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Jones et al.

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(54) **SYSTEM AND METHOD FOR UNWRAPPING ROUND MODULES**

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Related U.S. Application Data

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B65B 69/00 (2006.01)

(52) **U.S. Cl.**
CPC ***B65B 69/0025*** (2013.01); ***B65B 69/0033*** (2013.01)

(58) **Field of Classification Search**
CPC B65B 49/14; B65B 51/04; B65B 27/12; B65B 27/125; B65B 69/0025; B65B 69/0033; B65B 69/0008; B65B 69/00; B65B 5/045; B65B 11/48; B29C 65/76; B29C 66/1122; B29C 66/3432; B29C 66/344; B29C 7/064; A24C 5/36
See application file for complete search history.

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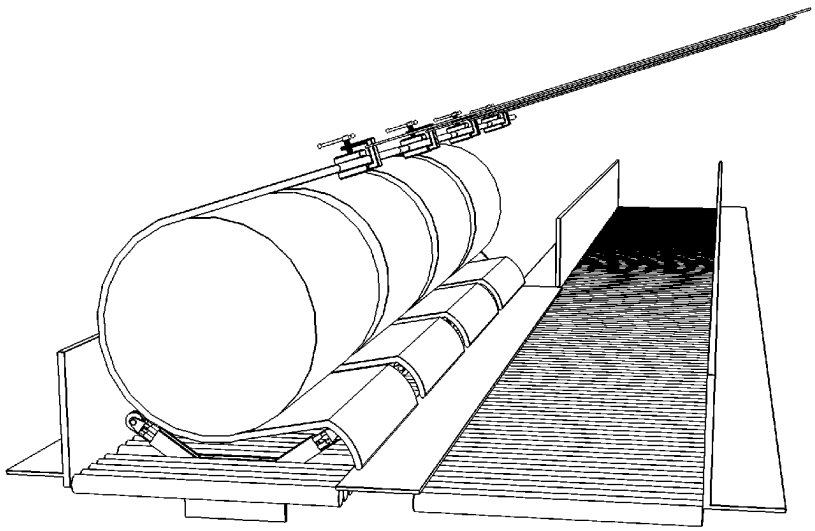
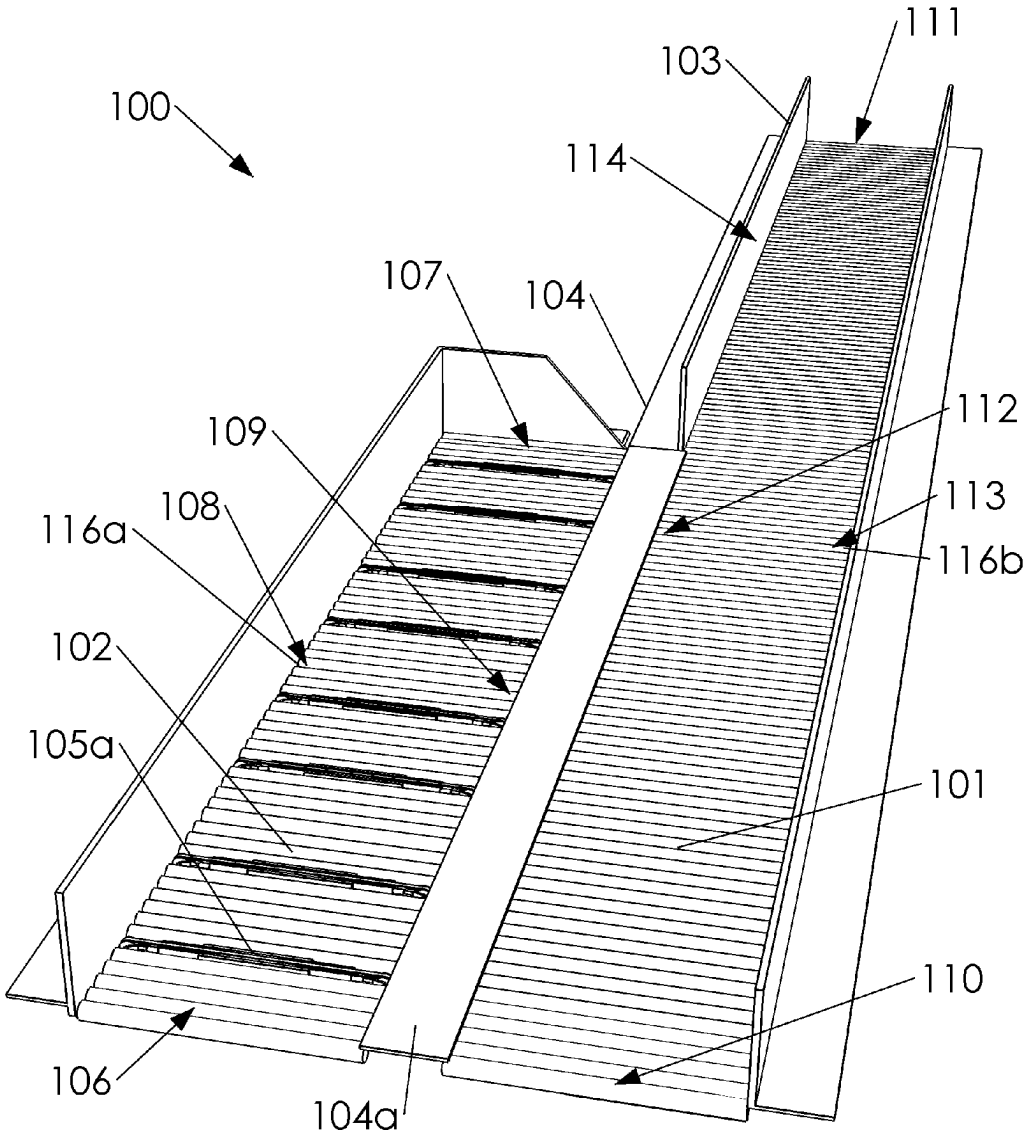
(74) *Attorney, Agent, or Firm* — Shannon L Warren

(57) **ABSTRACT**

A round module unwrapping method is disclosed. Said round module unwrapping method comprising: supporting one or more round modules on a module feeder floor of a round module unwrapping system, detaching a first flap from a second flap of a module wrapper of said round modules, and pulling said second flap of said module wrapper. Said round module unwrapping system comprises a module feeder floor, a first side and a second side. Each of said round modules comprise a module wrapper holding a packed fibrous material. Each of said round modules comprise a first side, a second side, a front, a back, a top, and a bottom. Each of said module wrappers comprise said first flap, said second flap, an inside surface, and an outside surface.

20 Claims, 16 Drawing Sheets




111
103
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107
104
112
109
113
108
116a
116b
102
105a
101
110
106
104a

