To all whom it may concern:

Be it known that we, CHARLES PERLEY, machinist, and JOSHUA TERRY, blacksmith, both of the city of New York, have invented and made and applied to use certain new and useful improvements in the construction of which are nautically and technically known as "cat-heads" or "shank-painter stoppers," which improvements are calculated to afford greater security to a ship's anchor when either stowed at the bows or when cast off from the shank-painter and hanging by the cat-head for use, as our improvements are equally available to both these positions of the anchor, and in both these cases combining greater safety to the ship's crew with increased facility for detaching or what is nautically termed "letting go the anchor" at a proper time, for which improvements we seek Letters Patent of the United States; and we do hereby declare that the said improvements are fully and substantially set forth and shown in the following description and in the drawings annexed to and making part of this specification wherein—

Figure 1 is a plan. Fig. 2 is an elevation, and Fig. 3 a section, as through the line A B of Figs. 1 and 2, showing collectively a cat-head stopper as in place and in use, constructed with our improvements. The application of the same as a shank-painter stopper, being only to the side of the bows of the anchor, need not be shown, as it is well understood.

The same letters and numbers, as marks of reference, apply to the same parts in each of the several figures.

In the drawings, C is the cat-head fitted with a side plate a, having a flange b partly overlying the cat-head and partly projecting in front of and above the plate a.

1 l are bolts going through the cat-head to secure the plate a.

e c are projecting lugs or ears to carry the pin 2, forming the center for the dog d between the lugs c c. On the flange b is a lug 3 to form a joint â with the lock-piece e, which is made with a mortise 5 to receive the point of the dog d, which passing up through the mortise 5 has a hole 6 to receive a padlock. (Not shown in the drawings, but for a use hereinafter noted.) On the flange b are two fillets 7 7, the back ends of which are in contact with shoulders or ears 8 8 on each side the lock-piece e to take all strain from the joint 4.

On the lock-piece e is a lug 9, taking a chain 10, carrying a pin 11, which goes through a tongue 12, descending from the lock-piece e. The ends of the pin 11 take into hollows in the upper part of the bracket-lugs 13 13 under the flange b.

g is a bolt going through the flange b and the cat-head, with an eye beneath to take the fixed end of the stopper-chain h, which goes through the ring i of the anchor and finishes with a ring 13, to lie between the dog d and the plate a, but so as that the weight of the anchor, when catted, is borne principally by the lugs c c, the dog d merely preventing the ring 13 from slipping off the lugs. When thus made and in place, on removing the pin 11 from the tongue 12 and using the chain 10 and lug 9 to lift the lock-piece e, the dog d will fall outward and downward, the anchor being hoisted by the cat-tackles, as usual, until the chain h can be passed through the ring i for the stopper-ring 13 to pass the dog d through it, which at this time will be in the position shown by dotted lines in Fig. 3. When the ring i is so in place and passed up onto the lugs c c, the dog d is to be turned up and the lock-piece e turned over it for the point of the dog to pass through the mortise 5 in the locking-piece e. In this situation the dog and locking-piece will hold the anchor under nearly all or ordinary circumstances; but to guard against accident the pin 11 is put through the tongue 12, and to guard against willful mischief, particularly when a ship is laid by at a wharf, a padlock may be put through the hole 6 in the point of the dog, which will render the "let go" of the anchor impossible, except by a violence that shall fracture the parts. The contrary of this takes place when the anchor is to be let go ship-shape, as a seaman or boy can detach the pin 11 from the tongue 12, and standing ready with the pin 11 and chain 10 in his hand can snatch up the lock-piece e at the moment the order is given, and the anchor is instantly gone to its proper duty, and all these operations are performed with less personal risk or bodily labor than by any other means we are acquainted with that are now in use for such purposes.

The chain h may be either lengthened or
changed in the working end in any manner
that will serve as a substitute for the ring 13;
but we do not advise any such change, be-
cause we do not know of any other means
than the ring to secure an equal operation
on and round the parts that sustain the
weight of the anchor when catted.

The same operations take place and the
same effects are produced when this appa-
ratus is applied to the ship's bows to take
the crown end of the anchor and serve as a
shank-painter and stopper.

We are aware that many contrivances for
these purposes are publicly known, such as
the one known as "Burton's cat-head stop-
per," in which the eye of the stopper is sus-
pended on one end of a pin that moves on a
center, with the other end held by a clamp
or species of trigger held by a pin. In that
apparatus the pull of the stopper on the bolt
throws the strain of the weight back on the
pin holding the clamp or trigger, so that a
handspike is needed, by which one man takes
off the strain by nipping the clamp, while
the pin is withdrawn to let go the anchor,
making two operations, probably requiring
two men to effect them, and in any case risk-
ning the permanence of the parts by their ex-
posure to accident from a blow by the fore-
sheet block or any other weight in motion,
which would ordinarily free the anchor, prob-
ably with injurious consequences. In a shank-
painter apparatus, known as "Spence's," we
consider the same inconveniences to be mani-
fest, as the end of the shank-painter is taken
by a pin and joint that is held by a hooked
lever, which is kept in place by a pin, and
the strain of the weight on the lever causes
the need for a bar or handspike to be entered
in a hollow end of the lever to cant that be-
fore the holding-pin can be detached and the
anchor let go. This, again, apparently re-
quires two men, and is liable to all the same
risk and inconvenience with Burton's, before
referred to, and particularly so to the men
holding the lever. We do not know that ei-
ther of these inventions is now in use;
but we use a public description of them to
show wherein we consider our apparatus as
essentially differing with both of these, and,
in fact, with all other apparatus for the same
purposes that we know of—first, in the fact
that the places, shapes, and substances of the
parts, as we believe, completely protect them
from accidental injury, so that the anchor
cannot be let go by such causes; secondly,
that if by any motion of the ship or by the
flukes of the anchor fouling another vessel or
object the strain is thrown from the lugs c c
to the dog d, this cannot "cant" the lock-
piece e upward and release the anchor, even
if the pin 12 is not in place; thirdly, through
the construction and by the facility of lock-
ing the dog e by the hole 6, no interference
short of breaking the parts can release the
anchor improperly; fourthly, in all cases,
whether of intended use or positive accident,
the ultimate strains are not borne by mov-
able and easily-detached parts, as all such
strains fall on the fixed fillets 7 7, through
the lugs or ears 8 8, independently of any
wear or looseness in the joints formed by the
parts 3 and 4, and, finally, the fact that either
as a cat-head stopper or shank-painter stop-
per the action of the apparatus can in almost
all cases be fully controlled by one man, does,
as we believe, distinguish and separate this
our invention from all others that have either
preceded it or are now in use.

We do not claim to have invented any of
the foregoing parts irrespective of the man-
ner in which we have arranged and applied
them for these purposes; but

We do claim as new and of our own inven-
tion, and desire to secure by Letters Patent
of the United States—

The application, arrangement, and com-
bination of the parts described and shown, by
which the lock-piece e, with ears or shoulders
8 8, places any ultimate strain upon the fixed
fillets 7 7 and through the lug 12 and pin 11
secures all the operative parts from moving
by accidental causes, at the same time pro-
viding means, through the attached chain 10,
by which one man can release or let go the
anchor without other manual help and with-
out other mechanical aid than that furnished
by the parts attached and employed, when
constructed and combined substantially in the
manner described and shown.

In witness whereof we have hereunto set
our signatures this 3d day of April, 1848.

CHARLES PERLEY.

JOSHUA TERRY.

Witnesses:

W. SERRELL,
Lemuel W. Serrell.