MEANS UTILIZING FORCE FROM EXPLOSIVE OR THERMIC COMPOSITION

SHAPING MEANS EMPLOYING ANATOMICAL BODY OR PORTION THEREOF (I.E., ANIMAL OR PLANT)

WITH DIRECT APPLICATION OF MAGNETIC FORCE TO MANIPULATE SHAPING MEANS OR WORK

WITH MECHANICAL MEANS FORMING OR EXPANDING PORES (E.G., FOAMING, ETC.)

MEANS ENCAPSULATING NORMALLY LIQUID MATERIAL

MEANS MAKING PARTICULATE MATERIAL DIRECTLY FROM LIQUID OR MOLTEN MATERIAL

PRODUCT OR PREFORM REPAIR OR RESTORING MEANS

HAND MANIPULABLE TOOL

MEANS FEEDING FLUENT STOCK UNDER PRESSURE

SHAPE CONFORMING SLEEVE OR DEFORMABLE PRESSURE WRAP MEANS

TIRED SEGMENT ENGAGING CHANNEL BOX COACTING WITH PRESSURE SURFACE OR RIM

ADJUSTABLE SIDEWALL CHANNEL BOX

TIRED RECAPPING, REBEADING OR SIDEWALL REPLACING MEANS

SIMULTANEOUSLY ON PLURAL TIRES

INCLUDING CARCASS OR TREAD MOLD ALIGNING MEANS

BAND OR CHANNEL TYPE RECAPPING MOLD

INCLUDING AXIALLY SUPPORTED BEAD SPREADING MEANS

INCLUDING SIDEWALL PRESSURE PLATENS

MEANS APPLYING PRESSURE TO CARCASS INTERIOR

MEANS APPLYING FLUID PRESSURE DIRECTLY

DIAMETRICALLY SEPARABLE MOLD SECTIONS COACTING WITH TIRE CARCASS

MEANS FOR SUPPORTING ONLY A PORTION OF A TIRE

EXPansible INTERNAL SUPPORT

RESHAPING, RESIZING OR VULCANIZING MEANS FOR TIRE, TIRE TUBE, OR DRIVE BELT

CONTROL MEANS RESPONSIVE TO CONDITION SENSING MEANS

CONTROL MEANS RESPONSIVE TO INDEPENDENTLY OPERATED TIMER

MEANS SHAPING DRUM SHAPED PREFORM TO TIRE CASING SHAPE

MOLD OR HOUSING ENCASING SHAPE PREFORM

AND MEANS INSERTING PRESSURIZING DIAPHRAGM INTO MOLD OR HOUSING

PLURAL FEMALE MOLDS FOR PLURAL PREFORMS

FORMING BELTS (E.G., DRIVE, TRANSMISSION, ENDLESS)

WITHIN SEPARATE VULCANIZING CHAMBER

TOROIDAL OR ANNULAR FEMALE SHAPING MEANS AND COACTING MEANS HOLDING PREFORM THEREAGAINST

INCLUDING DISTINCT MEANS TO ENGAGE TIRE-TYPE BEAD

INCLUDING CORE PINS FORMING TRANSVERSE VOIDS IN SOLID TIRE PORTION

INCLUDING MEANS PLACING PREFORM IN MOLD OR REMOVING PRODUCT FROM MOLD

FEMALE MOLD SURFACE IS EXPANSIBLE

INCLUDING HEATING OR COOLING MEANS

...ELECTRICAL

...WITHIN CAVITY OF HOLLOW PREFORM

COATING HOLDING MEANS IS EXPANSIBLE STRUCTURE

MEANS TO DIRECTLY APPLY FLUID PRESSURE TO PREFORM

INNER TUBE TYPE INCLUDING VALVE STEM FEATURE

INCLUDING REMOVABLE TIRE TREAD SHAPING PORTION

March 2005
Sectional female mold including locking or clamping assembly means

Interior holding means or curing bag inserter, releaser, or remover

Internal mold, form or support for toroid

Including heating or cooling means

Expansible surface

Fluid pressure actuated diaphragm type

Including valve stem

Removable portion

Annular assembly clamping ring

Internal support held in assembly by cam or wedge means

Bead clamping means, air bag support means or means sealing tire opening

Post cure inflator

Utilizing subterranean feature as shaping means

Boom mounted depositing and forming means of the carousel type

With ship or boat launching means or drydock

With transportation device for relocating molding apparatus to different site (e.g., land vehicle, etc.)

