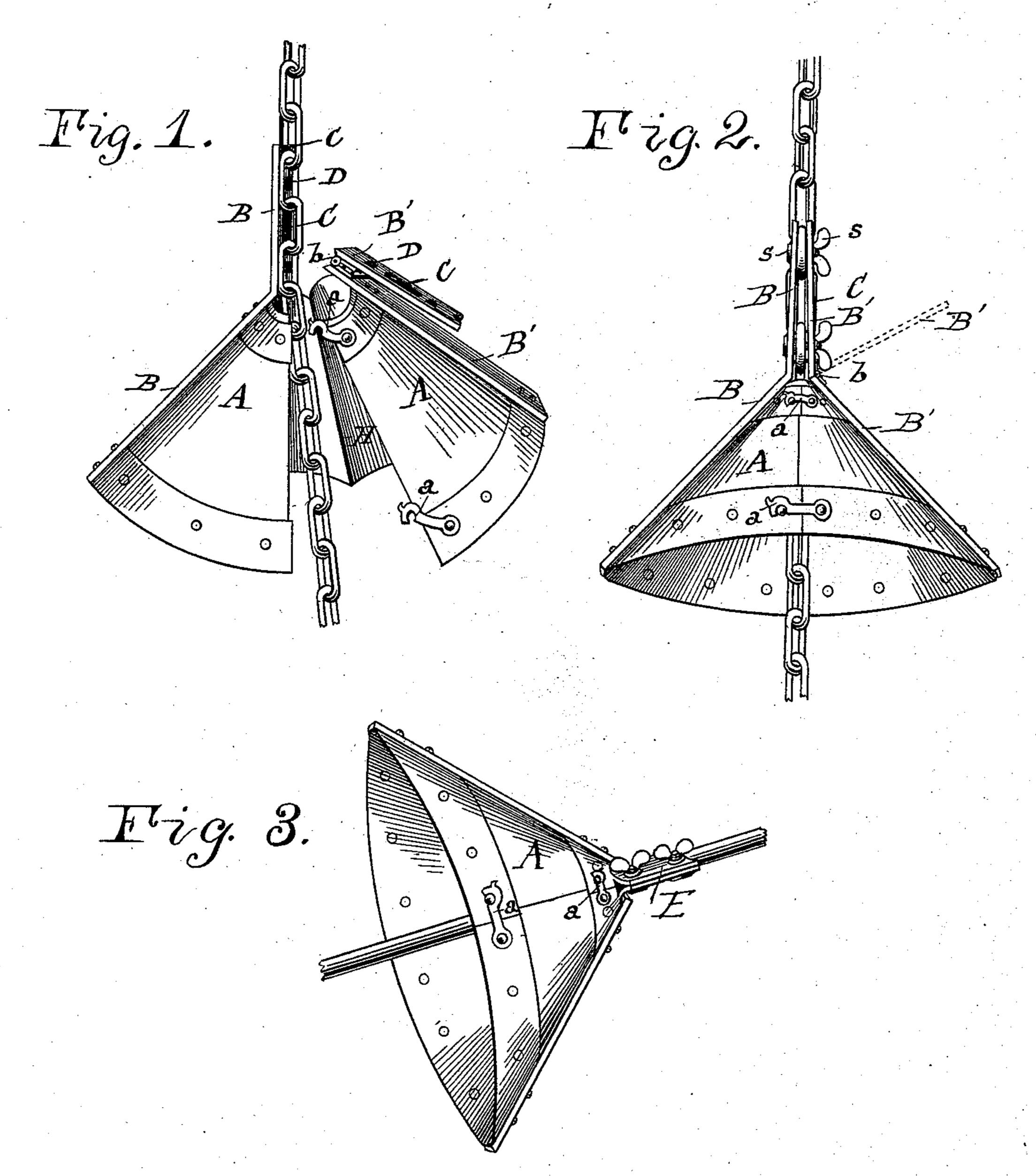
(No Model.)

## T. WILSON.

PROTECTOR FOR VESSELS AGAINST RATS.

No. 376,839.

Patented Jan. 24, 1888.



Witnesses.
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## United States Patent Office.

THOMAS WILSON, OF NORTH TARRYTOWN, NEW YORK.

## PROTECTOR FOR VESSELS AGAINST RATS.

SPECIFICATION forming part of Letters Patent No. 376,839, dated January 24, 1888.

Application filed March 14, 1887. Serial No. 230,825. (No model.)

To all whom it may concern:

Be it known that I, THOMAS WILSON, of North Tarrytown, Westchester county, State of New York, have invented certain new and useful Improvements in Protectors for Vessels against Rats, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention is an improved device for preventing rats and other like vermin from coming on board vessels anchored out in the stream.

In the drawings illustrating my invention, in which like letters indicate like parts, Figure 15 1 is a view of my improved device open, showing the mode of placing it on the anchor-chain. Fig. 2 is a view of my improved device in position on the anchor-chain of the vessel. Fig. 3 is a view of my improved device applied to the propeller-shaft of the vessel.

