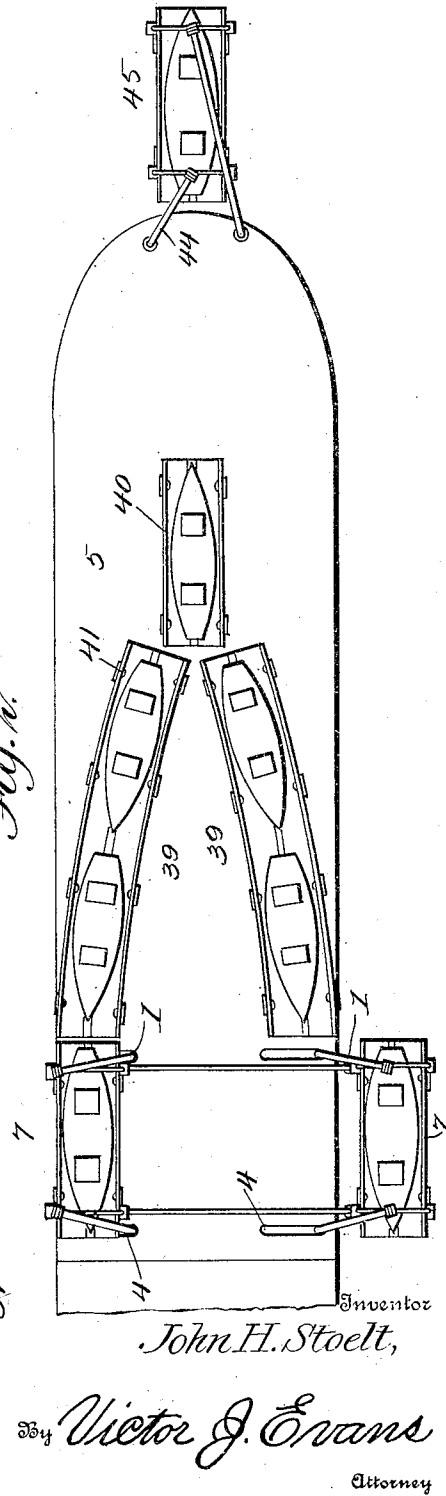
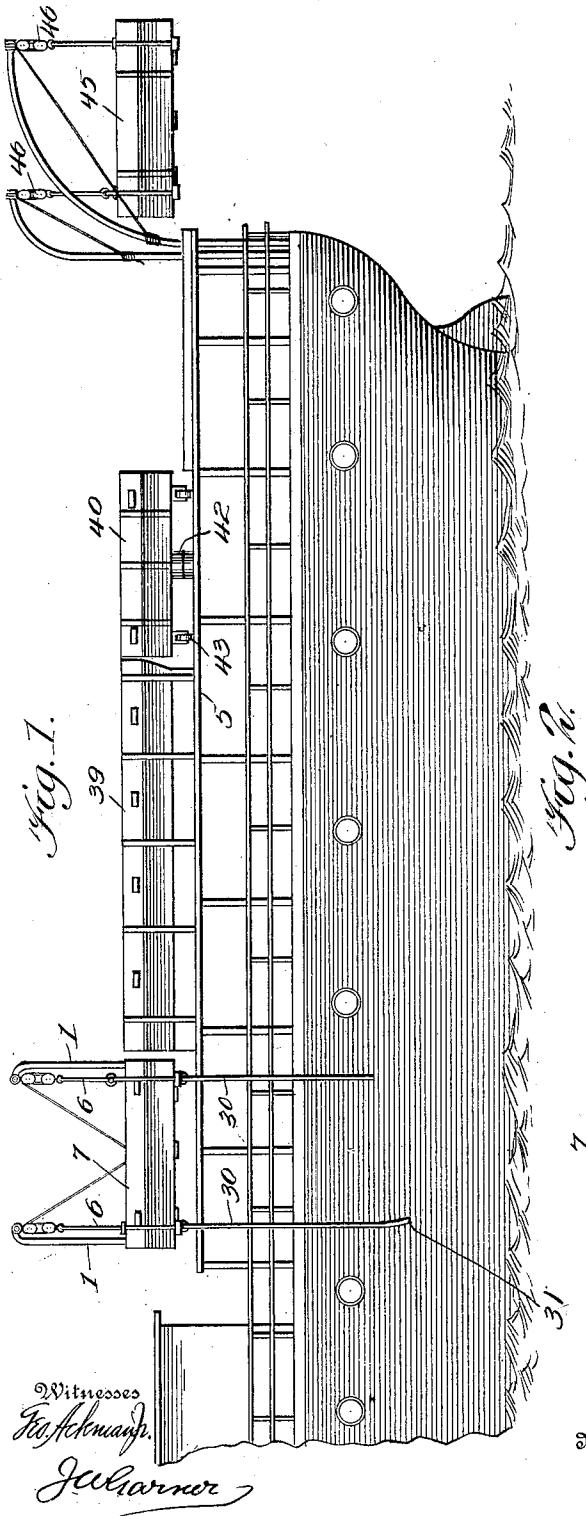


J. H. STOELT.
 BOAT LOWERING AND LAUNCHING MEANS.
 APPLICATION FILED MAR. 12, 1909.

Patented Mar. 1, 1910.

