

1	<b>SPECIAL ARTICLES</b>	8.1	<b>FEEDING</b>
2	.Envelope	9.01	.Multiple supplies
3.01	<b>DELIVERING TO STACK AND FEEDING THEREFROM</b>	9.02	..Sheet feeding from one supply controls feeding from another supply
3.02	.Aligning at stack	9.03	...Responsive to empty supply
3.03	.Intermediate tray	9.04	...Alternate feeding
3.04	.With job divider (e.g., resettable bail bar or double bar separator)	9.05	..Supply selection (e.g., sheet color)
3.05	.Feeding from bottom of stack	9.06	...Size selection
3.06	..Control for feeding responsive to delivering	9.07	..Single separator acts on multiple supplies
3.07	..Pneumatic separating	9.08	...Movably mounted supply
3.08	.Feeding from top of stack	9.09	..Including manual supply
3.09	..Control for feeding responsive to delivering	9.1	..Including continuous web supply
3.11	..Pneumatic separating	9.11	..Superposed supplies
3.12	.Sheets on edges	9.12	..Juxtaposed supplies
3.13	.With sheet sensor for selective location	9.13	..With convergence to single path
3.14	<b>FEEDING AND DELIVERING</b>	10.01	.Separator and conveyor
3.15	.Sensor located at the feeder and controls the delivering	11	..Pneumatic separator
3.16	..Having timer	12	...Endless conveyor
3.17	.Sensor located at the delivering and controls the feeding	13	...Side aligner
3.18	.Conveyor releases to subsequent conveyor	14	...Reciprocating conveyor
3.19	..With alternate conveying path	15	...Side aligner
3.2	..Including conveyor couple	16	..Buckling separator and endless conveyor
3.21	..On peripheral face of drum or belt	17	...Side aligner
3.22	...Pneumatic	10.02	..Sensor located at the separator and controls the conveyor
3.23	..Including pneumatic conveyor	10.03	..Sensor located at the conveyor and controls the separator
3.24	..Including gripper couple	10.04	..Mechanically linked for simultaneous operation
4.01	.Separator and conveyor	10.05	..Selective drive (e.g., number of degree of rotation)
5	..Pneumatic separator	10.06	..Endless belt separator
6	..Continuous endless conveyor	10.07	...To endless belt conveyor
4.02	..Sensor located at the separator and controls the conveyor	10.08	...To rotary conveyor
4.03	..Sensor located at the conveyor and controls the separator	10.09	..Rotary separator
4.04	..Mechanically linked for simultaneous operation	10.1	...To endless belt conveyor
4.05	..Endless belt separator	10.11	...To rotary conveyor
4.06	...To endless belt conveyor	10.12	...With aligning
4.07	...To rotary conveyor	10.13	...With clutch
4.08	..Rotary separator	10.14	..Reciprocating separator
4.09	...To endless belt conveyor	10.15	...To endless belt conveyor
4.1	...To rotary conveyor	10.16	...To rotary conveyor
4.11	..Reciprocating separator	18	.Separators
4.12	...To rotary conveyor	18.1	..Magnetic or electrostatic
7	.Continuous endless conveyors	18.2	...Cyclicly moving
		18.3	..Surface-piercing element(s)
		19	..Buckling
		20	...Pneumatic
		21	...Rotary

22	....Pack advancer	113	...Separator rotating in plane of foremost sheet
23	....Bottom feed		
24	...Pack advancer	114	...Variably or intermittently driven
25	....Feeler control		
90	..Pneumatic	115	....In oscillatory movement
91	...Plural, relatively-moving suction members	116	....By over-running one-way drive
92	....Laterally receding members (e.g., for tautening sheet laterally)	117	...Separator adjustable or retractable relative to pack
93	....Including members for separating and members for forwarding sheet	118	....Feed by successive approach and retraction
94	...Unidirectionally-moving suction member or surface	119	...Separator having non-uniform periphery
95	....Having additional movement	120	....Including relatively movable elements
96	....With means to adjust suction	121	...With means to restrain feed of next sheet
97	...Sheet removal by pressurized gas	122	....By restrainer having rearwardly moving surface
98	....And suction means	123	....By restrainer acting on rear end of sheet
99	...Suction member acting on bottom of pack	124	....By adjustable restrainer
100	....Oscillating member bending margin of bottom sheet	125	....Including restraining roller
101	.....With moving segments supporting remainder of pack	126	...With means to urge pack toward separator
102	....Suction member reciprocating perpendicularly to sheet	127	....Including pivoted pack holder
103	...Sheet-moving action of suction member results from engagement with sheet	42	..Reciprocating
104	...With means to restrain feed of next sheet	128	...With pack advancer
105	..Means effecting preliminary operation on sheets in pack	129	....With sheet on edge
106	....Suction member flexing sheet or portion	130	....And feeler control for advancer
107	...Oscillating suction member	131	...Bottom feed
108	...Controlled by valve means	132	....Suction assisted
30.1	...Pack advancer	133	....With means to prepare pack or bottom sheet for feeding
31	....Feeler control	134	....By relief of pack weight
31.1	....Stack on edge	135	....By partial planar movement of bottom sheet
33	..Adhesive	136	...With means to skip or stop feed
34	..Endless belt	137	....With means to restrain feed of next sheet
35	...Bottom feed	138	....By adjustable exit or throat
109	..Rotary	139	....By pusher reciprocating variably or non-rectilinearly
37	...Preliminary protrusion	140	....Orbital (e.g., four-way) motion of pusher
38	....Feeler control	141	....By pin (e.g., pointed) pusher
110	...Control of separator responsive to sensing of sheet	142	....By adjustable (e.g., for sheet thickness) pusher
111	....Including plural separators or plural sensors	143	....By self-aligning (e.g., yieldable) pushers
112	...Suction assisted	144	....Holder adjustable to size of sheet