It is a well-known fact that the only way rats or other like vermin can get on board vessels anchored out in the stream, away from all contact with wharves or other vessels, is by climbing the anchor-chains or the propeller-shafts. This is the case particularly with iron vessels or vessels whose sides are covered with metal.

My device for stopping the ingress of the rats on vessels is designed to be fastened to the anchor-chains and on the propeller-shaft, and arrest the progress of the rats, and thus prevent their coming on board the vessel.

My improved device consists of a metal cone, 35 A, constructed of iron, brass, or other suitable metal, which is attached to the anchorchain or propeller shaft with the large or open end downward or outward, as shown in Figs. 2 and 3. As will be fully understood from 40 the drawings, when the rats climb up the chain or along the shaft they run into the cone, and their further progress is arrested. As the interior of the cone is smooth and slippery, and constructed so as to be free from all projec-45 tions or crevices which would furnish the rats a foothold, they cannot climb to the edge of the cone and over on the outside, and, moreover, as the cone is made large and flaring at its open end, the rats cannot jump from the 50 chain to the edge of the cone and so get on the outside.

The cone should be attached to the chain at such a distance from the vessel that it will be impossible for the rats to jump from the chain under the cone on board of the vessel. The 55 cone thus effectually prevents the rats climbing up the chain or along the shaft, and thus getting on board the vessel.

My improved device is intended to be fastened to the chain after the vessel has come to 62 anchor, and for the purpose of being readily attached to the chain the cone itself opens, as shown in Fig. 1, being constructed in two parts, which are hinged along one edge, as at H, and fastened together, when closed, by the 65 locks a.

The cone is attached to the chain by two straps or bands of brass or other metal, B B', which are secured to the outside of the cone, and project from the apex, as shown particu- 70 larly in Fig. 1. One of these straps or bands, B', for convenience in fastening, is hinged at b, where it leaves or projects from the apex of the cone, so it can turn outward, as will be seen in Fig. 1. In the portion of the straps 75 which projects from the cone are elongated openings, (shown at C,) which are made long enough to receive the links of the chain, and between these openings C are smaller round openings D, for the passage of screw-bolts to 80 hold the straps together and in place. To attach the cone to the chain, it is first opened and placed around the chain at such a position on the latter that the transverse links of the chain will fit in the elongated openings C in 85 the fixed strap B. The cone is then closed and fastened together by means of the hooks a. The hinged strap B' is afterward closed against the chain. The transverse links of the chain now rest in the openings C in the 90 straps, as shown in Fig. 2, and hold the cone in place and prevent it slipping on the chain. The two straps are held together and firmly against the chain by screw-bolts S, which are placed through the openings D in the straps 95 and through the links of the chain and fastened by the thumb-nuts S', as shown in Fig. 2. The cone is thus securely held in place on the chain, and as the links of the latter rest in the openings in the straps, the cone cannot move 100 up or down, and, moreover, the cone fits so closely around the chain at its apex or small

end that the rats cannot force themselves

through the cone and up the chain.

The strap B' may be rigidly fastened to the cone, the same as the strap B, if desired, the 5 opening of the cone readily allowing the adjustment of the chain within the straps. As the cone is closed the strap is brought against the chain in position to be fastened; but I prefer to have the strap B' hinged at b, as to shown in the drawings, as it allows of more convenient adjustment.

Instead of the bolts S passing through the holes D for securing the strap on the chain, any convenient clamp may be used on the 15 outside of the straps, the position of the links in the openings C effectually holding the cone in position on the chain and preventing it

moving up or down on the same.

The cone is attached to the shaft in a similar 20 manner, except that, instead of the straps or bands B B', there is a metal collar, E, secured to the apex of the cone, which is opened on one side and fastened around the shaft by the screw-bolts and screws S S', as shown in Fig. 3.

My improved device can be readily and quickly attached to the anchor-chain and propeller-shaft, and effectually prevents the rats from climbing up the chain and along the shaft

and getting on board the vessel.

As will be readily understood from the above description, my improved cone may be attached to the rope or other like fastening by which the vessel may be secured to the wharf.

What I claim is—

1. A device for preventing rats from com- 35 ing on board vessels, consisting of the cone A, formed in two parts hinged together, and operating substantially as and for the purposes set forth.

2. A device for preventing rats from com- 40 ing on board vessels, consisting of the cone A, formed in two parts hinged together, and provided with the straps B B', having the elongated openings C and the holes D, substantially as described, and for the purposes set forth. 45

3. In a device for preventing rats from coming on board vessels, the metal straps B B', attached to the cone so as to project from the apex of the same, and provided with the elongated openings C and the holes D, substantially 50 as described, and for the purposes set forth.

4. A device for preventing rats from coming on board vessels, consisting of the cone A, formed in two parts hinged together, and provided with the collar E, substantially as de- 55 scribed, and for the purposes set forth.

In testimony of which I hereto sign my name this 24th day of February, 1887.

THOMAS WILSON.

Witnesses:

J. BENEDICT SEE, BENJ. E. SMYTH.