



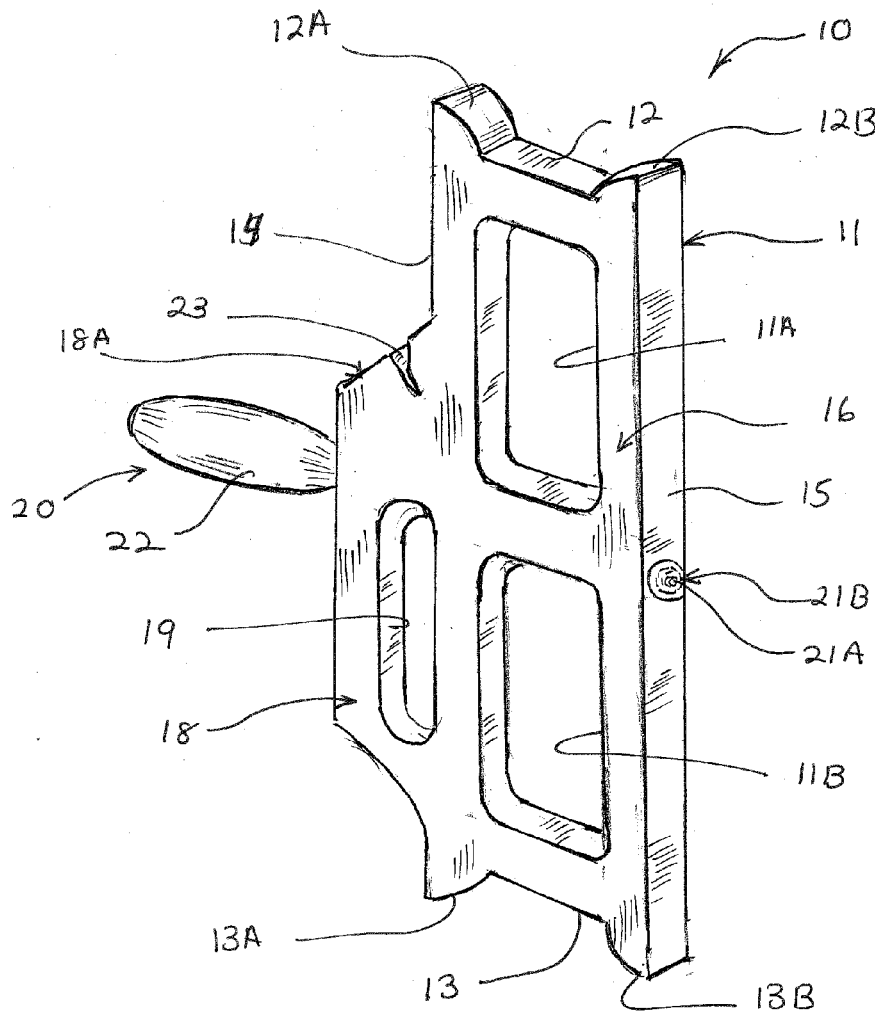
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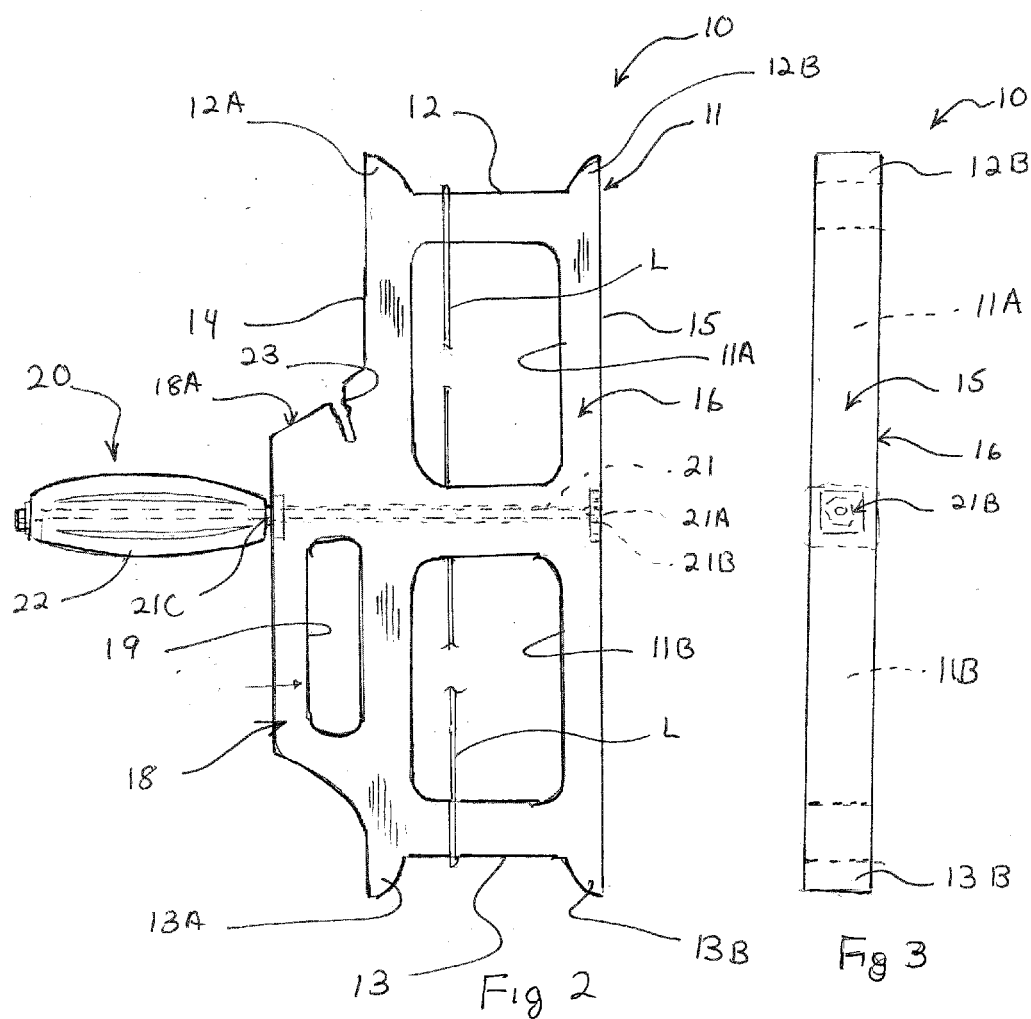
(19) **United States**(12) **Patent Application Publication****Einck**(10) **Pub. No.: US 2017/0101288 A1**(43) **Pub. Date: Apr. 13, 2017**(54) **CONSTRUCTION LINE REEL WITH
ERGONOMIC HANDLE**(52) **U.S. Cl.**CPC *B65H 75/06* (2013.01); *B65H 75/406*
(2013.01); *B65H 2402/412* (2013.01)(71) Applicant: **Gordon A. Einck**, Garden Valley, CA
(US)(72) Inventor: **Gordon A. Einck**, Garden Valley, CA
(US)

