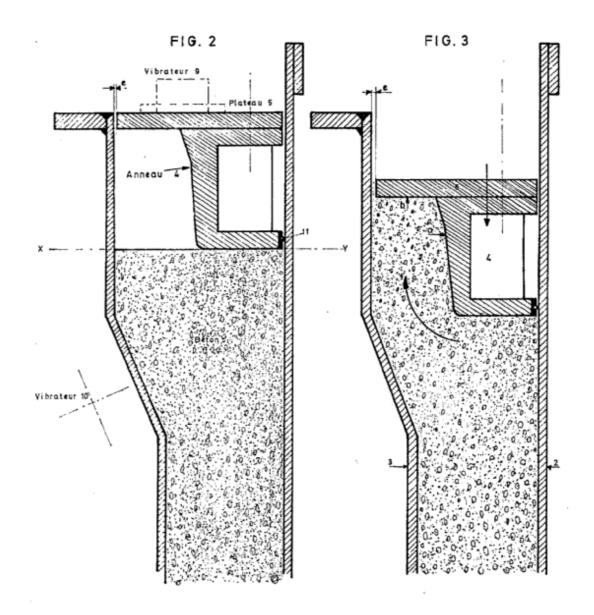


B28B 21/10

using compacting means

Definition statement

This subclass/group covers:

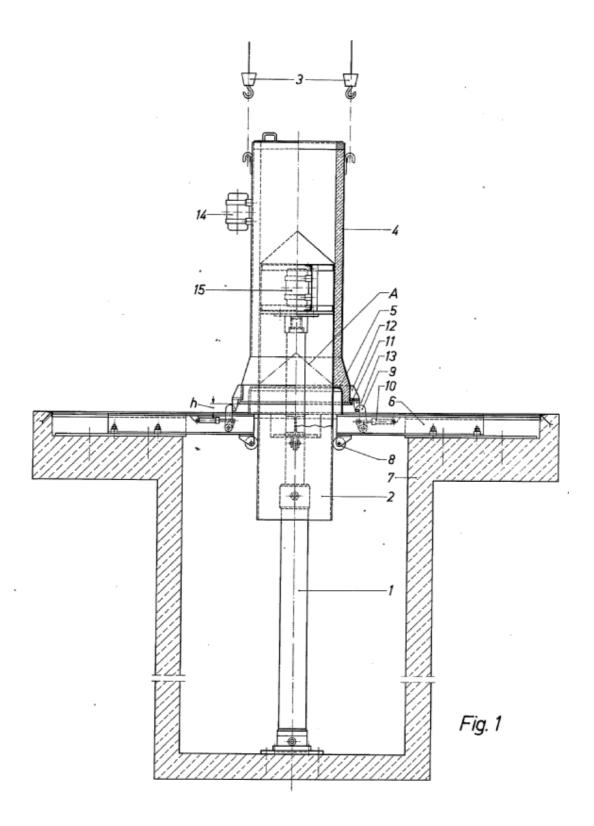


B28B 21/16

one or more mould elements

Definition statement

This subclass/group covers:



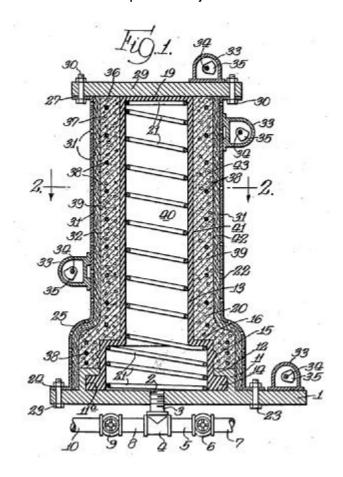
B28B 21/20

using inflatable cores, e.g. having a frame inside the inflatable part of the core (connection of valves to inflatable elastic bodies B60C29/00)

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

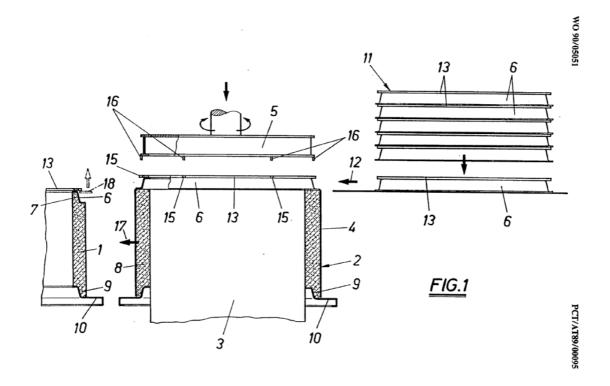


B28B 21/22

using rotatable mould or core parts

Definition statement

This subclass/group covers:

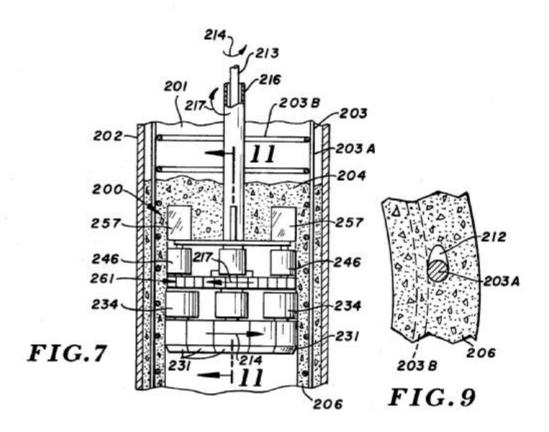


using compacting heads, rollers, or the like

Definition statement

This subclass/group covers:

Compacting heads, rollers, or the like when driven and suspended from above



Special rules of classification within this group

Compacting heads, rollers, or the like driven from beneath or followed by a sliding mould with particular inventive emphasis classify in:

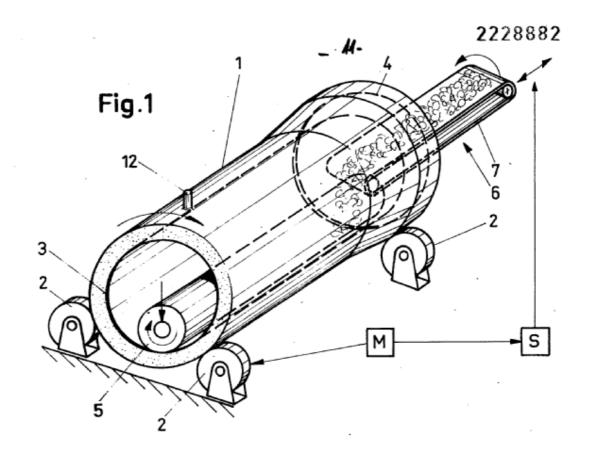
<u>B28B 21/26</u> With a packer head serving as a sliding mould or provided with guiding means for feeding the material.

B28B 21/245

[N: using a horizontal compacting roller in a horizontally rotatable mould]

Definition statement

This subclass/group covers:



References relevant to classification in this group

This subclass/group does not cover:

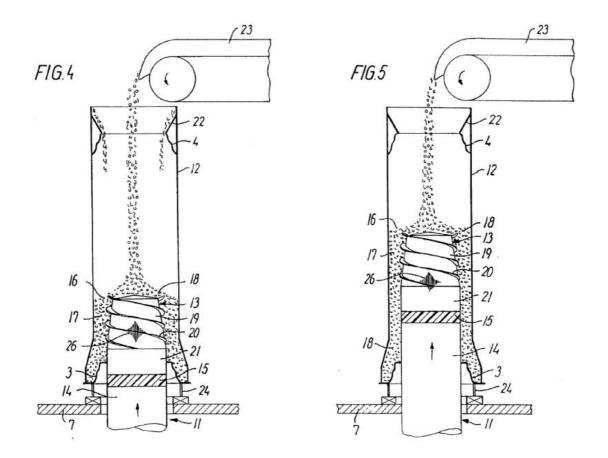
Centrifugal moulding for the production of tubular articles	B28B 21/30
production or take and an access	

B28B 21/26

with a packer head serving as a sliding mould or provided with guiding means for feeding the material

Definition statement

This subclass/group covers:



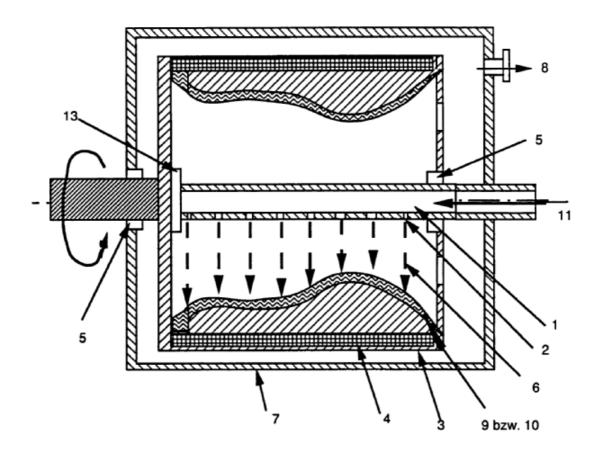
Centrifugal moulding

Definition statement

This subclass/group covers:

ZEICHNUNGEN SEITE 4 Nummer: DE 42 38 878 A1 Int. Cl.⁵: B 28 B 1/20

Offenlegungstag: 27. Mai 1993



References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated into a larger system:

Incorporating reinforcements and applying centrifugal forces	B28B 21/68
--	------------

B28B 21/305

[N: Moulding machines with vertical rotation axis]