Fig. 1A

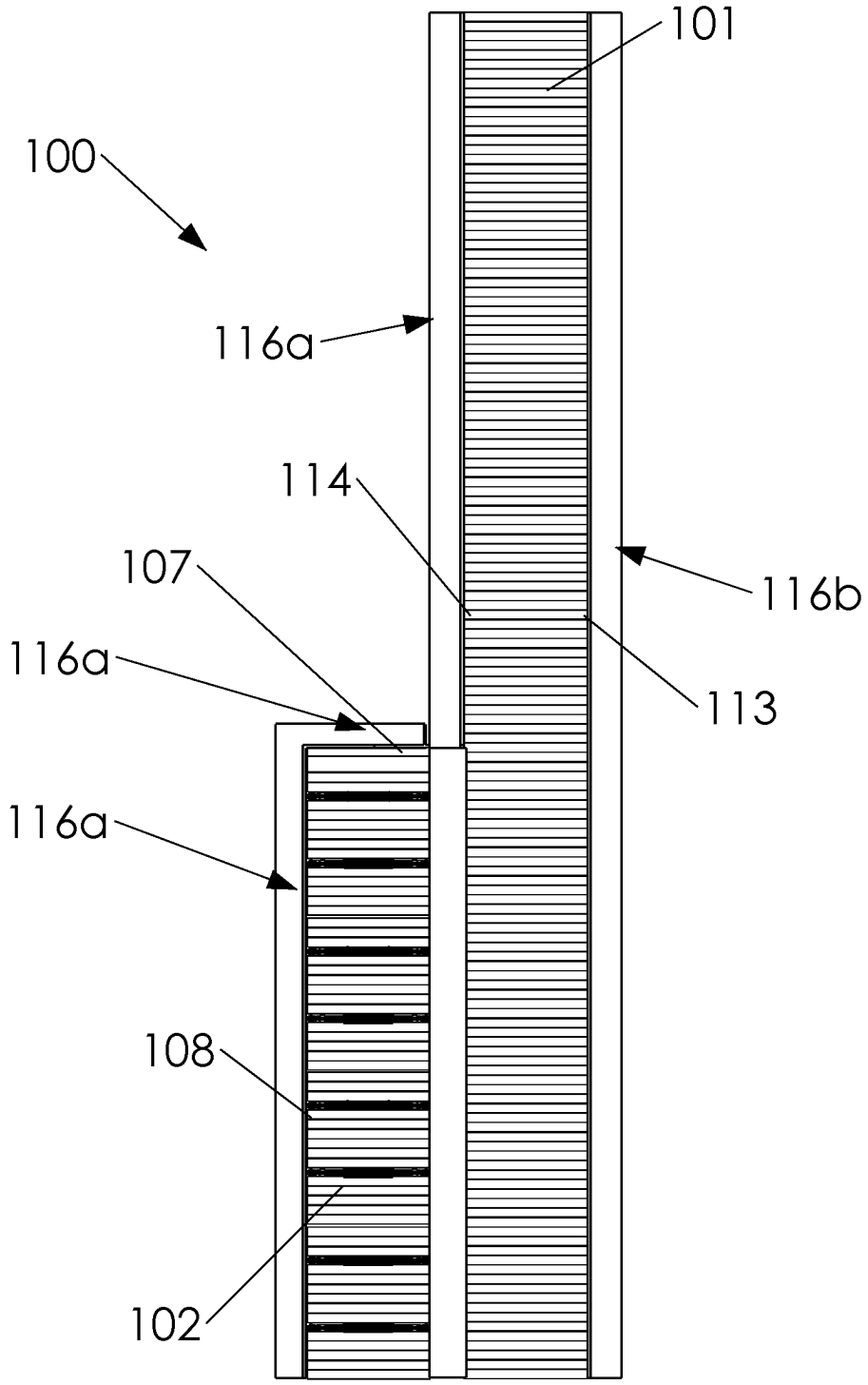


Fig. 1B

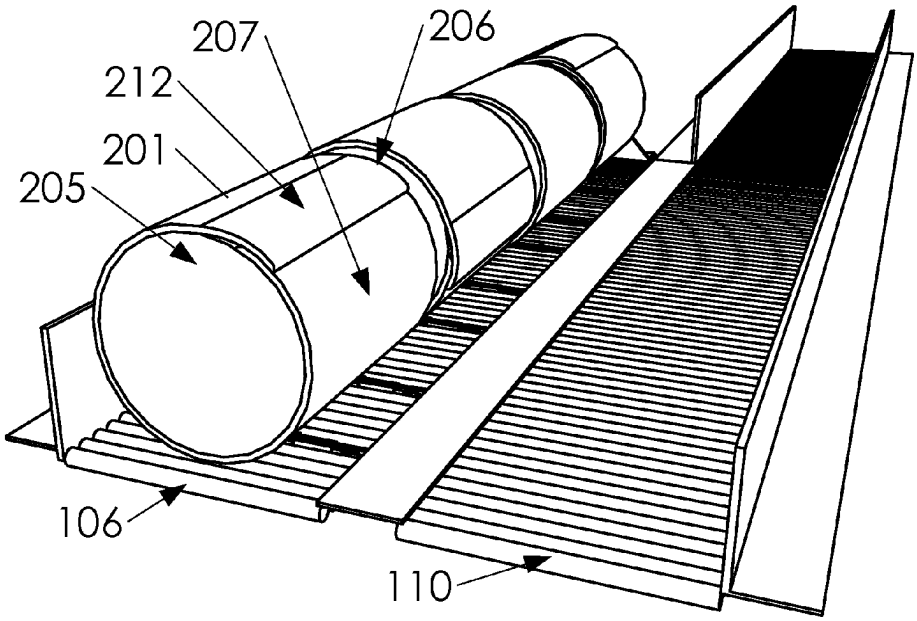


Fig. 2A

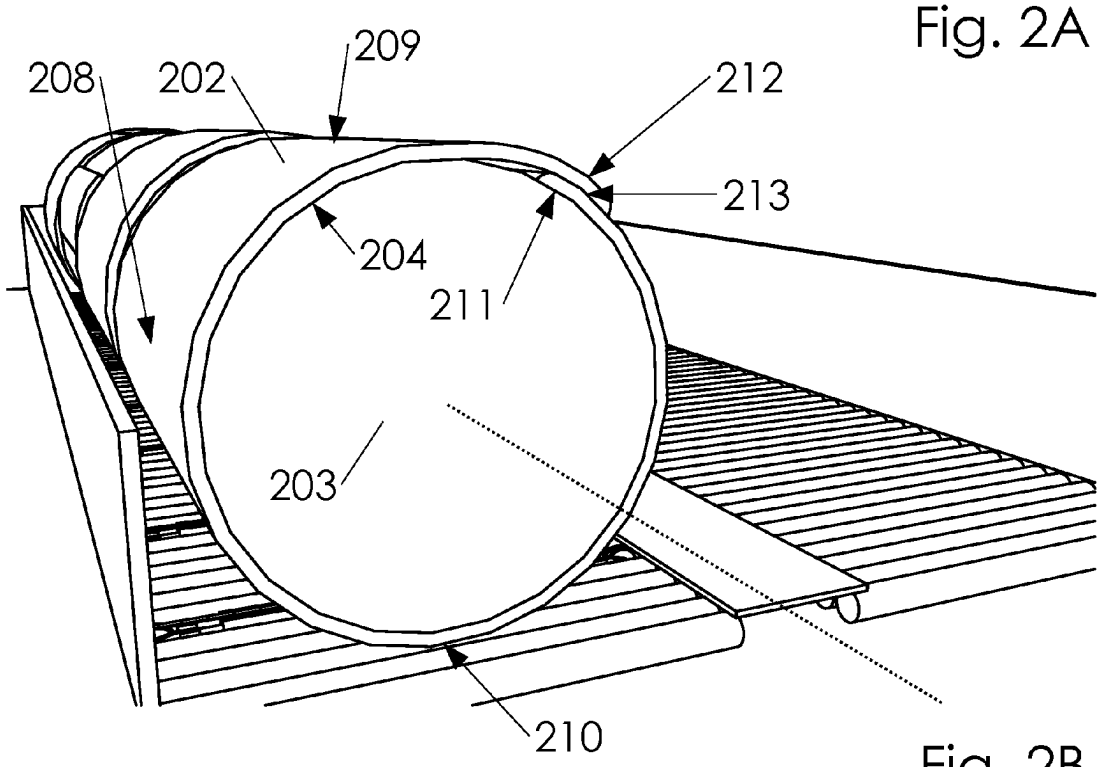


Fig. 2B

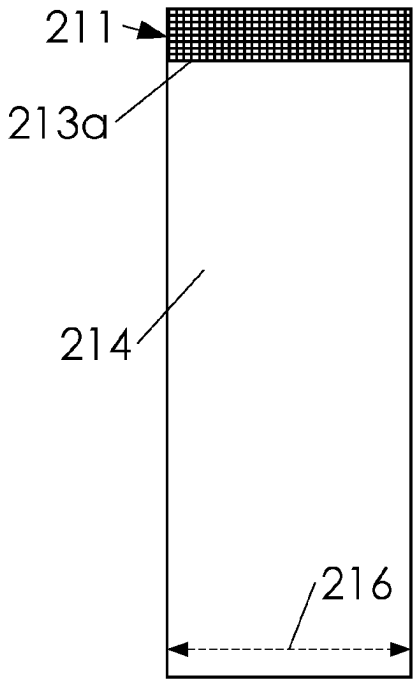


Fig. 2C

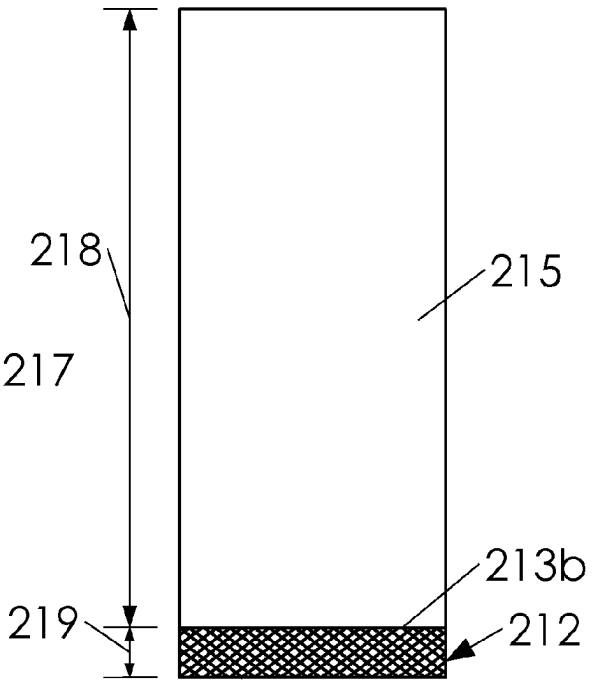


Fig. 2D

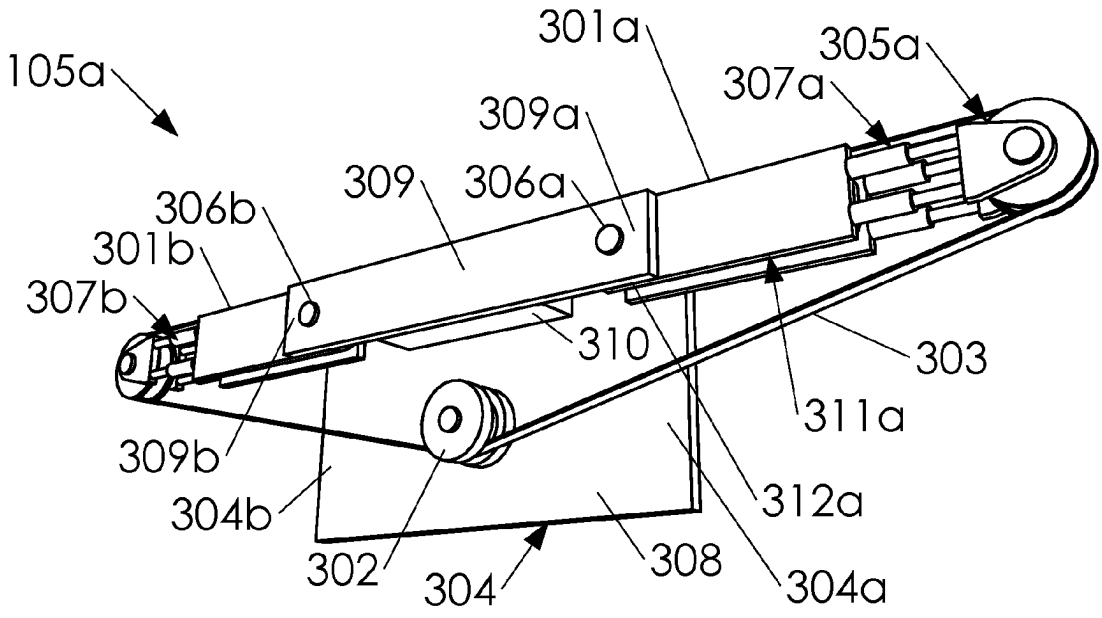


Fig. 3A

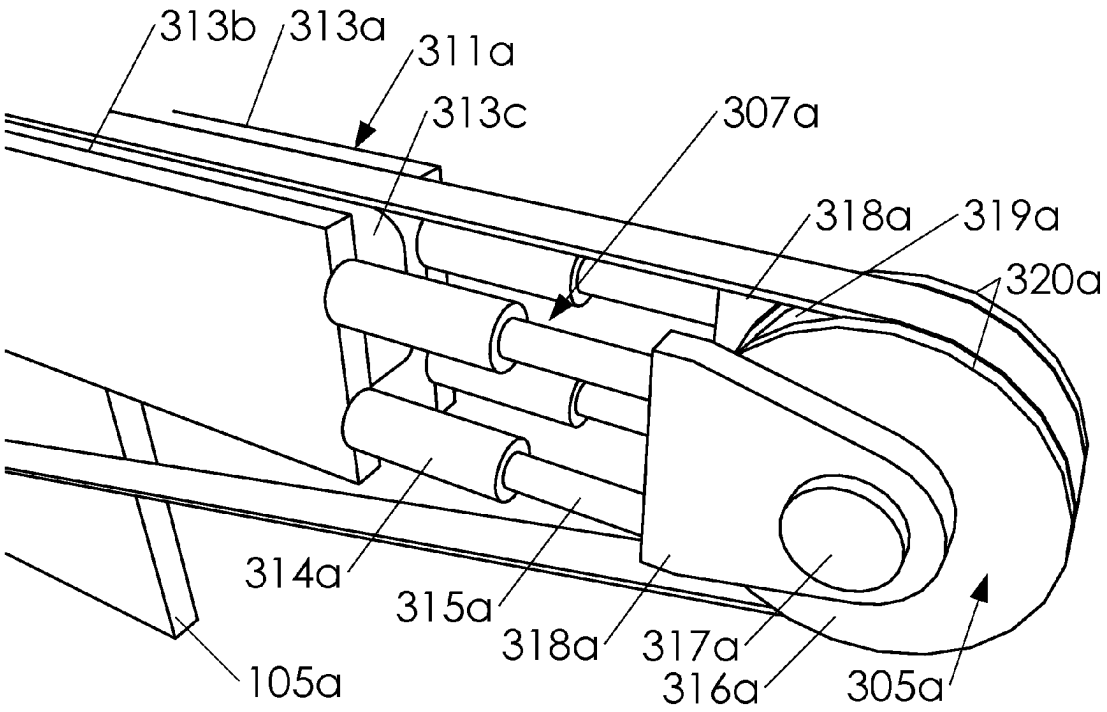

313b
313a
311a
313c
307a
318a
319a
320a
314a
315a
