

(No Model.)

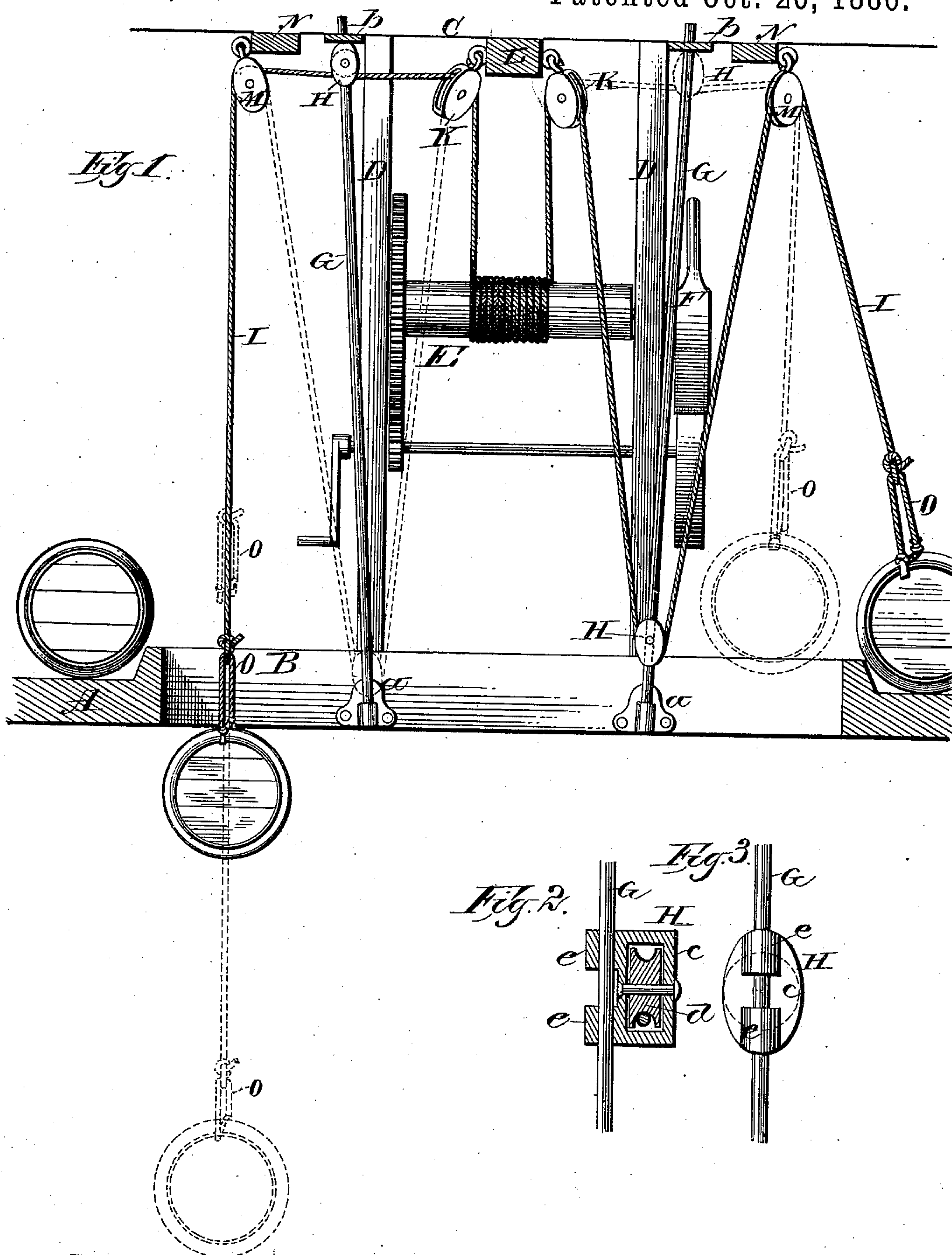
2 Sheets—Sheet 1.

J. W. GILLMAN.

BARREL LOWERING DEVICE.

No. 351,592.

Patented Oct. 26, 1886.



Witnesses:

E. G. Ames
N. E. Oliphant

Inventor:

John W. Gillman
By Stout & Underwood
Attorneys

(No Model.)