Definition statement

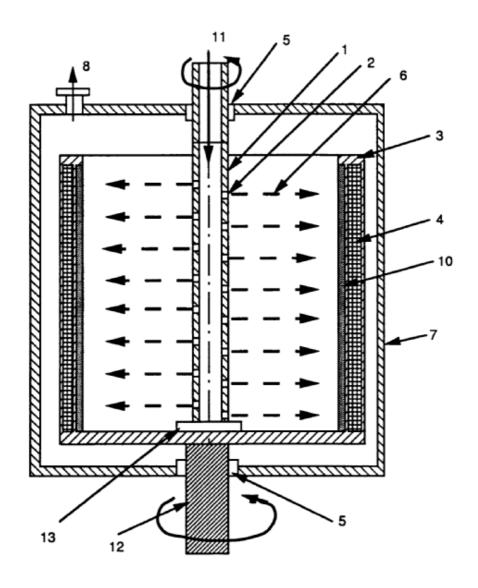
This subclass/group covers:

Illustrative example of subject matter classified in this group:

ZEICHNUNGEN SEITE 1

Nummer: Int. Cl.⁵: Offenlegungstag:

DE 42 38 878 A B 28 B 1/20 27. Mai 1993



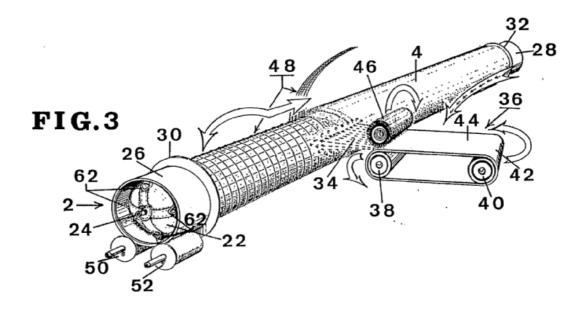
B28B 21/44

by projecting, e.g. spraying

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

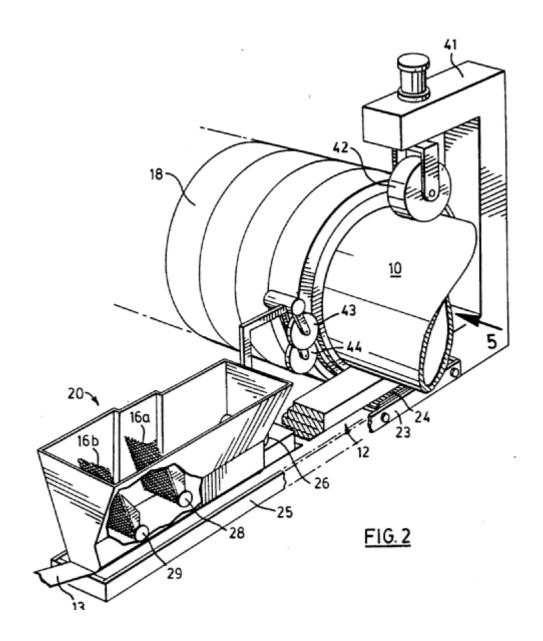


B28B 21/48

by wrapping, e.g. winding

Definition statement

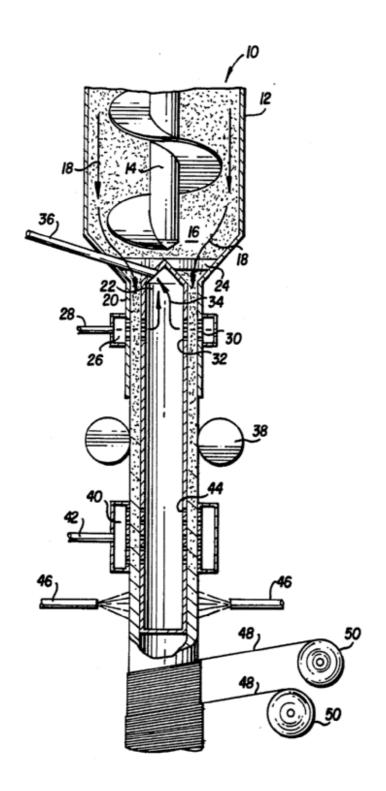
This subclass/group covers:



by extruding

Definition statement

This subclass/group covers:



B28B 21/56

incorporating reinforcements [N: or inserts]

Definition statement

This subclass/group covers: Incorporating inserts and/or reinforcing members.