318a
317a
316a
305a
105a

Fig. 3B

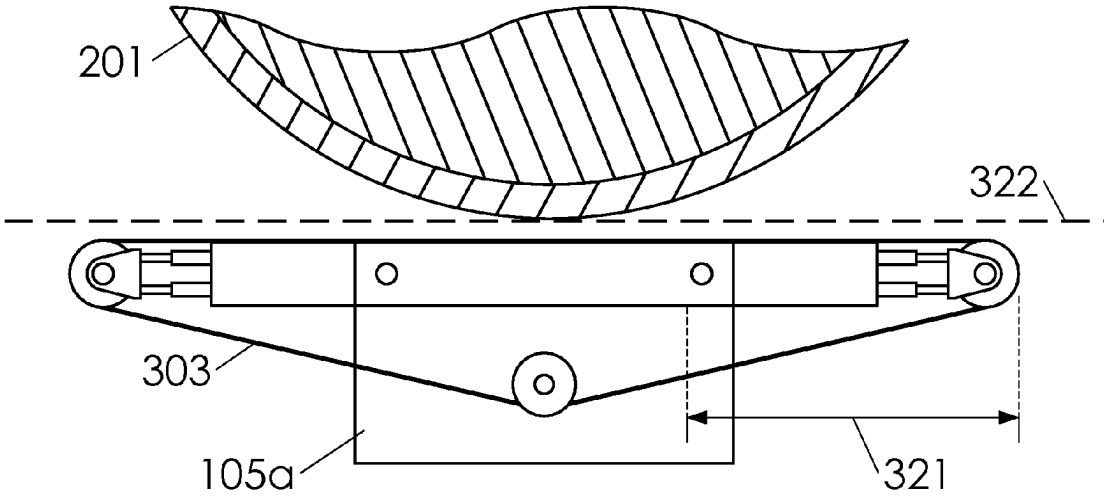

201
322
303
105a
321

Fig. 3C

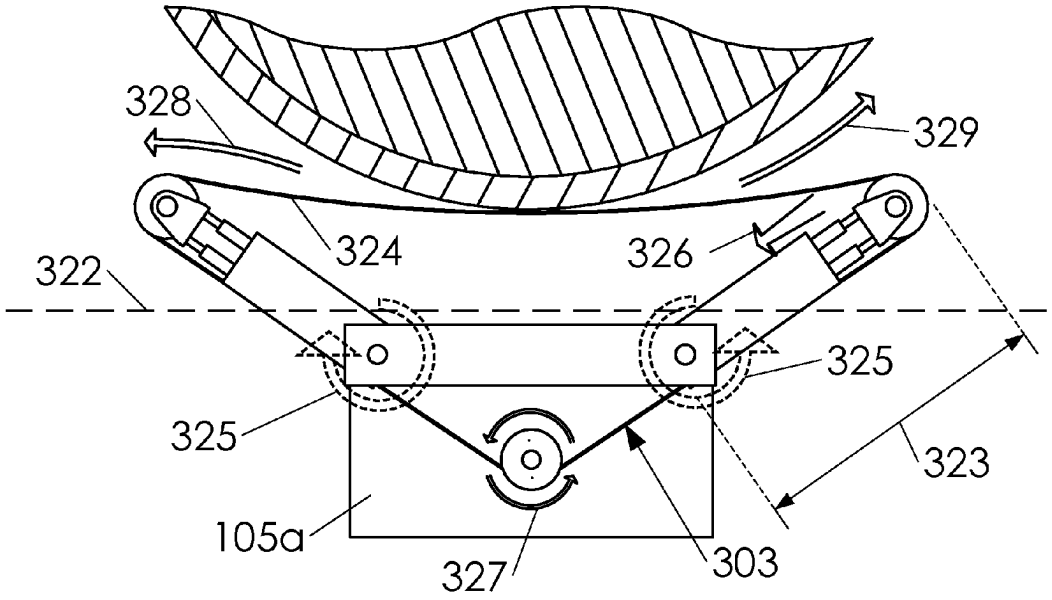


Fig. 3D

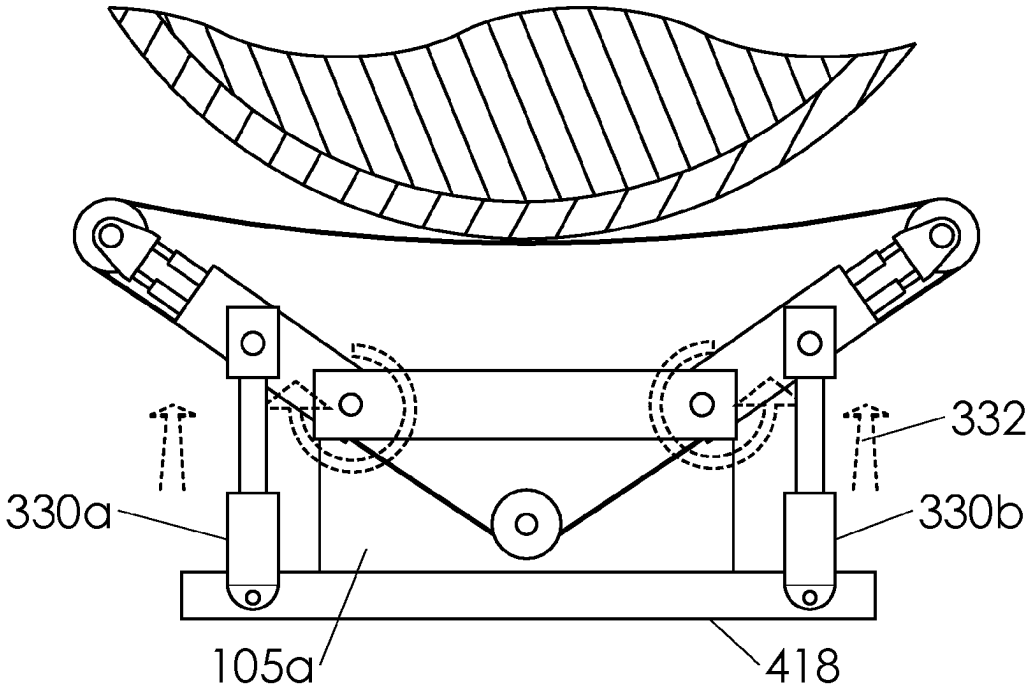


Fig. 3E

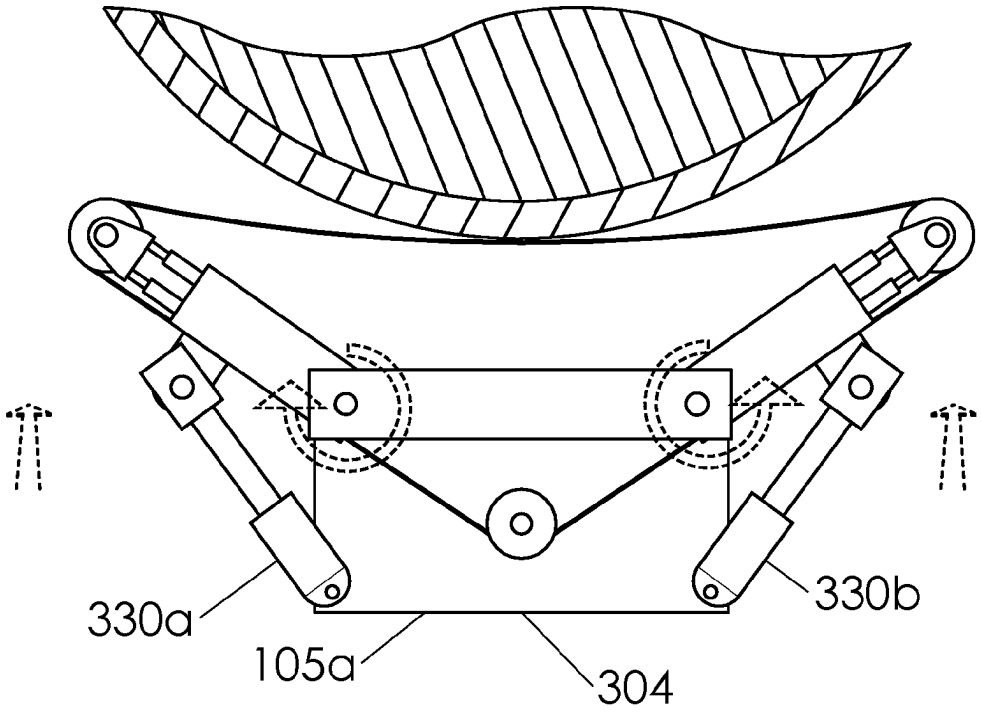


Fig. 3F

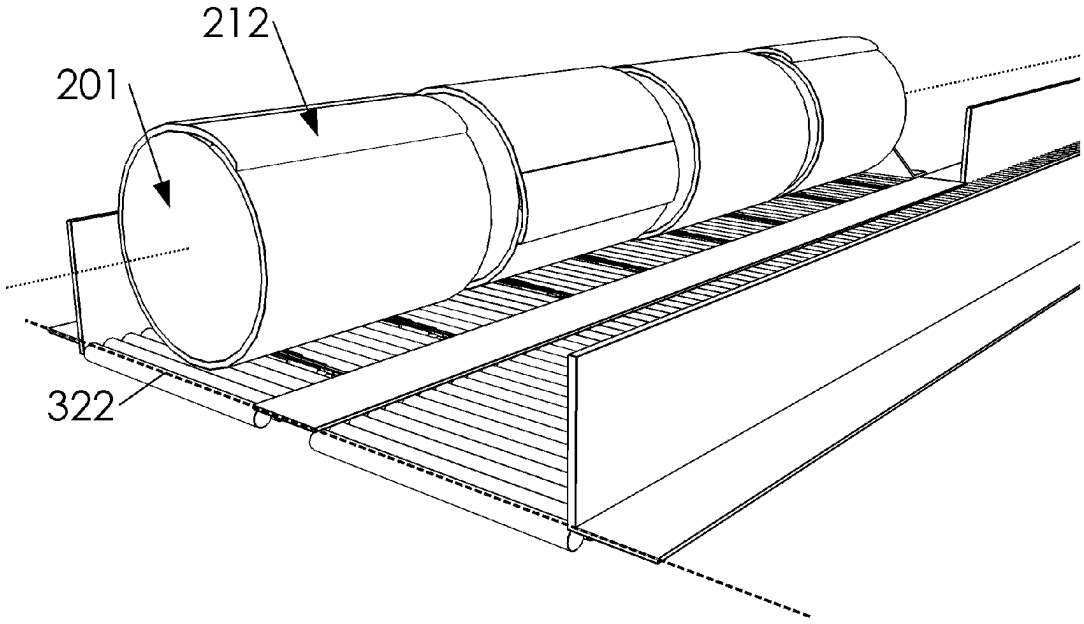


Fig. 4A

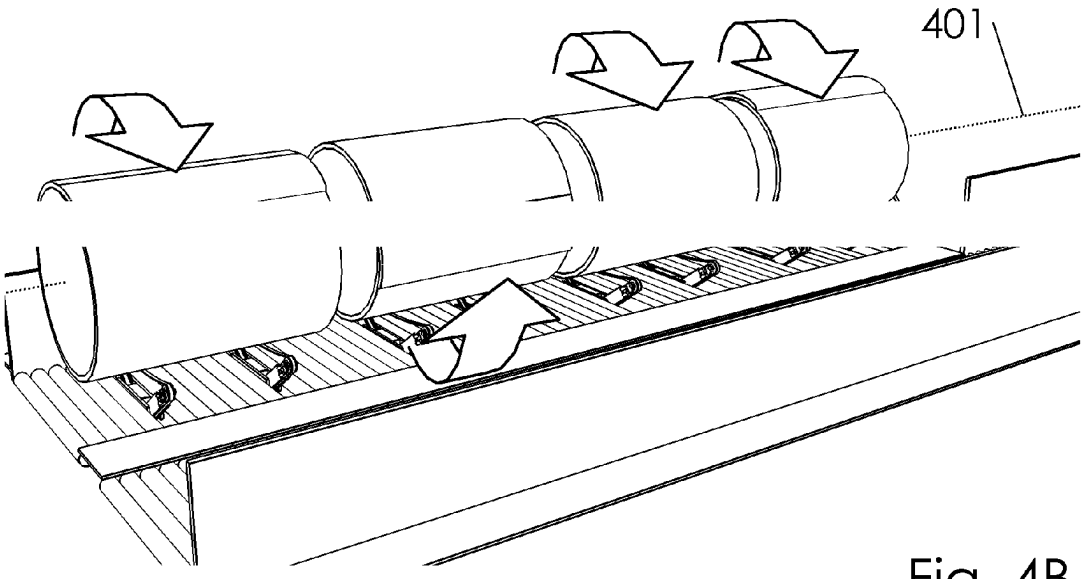


Fig. 4B

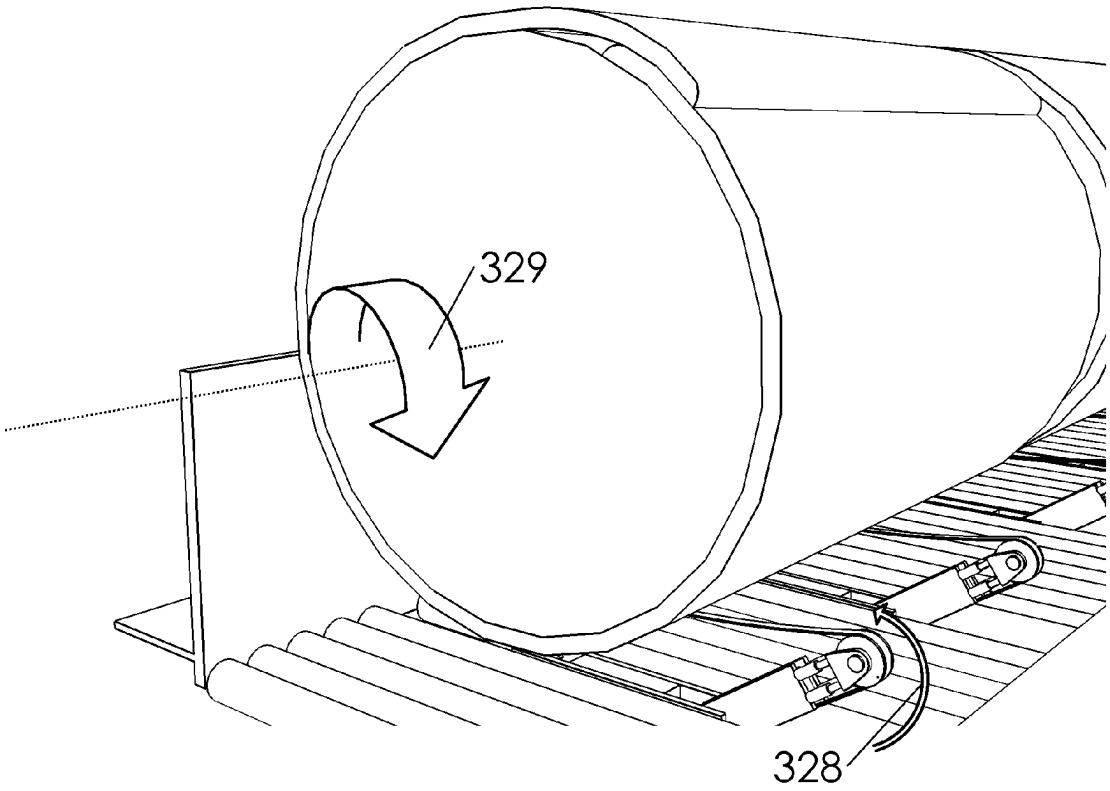


Fig. 4C