Building forms or construction engineering type mold with repositioning means for progressive molding

Including mold charging means

Means penetrating or embedded in previously formed section to support mold

Continuous filament forming or film casting means with stretching means comprising product advancing means

Immersed shaping orifice discharging directly into liquid bath or shower means

Additional downstream means for treating product by fluid

Shaping orifice and bath or shower means mounted for relative movement

Means directing product through tubular conduit within bath or shower means

Including means advancing continuous length work through downstream liquid bath or shower means

Shaping orifice and downstream work contacting gaseous treating means

Orifice for filaments or fibers (e.g., spinneret)

Including ventilating type hood or chamber encasing a material handler

Recovering or recycling gas or vapor

Material handler is endless casting surface

Means imparting irregular denier to filaments

Ultra high pressure generating device

Means for molding powdered metal

Continuous length product formation

Air felting type shaping means

Means forming stratified products

With particle liberating means (e.g., cutting, carding, etc.)

Means forming running length product

With foraminous or absorbent means for removal of vehicle or component in liquid form during or after shaping

Vacuum means

Including handling means or feature for treating liquid or vehicle liquid, or condensate hand movable, substrate traversing, plural dimension shaping means including molding material supply

With factory structure feature with interposed non-adhering web or sheet type parting means

With means applying coating (e.g., parting, etc.) material to work or work contact means

March 2005
.Plural diverse type applicators

.Plural spaced applying means applying material to work and work contact means

.Immersion type

.Means contacting work downstream of shaping member

.By means attached to or within male shaping member

.Separate means applying material directly to shaping means, dough divider trap chamber, or between work and shaping means

..By means injecting material into extrusion head or nozzle

..To female mold or dough divider trap chamber

...Orbital or conveyor mounted mold

....By spray means or pneumatic conveyor type applicator

..To endless surface type shaping means

..To work contact means upstream of shaping means

..By spray means or pneumatic conveyor type applicator

.To work downstream of shaping means

..By means striping or applying a definite pattern

..With reshaping or cutting means downstream of coating means

.WITH MEANS LUBRICATING COOPERATING APPARATUS PARTS

.ROD END TO ROD END SPlicing OR JOINING Type

.PREFORM ASSEMBLY MEANS AND MEANS FOR BONDING OF PLURAL PREFORMS INVOLVING PREFORM RESHAPING OR VULCANIZING

.Vulcanizing or curing means including a conforming preform support

..With means to release or remove product from support

.Reshaping means utilizing fluid pressure directly contacting work

..Vacuum or suction

.Means forming indefinite length product

..With treatment means other than assembling, bonding, shaping or reshaping means

.MeanS to modify temperature of work or product

..Heating

...And cooling

..Severing means

...And means for forming preform from bulk material

...Plural distinct severing means

....Diverse

...Downstream of bonding means

..By means striping or applying a definite pattern

..With reshaping or cutting means downstream of coating means

..Means to modify temperature of work or product

..Means press fitting or forcibly embedding one preform into another preform

..Plural reshaping means

...Opposed, registering, coacting mold cavities

...Male shaping member and female mold

DISTINCT MEANS TO FEED, SUPPORT OR MANIPULATE PREFORM STOCK AND MEANS FOR SHAPING FLUENT OR BULK STOCK TO FORM UNITED PRODUCT