B28B 21/563

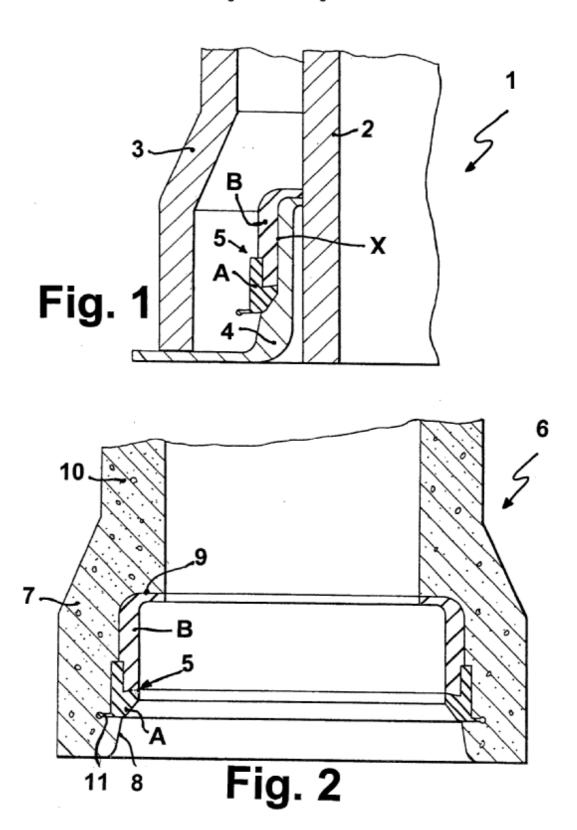
[N: Gaskets]

Definition statement

This subclass/group covers:

DE 10 2006 004 884 A1 2007.08.23

Anhängende Zeichnungen



Informative references

Attention is drawn to the following places, which may be of interest for search:

With elastic sealing rings between	F16L 21/03
pipe and socket, placed on the socket	
before connection.	

B28B 21/566

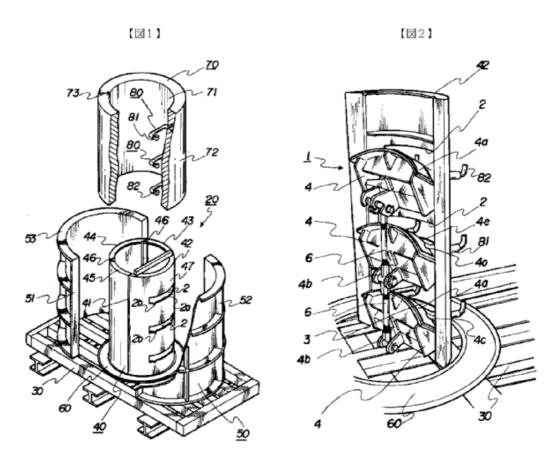
[N: Climbing elements]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

(5) 特開平9-85728



Informative references

Attention is drawn to the following places, which may be of interest for search:

Climbing irons or the like	E06C 9/04
	193

Winding arrangements

Informative references

Attention is drawn to the following places, which may be of interest for search:

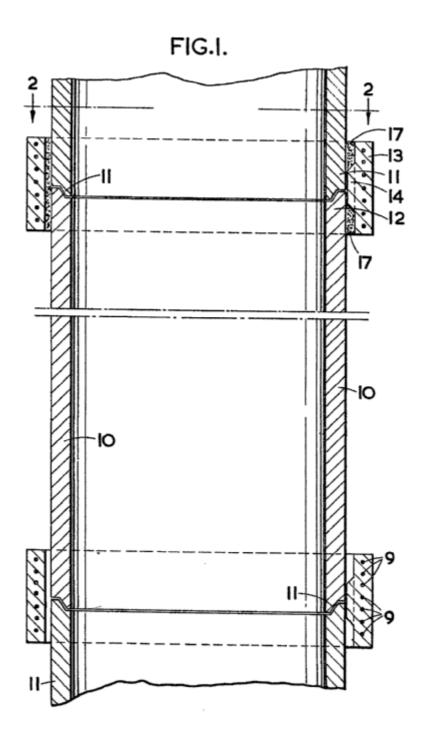
Methods, apparatus, or devices for	B65H 81/00
covering or wrapping cores by	
winding webs, tapes, or filametary	
material	

B28B 21/70

by building-up from preformed elements

Definition statement

This subclass/group covers:



Producing multilayer tubes

Definition statement

This subclass/group covers:

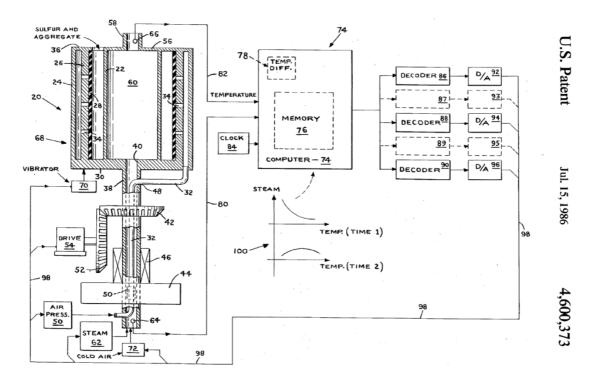
The preformed elements for producing multilayer tubes can be manufactured of any material.