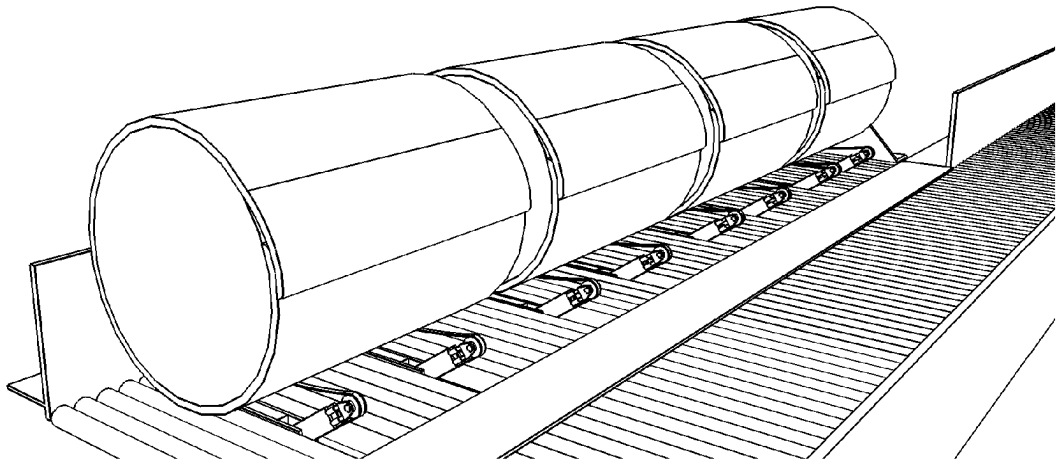


Fig. 4D

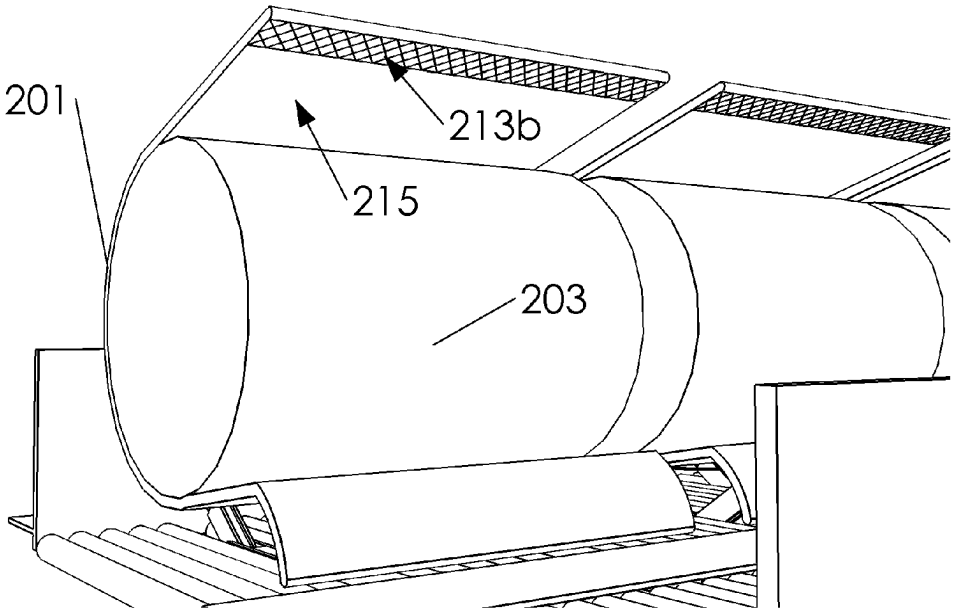


Fig. 5A

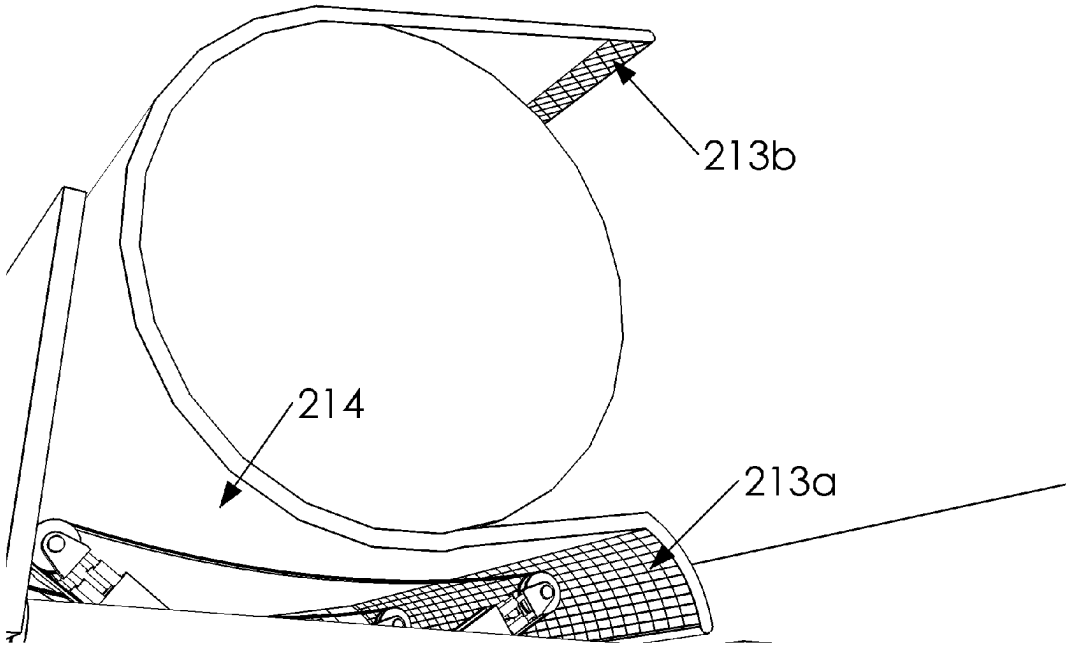


Fig. 5B

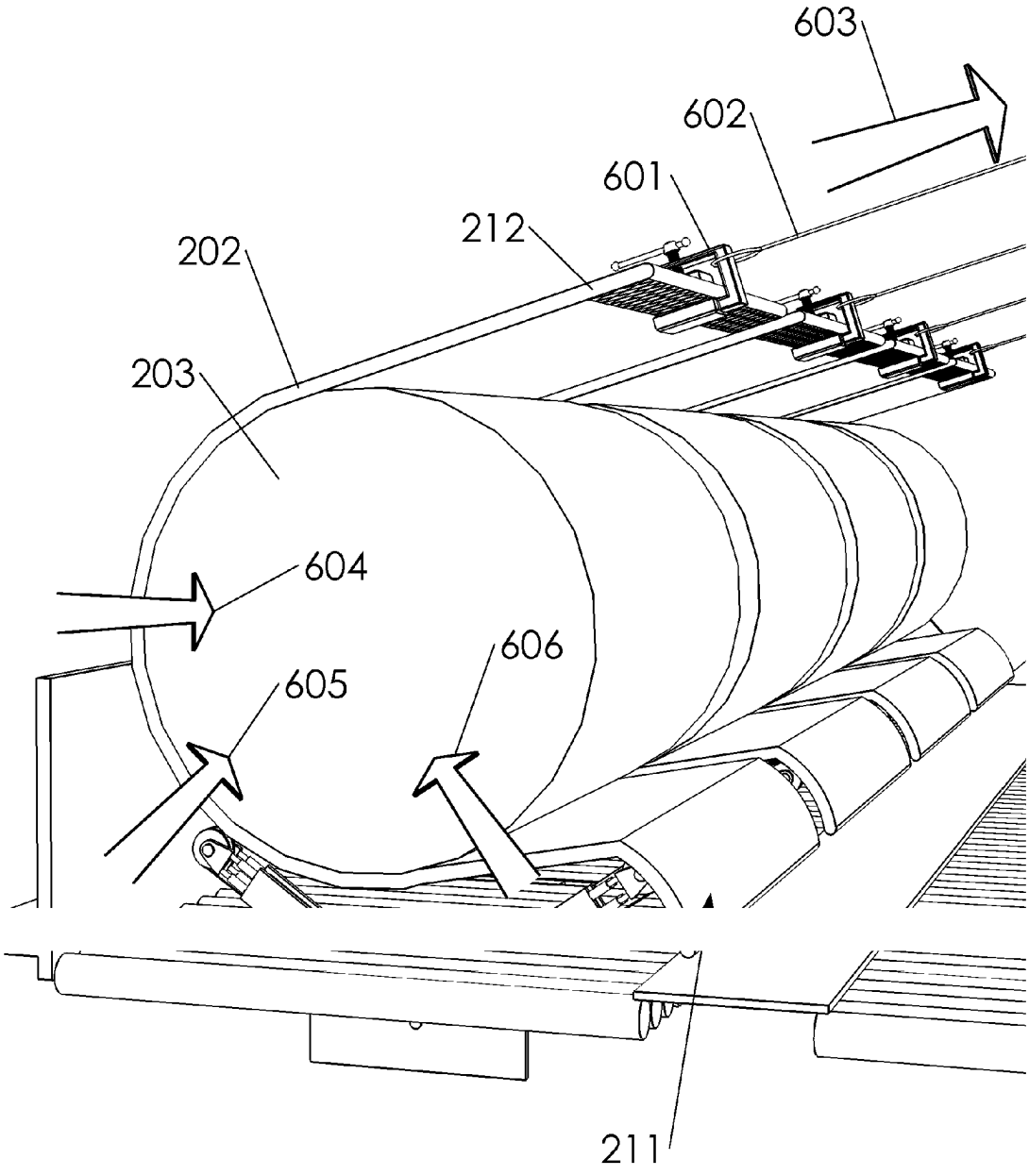
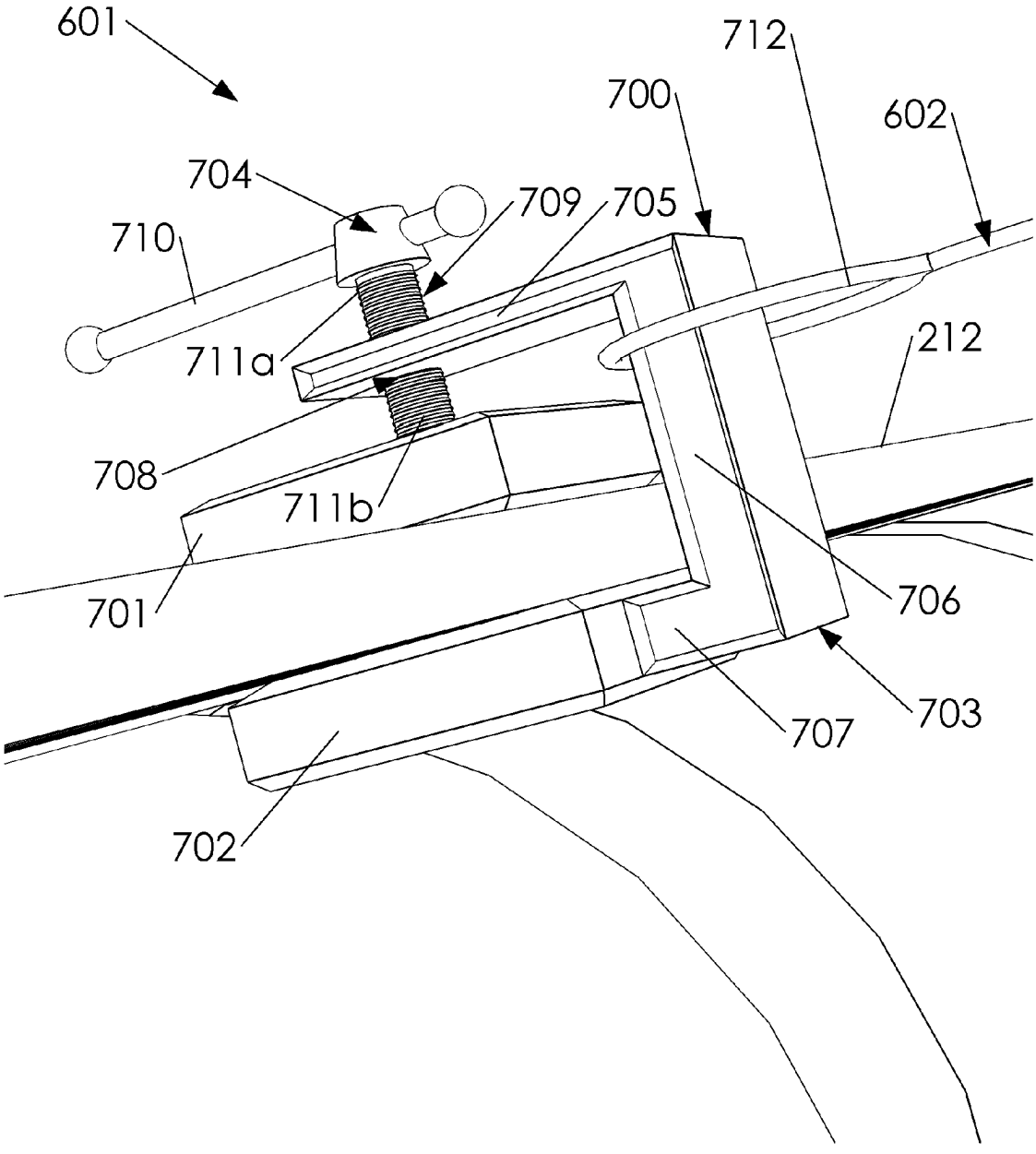


Fig. 6


601
712
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704
709
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711a
212
708
711b
706
701
703
707
702