..Means to feed or support plural preforms to or at extrusion means

..Means to feed or support common preform to or at spaced female molds

..Means to continuously feed indefinite length preform
123 ..Means to support plural preforms in spaced relation in or at common female mold
124 ...Washer type preform
125 ..Female mold or preform support vertically movable
126.1 ..Means to convey preform to female mold
126.2 ...Stick inserter
127 ..Preform stock acting as reaction shaping surface cooperating with recessed fluent stock shaping means
128 ..Coacting pressure means
129.1 ..Means to charge fluent stock under pressure
129.2 ...Shoe or boot
130 MEANS FEEDING FLUENT STOCK FROM PLURAL SOURCES TO COMMON SHAPING MEANS TO FORM COMPOSITE PRODUCT
131.1 .Extrusion shaping means
131.5 ..Comprising spinnerette
132 ..Intermittent feed
133.1 ..Concentric
133.5 ..For extruding film
134 .Traveling female mold type shaping means
135 CONTROL MEANS RESPONSITIVE TO OR ACTUATED BY MEANS SENSING OR DETECTING A CONDITION OR MATERIAL TRIGGERED
136 .Means responsive to abnormal condition completely stop operation of machine
137 ..Means responsive to material remaining in mold from previous molding operation
138 ..Means responsive to improper mold position
139 .Article ejector or stripper control
140 .Control means responsive to product weight or dimension
141 ..Thickness
142 .Cutter control
143 .Temperature control
144 ..Of mold cavity or fluent material to shaping or discharging orifice
145 .Feed control of material en route to shaping area
146 ..By pressure actuated valve
147 ..By stopping or adjusting flow responsive to material level in collector or mold
148 ..By means responsive to weight of feed material
149 .Molding pressure control means responsive to pressure at shaping area (e.g., injection or press mold, etc.)
150 .Mold motion or position control
151 WITH SAFETY FEATURE
152 .Plural starting buttons or mold operating means dependent upon position of a machine element
153 .Secondary means to prevent accidental motion, (e.g., mold closing, etc.) or means to relieve gaseous pressure
154 .Means to alter operation due to presence of foreign matter or overload
155 WITH CONTROL MEANS RESPONSIVE TO INDEPENDENTLY OPERATED TIMER
156 ..For timing period mold is closed or period molding pressure is maintained
157 ..In press mold cycle
158 ...With timer for molding material preheat period
159 .For timing mold filling means
160 .For timing heating or cooling means
161 INTERLOCKED DIVERSE FUNCTION ELEMENTS
162 WITH ELECTRICAL CONTROL SYSTEM
163 ..Of diverse shaping means or sequential contact of work with different shaping elements
164 .For severing product from shaped mass
165 .Of product removal from molding surface
166 .Of intermittent delivery of fluent charges to shaping surface
167 ..Of ram or platen reciprocation in press molding cycle
168 WITH MEANS ADJUSTING SYNCHRONIZATION OR COMPENSATING FOR WEAR
169 WITH INDICATOR, SIGNAL, RECORDER, ILLUMINATOR, OR INSPECTION MEANS
For molding temperature or pressure
For determining, observing, or recording position of adjustable element
Element is means determining product size
Means permitting visual inspection by operator
Means applying electrical or wave energy directly to work
Sonic or supersonic wave energy
Radiated energy
Electrical energy conducted through work
Electro-static or inductive field
Electro-static
Means forming a mold; or flask, per se
Including means to separate subsequently molded product from formed mold (e.g., destructible starch type, etc.)
Press means to form mold
Including ram type feed of molding material or means to break bond between flask and contents
Including, structurally integral fastening means
Three part flask
Convertible
With apparatus assembly or dismantling means or with idle part
Plural wear or shaping surfaces mounted for alternative use
Shaping and severing means mounted for alternative use
Means permitting removal or substitution of elements during apparatus operation
Including support or guide means for disassembled element
Means excavating from bulk with simultaneous shaping (e.g., ice cream scoop or plugger, etc.)
Pivotedly joined housings or housing sections enclosing removable element
By handle or handwheel means
For extrusion or injection type shaping means
Threaded die or die housing
Including securing means retaining separable elements
...Spinnerets
For press shaping surface
Calender roll or roll face
Female mold
Blade type harvesting means or severing means
With upstream screen or perforated plate for straining, homogenizing, or mixing material to be shaped
Upstream of multi-orifice shaping die
Plural screens or plates
With separate and distinct upstream agitating or kneading means
Mixing roll type (e.g., rubber mills, etc.)
With cutting, severing or comminuting means
With separate and distinct gas withdrawal chamber
Plural means being diverse, or parallel and intermeshing or concentric
Serially arranged chambers each housing a kneading or mixing means
Within or at forming means
Within pressurizing chamber
By modified screw helix
Agitator or kneader comprises means rotating about a horizontal axis
With means cleaning and purifying atmosphere surrounding molding device
With sound muffling or dampening means
With means to reset operation cycle
With personnel support means
With means to retard or stop moving element (e.g., brake, etc.)
With means to gather excess or rejected stock material
Dynamic gatherer
Recycling type