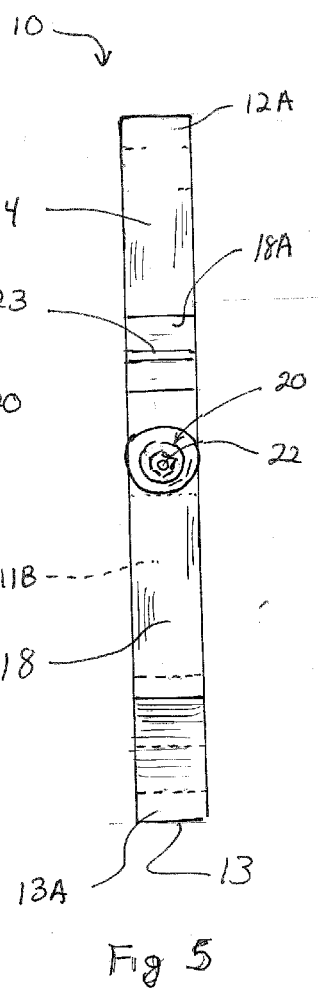
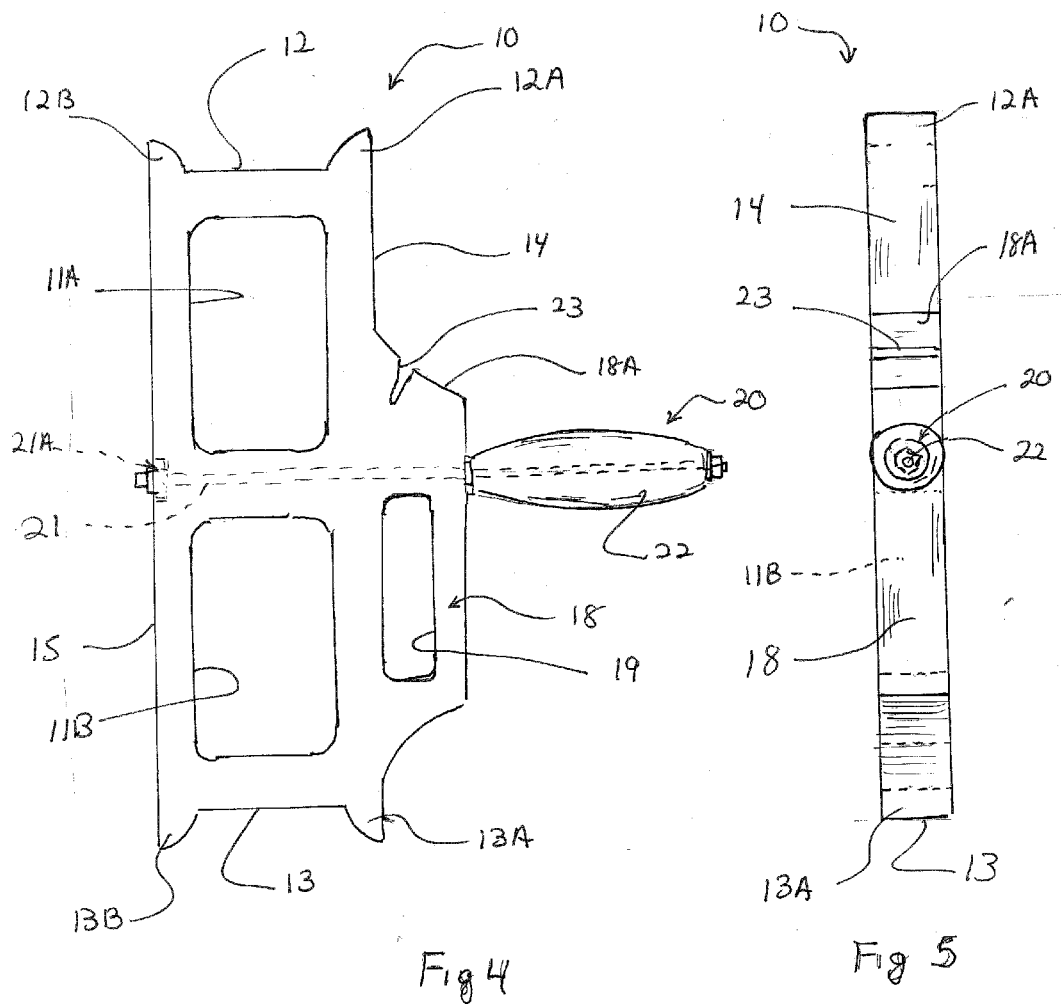
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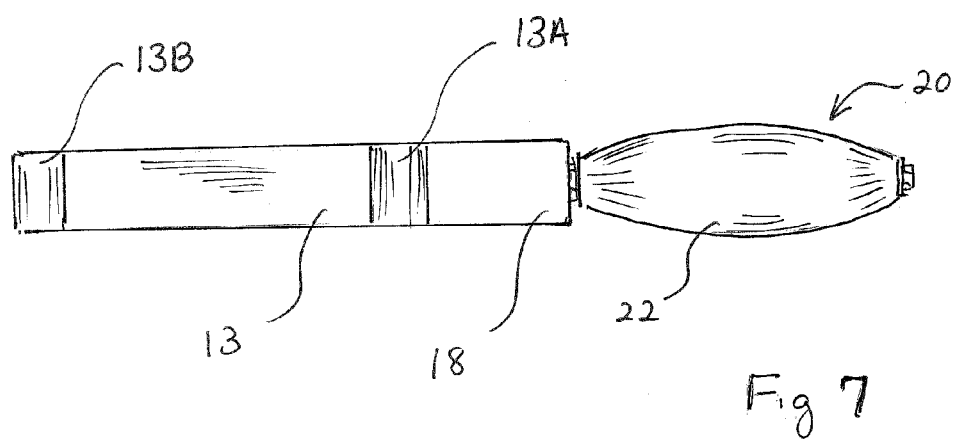