Fig. 7A

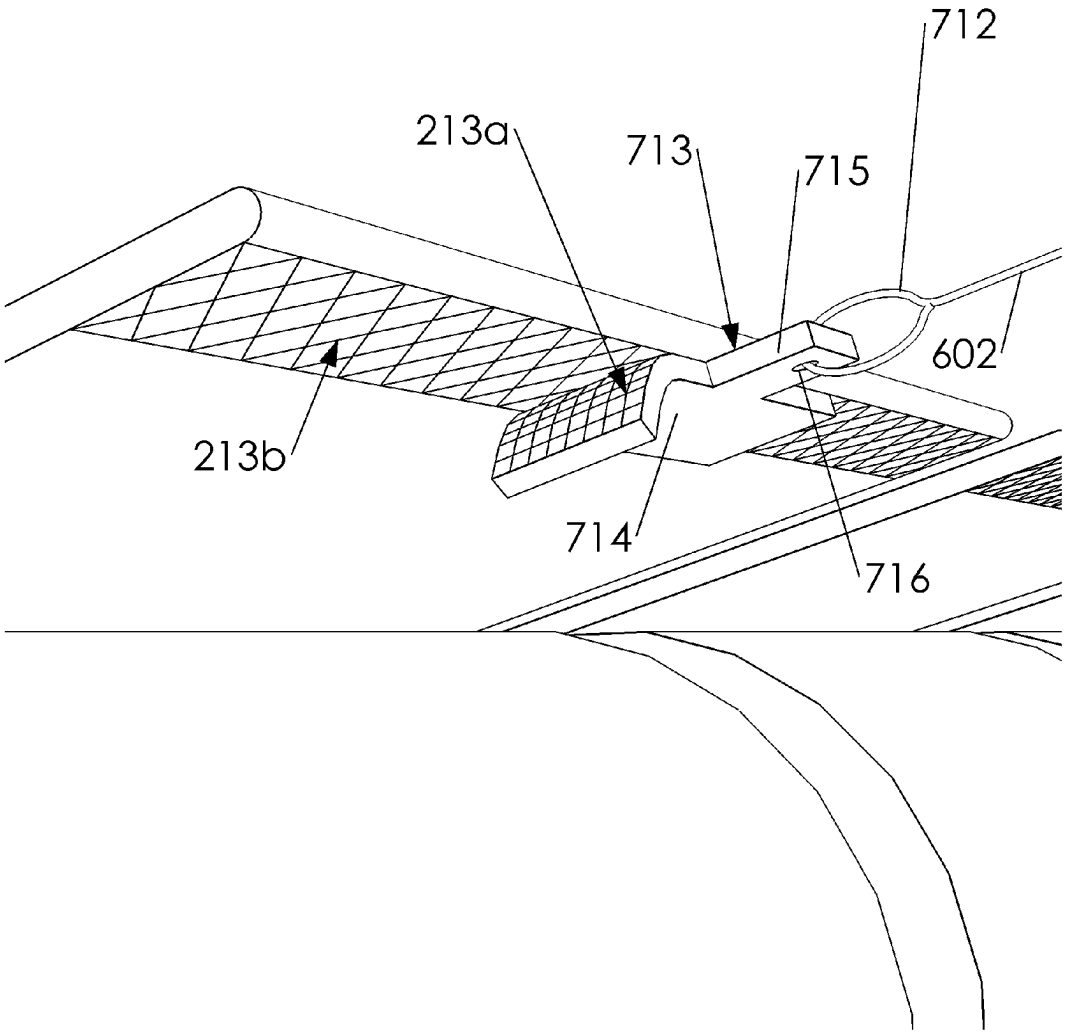

Fig. 7B

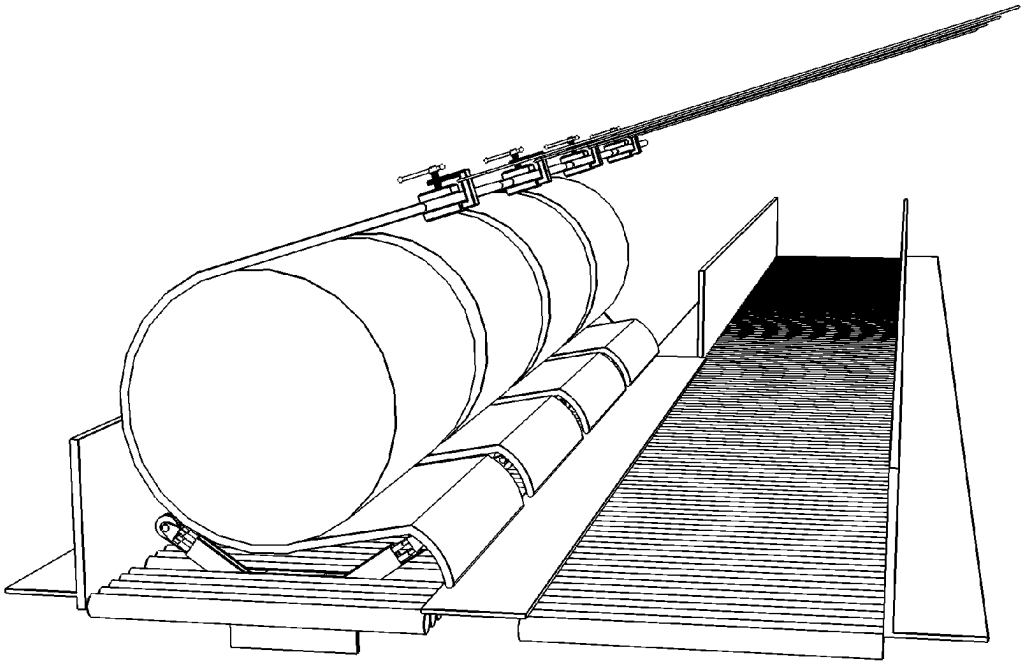

Fig. 8A

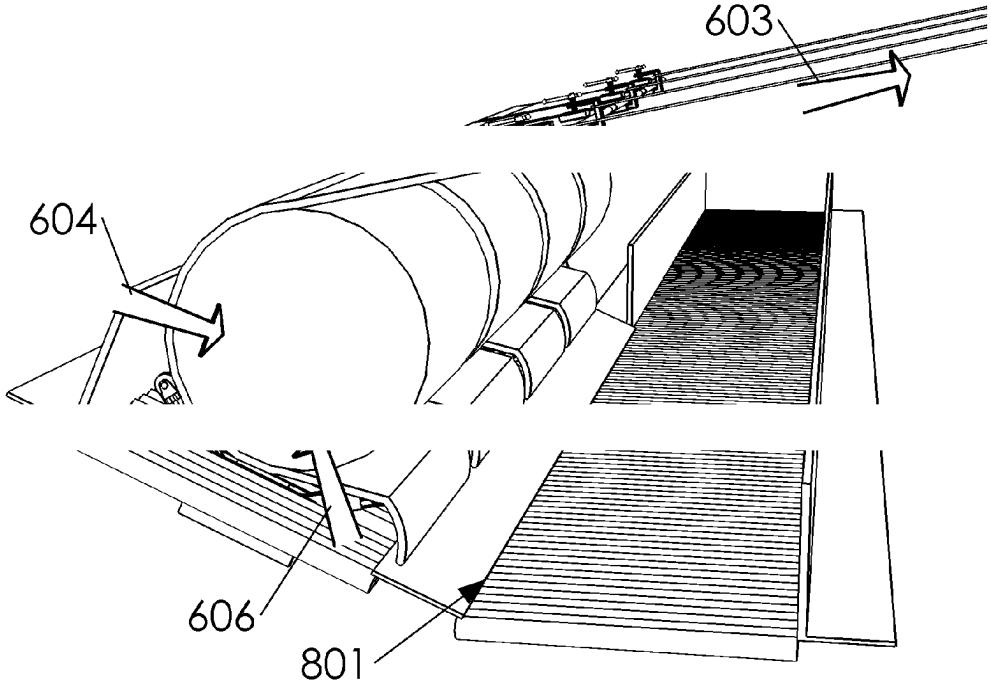

Fig. 8B

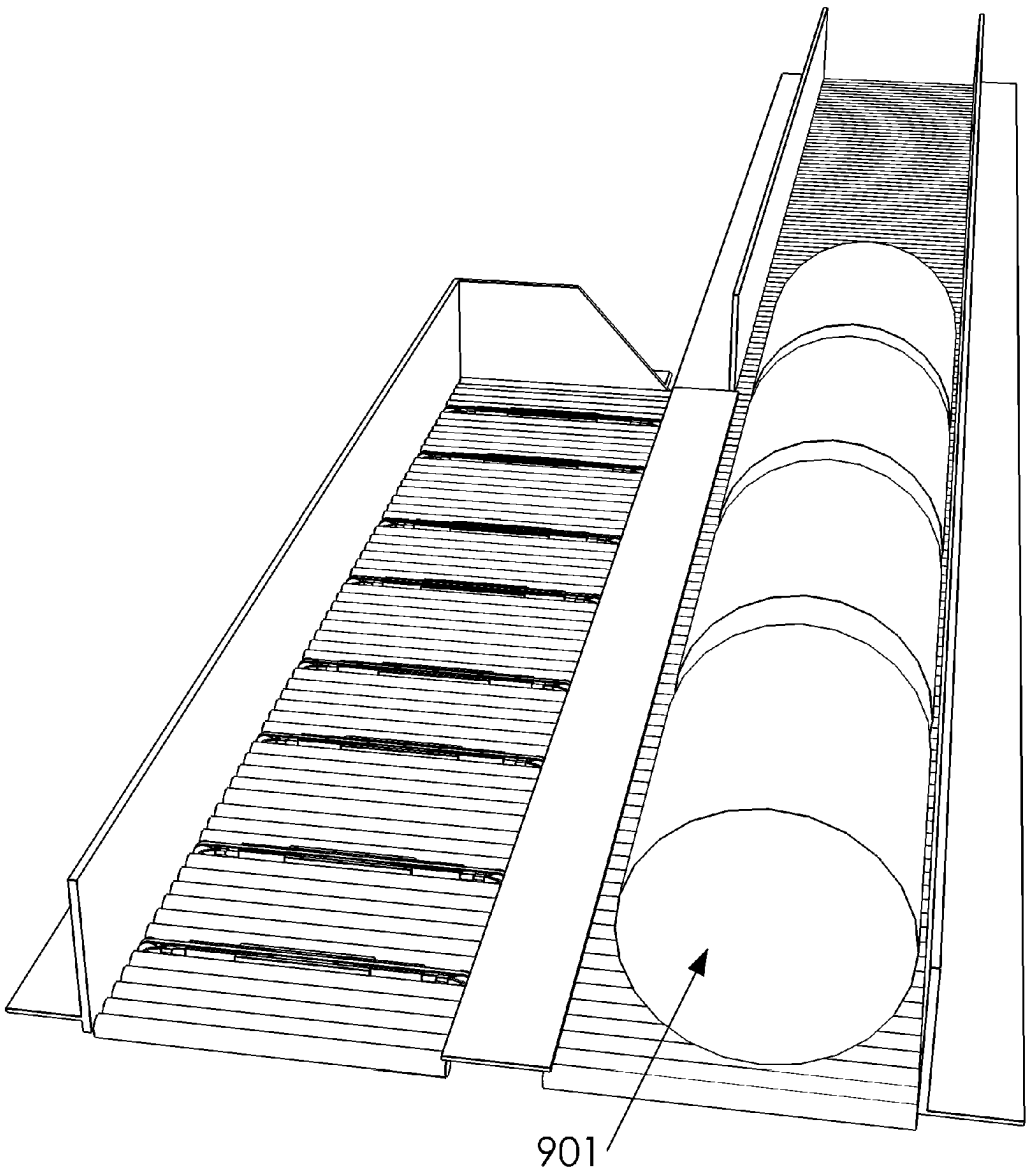

Fig. 9

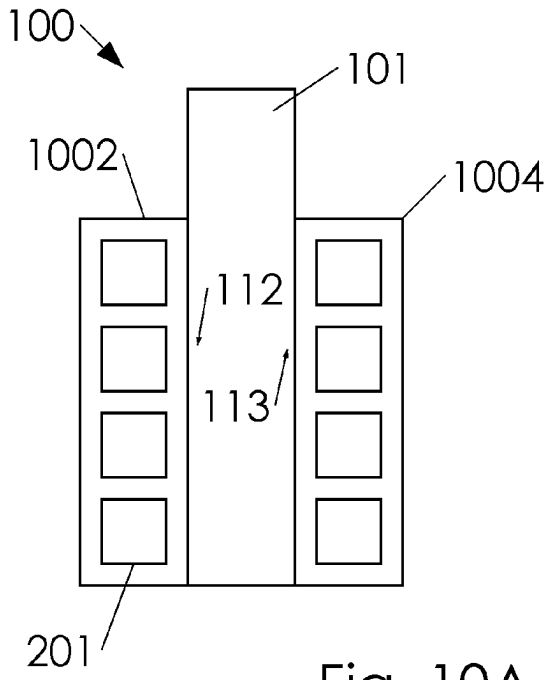

Fig. 10A

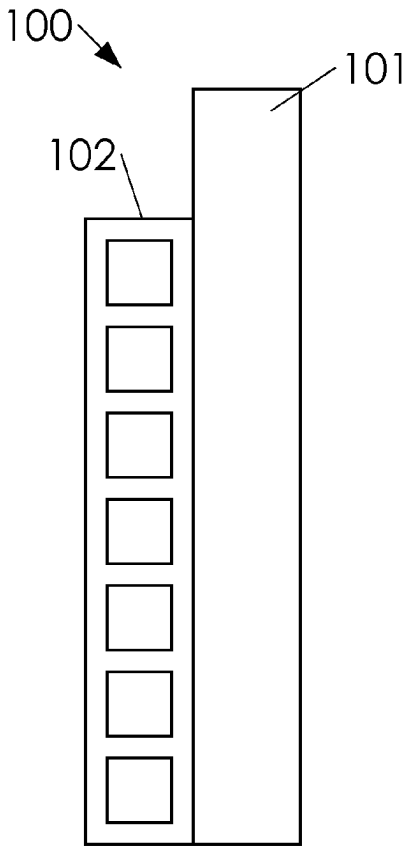

Fig. 10B

SYSTEM AND METHOD FOR UNWRAPPING ROUND MODULES

BACKGROUND

The applicants for these United States Letters Patent hereby claim the benefit of application Ser. No. 12/846,045, in which they are applicants and inventors as well. Further, said application (Ser. No. 12/846,045) is hereby incorporated by reference.

This disclosure relates to a system and method for unwrapping round modules. For purposes of this disclosure, cotton modules are discussed, and are an example of a fibrous material. However, such discussion of cotton modules is solely exemplary, and not limiting.

Methods for handling harvested cotton by cotton-harvesters, such as cotton strippers or cotton pickers, have evolved over the years. At one time, cotton would be dumped into trailers that were then delivered to the cotton gin. This system required frequent trips to the cotton gin, expending significant amounts of time and energy. Eventually, cotton strippers were developed capable of forming the cotton into rectangular cotton modules. Rectangular cotton modules eliminated the need for frequent trips to the cotton gin because modules were capable of accumulation without trailers. However, rectangular cotton modules were susceptible to damage due to environmental hazards such as moisture and wind erosion. To protect rectangular cotton modules awaiting delivery to a cotton gin, a plastic tarpaulin cover was frequently employed. Such methods of handling harvested cotton in covered rectangular cotton modules have been further improved by the introduction of cotton harvesters capable of making round modules of harvested cotton.

Round modules can be cylindrical packed cotton modules wrapped in tarpaulin covers along the side walls of the cylinder shape. They can be created of harvested cotton inside modern cotton harvesters. More comprehensively wrapped than their predecessors, round modules overcome many of the shortcomings of covered rectangular cotton modules. The round module can provide substantial savings by preventing lost or damaged cotton due to environmental deterioration. For example, round modules are less likely to absorb ground water which could foreseeably collect around the base of a cotton module.

Round modules represent a technological advancement in the handling of harvested cotton but cause new difficulty for cotton gins. Gin operators must completely separate cotton from the round module wrapper such that no contaminants from the wrapper remain during ginning.

Various methods exist for separating cotton from the round module wrapper. In one embodiment, a pair of curved arms lifts the round module and rotates the module along its cylindrical axis. A slitter for cutting the cover removes the cover during rotation. However, such system is incapable of accommodating multiple round modules simultaneously and fails to provide a uniform feed of unwrapped cotton exiting the system. In another embodiment, arm structures grasp, lift and reorient the round module into a vertical orientation, thereby allowing the weight of the cotton itself to pull the cotton out of the open bottom of the module. As the cotton drops from the module wrapper, the wrapper is retained by spikes in the grasping arm structures. Likewise, such system is also incapable of accommodating multiple round modules simultaneously and fails to produce a uniform feed of unwrapped cotton exiting the system. Further, this embodiment is likely to leave cotton bound within the uncut module wrapper.

As such it would be useful to have an improved system and method for unwrapping round modules.

SUMMARY

A round module unwrapping system and a round module unwrapping method are disclosed.

Said round module unwrapping system comprising a one or more module feeder floors and a pulling assembly. Said one or more module feeder floors capable of supporting a one or more round modules each having a module wrapper enclosing a packed fibrous material. Said one or more module feeder floors comprise a primary module feeder and a one or more titling module feeders. Said one or more titling module feeders comprise a non-inclined position and an inclined position. Said non-inclined position comprises said one or more titling module feeders substantially parallel with said primary module feeder. Said inclined position comprises a first side of said one or more titling module feeders raised higher than a second side. Said second side of said one or more titling module feeders is aligned next to said primary module feeder. said round module unwrapping system having a first side and a second side. Said pulling assembly capable of attaching to a second flap of said module wrapper with a flap clasping portion. A pulling force capable of pulling said pulling assembly. Said module wrappers, having a first flap, said second flap, an inside surface, and an outside surface, are wrapping around said packed fibrous material with said first flap releaseably attaching to said second flap. Said round modules having a first side, a second side, a front, a back, a top, and a bottom. Said module feeder floors comprises a conveyor capable of moving said one or more round modules between a first end and a second end of said round module unwrapping system.

Said round module unwrapping method comprising: supporting one or more round modules on a module feeder floor of a round module unwrapping system, detaching a first flap from a second flap of a module wrapper of said round modules, and pulling said second flap of said module wrapper. Said round module unwrapping system comprises a module feeder floor, a first side and a second side. Each of said round modules comprise a module wrapper holding a packed fibrous material. Each of said round modules comprise a first side, a second side, a front, a back, a top, and a bottom. Each of said module wrappers comprise said first flap, said second flap, an inside surface, and an outside surface.

BRIEF DESCRIPTION OF THE DRAWINGS

FIGS. **1**A and **1**B illustrate a perspective overview and an elevated top view of a round module unwrapping system.

FIGS. **2**A and **2**B illustrate a two perspective overviews of a said one or more round modules loaded onto said titling module feeder.

FIGS. **2**C and **2**D illustrate an elevated top view of an outside surface and an inside surface of module wrapper, in a flattened out configuration. In one embodiment, said module wrapper can comprise said outside surface and said inside surface.

FIGS. **3**A and **3**B illustrate a perspective overview and a perspective detailed view of said module rotator in a non-use position.

FIG. **3**C illustrates an elevated front view of said module rotator in said non-use position with a cross section of said module wrapper.

FIGS. **3**D, **3**E and **3**F illustrate a plurality of elevated front views of said module rotator in said in-use position with a cross-section view of module wrapper.

FIGS. **3**E and **3**F illustrates two elevated front views of said module rotator with a plurality of lifters.

FIG. **4**A illustrates a perspective side overview of said one or more round modules on said tilting module feeder with said one or more round modules in a non-aligned orientation.

FIGS. **4**B and **4**C illustrates a perspective side overview and detailed side overview of said one or more round modules transitioning from said non-aligned orientation to an aligned orientation.

FIG. **4**D illustrates a perspective side overview of said one or more round modules lifted on said one or more module rotators and in said aligned orientation.

FIGS. **5**A and **5**B illustrate a front and rear view of said round module in an open configuration.

FIG. **6** illustrates round module in said open configuration with a pulling assembly pulling on said second flap.

FIG. **7**A illustrates a detailed view of a clamp.

FIG. **7**B illustrates detailed view of a hook-and-loop clasping device.

FIGS. **8**A and **8**B illustrate two perspective overviews of said one or more round modules, first in an open configuration with tilting module feeder in a non-inclined position and second in an inclined position, respectively.

FIG. **9** illustrates a plurality of unwrapped modules **901** on primary module feeder.

FIGS. **10**A and **10**B illustrate an elevated top view of two variations on said round module unwrapping system.

DETAILED DESCRIPTION

Described herein is a round module unwrapping system and method. The following description is presented to enable any person skilled in the art to make and use the invention as claimed and is provided in the context of the particular examples discussed below, variations of which will be readily apparent to those skilled in the art. In the interest of clarity, not all features of an actual implementation are described in this specification. It will be appreciated that in the development of any such actual implementation (as in any development project), design decisions must be made to achieve the designers' specific goals (e.g., compliance with system- and business-related constraints), and that these goals will vary from one implementation to another. It will also be appreciated that such development effort might be complex and time-consuming, but would nevertheless be a routine undertaking for those of ordinary skill in the field of the appropriate art having the benefit of this disclosure. Accordingly, the claims appended hereto are not intended to be limited by the disclosed embodiments, but are to be accorded their widest scope consistent with the principles and features disclosed herein.

FIGS. **1**A and **1**B illustrate a perspective overview and an elevated top view of a round module unwrapping system **100**. In one embodiment, said round module unwrapping system **100** can comprise a one or more module feeder floors, a one or more wind boards **103**, a one or more catwalks **104**, and/or a one or more module rotators. In one embodiment, said one or more module feeder floors can comprise a primary module feeder **101** and a one or more titling module feeders (comprising a titling module feeder **102**). In one embodiment, said one or more module rotators can comprise a module rotator **105***a*. In one embodiment, said titling module feeder **102** can comprise a first end **106**, a second end **107**, a first side **108**, and a second side **109**. In one embodiment, said primary module feeder **101** can comprise a first end **110**, a second end **111**, a first side **112**, and a second side **113**. In one embodiment, said primary module feeder **101** can be longer than said titling module feeder **102**. In such embodiment, said primary module feeder **101** can comprise a second end first side **114** along a portion of said first side **112** extending beyond said second side **109**.

In one embodiment, said one or more module feeder floors can comprise conveyors capable of moving one or more objects between a first end and a second end of said round module unwrapping system **100**. For example, in one embodiment, said titling module feeder **102** can convey an object between said first end **106** and said second end **107**. In one embodiment, the term "conveyor" can comprise a roller-bed (as illustrated in FIG. **1**, et. sec.), a gravity skatewheel conveyor, a gravity roller conveyor, a belt conveyor, a wire mesh conveyor, a plastic belt conveyor, a belt driven live roller, a lineshaft roller conveyor, a chain conveyor, a screw conveyor, a chain driven live roller conveyor, or the equivalent thereof.

In one embodiment, said catwalks **104** can comprise an intermediate module unwrapper catwalk **104***a*. In one embodiment, said intermediate module unwrapper catwalk **104***a* can be aligned between and abut said one or more module feeder floors. In one embodiment, said intermediate module unwrapper catwalk **104***a* can align between said primary module feeder **101** and said titling module feeder **102**. In one embodiment, said intermediate module unwrapper catwalk **104***a* can comprise a part of said titling module feeder **102**. In one embodiment, said intermediate module unwrapper catwalk **104***a* abuts said first side **112** and said second side **109**. In another embodiment, said intermediate module unwrapper catwalk **104***a* abuts said second side **113** and said first side **108**.