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FEMALE MOLD AND COOPERATING STOCK SMOOTHING MEANS OR EXCESS STOCK REMOVING MEANS

Means carried by or attached to feeder
Conveyor or roll mounted mold with stationary smoothing or removing means
For means excavating from bulk source with simultaneous shaping (e.g., ice cream scoop or plugger, etc.)

TUMBLING TYPE AGGLOMERATING MEANS FOR PARTICULATE MATERIAL

ENDLESS CASTING SURFACE AND COOPERATING HARVESTING MEANS
MEANS CASTING FLUENT STOCK OPERABLY ASSOCIATED WITH SHAPING SURFACE TO FORM INDEFINITE LENGTH PRODUCT WITH SEPARATE APPARATUS CLEANING MEANS
Coacting with diverse apparatus elements
Coacting with forming means or dough divider type trap chamber
..Reciprocating cleaner moving across a plunger face
..Cleaner moving into working engagement
..Cleaner coacting with endless surface press forming means or film forming casting surface
..Cleaner coacting with traveling former
..Coacting with work contact means (e.g., conveyor or cutter, etc.) downstream of former

SETS OF PRESS COUPLES COMPRISING REGISTERING FEMALE MOLD CAVITIES
Stacked
Coacting cutting; edges on female mold sections
Including positive means to eject product
Mounted on rolls

DOUGH DIVIDER TYPE INCLUDING TRAP CHAMBER
Including positive discharge assistant in supply hopper
Reciprocating ram feeding to rotating trap chamber
Rotating trap chamber pickup

FEMALE MOLD AND MEANS TO SHAPE PARISON DIRECTLY BY INTERNAL FLUID PRESSURE, (E.G., BLOW MOLD, ETC.)
Utilizing laminated parison
With filling means
Forming baffle, bottleneck, or handle
With heating or cooling means
With means to sever product
Including means to prepare parison
Parison stretching means
..Comprising staged inflation means
..Parison severing means
..Parison forming extruder
..Parison forming injection mold
..Parison transfer means
Including blowing medium supply means
..Needle
Including product ejector
Plural female molds and means to shape parison at each directly by internal fluid pressure
..With means to support molds for movement with continuously moving work
..With rotary support for molds
..Including means to close or lock blow mold

FEMALE MOLD AND CHARGER TO SUPPLY FLUENT STOCK UNDER PRESSURE THERETO IN FLUID-TIGHT RELATIONSHIP (E.G., INJECTION MOLD, ETC.)
Molding of thermosetting or cross-linking stock
..Means for transfer molding
To make slide fastener element
..With means to evacuate mold or provide controlled environment
..With means to heat or cool
Plural distinct means
..Including heated or cooled nozzle
..Including heated or cooled plasticizer
..Including heated or cooled material supply hopper
..Cooling means for female mold
..With preform severing means movable relative to mold
..And product ejector

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CLASS 425 PLASTIC ARTICLE OR EARTHENWARE SHAPING OR TREATING: APPARATUS