with heating or cooling means, e.g. steam jackets

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

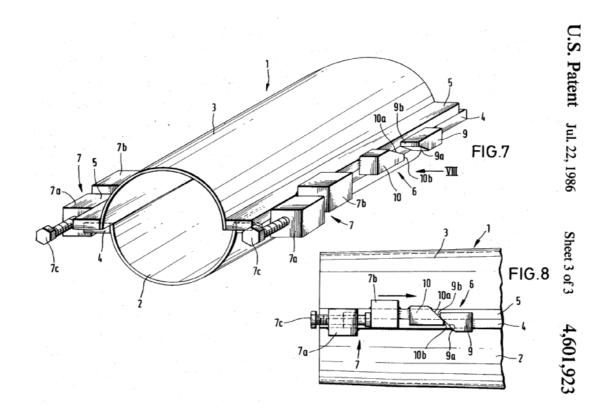


B28B 21/80

adapted to centrifugal or rotational moulding

Definition statement

This subclass/group covers:



References relevant to classification in this group

This subclass/group does not cover:

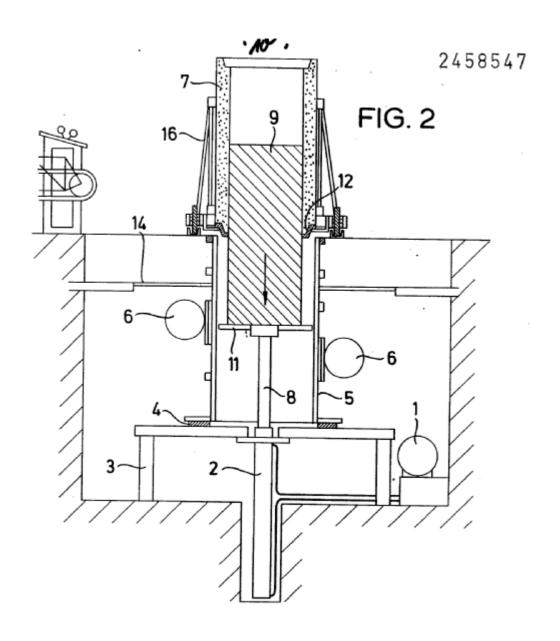
Centrifugal moulding using compacting heads, rollers, or the like	B28B 21/30

B28B 21/86

Cores (in general B28B7/00)

Definition statement

This subclass/group covers:



Informative references

Attention is drawn to the following places, which may be of interest for search:

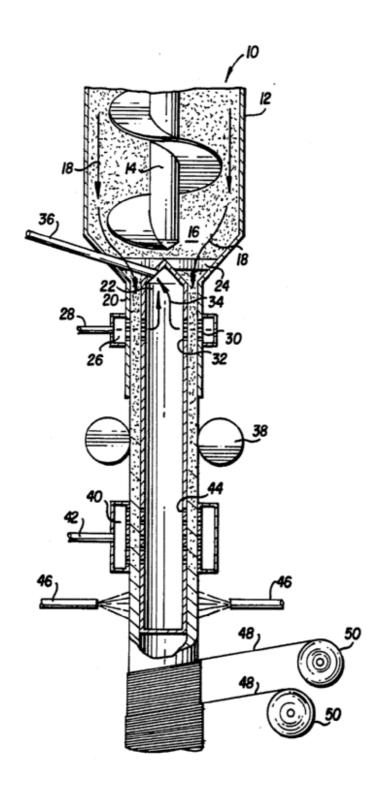
Cores in general	B28B 7/00

B28B 21/925

[N: for wrapping]

Definition statement

This subclass/group covers:



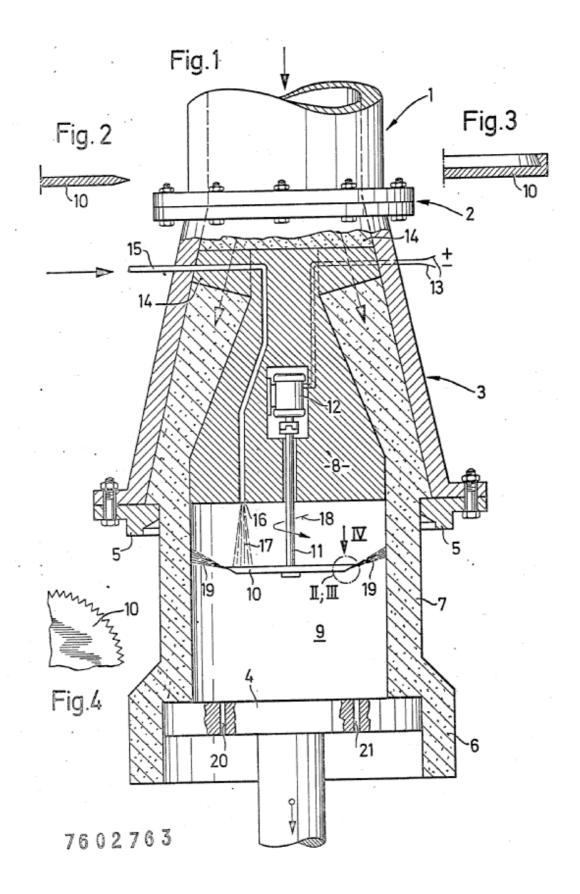
B28B 21/94

for impregnating or coating by applying liquids or

semi-liquids

Definition statement

This subclass/group covers:

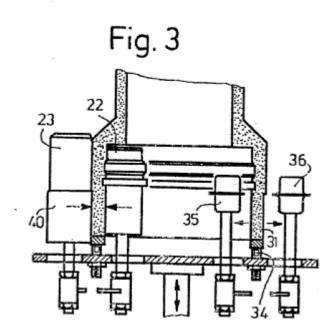


[N: for grooving or corrugating]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



B28B 23/00

Arrangements specially adapted for the production of shaped articles with elements wholly or partly embedded in the moulding material; [N: Production of reinforced objects] (B28B21/00 takes precedence; in units for prefabricated buildings B28B7/22)

Definition statement

This subclass/group covers:

Wherein the element which is wholly or partly embedded in the molding material can be a reinforcing member, insert, moulding material component, gaskets, or the like; not being restricted by the choise of material.

References relevant to classification in this group

This subclass/group does not cover:

Methods or machines speacially	B28B 21/00
adapted for the production of tubular	
articles	

Informative references

Attention is drawn to the following places, which may be of interest for search:

Reinforcing elements in general	E04C 5/00

Special rules of classification within this group

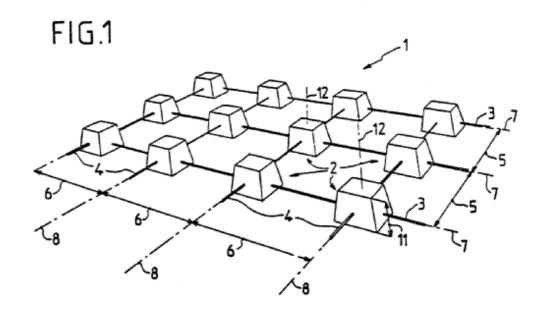
Machines or methods for applying the material to surfaces to form a permanent layer thereon should be classified in <u>B28B 19/00</u>.

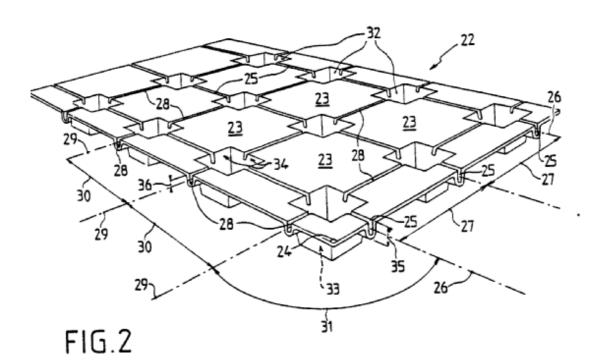
B28B 23/0012

[N: Producing brick netting]

Definition statement

This subclass/group covers:





Informative references

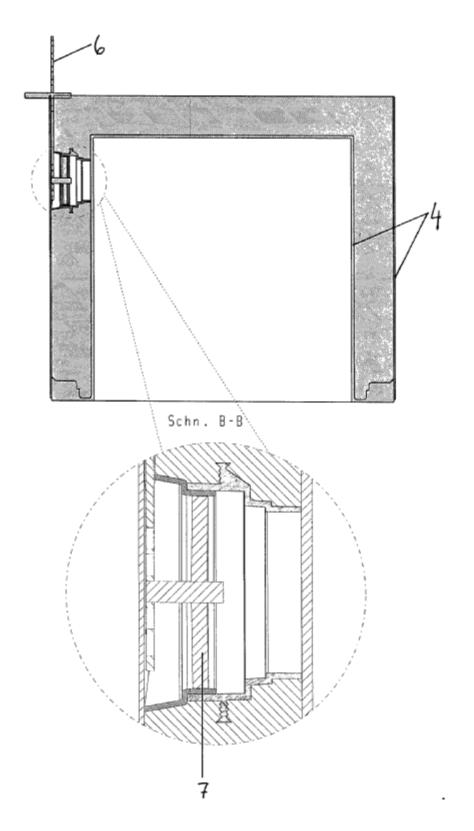
Attention is drawn to the following places, which may be of interest for search:

Pavings made of prefabricated single	E01C 5/00
units	

[N: with gaskets or sealing elements, e.g. for tunnelings or man holes (B28B21/563 takes precedence)]

Definition statement

This subclass/group covers:



References relevant to classification in this group

This subclass/group does not cover:

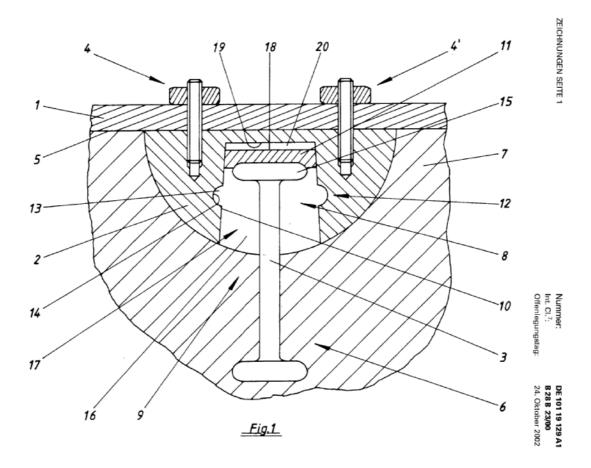
Gaskets	B28B 21/563

[N: with anchoring or fastening elements for the shaped articles]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



Relationship between large subject matter areas

Anchoring or fastening elements in combination with means for supporting them in the mould, also classify in <u>B28B 23/0056</u>.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Connecting devices specially adapted for embedding in concrete	E04B 1/41
Means in or on the elements for connecting same to handling	E04G 21/142

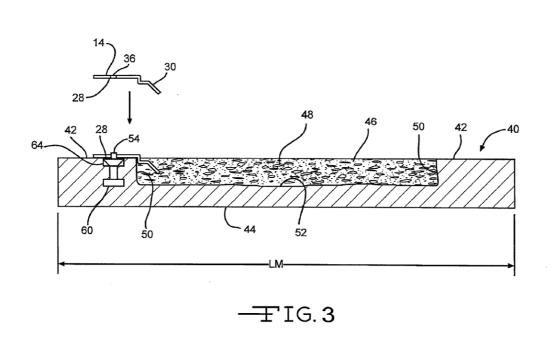
apparatus	

[N: Means for inserting the elements into the mould or supporting them in the mould (B28B23/022 takes precedence)]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



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References relevant to classification in this subclass/group

This subclass/group does not cover:

Means for inserting reinforcing	B28B 23/022
members into the mould or for	
supporting them in the mould	

Informative references

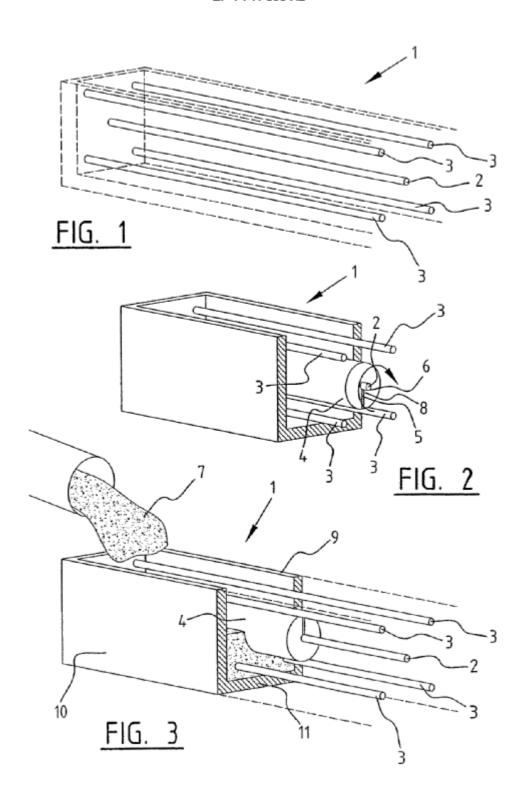
Attention is drawn to the following places, which may be of interest for search:

Cores for anchor holes or the like	E05G 15/04
	208

[N: Embedding lost cores]

Definition statement

This subclass/group covers:



Informative references

Attention is drawn to the following places, which may be of interest for search:

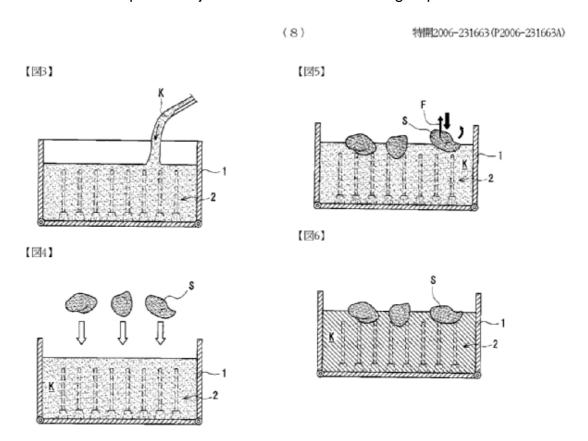
	Non-reusable forms	<u>E04G 15/061</u>
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[N: for decorative purposes]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



References relevant to classification in this group

This subclass/group does not cover:

Applying the material to tiles, bricks, or the like to form a permanent layer thereon	B28B 19/0053
Coating with powdered or granular material	B28B 11/06

[N: Embedding aggregates to obtain particular properties]

Definition statement

This subclass/group covers:

Wherein the aggrgates themselves contain particular properties.

