PART VIII
DUTCH
UNDERWATER
ORDNANCE

MINE DISPOSAL HANDBOOK

PART VIII

DUTCH UNDERWATER ORDNANCE

SEPTEMBER 1, 1945

CONFIDENTIAL

MINE DISPOSAL HANDBOOK

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DUTCH UNDERWATER ORDNANCE

CHAPTER I

DUTCH CONTACT MINES

SEPTEMBER 1, 1945

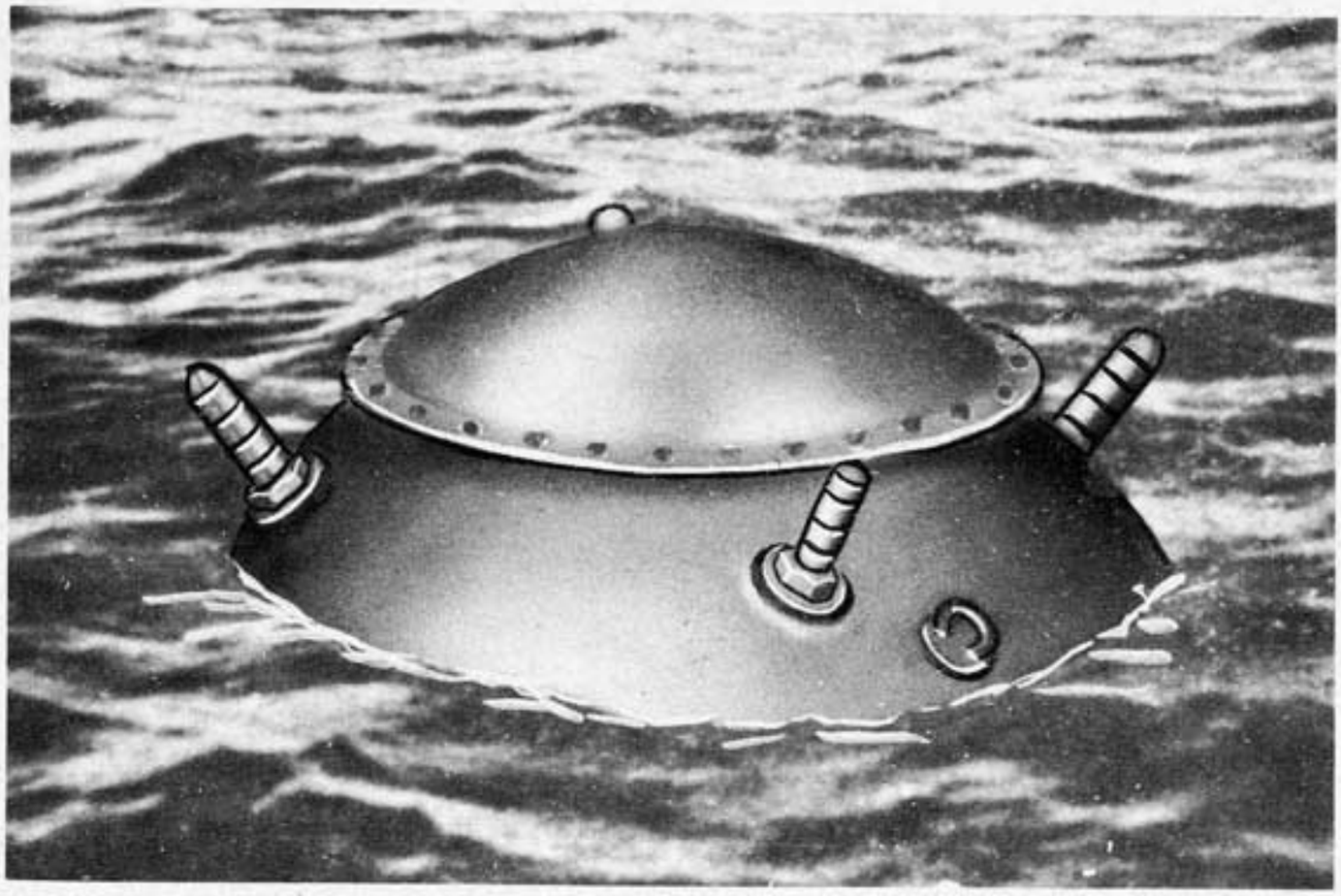

Fig. 1 - Vickers Mine, Floating

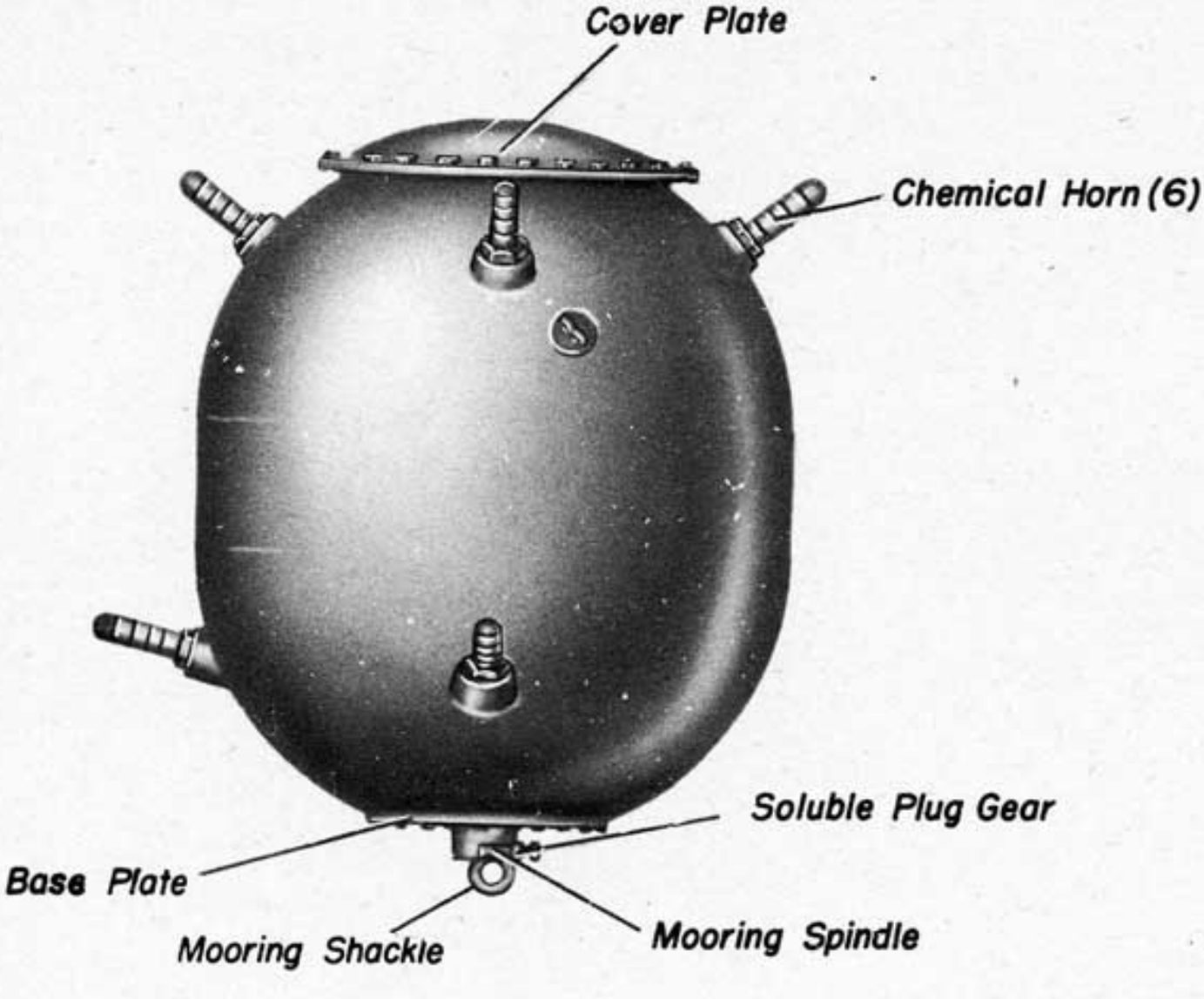

Fig. 2 - Vickers Mine

Dutch Vickers

General

1. Moored, contact, chemical horn mine, laid by surface craft.
2. Dutch designation unknown.
3. Defensive mine. Expected laying depths and intended targets unknown.

Description

1. Case

Shape	Two hemispheres joined by a cylindrical mid-section.
Color	Black
Material	Steel
Diameter	36"
Length	Unknown
Charge	Unknown
Total weight in air	Unknown

2. External fittings

Horns	Six; four equally spaced around upper hemisphere; two 90° apart on lower hemisphere, mounted on brackets.
Cover plate	In center of upper hemisphere, secured by bolts.
Base plate	In center of lower hemisphere, secured by bolts; fitted with straight shank mooring spindle, detonator strongback, and soluble plug gear.