555 .With shrinkage compensation means
556 .With product ejector
557 .With accumulator, trap chamber, or serially arranged valves between charger and mold
558 .Changeable volume accumulator
559 .Accumulator with check valve supplying fluent thereto
560 .Including valve to alternatively direct fluent stock to accumulator or mold
561 .Accumulator with plunger of charger acting as valve
562 .With means between charger and mold to cut off flow of fluent stock (e.g., needle valve, baffle, etc.)
563 .Biased, pressure responsive means
564 .Nozzle valve
565 .Mold actuated
566 .Flush with or entering mold cavity
567 .With coupling between charger and mold
568 .Including specific nozzle
569 .And means to connect nozzle to mold
570 .Plural nozzles
571 .Flush with or entering into mold cavity
572 .Supplying fluent stock to plural mold cavities
573 .Including plural passages to single mold cavity
574 .With means to cause relative movement between mold and charger
575 .Means to move mold
576 .Rotary mold support
577 .Mold having movable core or movable pin
578 .With normally open stock chamber (e.g., hopper, etc.)
579 .Charger including a shaping surface (e.g., Briquetting means, etc.)
580 .And feeder to supply granular fluent stock to charger
581 .Including plural molds
582 .Rotary feeder
583 .Reciprocating feeder
584 .Air or vacuum utilized to feed stock
585 .Including feeder to supply stock to charger
586 .Means to feed measured charge
587 .Screw feeder
588 .Plural mold cavities
589 .With means to close mold
590 .Varying pressure and/or speed closing
591 .Common fluid pressure closes mold and performs injection
592 .Including articulated link
593 .Toggle
594 .Charger and closing means on same side of mold
595 .With means to lock mold in closed position

FEMALE MOLD, PALLET HANDLING MEANS AND MEANS TO CHARGE FEMALE MOLD

596 .Including magazine type pallet supply means
597 .Pallet supported within mold sidewalls by vertically movable stripper

FEMALE MOLD AND MEANS TO FEED MEASURED CHARGE OF FLUENT MATERIAL THERETO

598 .Plural separate and distinct feeders
599 .Means to move feed means to female mold
600 .Traveling female mold
601 .Drawer type feed coacting with mold having movable bottom
602 .Means to sequentially move female mold

MEANS WITHDRAWING TROWEL TYPE SHAPING MEMBER FROM WITHIN OPEN ENDED MOLD TO SHAPE MATERIAL THEREIN

603 .Mounted on moving support
604 .Including means to infect or withdraw gas from internal portion of shaping means

POTTERY WHEEL TYPE SUPPORT AND PROFILE

605 .Including separate and distinct male plunger
606 .Plural profile tools of diverse configuration
607 .Plural female molds or preform supports
608 .Rotatable profile tool
609 .Externally engaging profile tool

DIPPING TYPE SHAPING MEANS

610 .Mounted on moving support
611 .Including means to infect or withdraw gas from internal portion of shaping means

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Means causing diverse motion of shaping means (e.g., rotating during dipping, etc.)

Means moving immersion bath

Including stripper means

Dipping form per se

MEANS EXCAVATING FROM A BULK SOURCE WITH SIMULTANEOUS SHAPING (E.G., ICE CREAM SCOOP OR PLUGGER, ETC.)

Means includes enclosure for fluids of high specific heat

Including means to arrange shaping surface during penetration of bulk

Including means to aid separation of shape product from bulk

Rotating or oscillating means to aid penetration of bulk

Shaping surface having serrated or cutting edge

Including product release means

Segmented or expansible shaping surface

Movable blade

Pivoted to rim

Ejector

FORMER OF THE DIE EXPRESSING TYPE MAKING DOUGHNUT SHAPES

Relatively movable concentric internal and external members coacting with orifice means

PREFORM SEVERING MEANS

Severing means is perforator

With scoring or diverse severing means

Cutter guided by or cooperating with peripheral edge of female mold

And crimper

Rotating means comprising circumferentially extending cutting and shaping channels coacting with a roll or platen having complementary channels