225	..By means to change direction of sheet travel	254	...During operation of feeder
226	..With means to align sheet	255	...With indicator of aligner position
227	..Responsive to sheet-sensor	256	..With means to interrupt feeding
228	...To control gripper-couple moving sheet to alignment	258.01	..Responsive to sheet sensor
229	..With means to retard sheet before alignment	259	...Plural sensors
230	...By member moved with sheet	260	....Pneumatic sensors (e.g., to sense superposed sheets)
231	....Including suction retarder	261	....Laterally spaced sensors (e.g., to sense misalignment)
232	..Against aligner entering hole in sheet	262	...Excess-thickness sensor
233	..Against rear-edge aligner	263	...To activate an electric circuit
234	..Against plural aligning assemblages	258.02	...Interrupts feeding upstream only
235	...For incremental travel against successive front-edge aligners	258.03	...Single sensor with timer
236	...For front and side alignment of sheet	258.04	...Sensor operates warning indicator
237	....Alignment of imbricated sheets	258.05	..Mechanical linkage
238	....Including oppositely-disposed side-edge aligners	257	..Manually controlled (e.g., for alternate-cycle feed)
239	...Plural aligners selectively used	264	..By means to convey sheet (e.g., from pack to operation)
240	...Oppositely-disposed side-edge aligners	265.01	..Responsive to sheet sensor
241	..By aligning a sheet-holder and its sheets	265.02	...Plural sensors
242	..Against temporarily-stopped conveyer	265.03	....Laterally spaced sensors
243	..Against front-edge aligner moved in direction of sheet travel	265.04	...Thickness sensor
244	..By retro-moving front-edge aligner	266	..With intermittent movement of the sheet
245	..Against front-edge aligner interposed into sheet path	267	..On oscillating or reciprocating conveyer
246	...Synchronized with intermittently-active conveyor-couple	268	...Including gripper-couple
247	....Including sheet-margin gripper	269	...Including rear-edge pusher
248	..Against aligner adjacent side edge of sheet	270	..With means to vary speed of conveyer sheet
249	...By shifting aligner and gripper-couple laterally of sheet travel	271	..By rear-edge pusher
250	...By means to shift sheet laterally against aligner	272	..Between superposed conveyer couple
251	....By oblique conveyer	273	...Having means to permit separation of couple
252	....By gripper-couple pulling sheet laterally	274	....Including couple-elements resiliently urged together
253	..With means to adjust position of aligner	275	..On peripheral face of drum or belt
		276	...Including pneumatic means
		277	...Including gripper-couple
		145	..Pack holders
		146	..With means to vibrate pack
		147	..Advancer
		148	...With means to move portions of advancer unequally (e.g., for unequal-thickness sheets)
		149	...For on-edge or imbricated sheets

