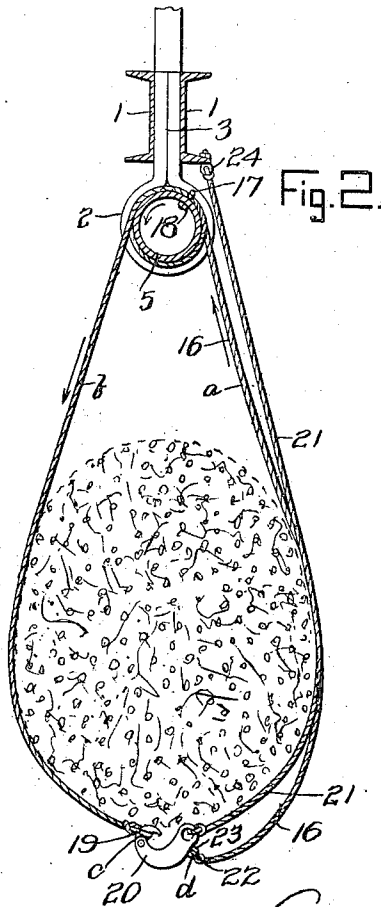
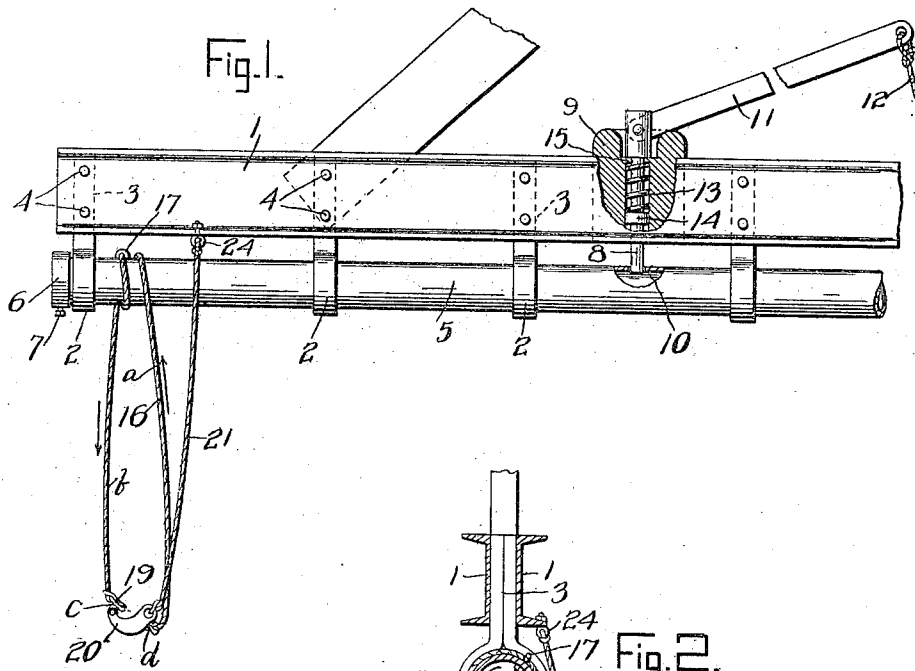


L. D. GREGG.
CANE SLING.

APPLICATION FILED SEPT. 20, 1909.

948,577.

Patented Feb. 8, 1910.



Witnesses
C. K. Kirchmeyer
Fred A. Klinge

Inventor
L. D. Gregg.
By *[Signature]*
Attorney

UNITED STATES PATENT OFFICE.

LOUIS D. GREGG, OF NEWBURGH, NEW YORK, ASSIGNOR TO THE GREGG COMPANY,
LTD., A CORPORATION OF NEW YORK.

CANE-SLING.

948,577.

Specification of Letters Patent.

Patented Feb. 8, 1910.

Application filed September 20, 1909. Serial No. 518,543.

To all whom it may concern:

Be it known that I, LOUIS D. GREGG, a citizen of the United States, residing at Newburgh, in the county of Orange and State of New York, have invented certain new and useful Improvements in Cane-Slings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to cane slings, particularly to that type in which the sling is placed around the cane while the latter is on a car and has the two members thereof temporarily secured together so that when the sling is raised the cane will be lifted with it and when the hopper or other point of deposit for the cane is reached the connected members of the sling will be disconnected by the weight of the load of cane acting through a trip-rope to release the holding catch.

The invention has for its object to provide a construction in which as one of the normally sustaining members of the sling is paid-out at the time for releasing the load the trip-rope will be simultaneously wound around the paying-out shaft so as to exert a pull on the locking-catch or hook to disengage it from the end of the paid-out member of the sling, and thus permit the cane to be discharged from the sling.

It has further for its object to provide simple and efficient coacting members constituting the sling so as to secure maximum of efficiency in the operation of the sling as well as the minimum number of parts, and maximum strength and durability, at the least possible expense for an efficient construction.

To the accomplishment of the foregoing and such other objects as may hereinafter appear, the invention consists in the features hereinafter particularly described and then sought to be clearly defined by the claims, reference being had to the accompanying drawing forming a part hereof and in which—

Figure 1 is a side elevation of so much of a cane-sling as is necessary to illustrate the

invention, and Fig. 2 is an end elevation, with some parts in cross-section, and showing the flexible members, or ropes, in position about a load of cane.