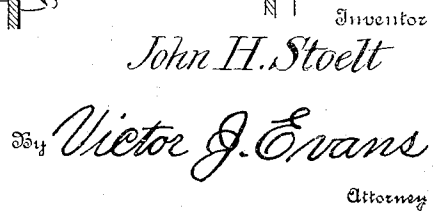
2 SHEETS—SHEET 1.

950,967.



APPLICATION FILED MAR. 12, 1909.

2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

JOHN H. STOELT, OF SEBEWAING, MICHIGAN.
BOAT LOWERING AND LAUNCHING MEANS.

950,967.

Specification of Letters Patent.

Patented Mar. 1, 1910.

Application filed March 12, 1909. Serial No. 482,971.

To all whom it may concern:

Be it known that I, JOHN H. STOELT, a citizen of the United States, residing at Sebe-
waing, in the county of Huron and State
of Michigan, have invented new and useful
Improvements in Boat Lowering and
Launching Means, of which the following is
a specification.

This invention relates to improvements in
boat lowering and launching means for ves-
sels and consists in the construction, combi-
nation and arrangement of devices hereinaf-
ter described and claimed.

The object of my invention is to provide
improved boat lowering devices for vessels
which devices are normally entirely away
from and clear of the sides of the vessel so
as to prevent any obstructions which inter-
fere with the docking of the vessel; a fur-
ther object being to provide improved means
for automatically launching the boat as soon
as the same is lowered; a further object be-
ing to provide improved means for running
a number of boats from either side of the
vessel to the davits for lowering by the lat-
ter; a further object being to provide an im-
proved cradle in which the boat is normally
kept, in which it is raised or lowered, and
from which the boat is automatically
launched as soon as the cradle reaches the
required lowered position.

In the accompanying drawings: Figure 1
is an elevation of a portion of a vessel pro-
vided with improved boat carrying, lower-
ing and launching means constructed in ac-
cordance with my invention. Fig. 2 is a
plan view of the same. Fig. 3 is a detail
side elevation of the same. Fig. 4 is a detail
perspective view of one of the boat carrying
and launching cradles. Figs. 5, 6 and 7 are
detail sectional views of parts of such
cradles.

In accordance with my invention I pro-
vide davits 1 which are here shown as hav-
ing their lower ends pivotally mounted as at
2 on a deck 3, at one side of the vessel, and as
extending through and being adapted to
operate in slots 4 of an upper deck 5, the said
slots being transverse with reference to the
vessel so that the davits are angularly mov-
able transversely of the vessel and may be
disposed with their upper ends entirely
within the vessel or extended out-board, in
which latter position the davits are shown in
Fig. 3, the davits being also shown in out-

board position to the port side of the vessel
in Fig. 2 and in in-board position on the
starboard side thereof. The davits carry
suitable tackle 6 from which a cradle 7 is
slung, the cradle being here shown as com-
posed of downwardly converging sides 8,
vertical upper side portions 9, a narrow bot-
tom 10, supporting bars 11 on which the bot-
tom rests and yoke frames 12 of substantially
inverted U-shape which have the lower ends
of their arms attached to the ends of said
bars 11 and which yoke frames are provided
in their upper ends with eyes 13 for engage-
ment between the hooks or links 14 of the
lower blocks 15 of the tackles. The cradle
is also provided with reinforce yokes 16
which rest on the bars 11 and extend around
and engage the sides of the cradle and are
provided at their upper sides with eyes 17
which engage the vertical arms of the yoke
frames and are further provided immedi-
ately above the sides of the cradle with
bends 18 for engagement by links 19, 20, the
outer ends of the said links being pivotally
connected to the said bends. The free ends
of the links 20 are provided with eyes 21.
The corresponding ends of the links 19 are
provided with hooks 22 pivotally connected
as at 23, and which hooks are adapted to be
passed through the eyes 21 so as to connect
the links 19 to the links 20, and then turned
to a position parallel with the links 19 and
then engaged by rings 24 which serve to lock
such hooks in engaged position and hence co-
act with such hooks to lock the inner ends of
the links 19, 20 together and enable the said
links to be disconnected by simply unship-
ping said lock rings from said hooks.

The cradle 7 is provided in its bottom
with supporting rollers 25 which are flanged
as at 26 to receive the keel of a boat 27.
The boat here shown is a life-boat, such as
described and claimed in my co-pending ap-
plication for Letters Patent of the United
States, filed July 7, 1908, Serial No. 442,287.
In the vertical side portions 9 of the cradle
are openings which receive the bearing lugs
28 of plates 29, said plates carrying anti-
friction rollers 30 which bear against oppo-
site sides of the boat so that friction is di-
minished both at the keel and at the sides
of the boat and the latter is enabled to be
readily run into or out of the cradle which
carries it. The ends of the cradle are open,
as shown, and the links 19, 20 when the boat

is in place in the cradle extend over the boat and secure the same firmly in place in the cradle, but the said links enable the boat to be readily unfastened, it being only necessary to unship the locking rings 24 from the hooks 22, as hereinbefore stated, in order to thus release the boat, and this may be done almost in an instant.