150	....Supported by moving conveyor belt	288	...With control means to vary mode of operation
151	.....For imbricated sheets	289	....To bypass array of receivers
152	...Control of advancer responsive to sensing of foremost sheet	290	.....To route sheets to subsequent array of receivers
153	....Sensor included in feed mechanism	291	...With selective actuation of means for inverting duplex sheets
154	....Sensor activates electric or fluidic circuit	292	..With movable receivers or receiver portions
155	.....Controlled electric or fluidic motor actuates advancer	293	...With means to increase spacing between receiver defining portions
156	....Controlled pawl and ratchet actuates advancer	294	...Receivers moving into registry with delivery zone
157	..With means to replenish pack or retract advancer platform	295	.....Receivers arranged in rotary array
158	...Using plural platforms during continuous operation of feeder	296	..By diverter or conveyor moving past receivers
159	.....And plural drives for plural platforms	297	..By individual diverter for each receiver
160	...Urged by spring or weight	298	..With means to program discharge destination
161	..With means to bow sheets	299	..To laterally spaced receivers
162	..Holder movable relative to feed position	300	..By release from conveyor at plural locations
163	...Holder convertible from feed to delivery	301	..Selectively to recirculating path or exit
164	...Holder moved parallel to plane of sheets	302	..By conveyor section movable to direct sheets along alternate paths
165	..For feed from bottom of pack	303	..With movable diverter
166	...With means to relieve weight of pack	304	...Bidirectionally rotating diverter roller
167	..With means to restrain feed of next sheet	305	...Individual diverter for each receiver
168	...By sheet-impaling restrainer	65	.Optional face or back
169	...By lateral margin or side-edge restrainer	66	..Endless conveyors to flies
170	....Corner snubber	67	.Endless conveyors to curtains
171	..Holder adjustable to size of sheet	69	.Endless conveyors to other conveyors
278	<b>DELIVERING</b>	70	..To flies
279	.Multiple discharge	72	.Rotary conveyors to flies
280	..For separating sheet from moving assemblage of sheets	73	.Curtains
281	...By separating member moving in direction opposite of assemblage	306	.With transfer means between conveyor and receiver
282	...By sheet attracting means	307	..Means to strip sheets from engagement with moving conveyor
283	....Pneumatic attracting means	308	...Stripper cyclically movable between stripping and nonstripping position
284	.....Opposed pneumatic attracting means	309	...By air blast
285	..With leading edges of sheets offset	310	...By means to attract sheet from conveyor
286	....With means to cause offset		
287	..Of successive sheets to plural receivers in succession		

311	...Stripper normally in contact with conveyor surface	202	..With means to vary speed of sheets on conveyor(s)
312	...Stripper normally in spaced relation to conveyor surface	203	...By cyclicly varying conveyor speed
313	...With means to maintain constant spacing of movable stripper	204	..Suspension gripper
175	..Means to drape sheets over horizontal bar	205	...For lateral margins of conveyed sheet
176	..Responsive to delivered sheet	206	...With means to adjust gripper
177	..Means to push sheets out of edgewise into broadside movement (e.g., packer)	314	.Rotary conveyor
178	...Rotating packer	315	..With circumferential pocket members
179	...Screw or helix	81	..Traveling
180	...By reciprocating or oscillating packer	82	..Suspension gripper
181	...Packing sheets on-edge into receiver	83	..Flies
182	..Means to retard sheets	84	.Reciprocating conveyors
183	...By suction retarder	85	..Suspension gripper
184	..Means to change orientation or direction of sheets during delivery	207	.To receiver for pack of sheets
185	...Orientation-changing means	208	..With means to discharge static electricity
186	...Sheet inverting means	209	..With means to bow sheets
187	...By rotating circumferential-pocket members	210	..With means to vibrate receiver
188	..Means to bow sheets during delivery	211	..With air cushion between sheet and pack
189	..Means temporarily interposed between conveyor and receiver	212	..For receiving sheets from below the pack
190	...Transversely-disposed, gapped sheet-supports on endless carrier	213	..With movable sheet-surface support
191	...Endless belt on reciprocating carrier	214	...Receding from delivery zone (e.g., retractor)
192	...Counter-rotating supports for lateral margins	215	...Responsive to increase
193	..By electrostatic or magnetic conveyor	216	...Conveyor-receiver for imbricated sheets
194	..By pneumatic conveyor	217	...Lowering as pack-height increases
195	..Using pressurized gas	218	....With auxiliary support for part of pile
196	..Unidirectionally-moving suction member or surface	219	....Spring-loaded support
197	...Including endless-belt conveyor and suction chamber	220	..With movable pack-limiting member(s) (e.g., hold-down)
198	..By endless conveyor	221	...And means to move members cyclicly against sheet edges (e.g., jogger)
199	..Operation controlled by delivered sheet	222	...And yieldable connection in moving means
200	..With delivery end movably relative to pack receiver	223	...Members adjustable to sheet size
201	...Moving away from increasing delivered pack	224	...Sheet-impact bumper member
			<b><u>CROSS-REFERENCE ART COLLECTIONS</u></b>
		900	<b>STRIPPER</b>
		901	<b>MAGNETIC OPERATION</b>

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CLASS 271 SHEET FEEDING OR DELIVERING

- 902      **REVERSE DIRECTION OF SHEET  
          MOVEMENT**
- 903      **TRAVELING WICKET (FOR STACK ON  
                      EDGE)**

**FOREIGN ART COLLECTIONS**

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