References relevant to classification in this group

This subclass/group does not cover:

Embedding aggregates which cause	<u>C04B</u>
a chemical reaction to obtain	
particular properties	

B28B 23/02

wherein the elements are reinforcing members [N: (B28B23/0006 takes precedence)]

References relevant to classification in this group

This subclass/group does not cover:

Specially adapted for producing articles from mixtures containing fibres	B28B 1/52
The reinforcement consisting of aligned, non-metal reinforcing elements	B28B 23/0006

B28B 23/022

[N: Means for inserting reinforcing members into the mould or for supporting them in the mould (inserting during extrusion B28B3/2645)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

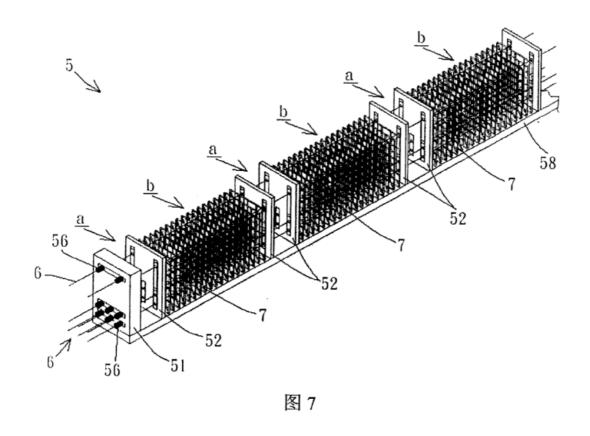
	Mounting of reinforcing inserts	E04G 21/12
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[N: Mould partitionning elements acting as supporting means in moulds, e.g. for elongated articles]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

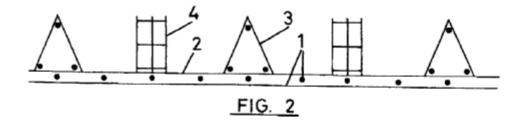


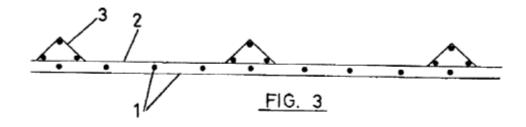
B28B 23/028

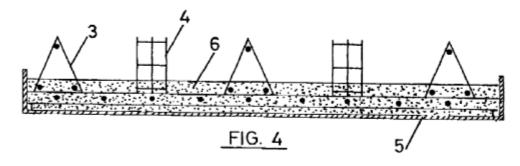
[N: for double - wall articles]

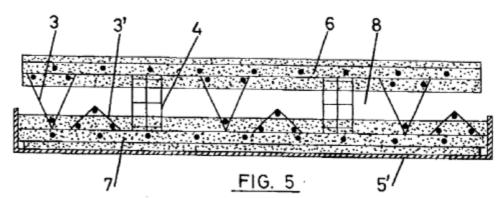
Definition statement

This subclass/group covers:









Informative references

Attention is drawn to the following places, which may be of interest for search:

Moulds provided with means for tilting or inverting for making double wall panels

the elements being stressed

References relevant to classification in this group

This subclass/group does not cover:

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated into a larger system:

Prestressed reinforcements in the production of tubular articles	B28B 21/60

Informative references

Attention is drawn to the following places, which may be of interest for search:

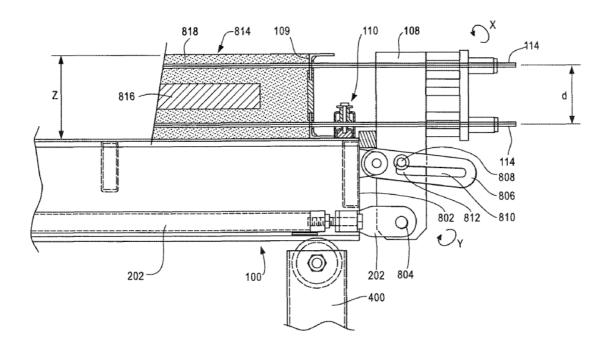
5	E04G 21/12
Prestressing	

B28B 23/043

[N: Wire anchoring or tensioning means for the reinforcements]

Definition statement

This subclass/group covers:



[N: Post treatment to obtain pre-stressed articles]

Definition statement

This subclass/group covers:

e.g. reinforcing members are stressed after the hardening of the element; Reinforcing members are introduced through (a) continuous opening(s) of the hardened element, are stressed and connected to the hardened element.

B28B 23/18

for the production of elongated articles(B28B23/06 takes precedence)

References relevant to classification in this group

This subclass/group does not cover:

The elements being stressed	B28B 23/06