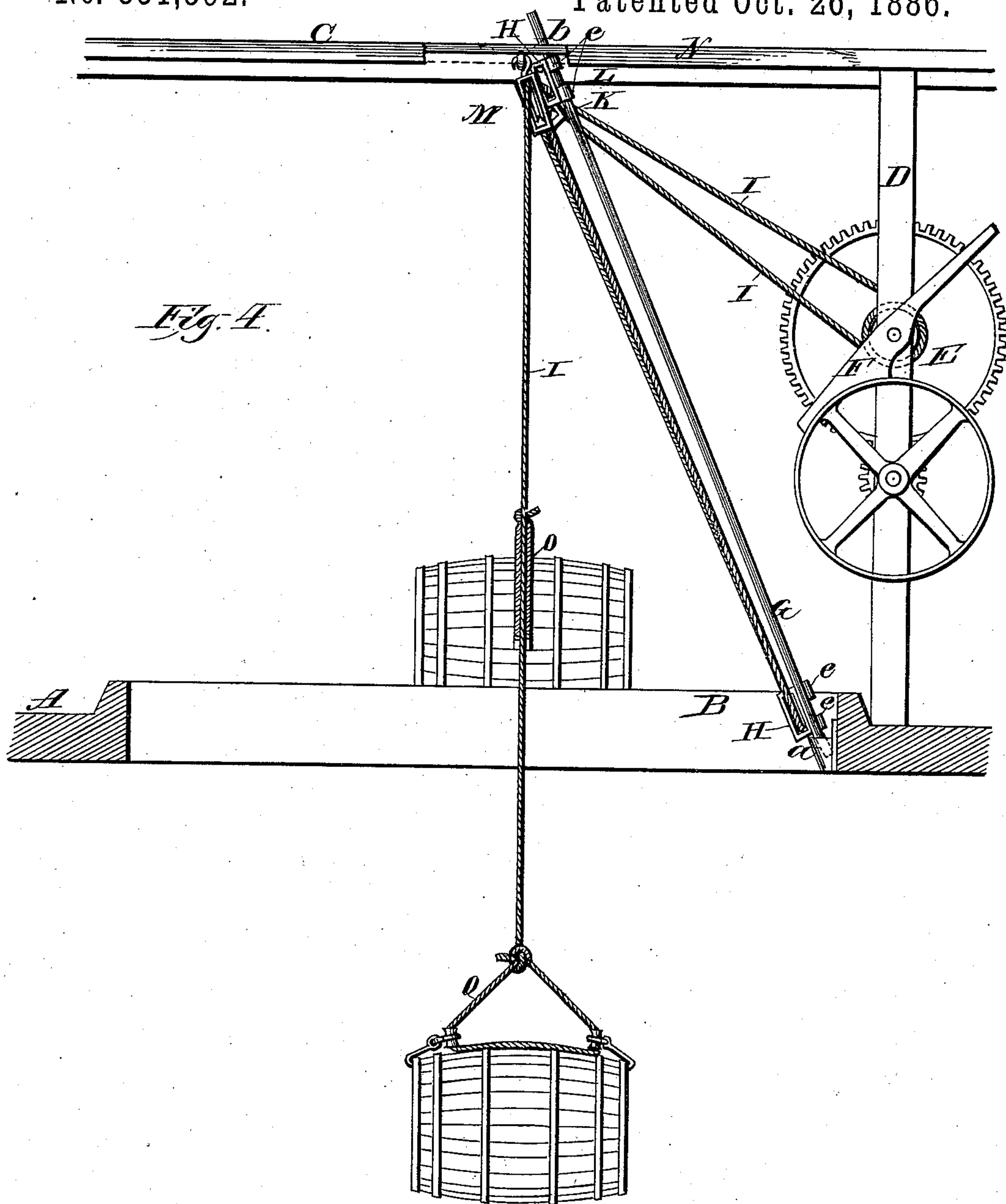
2 Sheets—Sheet 2.

J. W. GILLMAN.

BARREL LOWERING DEVICE.

No. 351,592.

Patented Oct. 26, 1886.



Witnesses:

E. G. Ames

N. E. Oliphant

Inventor:

John W. Gillman

By ~~Paul~~ & Underwood

Attorneys.

UNITED STATES PATENT OFFICE.

JOHN W. GILLMAN, OF MILWAUKEE, WISCONSIN.

BARREL-LOWERING DEVICE.

SPECIFICATION forming part of Letters Patent No. 351,592, dated October 26, 1886.

Application filed August 5, 1886. Serial No. 210,075. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. GILLMAN, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Devices for Expediting the Lowering of Barrels Into the Holds of Vessels; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to a device for lowering barrels into the holds of vessels, &c.; and it consists in certain peculiarities of construction, as will be hereinafter described with reference to the accompanying drawings, in which—

Figure 1 represents a front elevation of my device, showing its application and operation. Figs. 2 and 3 are detail views of one of the sliding blocks and a portion of its guide-rod, and Fig. 4 a side elevation of Fig. 1.

Referring by letter to the drawings, A represents the main deck of a vessel, and B the coamings around a hatchway leading to the hold. Secured between the main deck A and the upper one, C, are vertical posts D, that are provided with bearings for an ordinary winch, E, that has a friction-brake, F, said winch being shown as provided with a hand-crank; but, if desired, a belt-pulley may be substituted, in order to connect with a suitable power. Bolted or otherwise secured to the coamings B, in front of the winch E, are sockets *a a*, that receive the lower ends of removable inclined rods G G, the upper ends of these rods being retained by stay-plates *b b*, fastened to the timbers of the upper deck, C. The inclined rods G serve as guides for sliding blocks or travelers H, each of the latter being composed of a shell, *c*, in which is journaled a sheave, *d*, and sleeves *e*, that project from the back of the housing to engage a corresponding guide-rod.