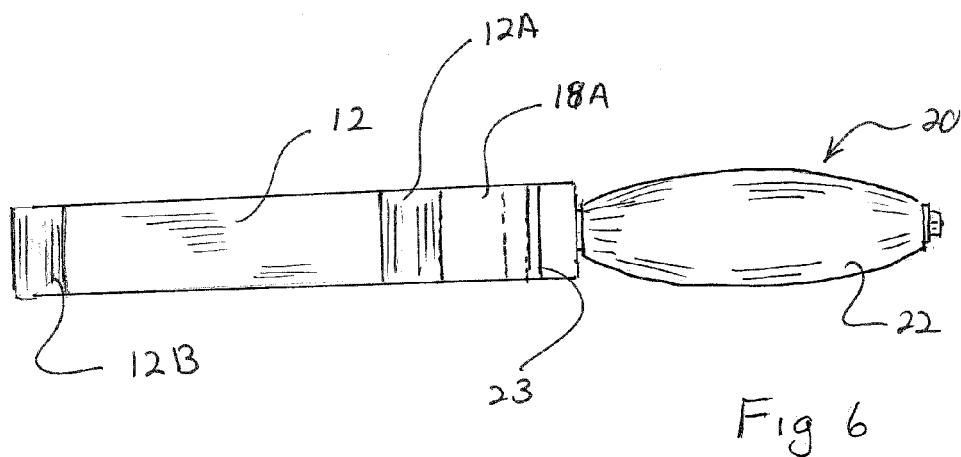
ABSTRACT(21) Appl. No.: **14/878,535**(22) Filed: **Oct. 8, 2015****Publication Classification**(51) **Int. Cl.***B65H 75/06* (2006.01)*B65H 75/40* (2006.01)