In the drawing, the numeral 1 designates two parallel beams, preferably metal channel bars, which may constitute a part of or be connected with a traveler of any approved well known construction and which is not illustrated because such feature forms no part of the invention. From these beams there is supported any desired number of hangers 2, which preferably are of stout strap metal having their shanks 3 lying between the channel bars and connected thereto by bolts 4, or otherwise, while their lower portions are circular so as to form bearings or boxes for a revoluble shaft or windlass 5, which is preferably tubular but not necessarily so. This shaft may be held against longitudinal movement by any desired number of collars 6 (of which only one is illustrated) thereon and which may be secured thereto by a set screw 7, or otherwise. This shaft may be held normally against rotation by a locking-pin 8 passing through a fulcrum-block 9 secured to or between the channel bars and entering an opening 10 in the shaft, said locking-pin having a lever 11 pivotally connected to its upper end and bearing on the block 9 as a fulcrum, and having attached to it a cable or rope 12 which will extend to within easy reaching distance of the operator or attendant. The locking-pin is preferably provided with a spring 13, which may be coiled around the pin and bear at one end against a shoulder 14 on the pin and at the other end against any suitable form of bearing plate or rod 15, so that the pin will normally be pressed down by the spring.

To the revoluble shaft or windlass there will be clamped or rigidly connected a chain or cable 16 by a clip bolt 17, the hook of which will bear down on the chain or cable while its shank will pass into or through the shaft and have a nut 18 applied thereto so as to rigidly clamp the cable to the shaft or windlass, although I am not confined to such particular means for rigidly securing the cable to the shaft. This cable or chain is wrapped partially, or given one or more turns around the shaft, in such manner that normally one member *a* thereof will be slack

relatively to the other member *b* thereof and so that as the member *b* is paid-out in the direction indicated by one of the arrows the other member *a* will be wound around the shaft in the direction of its arrow so that the slack therein will be taken-up and cause a pull thereon so that it will serve to trip or release the hook or catch which normally holds the cane within the sling as herein-
 10 after made to appear. The member *b* of this cable is connected at its free end by a link 19, or otherwise, to the nose of a locking hook or catch 20, as at *c*, and the other end, or the member *a* to the heel of said hook, as at *d*, for instance by a link 22 and eye-bolt 23, or otherwise. To this hook is also connected one end of a chain or cable 21, while the other end will be connected by an eye-bolt 24, or otherwise, to one of the channel bars 1, preferably to the bottom flange thereof as illustrated. This cable or rope 21 and the member *b* of the cable 16 constitute the normal load sustaining members of the sling, and the member *a* of the cable 16 constitutes the trip cable which is normally slack.

When the several cables are passed around the load of cane and the member *b* is engaged with the nose of the holding hook or catch, and the locking-pin 8 is in engagement with the shaft or windlass, the weight of the load of cane is sustained by the member *b* of the cable 16 and by the cable 21. When the place of deposit is reached, the locking-pin is withdrawn from the shaft or windlass, whereupon the weight of the load pulls down upon the member *b* of the cable 16 causing the windlass to revolve and wind up thereon the member *a*, as the member *b* is paid out, so as to take up the slack in member *a* and cause such a strain or pull thereon as to release the free end of the member *b* from the catch or hook 20 and thus permit the load to be discharged free from the sling. To bring the cables into position again for encircling and sustaining a load it is only necessary to draw down on the member *a* of the cable 16 so as to unwind it from the windlass which at the same time winds the member *b* partially upon the windlass, thus bringing the parts into position for another load of cane.

There may be as many of the sling cables as desired positioned at suitable points along the length of the revoluble shaft or windlass but as the construction of each will be a duplication of the one described further illustration and description is unnecessary.

I have illustrated and described the preferred details of the several parts but it is obvious that changes in each can be made without departing from the scope of the appended claims.

Having described my invention and set forth its merits, what I claim is:—

1. A sling comprising a revoluble shaft or windlass, load-sustaining cables, one of which is clamped to the revoluble shaft and the other to a fixed-support, a catch to unite one cable with the other, and a trip-cable connected at one end with said catch and at another point with said revoluble shaft so that as one cable is paid-out from the shaft the trip-cable will be wound upon said shaft.

2. A sling comprising a revoluble shaft or windlass, a cable lapped around said shaft and having one member thereof normally slack relatively to the other, one of its members constituting a load supporting member, a second cable connected at one end to a fixed support and constituting a load supporting member, and a catch connecting the cables at their lower ends.

3. A sling comprising a revoluble shaft or windlass, a cable connected to said shaft, both members thereof extending below the shaft and adapted one to be paid-out from the shaft while the other is wound-up thereon, one of said members constituting a load-carrying member and the other a trip member, a cable connected at one end to a support and constituting the other load-carrying member, and a catch connecting the lower ends of the cables.

4. A sling comprising a revoluble shaft or windlass, a cable connected to said shaft, both members thereof extending below the shaft and adapted one to be paid-out from the shaft while the other is wound-up thereon, one of said members constituting a load-carrying member, a cable connected at one end to a support and constituting the other load-carrying member, and a locking-pin arranged to enter the revoluble-shaft to hold it in carrying-position.

5. A sling comprising a revoluble tubular shaft or windlass, a supporting-beam, hangers consisting of straps formed with circular portions to receive said shaft and having their shanks bolted to said beam, a load-carrying cable clamped to said shaft, a load-carrying cable having one end connected to said beam, a slack trip-cable connected to the revoluble shaft, said trip cable adapted to be wound on said shaft as the load-carrying cable is paid-out from the shaft, a catch connecting together the lower ends of the cables, and releasable locking means for holding the revoluble shaft in its carrying position.

In testimony whereof I affix my signature in presence of two witnesses.

LOUIS D. GREGG.

Witnesses:

WILLIAM C. GREGG,
G. DE LERSY.