Cutter guided by a template or a pattern

Means for forming from bulk material, means for severing and means for reshaping

Severing means preceding reshaping means

Configuration of cutting implement providing shaping cavity

Including surface deformation means

Honeycomb type cutters coacting internally of female mold or mold sidewalls

Diverse severing means

Serially arranged with preform reshaping means

Corrugating reshaper

Separate and distinct surface deformation means

Severing means preceding shaping means

Plural distinct cutters

Cutters downstream of former

Means forming from bulk and downstream severing means

Cutter operated by means extending from within shaping orifice

Utilizing former as cutter reaction surface

Moving cutter, stationary former

Cutter mounted on flexible endless conveyor

Single assembly plural cutting elements

Stationary cutter, plural forming

Utilizing product handler downstream of former as cutter aid

Single assembly plural cutting elements

COMBINED HAND MANIPULABLE SHAPING COUPLE MEANS TO FORM PREFORM FROM BULK AND MEANS TO CONVOLUTE OR TWIST THE PREFORM

Convoluting means includes an endless surface

Convoluting means includes two or more endless surfaces

Convoluting means includes a roll

PRETZEL BENDING TYPE

DIVERSE DISTINCT TYPE SHAPING MEANS
325. Shaping orifice and either a downstream preform reshaping means or vulcanizing means including conforming preform support
326. Utilizing a fluid pressure differential as a reshaping means
327. Reshaping or vulcanizing means is a press
328. Roll means and diverse press means
329. THREE OR MORE ENDLESS SURFACES COOPERATING TO DEFINE A SHAPING APERTURE
330. THREE OR MORE PLATENS MOVABLE ON INTERSECTING PATHS TO DEFINE A SHAPING CAVITY
331. TRAVERSING ROLL PRESSURIZING MEANS OPERABLY ASSOCIATED WITH DOWNSTREAM PERFORATED PLATE MEANS IMPARTING ROLLING ACTION TO DISCRETE CHARGE OF STOCK TO FORM A BALL
332. Molding means having material shaping guideway providing arcuate path
333. SETS OF CONVOLUTING OR TWISTING MEANS
334. SETS OF SHAPING COUPLES COMPRISING AN ENDLESS SURFACE FOR PRESS FORMING, RESHAPING (PLURAL STAGE OR PASS) OR VULCANIZING
335. Corrugating means for running length work
336. Including intermediate chute, conveyor or guide means
337. GANG-PRESS, PLURAL PARALLEL LEAVES OR PLATENS
338. Reshaping or vulcanizing means including conforming preform support
339. PLURAL RESHAPING MEANS OR PLURAL VULCANIZING MEANS INCLUDING CONFORMING PREFORM SUPPORT
340. Including plural feeding means for preforms
341. Including means for contacting work by fluid pressure
342. Spaced reshaping or vulcanizing means acting on a single preform
343. PLURAL SETS EACH COMPRISING A FEMALE MOLD AND OPPOSED COAXIAL DYNAMIC PRESS MEMBERS
344. Molds or press members traveling transversely to molding motion
345. SETS OF MALE- FEMALE PRESS MOLDS
346. Traveling female mold
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. Means corrugating a preform
. Endless belt
. Cooperating endless belts
. Including speed differential
means
. Roll and coacting endless belt
press member
. Roll and coacting stationary
shaping surface

PATTERN CONTROL OF TRAVEL FOR A
FORMING MEANS (E.G.,
DEPOSITING, ETC.)