Though I have shown the blocks H as provided with two sleeves, *e*, one at the top and the other at the bottom thereof, I may use one continuous sleeve, if found more desirable.

On the central portion of the winch I coil a rope, so arranged as to form two pennants, I I, that wind and unwind from opposite sides of said winch. These pennants I I are respectively passed up over the sheaves in blocks K K, suspended from a beam, L, above the winch,

from thence down under the sheaves in the sliding blocks or travelers H H on the guide-rods G G, and then up again over the sheaves in blocks M M, that are hung from beams N N, the latter being transverse to the vertical posts D, the free ends of said pennants having barrel-slings O secured thereto.

In the operation of my invention the barrels are rolled along the main deck until they come to the coamings B around the hatchway. To lower the first barrel, one of the slings O is attached thereto and the winch E revolved sufficiently to raise said barrel over the coamings B, and then by its own weight this barrel is lowered into the hold, the brake-lever F serving to regulate the descent, and the slack of the opposite pennant being wound on said winch at the same time. Before the first barrel has been lowered entirely down the disengaged sling is attached to another barrel on the opposite side of the hatch, so that the latter will be raised over the coamings B as the former finishes its descent, and thus the operation is repeated indefinitely from opposite sides of the hatchway, one barrel descending while the sling for another is brought up for engagement. Heretofore in the operation of devices of this character, after a barrel was lowered and disengaged from its sling, the loose pennant had to be gathered up by hand, so as to get said sling in time to attach it to the next barrel, in order that the latter might be raised over the coamings by the descending one on the opposite side of the hatchway. This operation is not only very wearing on the men employed for such work, but the bight of the pennant constantly gets in the way of the operatives, sometimes causing them to be thrown down the hatchway and otherwise interfering with the work. In my invention the slings are automatically raised and the bight of the pennants placed out of the way of the operatives, thus avoiding the danger that usually accompanies this class of work, and at the same time effecting a saving in labor. The above results are accomplished by means of the guide-rods G and the sliding blocks or travelers H, each of the latter being alternately carried up by its respective pennant as the opposite barrel descends, and the slack of said pennant is wound on the winch. The moment a barrel is hoisted over the coamings by the one descend-

ing on the opposite side of the hatchway the loose block or traveler on the adjacent guide-rod is immediately carried up to come in line with the suspended blocks, between which it is interposed, and there remains until the lowering of the former barrel has been entirely accomplished. When a barrel has finished its descent and the sling been removed therefrom, the corresponding sliding block or traveler will of its own gravity fall back, carrying with it all the loose slack in its respective pennant, to thereby bring said sling up within reach for ready attachment to another barrel, the bight of said pennant being thus always kept out of the way.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device for lowering barrels, a winch carrying a rope arranged to form two pennants that wind and unwind from opposite sides and have their free ends provided with slings, in combination with sheave-blocks suspended in pairs above the winch, and a weighted sliding block interposed between each pair of the suspended ones, the pennants being passed over said suspended blocks and under the sliding ones, substantially as and for the purpose set forth.

2. In a device for lowering barrels, a winch carrying a rope arranged to form two pennants that wind and unwind from opposite sides and have their free ends provided with slings, in combination with sheave-blocks suspended in pairs above the winch, inclined rods arranged in front of said winch and between the suspended blocks, and weighted sheave-blocks that slide on the rods, said pennants being passed over the suspended blocks and under the weighted ones, substantially as and for the purpose set forth.

3. In a device for lowering barrels, a winch carrying a rope arranged to form two pennants that wind and unwind from opposite sides and have their free ends provided with slings, in

combination with sheave-blocks suspended in pairs above the winch, removable inclined rods arranged in front of said winch and between the suspended blocks, and weighted sheave-blocks that slide on the rods, said pennants being passed over the suspended blocks and under the weighted ones, substantially as and for the purpose set forth.

4. In a device for lowering barrels, a winch carrying a rope arranged to form two pennants that wind and unwind from opposite sides and have their free ends provided with slings, sheave-blocks suspended in pairs above the winch, and guide-rods arranged in front of said winch and between the suspended blocks, in combination with sliding blocks each consisting of a weighted shell having a sheave journaled therein and its back provided with an eye or eyes to engage a corresponding guide-rod, said pennants being passed over the suspended blocks and under the weighted ones, substantially as and for the purpose set forth.

5. The combination, with a vessel, of a winch operative between decks and carrying a rope arranged to form two pennants that wind and unwind from opposite sides, sheave-blocks suspended in pairs above the winch, removable inclined rods having their lower ends fitted in sockets secured to the coamings around the hatchway of said vessel and their upper ends retained by stay-plates upon the under side on the upper deck, and weighted sheave-blocks interposed between each pair of the suspended blocks and arranged to travel on the inclined rods, said pennants being passed over said suspended and under the weighted ones, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

JOHN W. GILLMAN.

Witnesses:

H. G. UNDERWOOD,
N. E. OLIPHANT.