In connection with the davits and the boat carrying cradles 7, which are slung therefrom, I provide guide rods 30, which extend transversely a slight distance above the upper deck 5 and extend vertically on the sides of the vessel to within a suitable distance of the water line, and one of said guide rods extends downwardly farther than the other and has its lower portion bent in arcuate form and disposed concentrically with reference to the lower end of the other guide rod, as at 31. Said guide rods are disposed at a slight distance from the sides of the vessel and their lower ends are bent inwardly and attached thereto, as at 32. The bars 11 of the cradle 7 are provided at their inner ends with pivotally connected link rings 33, which engage and are slidable on the guide rods 30. Normally when the davits are in-board and the cradles slung therefrom are also in-board the bars 11 of the cradles rise above the horizontal portions of the guide rods 30. When the davits are moved up-board, so as to dispose the cradles in such position, the link rings travel on the guide rods and they also do so as the cradles are lowered by the tackle from the davits. Assuming that the securing links 19, 20 have been released from the boats, as hereinbefore described, when the cradles have been disposed out-board and are lowered from the davits by the tackle the cradles with the boats in them remain in a horizontal position until the lower end of the shorter guide rod 30 has been reached and therefore only one end of the cradle descends on the curved portion 31 of the other guide rod, so that the cradle is automatically disposed in an inclined position and hence the boat in the cradle is automatically launched therefrom into the water immediately alongside the vessel.

On the upper deck of the vessel, in addition to the lowering and launching cradles hereinbefore described, are guiding and bedding cradles 39, which are fixed and immovable on the said upper deck, extend from opposite sides thereof, converge rearwardly and have their front ends disposed in line with the cradle 7 when the latter are in-board, and their rear ends somewhat close together so that a pivotally mounted cradle 40, which is also on the upper deck, may be disposed in line with either of the fixed cradles 39 to receive a boat therefrom or supply a boat thereto. Said cradles 39, 40 are shaped substantially like the launching

cradle 7 and are likewise provided with antifriction rollers 41. The pivotal cradle 40, the pivot of which is shown at 42, is provided under its end portions with bearing rollers 43 which operate on the upper deck and enable said pivoted cradle 40 to be disposed in any desired position.

From the foregoing description and by reference to Fig. 2 of the drawings it will be understood that after a boat carried by one of the launching cradles has been launched and the boats carried by the fixed guiding and bedding cradle 39 on the same side of the vessel with said launching cradle have also been launched and the boat carried by the pivotally mounted cradle 40 has been also launched from the same side of the vessel by the said launching cradle, the boats on the other side of the vessel may be run therefrom successively upon the pivoted cradle 40 and directed from the latter by means of the first mentioned bedding and guiding cradle also to the said launching cradle, so that all the boats, irrespective of the side of the vessel on which they are normally carried, may be launched successively from and by the said launching cradle, and hence in an emergency all the boats may be launched from the lee-side of the vessel. In case the launching davits on one side of the vessel are injured those on the opposite side thereof may be utilized.

At the stern of the vessel I show a pair of davits 44 from which a cradle 45 of the same construction as the cradle 7 is suspended by tackle 46. This cradle 45 is disposed parallel with the axis of the vessel so that boats from the other cradles may be readily run thereon for launching over the stern.

I claim:—

1. A vessel having fixed vertically disposed guide rods on one side, a boat-carrying cradle connected to said guide rods and means independent of the guide rods to raise and lower the cradle.
2. A vessel having vertically disposed guide rods on one side extending in-board at their upper ends, davits movable in-board and out-board, a boat-carrying cradle connected to said guide rods movable in-board and out-board and also movable vertically, and tackle connecting said cradle to the davits.
3. In combination with boat launching devices movable in-board and out-board, bedding and guiding cradles disposed with one end in line with said launching device when the latter is in-board.
4. In combination with boat launching devices movable in-board and out-board, bedding and guiding cradles disposed with one end in line with said launching device when the latter is in-board, and a movable cradle adapted to be disposed in line with said bedding and guiding cradles.

5. In combination with fixed bedding and guiding cradles, a launching cradle, means to move the same into and out of line with the bedding and guiding cradle and means to raise and lower said launching cradle.
6. In combination with a cradle, means to raise and lower the same, fixed upright guides for the ends of the cradle, one of said guides terminating at its lower end short of the lower end terminal of the other to incline the cradle longitudinally, when lowered, and a boat carried in the cradle.
7. In combination with davits movable in a vertical arc, in-board and out-board, a boat carrying cradle, tackle connecting the

same to the davits and upright guides to which the cradle is connected.

8. The combination with boat raising and lowering devices, a plurality of fixed guiding and bedding cradles, and a shifting cradle movable into alinement with any of the bedding and guiding cradles to enable a boat to be shifted from one to another.

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

JOHN H. STOELT.

Witnesses:

H. E. WINTER,
J. T. HADWIN.