In one embodiment, said round module unwrapping system **100** can comprise a side portions (comprising a first side **116***a* and a second side **116***b*). In one embodiment, said first side **116***a* can comprise said first side **108** and second end **107** of said titling module feeder **102**, and said second end first side **114** of said primary module feeder **101** (as illustrated in FIG. **1**B). In one embodiment, said second side **116***b* can comprise said second side **113** of said primary module feeder **101**. In one embodiment, round module unwrapping system **100** can comprise said wind boards **103** along said side portions of said round module unwrapping system **100**. In one embodiment, said round module unwrapping system **100** can comprise said catwalks **104** along said side portions of round module unwrapping system **100**. In one embodiment, round module unwrapping system **100** can comprise both wind boards **103** and catwalks **104** along said side portions of round module unwrapping system **100**. In one embodiment, said wind boards **103** can block wind as well as create a retaining wall around module unwrapping system **100**. In one embodiment, said catwalks **104** can allow human access to said round module unwrapping system **100** by providing a flat surface for walking. In one embodiment, where said titling module feeder **102** is aligned on said first side **112**, said wind boards **103** and said module unwrapper catwalk **104** can be attached at said second end **107**, said first side **108**, said second side **113**, and said second end first side **114**.

In one embodiment, said one or more module rotators can be installed in said titling module feeder **102**, as will be discussed and illustrated further infra.

FIGS. **2**A and **2**B illustrate a two perspective overviews of a said one or more round modules loaded onto said titling module feeder **102**. In one embodiment, said one or more round modules can comprise a round module **201**. In one embodiment, said one or more round modules can each be substantially to said round module **201**. In one embodiment, said round module **201** can comprise a module wrapper **202** substantially encasing a packed fibrous material **203** along a round module sidewall **204**. Further, round module **201** can comprise a first side **205**, a second side **206**, a front **207**, a back **208**, a top **209**, and a bottom **210**. Packed fibrous material **203** can comprise cotton. In one embodiment, said module wrapper **202** can comprise a tarpaulin material wrapped around said packed fibrous material **203** and bound such that said round module **201** does not unravel prior to processing at said round module unwrapping system **100**.

In one embodiment, said one or more round modules can be delivered to said round module unwrapping system **100** on a vehicle. Once delivered, said one or more round modules can be loaded onto said round module unwrapping system **100** at said first end **106**. In one embodiment, said modules of fibrous materials, which are not bound as said one or more round modules, such as rectangular cotton modules, can be loaded onto said round module unwrapping system **100** at said first end **110** of said primary module feeder **101**. In one embodiment, said one or more module feeder floors can support a one or more of said one or more round modules.

FIGS. **2**C and **2**D illustrate an elevated top view of an outside surface **214** and an inside surface **215** of module wrapper **202**, in a flattened out configuration. In one embodiment, said module wrapper **202** can comprise said outside surface **215** and said inside surface **214**. In one embodiment, said module wrapper **202** can comprise a rectangular shape having a width **216** substantially equal to a width of said round module **201** and a length **217** longer than a circumference **218** of said round module **201**; wherein, an excess length **219** of said round module **201** can overlap as said module wrapper **202** wraps around said packed fibrous material **203**. In one embodiment, said excess length **219** of said round module **201** can comprise a said first flap **211** and a second flap **212**. In one embodiment, a flap attachment between said first flap **211** and said second flap **212** can hold said module wrapper **202** around said packed fibrous material **203**. In one embodiment, said flap attachment can comprise opposing portions of a hook-and-loop fastener, such as Velcro®. In one embodiment, said hook-and-loop fastener can comprise a first portion **213***a* and a second portion **213***b*. Hook-and-loop fastener is described infra. In one embodiment, first flap **211** is capable of detaching from second flap **212** to release packed fibrous material **203**. In one embodiment, first portion **213***a* attaches to outside surface **214** at first flap **211**. In one embodiment, second portion **213***b* attaches to inside surface **215** at second flap **212**. In one embodiment, holding packed fibrous material **203** within module wrapper **202** can comprise wrapping module wrapper **202** around packed fibrous material **203**, and attaching first portion **213***a* to second portion **213***b*. In one embodiment, releasing packed fibrous material **203** from module wrapper **202** can comprise detaching first portion **213***a* from second portion **213***b*.

In another embodiment, said flap attachment can comprise an adhesive applied to the surface between first flap **211** and second flap **212**, rather than hook-and-loop fastener. In such an embodiment, first flap **211** and second flap **212** are detached from one another by cutting module wrapper **202** from first side **205** to second side **206** of round module **201**. In one embodiment, holding packed fibrous material **203** within module wrapper **202** can comprise wrapping module wrapper **202** around packed fibrous material **203**, and attaching first flap **211** to second flap **212** with an adhesive.

In one embodiment, said module wrapper **202** can comprise a non-reusable form as disclosed in U.S. patent Ser. No. 12/846,045, filed by the Applicants of this application and hereby incorporated by reference. The claimed embodiment of said round module unwrapping system **100** herein disclosed is capable of handling a range of different embodiments of said one or more round modules, even though the figures are drawn to a reusable version of said module wrapper **202** (as shown in FIGS. **2**C and **2**D, et. sec.).

FIGS. **3**A and **3**B illustrate a perspective overview and a perspective detailed view of said module rotator **105***a* in a non-use position. One or more module rotators can comprise a plurality of positions such as an in-use position and said non-use position. In one embodiment, said module rotator **105***a* can comprise a one or more actuating arms (comprising a first arm **301***a* and a second arm **301***b*), a belt driveshaft **302**, a belt **303**, and a body **304**. In one embodiment, said body **304** can comprise a first side **304***a* and a second side **304***b*. In one embodiment, each of said one or more actuating arms can comprise a pulley assembly (such as a pulley assembly **305***a*) and an arm hinge (such as a hinge **306***a*).

In one embodiment, said first arm **301***a* can comprise a pulley assembly **305***a*, an arm hinge **306***a*, and an accumulator assembly **307***a*. In one embodiment, said second arm **301***b* can comprise a pulley assembly **305***b*, an arm hinge **306***b*, and an accumulator assembly **307***b*. Each of said one or more actuating arms can be configured as described as follows for said first arm **301***a*. In one embodiment, said pulley assembly **305***a* can attach to an internal portion **311***a* of said first arm **301***a* with said accumulator assembly **307***a*. In one embodiment, said accumulator assembly **307***a* can comprise a one or more accumulators (as illustrated with four such accumulators). In one embodiment, each of said accumulators can comprise a cylinder **314***a* and a piston **315***a*. In one embodiment, said internal portion **311***a* can comprise a back plate **313***a*, a front plate **313***b*, and an internal portion **313***c*. In one embodiment, internal portion **313***c* can attach between back plate **313***a* and front plate **313***b*, as illustrated in FIG. **3**B. In one embodiment, internal portion **313***c* can comprise rounded corners so as to minimize damage to belt **303** as belt **303** rotates past said one or more actuating arms.

In one embodiment, body **304** can comprise a back plate **308**, a front plate **309**, and a connector **310**. In one embodiment, said first end **312***a* of said first arm **301***a* can attach to a first side **309***a* of said front plate **309** with said hinge **306***a*, as illustrated in FIG. **3**A. Similarly, said second arm **301***b* can attach at a second side **309***b* of front plate **309** with hinge **306***b*. In one embodiment, arm hinges **306** can hold said one or more actuating arms to body **304** by holding said one or more actuating arms between back plate **308** and body **304**. In one embodiment, said one or more actuating arms can each comprise an axis at arm hinges **306**.

In one embodiment, accumulator assembly **307***a* can comprise a one or more springs, accumulators, hydraulic accumulators, spring accumulators, or similar. In one embodiment, as in FIG. **3**A-**3**E, accumulator assembly **307** can comprise a plurality of accumulators each comprising a cylinder (such as said cylinder **314***a*) and a floating rod (such as said piston **315***a*). In one embodiment, cylinder **314***a* can comprise a pressure storage reservoir (which can comprise a pressurized fluid) in which can be held under pressure by a spring, a raised weight or a compressed gas. In one

embodiment, said piston **315***a* can be pressed outward, away from said cylinder **314***a*, by pressure in said pressure storage reservoir. In one embodiment, said accumulator assembly **307***a* can press said pulley assembly **305***a* outward from said hinge **306***a*.

In one embodiment, as with the others among said pulley assemblies, said pulley assembly **305***a* can comprise a wheel **316***a*, an axle **317***a*, a one or more side portions **318***a*. In one embodiment, said wheel **316***a* can be held between said one or more side portions **318***a* by said axle **317***a*. In one embodiment, said wheel **316***a* can spin upon said axle **317***a*. In one embodiment, said belt **303** can rotate around a portion of said wheel **316***a*. In one embodiment, said wheel **316***a* can comprise a groove **319***a* between a one or more flanges **320***a*. In one embodiment, said belt **303** fits between said flanges **320***a*. In one embodiment, said belt **303** can comprise a flat belt lacking discrete interlocking members as would be found on a chain sprocket, spur gear, timing belt, a chain belt, or similar. In one embodiment, said belt **303** can be varying widths as necessary. In one embodiment, said belt **303** can comprise a width sufficient to support a portion of said round module **201**, as discussed infra. In one embodiment, said belt **303** can comprise an 8" width. In one embodiment, said wheel **316** can comprise a slightly convex external surface to keep a flat belt centered. In another embodiment, said belt **303** can comprise a chain sprocket, spur gear, or timing belt.

In one embodiment, belt **303** can wrap around a multi-point loop comprising said wheel **316***a*, a wheel **316***b*, and said belt driveshaft **302**. Said wheel **316***a* can comprise a portion of said pulley assembly **305***a*. In one embodiment, said wheel **316***b* can comprise a portion of said a second pulley assembly **305***b*. In one embodiment, said belt **303** can be kept tight between said wheel **316***a* and said wheel **316***b* by pressing said pulley assembly **305***a* and said pulley assembly **305***b* substantially apart from one another with said accumulator assembly **307***a* and said accumulator assembly **307***b*.

In one embodiment, said accumulator assemblies (comprising said accumulator assembly **307***a* and said accumulator assembly **307***b*) can attach said one or more actuating arms to said pulley assemblies (comprising said pulley assembly **305***a* and said pulley assembly **305***b*). In one embodiment, one or more of said accumulators can attach said front plate **313***b* to a portion of side portion **318***a*. In one embodiment, a different one or more accumulators can attach back plate **313***a* to a different portion of side portion **318***a*.

FIG. **3**C illustrates an elevated front view of said module rotator **105***a* in said non-use position with a cross section of said module wrapper **202**. In one embodiment, said one or more actuating arms can comprise a non-use length **321**. In one embodiment, said non-use length **321** can comprise a length of each of said one or more actuating arms when said one or more actuating arms are in said non-use position. While in said non-use position, said module rotator **105***a* can be below a floor level **322**; wherein, floor level **322** represents a top surface level of titling module feeder **102**, primary module feeder **101**, and/or said one or more module feeder floors.

FIGS. **3**D, **3**E and **3**F illustrate a plurality of elevated front views of said module rotator **105***a* in said in-use position with a cross-section view of module wrapper **202**. In one embodiment, where said module rotator **105***a* is in said in-use position, said module rotator **105***a* can comprise an in-use length **323**. In one embodiment, a portion of belt **303** can comprise a top belt portion **324**. In one embodiment, top belt portion **324** can comprise a portion of belt **303** elevated above floor level **322** and between pulley assembly **305***a* and pulley assembly **305***b*. In one embodiment, one or more of said module rotator **105***a* can be transitioned from said non-use position to said in-use position by: asserting a pivoting motion **325** said one or more actuating arms up at arm hinges **306**; and compressing **326** said accumulator assemblies **307**. In one embodiment, compressing **326** said accumulator assembly **307** can cause non-use length **321** to decrease into an in-use length **323**. In one embodiment, an external circumference of belt **303** is constant; thus, reducing non-use length **321** to in-use length **323** provides space within belt **303** for said one or more actuating arms to said pivoting motion **325**. In one embodiment, said pivoting motion **325** said one or more actuating arms can comprise attaching arm hinges **306** and said one or more actuating arms to a lever capable of said pivoting motion **325** said arm hinges **306** and said one or more actuating arms.

In one embodiment, rotating **327** said belt driveshaft **302** with a rotatory power source can be used for rotating **328** said belt **303** around said multi-point loop. Said rotatory power source can be an engine, motor, or similar. In one embodiment, rotating **327** said belt driveshaft **302** counter-clockwise results in rotating **328** said belt **303**, which can result in rotating **329** said round module **201**. In one embodiment, said rotating **329** can reverse.

FIGS. **3**E and **3**F illustrates two elevated front views of said module rotator **105***a* with a plurality of lifters. In one embodiment, said module rotator **105***a* can comprise one or more of said plurality of lifters. For example, in one embodiment, said module rotator **105***a* can comprise a first lifter **330***a* and a second lifter **330***b*. In one embodiment, each of said plurality of lifters can be attached to one of said one or more actuating arms with a hinge, as illustrated in FIG. **3**E. In one embodiment, applying said pivoting motion **325** to said one or more actuating arms can comprise applying a pushing motion **332** said one or more actuating arms with said plurality of lifters. In one embodiment, said plurality of lifters can be attached to a hydraulic lifting mechanism capable of pushing **332** said plurality of lifters. In one embodiment, said plurality of lifters can attach to said a horizontal member **418** (as illustrated in FIG. **3**E) or to a portion of said body **304** of said module rotator **105***a* (as illustrated in FIG. **3**F).

FIG. **4**A illustrates a perspective side overview of said one or more round modules on said tilting module feeder **102** with said one or more round modules in a non-aligned orientation. In one embodiment, said non-aligned orientation can comprise more than one said one or more round modules loaded on round module unwrapping system **100** wherein first flap **211** and second flap **212** of each round module **201** do not align with one another. It is statistically likely that, when loading a plurality of round module **201** onto round module unwrapping system **100**, said one or more round modules will be in a non-aligned orientation. This is because the parties responsible for collecting and/or delivering said one or more round modules to round module unwrapping system **100** are not responsible for orienting round module **201** in any particular manner.

FIGS. **4**B and **4**C illustrates a perspective side overview and detailed side overview of said one or more round modules transitioning from said non-aligned orientation to an aligned orientation. Said aligned orientation can comprise more than one said one or more round modules loaded on round module unwrapping system **100** wherein first flap **211** and second flap **212** of each round module **201** align with one another. In one embodiment, said aligned orientation

can comprise first flap **211** and second flap **212** of each round module **201** facing second side **116***b* of round module unwrapping system **100**. In one embodiment, it is not advantageous for round module **201** to be in said non-aligned orientation prior to being unwrapped. Rather, it can be helpful for said one or more round modules to be in said aligned orientation prior to being unwrapped. In one embodiment, said one or more round modules can be rotated on said module rotator **105***a* with a rotating procedure comprising: loading each of round module **201** over one or more module rotators in said non-use position; said pivoting motion **325** said one or more module rotators into said in-use position; rotating each belt **303** until round module **201** and thereby rotating each of said one or more round modules about a module axis **401**; orienting each of said one or more round modules into said aligned orientation. In one embodiment, wherein said two or more one or more module rotators are aligned under a single round module **201**, each belt **303** of said two or more one or more module rotators can be linked and caused to start, stop, and rotate at the same time and rates in order to ensure that said single round module **201** rotates evenly over said two or more one or more module rotators.