. Including product handling means
. Including heating or cooling
means
. Spinneret
. Plural spaced
. Including auxiliary shaping
means (e.g., mandrel, etc.)
associated with molding
orifice
. Movable orifice or movable
mounted inner mandrel within
orifice
. Centripetal elastic melt
extruder type
. Plural orifices
. Spinneret type
. Netting
. Including additional rotating
means downstream of the
primary pressurizing means
. Including restriction upstream
of shaping orifice and
downstream of primary
pressurizing means

PREFORM RESHAPING OR RESIZING
MEANS: OR Vulcanizing MEANS
INCLUDING A CONFORMING PREFORM
SUPPORT

. Including both heating and
cooling means
. Surface deformation means only
. Sealing wax type
. Including shaping means
comprising fluid pressure
contacting work directly
. Vacuum or suction means
. By fluid pressure actuated
flexible diaphragm
. Opposed, registering, coacting
mold cavities

. Convoluting or twisting means
. Rod or tubular preform
. Mandrel to interiorly support
work and means urging work
against mandrel
. Coacting shaping surfaces (e.g.,
pressure surfaces, etc.)
. Opposed, registering, coacting
mold cavities
. Corrugating platens or dies
. Including particular handling
means for preform
. Relatively reciprocating
plunger and female mold
. Stationary plunger and
reciprocating female mold
. Including means positioning or
centering work
. Including sprue or vent
. Utilizing rotary motion of work
. Shaping surfaces per se (e.g.,
mandrel, etc.)
. Including product handling means

PRESS FORMING APPARATUS HAVING
OPPOSED PRESS MEMBERS

. Including both heating and
cooling means
. Opposed, registering, coacting
mold cavities
. Pressure applying member mounted
for arcuate motion
. Periphery of female mold
limiting the movement of a
dynamic press member
. Opposed press shaping members
insertable between opposed
pressure applying means
. Male shaping member and female
mold
. Including pallet handling means
. Including means to insert or
remove core
. Female mold movably associated
with opposed press surfaces
position therein
. Male shaping member penetrating
superposed mold
. Expansible male shaping member
CLASS 425 PLASTIC ARTICLE OR EARTHENWARE SHAPING OR TREATING: APPARATUS

Means rotating male shaping members
Including means varying pressure of male shaping member during pressing
Including provision to remove entrained gas
Including vibrator or tamper
...With positive means to remove or eject product
Female mold moving into a mating relationship with a male shaping member

FEMALE MOLD VIBRATOR OR TAMPER, AND PRODUCT RELEASE MEANS
FEMALE MOLD INCLUDING TAMPING MEANS OR MEANS UTILIZING MOLD MOTION TO DISTRIBUTE OR COMPACT STOCK THEREIN
Relatively moving female type shaping member and internal (e.g., trowel, etc.) shaping member
Moving internal shaping member, stationary female-type member
Including means imparting diverse motion
Plural female molds
Including tamper
Means to vibrate shaping surface
Peripheral supported for rotation on endless belt
Plural female molds
Means to rotate female mold about horizontal axis

SHAPING SURFACE INCLUDING MEANS TO RELEASE OR REMOVE PRODUCT FROM SHAPING SURFACE
By differential gas pressure ejecting means
By means releasing article from interiorly placed shaping surface
By means inverting mold
By means flexing or deforming the mold
By movable mold sections
Hinged mold sections
Sections relatively movable vertically
By movable ejector means entering mold cavity

MEANS TREATING SHAPED WORK
In or on work confining surface forming surface and means feeding fluent stock thereto
Trap measuring compartment (e.g., feed drawer, etc.)
Utilizing positive charging means
MOLD OPENING AND CLOSING MEANS AND SEGMENTED FEMALE MOLD
Including traveling mold carrier or support
Varying pressure and/or speed closing
Rack and pinion
Rotary cam
Articulated link
Toggle
Wedge or screw