A winding and storage device for construction line having an elongated body member with opposing line retainment extensions with an integrated aperture handle grip there within. A rotatable handle positioned on a shaft extending transversely through said elongated body member positioned midway its longitudinal length allowing one hand line dispensing and ease of retrieval with reduced deployment and retrieval time.









CONSTRUCTION LINE REEL WITH ERGONOMIC HANDLE

BACKGROUND OF THE INVENTION

[0001] 1. Technical Field

[0002] The invention relates to construction line reels and more particularly to a construction line reel ergonomically designed for speed and stress reduced deployment by construction workers. The unique design and inclusion of the handle lends itself to a distinct improvement in the retrieval of the construction line.

[0003] 2. Description of Prior Art

[0004] Prior art reels of this type have been directed to a variety of reel designs, see for example U.S. Pat. Nos. 1,414,237, 2,249,433, 3,901,458, 4,497,457.

[0005] In U.S. Pat. No. 1,414,237 a kite reel is disclosed having a support rod with a pivoted reel block extending therefrom with an offset crank handle in a modified form.

[0006] U.S. Pat. No. 2,249,433 is directed to winding and paying out line configurations having a paddle reel pivotally secured to a shaft. The reel has an offset handle extending therefrom for rotation of the reel about the spindle.

[0007] U.S. Pat. No. 3,901,458 claims a rope caddy having a flat line storage support with a fixed handle. The line is wrapped around the respective support ends retaining same.

[0008] U.S. Pat. No. 4,497,457 shows a line holder having a flat line support with an integral longitudinal handle opening therein.

SUMMARY OF THE INVENTION

[0009] A construction line reel provides for improved line retrieval time over prior art by its ergonomically positioned handle on which the retainment, retrieval and dispensing spool freely rotates on an aligned transverse axis. The construction line reel has a fixed offset handle opening and a line end retainment notch diagonally positioned in spaced relation thereto.

DESCRIPTION OF THE DRAWINGS

[0010] FIG. 1 is a perspective view of line reel of the invention.

[0011] FIG. 2 is a front elevational view thereof.

[0012] FIG. 3 is a right side elevational view thereof.

[0013] FIG. 4 is a rear elevational view of the line reel.

[0014] FIG. 5 is a left side elevational view thereof.

[0015] FIG. 6 is a top plan view of the line reel.

[0016] FIG. 7 is a bottom plan view of the line reel.

DETAILED DESCRIPTION OF THE INVENTION

[0017] Referring to FIGS. 1 and 2 of the drawings, a construction line reel 10 of the invention can be seen having an elongated main body member 11 with oppositely disposed line engagement end surfaces 12 and 13, each having respective upstanding line retainment guides 12A, 12B, 13A and 13B thereon.