FIG. **4**D illustrates a perspective side overview of said one or more round modules lifted on said one or more module rotators and in said aligned orientation.

FIGS. **5**A and **5**B illustrate a front and rear view of said round module **201** in an open configuration. In one embodiment, placing said one or more round modules into said open configuration comprises rotating said one or more round modules into said aligned orientation and breaking said flap attachment between first flap **211** and second flap **212**. In one embodiment, breaking said flap attachment can comprise detaching said first portion **213***a* from said second portion **213***b* of said hook-and-loop fastener. In one embodiment, first portion **213***a* can attach to inside surface **215** at first flap **211**. In one embodiment, second portion **213***b* can attach to outside surface **214** at second flap **212**. Accordingly, in one embodiment, holding packed fibrous material **203** within module wrapper **202** can comprise wrapping module wrapper **202** around packed fibrous material **203** and attaching second portion **213***b* to first portion **213***a*.

FIG. **6** illustrates round module **201** in said open configuration with a pulling assembly **601** pulling on said second flap **212**. In one embodiment, said round module unwrapping system **100** can comprise said pulling assembly **601**. In one embodiment, pulling assembly **601** can comprise a line **602**. In one embodiment, pulling assembly **601** can attach to module wrapper **202** with a flap clasping device. The term "clasp" is defined here as a device for fastening or holding two things together; accordingly, said flap clasping device can comprise several means of holding a portion of module wrapper **202**. In one embodiment, pulling said module wrapper **202** can comprise: attaching said flap clasping device to second flap **212** and pulling with a pulling force **603**. Pulling force **603** can be capable of pulling said pulling assembly **601** and thereby separating module wrapper **202** from packed fibrous material **203**. Line **602** can be a cable, chain, rope, wire, cord, or any equivalent thereof.

In one embodiment, pulling force **603** can be created by running line **602** through a pulley, and attaching a counterweight to line **602** on the opposite side of said pulley from said pulling assembly **601**. In another embodiment, pulling force **603** can be applied by pulling line **602** with a tension clutch or the equivalent thereof. In another embodiment, pulling force **603** can comprise pulling assembly **601** pulled by a hydraulic arm rather than line **602**.

In one embodiment, where said one or more round modules are in said open configuration, packed fibrous material **203** can be supported and kept substantially intact within module wrapper **202** by a set of module wrapper forces. Said module wrapper forces can comprise a back force **604**, a lower back force **605**, and a lower front force **606**. In one embodiment, lower back force **605** and lower front force **606** can be created by said one or more actuating arms pressing up and against a lower portion of each round module **201**, as shown in FIG. **6**. In one embodiment, back force **604** can comprise holding a portion of module wrapper **202** against packed fibrous material **203** by pulling a portion of module wrapper **202** with pulling force **603** and holding a portion of module wrapper **202** with lower back force **605**, as illustrated in FIG. **6**.

FIG. **7**A illustrates a detailed view of a clamp **700**. In one embodiment, said flap clasping portion can comprise clamp **700**. In one embodiment, pulling assembly **601** can comprise clamp **700** and a line receiving portion. In one embodiment, clamp **700** can comprise a first paddle **701**, a second paddle **702**, a connecting bracket **703**, and a pressing assembly **704**. In one embodiment, connecting bracket **703** can comprise a U-shaped member wherein a first portion **705**, a second portion **706**, and a third portion **707** comprise the three primary portions of said "U" shape. As illustrated in FIG. **7**, in one embodiment, third portion **707** can attach to second paddle **702**, and pressing assembly **704** can attach to first portion **705** and first paddle **701**. In one embodiment, pressing assembly **704** can be used to press and hold first paddle **701** toward and/or against second paddle **702**. Accordingly, in on embodiment, an object can be held between first paddle **701** and second paddle **702** by applying pressure with pressing assembly **704**.

Clamp **700** can clamp upon an object by a variety of well-known clamping means, as will be evident to persons skilled in the art. In one embodiment, said clamping means can comprise pressing and holding an object between first paddle **701** against second paddle **702**. Connecting bracket **703** can comprise a threaded hole **708**. Pressing assembly **704** can comprise a threaded shaft **709** and a turning assembly **710**. In one embodiment, threaded shaft **709** can attach to turning assembly **710** at a first end **711***a* of threaded shaft **709** and first paddle **701** at a second end **711***b* of threaded shaft **709**; further, threaded shaft **709** can be screwed through threaded hole **708** between turning assembly **710** and first paddle **701**. In one embodiment, said clamping means can comprise holding module wrapper **202** by rotating turning assembly **710**, screwing threaded shaft **709** through threaded hole **708**, and clamping second flap **212** between first paddle **701** and second paddle **702**. In one embodiment, pressing assembly **704** is capable of pressing first paddle **701** toward second paddle **702** by rotating threaded shaft **709** with pressing assembly **704**, adjusting a position of threaded shaft **709** within threaded hole **708**, and moving first paddle **701** toward second paddle **702**.

In one embodiment, said line receiving portion of pulling assembly **601** can hold a portion of line **602**. In one embodiment, line **602** can comprise a loop **712**. In one embodiment, loop **712** can comprise a portion of line **602** wrapped back around and tied to itself to form a loop. In another embodiment, loop **712** can comprise a solid round object with an open interior forming a ring or hoop; wherein line **602** can be tied to loop **712**. In one embodiment, line **602** can be attached to pulling assembly **601** by attaching loop **712** to connecting bracket **703**; wherein connecting bracket **703** comprises said line receiving portion of pulling assembly **601**. In another embodiment, line **602** can be

attached to pulling assembly **601** by tying line **602** to a portion of connecting bracket **703**.

FIG. **7**B illustrates detailed view of a hook-and-loop clasping device **713**. In one embodiment, said flap clasping device can comprise hook-and-loop clasping device **713**. In one embodiment, hook-and-loop clasping device **713** can comprise a body **714**. In one embodiment, hook-and-loop clasping device **713** can further comprise a line receiving portion **715**. In one embodiment, body **714** can comprise first portion **213***a* of hook-and-loop fastener. In one embodiment, line receiving portion **715** can comprise a hole **716**. In one embodiment, line receiving portion **715** can receive line **602** by attaching a loop **712** to hole **716**. In one embodiment, attaching hook-and-loop clasping device **713** to module wrapper **202** can comprise pressing first portion **213***a* on body **714** against second portion **213***b* on second flap **212**. Thus, pulling assembly **601** can attach to module wrapper **202** with either clamp **700** or hook-and-loop clasping device **713**.

FIGS. **8**A and **8**B illustrate two perspective overviews of said one or more round modules, first in an open configuration with tilting module feeder **102** in a non-inclined position and second in an inclined position, respectively. Round module unwrapping system **100** can comprise said inclined position and a non-inclined position. In one embodiment, said non-inclined position can comprise titling module feeder **102** substantially parallel with primary module feeder **101**, as shown in FIG. **8**A. In one embodiment, said inclined position can comprise tilting module feeder **102** inclined; wherein a shared edge **801** between titling module feeder **102** and primary module feeder **101** substantially comprises a pivot point for tilting module feeder **102**, as shown in FIG. **8**B. In one embodiment, round module unwrapping system **100** can comprise a second titling module feeder; wherein, said second titling module feeder is aligned along second side **113** of primary module feeder **101**; titling module feeder **102** and said second titling module feeder each comprise an external side and an internal edge; and, said inclined position comprises said external edges lifting in order to roll objects thereupon onto said primary module feeder **101**.

In one embodiment, packed fibrous material **203** can be released from within round module **201** while in said inclined position. For example, in one embodiment, packed fibrous material **203** can be unwrapped from module wrapper **202** by a round module unwrapping method; wherein said round module unwrapping method comprises loading one or more round module **201** on titling module feeder **102**, detaching first flap **211** from second flap **212**, attaching pulling assembly **601** to second flap **212**, tilting titling module feeder **102** while holding round module **201** on titling module feeder **102** with said module rotator **105***a*, pulling second flap **212** with pulling force **603** while releasing round module **201** with said module rotator **105***a*, and rolling packed fibrous material **203** onto primary module feeder **101**. In one embodiment, holding round module **201** with said module rotator **105***a* comprises lifting one of said one or more actuating arms capable of buttressing a portion of round module **201** on titling module feeder **102**. Likewise, releasing round module **201** with said module rotator **105***a* comprises lowering said one or more actuating arms. In one embodiment, packed fibrous material **203** can be retained on round module unwrapping system while rolling from titling module feeder **102** to primary module feeder **101** with wind boards **103** by blocking packed fibrous material **203** from rolling off of primary module feeder **101** at second side **113**.

FIG. **9** illustrates a plurality of unwrapped modules **901** on primary module feeder **101**. Unwrapped modules **901** can comprise packed fibrous material **203** formerly within module wrapper **202**, now unwrapped. In one embodiment, unwrapped modules **901** can be transported to second end **111** for processing by conveying said unwrapped modules **901** down primary module feeder **101** toward second end **111**. Round module unwrapping system **100** can now be reset by lowering tilting module feeder **102** from said inclined position to said non-inclined position and/or removing said module wrapper **202** from said pulling assembly **601**.

FIGS. **10**A and **10**B illustrate an elevated top view of two variations on said round module unwrapping system **100**. In one embodiment, said round module unwrapping system **100** can comprise two of said one or more titling module feeders (comprising a first titling module feeder **1002** and a second titling module feeder **1004**; wherein, said first titling module feeder **1002** can be aligned at said first side **112** of said primary module feeder **101** and said second titling module feeder **1004** can be aligned at said second side **113** of said primary module feeder **101** (as illustrated in FIG. **10**A). In another embodiment, said round module unwrapping system **100** can comprise said titling module feeder **102** and said primary module feeder **101** (as described in FIG. **1**), however, said titling module feeder **102** and said primary module feeder **101** can be elongated to accommodate more than one of said one or more round modules (as illustrated in FIG. **10**B).

Various changes in the details of the illustrated operational methods are possible without departing from the scope of the following claims. Some embodiments may combine the activities described herein as being separate steps. Similarly, one or more of the described steps may be omitted, depending upon the specific operational environment the method is being implemented in. It is to be understood that the above description is intended to be illustrative, and not restrictive. For example, the above-described embodiments may be used in combination with each other. Many other embodiments will be apparent to those of skill in the art upon reviewing the above description. The scope of the invention should, therefore, be determined with reference to the appended claims, along with the full scope of equivalents to which such claims are entitled. In the appended claims, the terms "including" and "in which" are used as the plain-English equivalents of the respective terms "comprising" and "wherein."

The invention claimed is:

1. A round module unwrapping system comprising:

said round module unwrapping system comprising two or more module feeder floors;

said round module unwrapping system is configured for supporting one or more round modules each having a module wrapper enclosing a packed fibrous material;

said two or more module feeder floors comprise a primary module feeder and one or more titling module feeders;

said one or more titling module feeders comprise a non-inclined position and an inclined position;

said non-inclined position comprises said one or more titling module feeders substantially parallel with said primary module feeder;

said inclined position comprises a first side of said one or more titling module feeders raised higher than a second side;

said second side of said one or more titling module feeders is aligned next to said primary module feeder;

said round module unwrapping system having a first side and a second side;

said module wrapper of said one or more round modules each having a first flap, said second flap, an inside surface, and an outside surface;

said module wrapper of said one or more round modules each are wrapped around said packed fibrous material with said first flap releaseably attaching to said second flap;

said round module unwrapping system comprising further comprising a pulling assembly having a flap clasping portion;

said pulling assembly configured for selectively attaching to said second flap each of said module wrappers with a flap clasping portion;

a pulling assembly configured for pulling said second flap apart from said first flap of each of said module wrappers;

said one or more round modules having a first side, a second side, a front, a back, a top, and a bottom;

said two or more module feeder floors comprises a conveyor configured for moving said one or more round modules between a first end and a second end of said round module unwrapping system;

said flap clasping portion comprises a hook-and-loop clasping device;

said hook-and-loop clasping device comprises a body being either a hook portion or a loop portion;

said hook-and-loop clasping device is configured for removing said module wrapper of said one or more round modules; and

said second flap of said module wrapper from said one among said one or more round modules comprises either a hook portion or a loop portion being dissimilar to said body of said hook-and-loop clasping device,

said second flap selectively attaches said hook-and-loop clasping device by being pressed together.

2. The round module unwrapping system of claim **1** wherein

said pulling assembly further comprises a line;

said flap clasping portion comprises a line receiving portion;

said line is configured for attaching to said line receiving portion; and

wherein said pulling assembly is configured for removing said module wrapper of said one or more round modules by

attaching said flap clasping portion to said module wrapper,

attaching said line to said line receiving portion of said flap clasping device,

asserting a pulling force upon said line, and

removing said module wrapper.

3. The round module unwrapping system of claim **1** wherein

said first flap and said second flap of said module wrapper are formed by

cutting said module wrapper from said first side to said second side of each of said one or more round modules.

4. The round module unwrapping system of claim **1** wherein said conveyor of said two or more module feeder floors comprises a roller bed.

5. The round module unwrapping system of claim **1** wherein,

said one or more titling module feeders comprise a first tilting module feeder;

said round module unwrapping system further comprises an intermediate module unwrapper catwalk between said first tilting module feeder and said primary module feeder.

6. The round module unwrapping system of claim **1** further comprising

said one or more tilting module feeders further comprise one or more module rotators;

said one or more module rotators each having one or more actuating arms; wherein,

said one or more module rotators are attached below a floor level of said one or more titling module feeders,

said one or more module rotators each comprise a body having a first side and a second side,

said one or more actuating arms each comprise an arm hinges,

said one or more actuating arms each attach to said body with said arm hinges,

said one or more actuating arms are configured for pivoting on said arm hinges,

said one or more actuating arms are configured for buttressing and releasing a portion of said one or more round modules on said one or more titling module feeders,

said one or more module rotators comprise a non-use position and an in-use position,

said non-use position comprises all portions of said one or more module rotators stored below said floor level of said two or more module feeder floors, and

said in-use position comprises a portion of said one or more actuating arms rotated above said floor level of said two or more module feeder floors; further wherein,

buttressing a portion of said one or more round modules comprises

transitioning said one or more module rotators from said non-use position to said in-use position by pivoting said one or more actuating arms above said floor level of said one or more titling module feeders and

holding a portion of each round module with said one or more module rotators; and,

releasing a portion of said one or more round modules comprises

transitioning said one or more module rotators from said in-use position to said non-use position by pivoting said one or more actuating arms below said floor level of said one or more titling module feeder.