SEGMENTED FEMALE MOLD AND MOLD CLAMPING MEANS
FEMALE MOLD AND PALLET HANDLING MEANS
DYNAMIC SUPPORT OR DYNAMIC CARRIER AND FEMALE MOLD
Means to raise or lower mold
VIBRATING MEANS (E.G., TAMPER ROD OR JARRING MEANS, ETC.) INCLUDING MECHANICAL MOVEMENT OR POWER MEANS
DYNAMIC MALE SHAPING MEANS INCLUDING MECHANICAL MOVEMENT OR POWER MEANS
HAND MOVABLE, SUBSTRATE TRAVERSING, PLURAL DIMENSION SHAPING MEANS
PROFILE, JIGGER TOOL OR POTTER’S WHEEL PER SE
SHAPING MEMBER FOR TRAVERSING THE INTERIOR SURFACE OF HOLLOW WORK
MEANS PROVIDING A SHAPING ORIFICE
Plural distinct feed inlets
Plural distinct shaping orifices
Single inlet, plural shaping orifices
Including means forming products with distinct portions of varying cross section
Adjustable shaping orifice or shape imparting insert member (e.g., core, etc.)
Core, pin or insert member

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TAMP ROD, PLUNGER OR MALE SHAPING MEMBER
SHAPING OR CASTING SURFACE (E.G., PLASTERING OR GUNITE TYPE, ETC.)
Endless shaping surface
MISCELLANEOUS

CROSS-REFERENCE ART COLLECTIONS

FOREIGN ART COLLECTIONS

DIGESTS

March 2005
CLASS 425 PLASTIC ARTICLE OR EARTHENWARE SHAPING OR TREATING: APPARATUS

DIG 111 HOLLOW BLOCK
DIG 112 INFLATABLE FORM
DIG 113 INNER ROLL
DIG 115 LUBRICATOR
DIG 116 MOLD CLEANING
DIG 117 PALLET
DIG 118 PALLET FEEDER
DIG 119 PERFORATED OR POROUS
DIG 120 POTTERY APPENDAGE
DIG 121 PROJECTION
DIG 122 REINFORCING AND AGGREGATE
DIG 123 REPRESS
DIG 124 RUBBER MATRIX
DIG 125 SAND MOLD
DIG 126 SILO MOLD
DIG 127 SPRING
DIG 128 SWINGING TOP PRESS
DIG 129 WEDGE
DIG 130 WIRE REINFORCE
DIG 131 YIELDING PLUNGER
DIG 132 PORTABLE
DIG 200 MOLDING PLANT(S)
DIG 201 Diverse stations
DIG 202 Earthenwave type
DIG 231 Control for blow molding apparatus
DIG 217 SPINNERETTE FORMING CONJUGATE, COMPOSITE OR HOLLOW FILAMENTS
DIG 218 PIPE MACHINE: SOCKET FORMING APPARATUS
DIG 219 WITH STICK INSERTING MEANS FOR EDIBLE PRODUCT (E.G., POPSICLES)
DIG 221 INJECTION MOLD CLOSING AND LOCKING CLAMP, WEDGE OR RETENTION MEANS
DIG 223 INJECTION MOLD CLOSING MEANS UTILIZING VARIABLE CLOSING PRESSURE
DIG 224 INJECTION MOLD NOZZLE VALVE
DIG 225 Automatic control
DIG 227 INJECTION NOZZLE; POSITIONED FLUSH WITH MOLD OR CAVITY
DIG 228 INJECTION PLUNGER OR RAM: TRANSFER MOLDING TYPE
DIG 229 INJECTION MOLD RUNNER VALVE
DIG 230 HAY WAFERING OR PELLETIZING MEANS
DIG 235 WALL PANEL MOLD
DIG 242 PIPE JOINT SEAL MOLD
DIG 243 EXTRUSION OR INJECTION MOLDING
DIG 244 DIE AND MATRIX
DIG 245 HEAT
DIG 246 MOLD HEATING
DIG 247 MULTIPART INJECTION MOLDS
DIG 248 UNITING
DIG 249 CHARACTER
DIG 282 CALIBRATING MOLD
DIG 283 ATTENUATING
DIG 285 YIELDING WEDGE
DIG 286 YIELDING PIECE
DIG 287 YIELDING PLASTIC
DIG 288 DUAL MOLDING SYSTEM
DIG 289 THEATER MOLD
DIG 290 BATTERY MOLD
DIG 291 MODULAR MOLD
DIG 292 PRE-FAB MOLD

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