[0018] The main body member 11 has spaced parallel side surfaces 14 and 15 with respective interconnecting flat front surface 16 and oppositely disposed co-planar rear surface 17 as best seen in FIGS. 2 and 4 of the drawings.

[0019] The side surface 14 has an offset handle support portion 18 with an enlarged aperture at 19 therein defining a static handle grip for the line reel 10 of the invention.

[0020] A rotating handle assembly 20 extends from the handle support section 18 at an aligned midway point of the elongated body member 11. The handle assembly 20 has a handle support rod 21 transversely through the main body member 11 and extending through the corresponding side surface 15 with a threaded rod end 21A retained by washer and nut combination 21B thereon.

[0021] An elongated handle 22 is rotatably secured on the support rod's free end 21C so as to extend from the corresponding offset handle support section 18. It will be seen that the defined orientation of the rotatable handle 22 from the main body member 11 will enable line reel rotation about the handle's axis aiding in deployment and recovery of line L illustrated graphically in FIG. 2 of the drawings as it is wound and unwound around the line reel respective line engagement end surfaces 12 and 13 as will be understood by those skilled in the art.

[0022] An end line retention notch 23 is formed in a side support angular transition surface 18A which will effectively hold the end of the line in place.

[0023] Referring back to the main body member 11, it will be seen that a pair of enlarged openings 11A and 11B therein in elongated spaced aligned orientation to one another between the respective line retaining end surfaces 12 and 13 and between the correspondingly hereinbefore described respective side surfaces 14 and 15. It will be seen that the pair of enlarged openings 11A and 11B in the main body member 11 by their orientation and design define a bracket configuration for retention and storage of the line during use.

[0024] Referring back now to FIG. 2 of the drawings, it will be seen that the transverse midline placement of the rotatable handle assembly 20 between the enlarged openings 11A and 11B within the main body member 11 affords ease of use and free rotation and greatly reduces the physical stress on the user, not shown. It additionally be noted that the corresponding orientation and utilization of the rotatable handle assembly 20 and static hand grip opening at 19 reduces the time required to deploy and retrieve large lengths of construction line required for use in the industry.

[0025] The construction line reel 10 main body member can be formed of a variety of compliant materials by common and well known manufacturing methods including, but not limited to injection plastic resin molding, medal dye cast or dye cut stamping, as required.

[0026] The hereinbefore described and illustrated construction line reel 10 of the invention can be conveniently and safely utilized therefore to dispense construction cord by a construction worker with minimum attention directed to the process of dispensing the line and maximum attention directed to his or her free and safe support during use. The above described construction line reel 10 of the invention has further advantage in that the construction line can be conveniently wound and rewound with a minimum of tangle and snagging of the construction line. Furthermore, the described construction line reel significantly speeds, as noted, the process of rewinding the construction line most significantly by the deployment of the ergonomically designed handle assembly 20 in conjunction with the added speed of rewinding the construction line greatly reduces the physical stress upon the construction worker's forearm and wrist muscle, not shown, thereby enhancing the safety and physical wellness of the user.

[0027] It will thus be seen that a new and novel construction line reel has been illustrated and described and it will be

apparent to those skilled in the art that various changes and modifications may be made thereto without departing from the spirit of the invention. Therefore I claim:

1. A line reel holder and dispenser comprising,
an elongated base body member having a line reel retainment portion and an offset handle support portion,
a dual handle configuration within and extending from said offset handle support portion,
a line end holding means within said offset handle support portion,
said line reel retaining portion comprising, a line engagement bracket having an oppositely disposed line engaging end surfaces, spaced upstanding line retainment guards on said respective line engagement surfaces,
said dual handle configuration comprising, a hand grip opening within said offset handle support portion, and

a rotatable handle extending from said offset handle support portion in spaced relation thereto.

2. The line reel holder and dispenser set forth in claim 1 wherein said rotatable handle further comprises,
a handle support rod extending transversely midway through said base body member,
said rotatable handle mounted on said handle support rod so as to freely rotate thereon.

3. The line reel holder and dispenser set forth in claim 1 wherein said base body member has a pair of longitudinally spaced and aligned enlarged openings therein between said respective line engagement end surfaces.

4. The line reel holder and dispenser set forth in claim 1 wherein said line end holding means comprises,
an end line retention notch in said offset handle portion in spaced relation to said dual handle configuration.

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