7. The round module unwrapping system of claim **6** wherein

said one or more module rotators each comprise a belt driveshaft and a belt,

said actuating arms comprise a first arm and a second arm,

said actuating arms each comprise a first end and a second end,

said actuating arms each comprise an internal portion,

a pulley assembly and an accumulator assembly, and

said pulley assemblies each comprise a wheel,

an axle, and

one or more side portions; further wherein,

said first arm attaches to said first side of said body with one of said arm hinges;

said second arm attaches to said second side of said body with one of said arm hinges;

said actuating arms comprise an axis at said arm hinges;

each of said internal portions of said actuating arms connect said body to said accumulator assemblies;

each of said accumulator assemblies connect said internal portions to said pulley assemblies;

each of said pulley assemblies attach at said second end of said actuating arms;

said belt can attach to said module rotator around a multi-point loop;

said multi-point loop comprises a wheel of a first pulley assembly, a wheel of a second pulley assembly, and said belt driveshaft;

said accumulator assemblies can press said pulley assemblies apart from said internal portions of said actuating arms;

said belt can rotate around said multi-point loop; and

said belt can be kept tight around said multi-point loop by pressing said pulley assemblies apart from one another with said accumulator assemblies.

8. The round module unwrapping system of claim **7** wherein each of said accumulator assemblies each comprise one or more accumulators each having a cylinder and a floating rod; further wherein,

said cylinders comprise a pressure storage reservoir comprising a pressurized fluid which is configured for being held under pressure, and

said floating rods are pressed outward, away from said cylinders, by said pressure in said pressure storage reservoir.

9. The round module unwrapping system of claim **1** further comprising one or more wind boards configured for blocking wind and creating a retaining wall around said round module unwrapping system; wherein,

said wind boards align around one or more external edges of said round module unwrapping system.

10. A round module unwrapping method comprising:

supporting at least one of a one or more round modules on a module feeder floor of a round module unwrapping system,

detaching a first flap from a second flap of a module wrapper of said at least one of said one or more round modules, and

pulling said second flap of said module wrapper; wherein,

said round module unwrapping system comprising two or more module feeder floors;

said round module unwrapping system is configured for supporting said at least one of said one or more round modules each having a module wrapper enclosing a packed fibrous material;

said two or more module feeder floors comprise a primary module feeder and one or more titling module feeders;

said one or more titling module feeders comprise a non-inclined position and an inclined position;

said non-inclined position comprises said one or more titling module feeders substantially parallel with said primary module feeder;

said inclined position comprises a first side of said one or more titling module feeders raised higher than a second side;

said second side of said one or more titling module feeders is aligned next to said primary module feeder;

said round module unwrapping system having a first side and a second side;

said module wrapper of said one or more round modules each having a first flap, said second flap, an inside surface, and an outside surface;

said module wrapper of said one or more round modules each are wrapped around said packed fibrous material with said first flap releaseably attaching to said second flap;

said round module unwrapping system comprising further comprising a pulling assembly having a flap clasping portion;

said pulling assembly configured for selectively attaching to said second flap each of said module wrappers with a flap clasping portion;

a pulling assembly configured for pulling said second flap apart from said first flap of each of said module wrappers;

said one or more round modules having a first side, a second side, a front, a back, a top, and a bottom;

said two or more module feeder floors comprises a conveyor configured for moving said one or more round modules between a first end and a second end of said round module unwrapping system;

said flap clasping portion comprises a hook-and-loop clasping device;

said hook-and-loop clasping device comprises a body being either a hook portion or a loop portion;

said hook-and-loop clasping device is configured for removing said module wrapper of said one or more round modules; and

said second flap of said module wrapper from said one among said one or more round modules comprises either a hook portion or a loop portion being dissimilar to said body of said hook-and-loop clasping device,

said second flap selectively attaches said hook-and-loop clasping device by being pressed together.

11. The round module unwrapping method of claim **10** wherein pulling said second flap of said module wrapper comprises

attaching a pulling assembly to said second flap with a flap clasping device, and

applying a pulling force to said pulling assembly and thereby separating said module wrapper from said packed fibrous material.

12. The round module unwrapping method of claim **11** wherein attaching a pulling assembly to said second flap with a flap clasping device comprises

pressing a first paddle against a second paddle of a clamp with said second flap between said first paddle and said second paddle by

rotating a threaded shaft with a turning assembly,

adjusting a position of said threaded shaft within a threaded hole, and

moving said first paddle toward said second paddle; further wherein,

said flap clasping portion comprises said first paddle, said second paddle, a connecting bracket, and a pressing assembly; further wherein,

said connecting bracket comprises a U-shaped member having

a first portion attached to a second portion,

a third portion attached to said second portion, and

said first portion and said third portion substantially parallel to one another;

said second paddle attaches to said third portion;

said first portion of said connecting bracket comprises said threaded hole;

said pressing assembly comprises a threaded shaft and said turning assembly;

said turning assembly attaches to a first end of said threaded shaft;

said threaded shaft is inserted through said threaded hole; and,

said first paddle attaches at a second end of said threaded shaft.

13. The round module unwrapping method of claim **12** wherein attaching a pulling assembly to said second flap with a flap clasping device comprises

pressing a first portion of a hook-and-loop fastener against a second portion of a hook-and-loop fastener on said second flap of said module wrapper; further wherein,

said flap clasping portion comprises said hook-and-loop clasping device;

said hook-and-loop clasping device comprises said body having said first portion of a hook-and-loop fastener; and,

said second flap of said module wrapper comprises said second portion of said hook and loop fastener.

14. The round module unwrapping method of claim **10** further comprising:

lifting a titling module feeder into an inclined position while buttressing at least a first round module of said one or more round modules on said titling module feeder prior to pulling said second flap; and

releasing at least a first round module of said one or more round modules with said one or more module rotators and rolling said packed fibrous material onto a primary module feeder after pulling said second flap; wherein,

said first side of at least a first round module of said one or more round modules unwrapping system comprises said titling module feeder having a first end, a second end, a first side, a second side and a tilting module feeder floor,

said second side of at least a first round module of said one or more round modules unwrapping system comprises said primary module feeder having a first end, a second end, a first side, a second side, and a primary module feeder floor,

said second side of said titling module feeder aligns next to said first side of said primary module feeder,

said titling module feeder comprises said non-inclined position and an inclined position,

said non-inclined position comprises said one or more tilting module feeder floor substantially parallel with said primary module feeder floor, and

said inclined position comprises tilting said titling module feeder by lifting said first side of said titling module feeder independently from said second side of said titling module feeder.

15. The round module unwrapping method of claim **12** wherein

buttressing said one or more round modules on said titling module feeder comprises

transitioning one or more module rotators from a non-use position to an in-use position by pivoting one of one or more actuating arms above a floor level of said titling module feeder and

holding a portion of each round module with said one or more module rotators; and,

releasing at least a first round module of said one or more round modules with said one or more module rotators comprises

transitioning said one or more module rotators from said in-use position to said non-use position by pivoting said actuating arms below said floor level of said titling module feeder; further wherein,

said one or more module rotators each comprise said one or more actuating arms

said one or more module rotators are attached below a floor level of said titling module feeder

said one or more module rotators each comprise a body having a first side and a second side

said one or more actuating arms each comprise an arm hinges

said actuating arms each attach to said body with said arm hinges

said actuating arms are configured for pivoting on said arm hinges

said one or more actuating arms are configured for buttressing and releasing at least a first round module of said one or more round modules on said titling module feeder in said inclined position

said one or more module rotators comprise a non-use position to an in-use position

said non-use position comprises all portions of said one or more module rotators stored below said floor level of said two or more module feeder floors

and said in-use position comprises a portion of said actuating arms rotated above said floor level of said two or more module feeder floors; further wherein.

16. The round module unwrapping method of claim **15** further comprising the step of aligning said one or more round modules into an aligned orientation prior to detaching said first flap from said second flap, by

loading each of said one or more round modules over said one or more module rotators,

lifting each of said one or more round modules above said two or more module feeder floors with said one or more module rotators,

rotating each of said one or more round modules on said one or more module rotators until said one or more round modules are in said aligned orientation; wherein,

said aligned orientation of said one or more round modules comprises

said one or more round modules on said first side of said round module unwrapping system and

each of said one or more round modules oriented about said module axis with said first flap and said second flap facing said second side of said round module unwrapping system.

17. The round module unwrapping method of claim **16** wherein

lifting each of said one or more round modules above said two or more module feeder floors with said one or more module rotators comprises transitioning said actuating arms of said one or more module rotators into said in-use position, and

rotating each of said one or more round modules with said one or more module rotators until said one or more round modules are in said aligned orientation comprise rotating said one or more round modules on a belt of each of said one or more module rotators and thereby rotating each of said one or more round modules about a module axis until each of round modules are at said aligned orientation; further wherein

said one or more module rotators each comprise a belt driveshaft and said belt,

said actuating arms comprise a first arm and a second arm,

said actuating arms each comprise a first end and a second end,

said actuating arms each comprise a internal portion, a pulley assembly and an accumulator assembly,

said pulley assemblies each comprise a wheel, an axle, and one or more side portions, and

said first arm attaches to said first side of said body with one of said arm hinges;

said second arm attaches to said second side of said body with one of said arm hinges;

said actuating arms comprise an axis at said arm hinges;

each of said internal portions of said actuating arms connect said body to said accumulator assemblies;

each of said accumulator assemblies connect said internal portions to said pulley assemblies;

each of said pulley assemblies attach at said second end of said actuating arms;

said belt can attach to said module rotator around a multi-point loop;

said multi-point loop comprises a wheel of a first pulley assembly, a wheel of a second pulley assembly, and said belt driveshaft;

said accumulator assemblies can press said pulley assemblies apart from said internal portions of said actuating arms;

said belt can rotate around said multi-point loop; and

said belt can be kept tight around said multi-point loop by pressing said pulley assemblies apart from one another with said accumulator assemblies.

18. The round module unwrapping method of claim **10** wherein detaching a first flap from a second flap of a module wrapper of said one or more round modules comprises breaking a flap attachment between said first flap and said second flap; wherein, said flap attachment on said module wrapper comprises a hook-and-loop fastener;

said hook-and-loop fastener comprises a first portion and a second portion;

said first portion of said hook-and-loop fastener attaches to said inside surface of said module wrapper at said first flap;

said second portion of said hook-and-loop fastener attaches to said outside surface of said module wrapper at said second flap;

said first flap attaches to said second flap by attaching said first portion to said second portion of said hook-and-loop fasteners;

said first flap detaches from said second flap by detaching said first portion from said second portion of said hook-and-loop fasteners; and

breaking said flap attachment comprises detaching said first portion and said second portion of said hook-and-loop fasteners.

19. A round module unwrapping system comprising:

said round module unwrapping system comprising two or more module feeder floors;

said round module unwrapping system is configured for supporting one or more round modules each having a module wrapper enclosing a packed fibrous material;

said two or more module feeder floors comprise a primary module feeder and one or more titling module feeders;

said one or more titling module feeders comprise a non-inclined position and an inclined position;

said non-inclined position comprises said one or more titling module feeders substantially parallel with said primary module feeder;

said inclined position comprises a first side of said one or more titling module feeders raised higher than a second side;

said second side of said one or more titling module feeders is aligned next to said primary module feeder;

said round module unwrapping system having a first side and a second side;

said module wrapper of said one or more round modules each having a first flap, said second flap, an inside surface, and an outside surface;

said module wrapper of said one or more round modules each are wrapped around said packed fibrous material with said first flap releaseably attaching to said second flap;

said round module unwrapping system comprising further comprising a pulling assembly having a flap clasping portion;

said pulling assembly configured for selectively attaching to said second flap each of said module wrappers with a flap clasping portion;

a pulling assembly configured for pulling said second flap apart from said first flap of each of said module wrappers;

said one or more round modules having a first side, a second side, a front, a back, a top, and a bottom;

said two or more module feeder floors comprises a conveyor configured for moving said one or more round modules between a first end and a second end of said round module unwrapping system;

said flap clasping portion comprises a first paddle, a second paddle, a connecting bracket, and a pressing assembly; further wherein,

said connecting bracket comprises a U-shaped member having

a first portion attached to a second portion,

a third portion attached to said second portion, and

said first portion and said third portion substantially parallel to one another;

said second paddle attaches to said third portion;

said first portion of said connecting bracket comprises a threaded hole;

said pressing assembly comprises a threaded shaft and a turning assembly;

said turning assembly attaches to a first end of said threaded shaft;

said threaded shaft is inserted through said threaded hole;

said first paddle attaches at a second end of said threaded shaft; and,

said pressing assembly is configured for pressing said first paddle toward said second paddle by

rotating said threaded shaft with said turning assembly,

adjusting a position of said threaded shaft within said threaded hole, and

moving said first paddle toward said second paddle.

20. A round module unwrapping system comprising:

said round module unwrapping system comprising two or more module feeder floors;

said round module unwrapping system is configured for supporting one or more round modules each having a module wrapper enclosing a packed fibrous material;

said two or more module feeder floors comprise a primary module feeder and one or more titling module feeders;

said one or more titling module feeders comprise a non-inclined position and an inclined position;

said non-inclined position comprises said one or more titling module feeders substantially parallel with said primary module feeder;

said inclined position comprises a first side of said one or more titling module feeders raised higher than a second side;

said second side of said one or more titling module feeders is aligned next to said primary module feeder;

said round module unwrapping system having a first side and a second side;

said module wrapper of said one or more round modules each having a first flap, said second flap, an inside surface, and an outside surface;

said module wrapper of said one or more round modules each are wrapped around said packed fibrous material with said first flap releaseably attaching to said second flap;

said round module unwrapping system comprising further comprising a pulling assembly having a flap clasping portion;

said pulling assembly configured for selectively attaching to said second flap each of said module wrappers with a flap clasping portion;

a pulling assembly configured for pulling said second flap apart from said first flap of each of said module wrappers;

said one or more round modules having a first side, a second side, a front, a back, a top, and a bottom;

said two or more module feeder floors comprises a conveyor configured for moving said one or more round modules between a first end and a second end of said round module unwrapping system;

said one or more tilting module feeders further comprise one or more module rotators;

said one or more module rotators each having one or more actuating arms; wherein,

said one or more module rotators are attached below a floor level of said one or more titling module feeders,

said one or more module rotators each comprise a body having a first side and a second side,

said one or more actuating arms each comprise an arm hinges,

said one or more actuating arms each attach to said body with said arm hinges,

said one or more actuating arms are configured for pivoting on said arm hinges,

said one or more actuating arms are configured for buttressing and releasing a portion of said one or more round modules on said one or more titling module feeders,

said one or more module rotators comprise a non-use position and an in-use position,

said non-use position comprises all portions of said one or more module rotators stored below said floor level of said two or more module feeder floors, and

said in-use position comprises a portion of said one or more actuating arms rotated above said floor level of said two or more module feeder floors; further wherein,

buttressing a portion of said one or more round modules comprises

transitioning said one or more module rotators from said non-use position to said in-use position by pivoting said one or more actuating arms above said floor level of said one or more titling module feeders and

holding a portion of each round module with said one or more module rotators; and,

releasing a portion of said one or more round modules comprises

transitioning said one or more module rotators from said in-use position to said non-use position by pivoting said one or more actuating arms below said floor level of said one or more titling module feeder.

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