Operation

1. Mine takes depth by plummet. Dissolution of a soluble plug allows mooring tension to pull out the mooring spindle, operating the booster release, closing the mooring safety switch, and arming the mine.
2. Standard chemical horn firing.
3. The only self-disarming device is the mooring safety switch which is designed to disarm the mine by opening the firing circuit upon release of mooring tension.

Precautions

1. Check the mooring spindle. Except in extreme emergency, do not attempt RMS unless it has retracted fully.

RMS

1. Loosen the detonator strongback and swing it clear.
2. Remove the detonator and booster.
3. Dispose of detonator, booster, and charge.

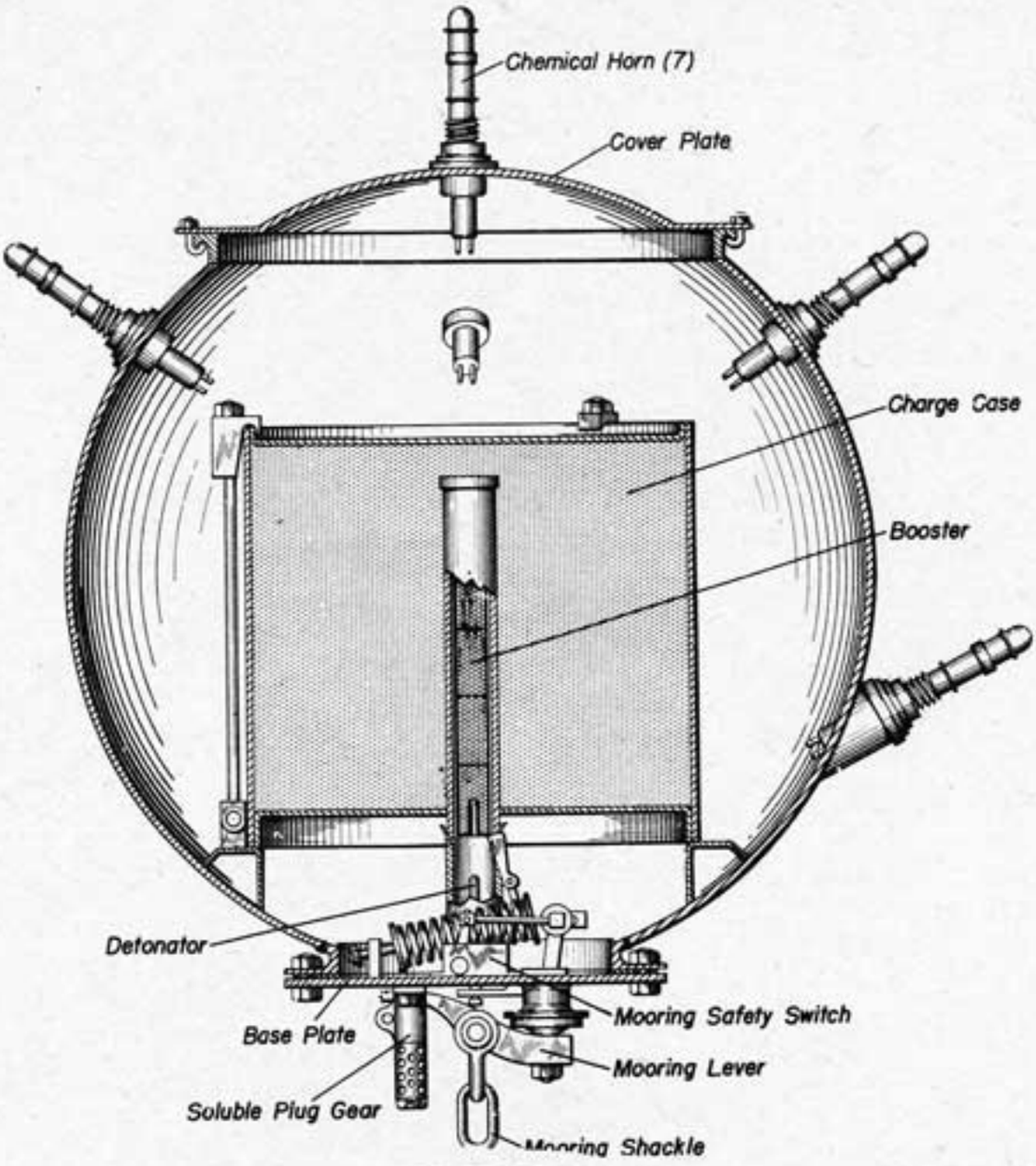

Fig. 3 - Seven Horn Mine, Sectional View

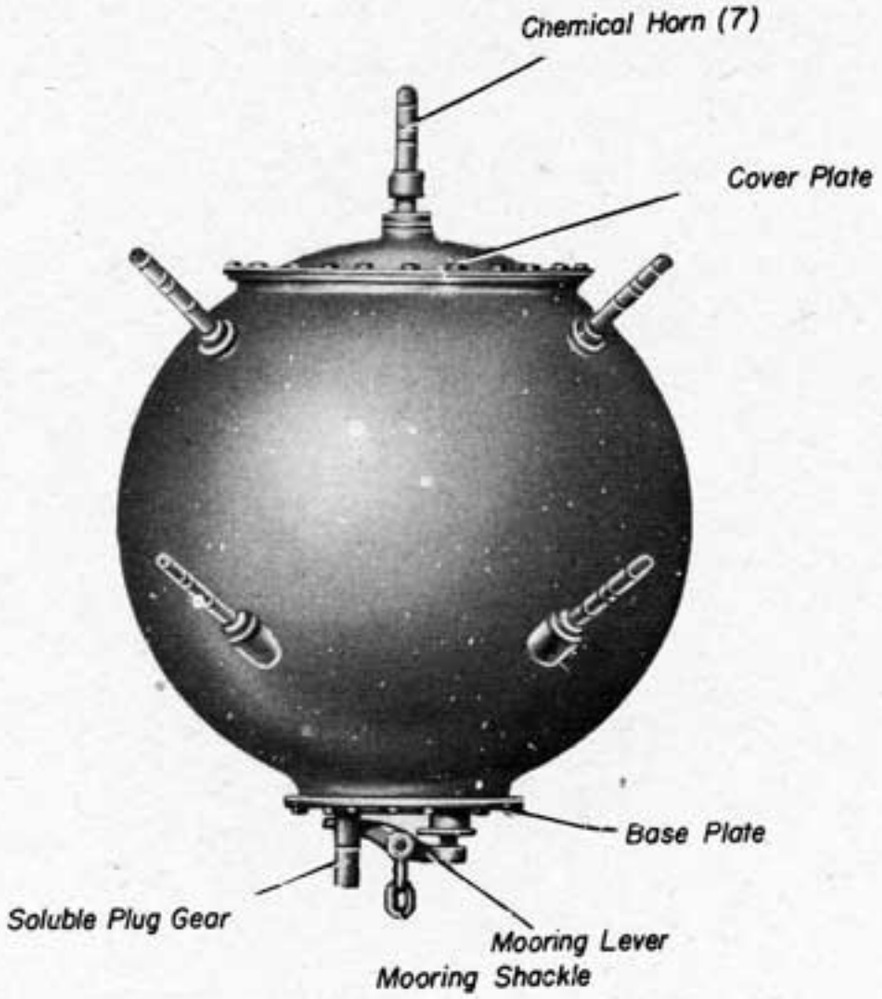

Fig. 4 - Seven Horn Mine

Dutch Seven Horn

General

1. Moored, contact, chemical horn mine, laid by surface craft.
2. Dutch designation unknown.
3. Defensive mine. Expected laying depths and intended targets unknown.

Description

1. Case

Shape	Spherical
Color	Black
Material	Steel
Diameter	39" approx.
Charge	300 lb.
Total weight in air	Unknown

2. External fittings

Horns	Seven; one in center of cover plate; four equally spaced around upper hemisphere; two 90° apart on bosses on lower hemisphere.
Cover plate	In center of upper hemisphere, lap-fitted, secured by bolts.
Base plate	In center of lower hemisphere, lap-fitted, secured by 18 bolts, fitted with mooring lever, detonator strongback, and soluble plug gear.

Operation

1. Mine takes depth by plummet. Dissolution of a soluble plug allows mooring tension to pull out the mooring spindle, operating the booster release mechanism, closing the mooring safety switch, and arming the mine.
2. Standard chemical horn firing.
3. The only self-disarming device is the mooring safety switch which is designed to disarm the mine by opening the firing circuit upon release of mooring tension.

Precautions

1. Check the mooring lever. Do not attempt RMS unless the head of the bolt mounted on the free end of the mooring lever bears against the base plate.

RMS

1. Unscrew the detonator strongback and swing it clear.
2. Remove the detonator carrier; the booster is spring-loaded and should follow the detonator out.
3. Dispose of detonator, booster, and charge.

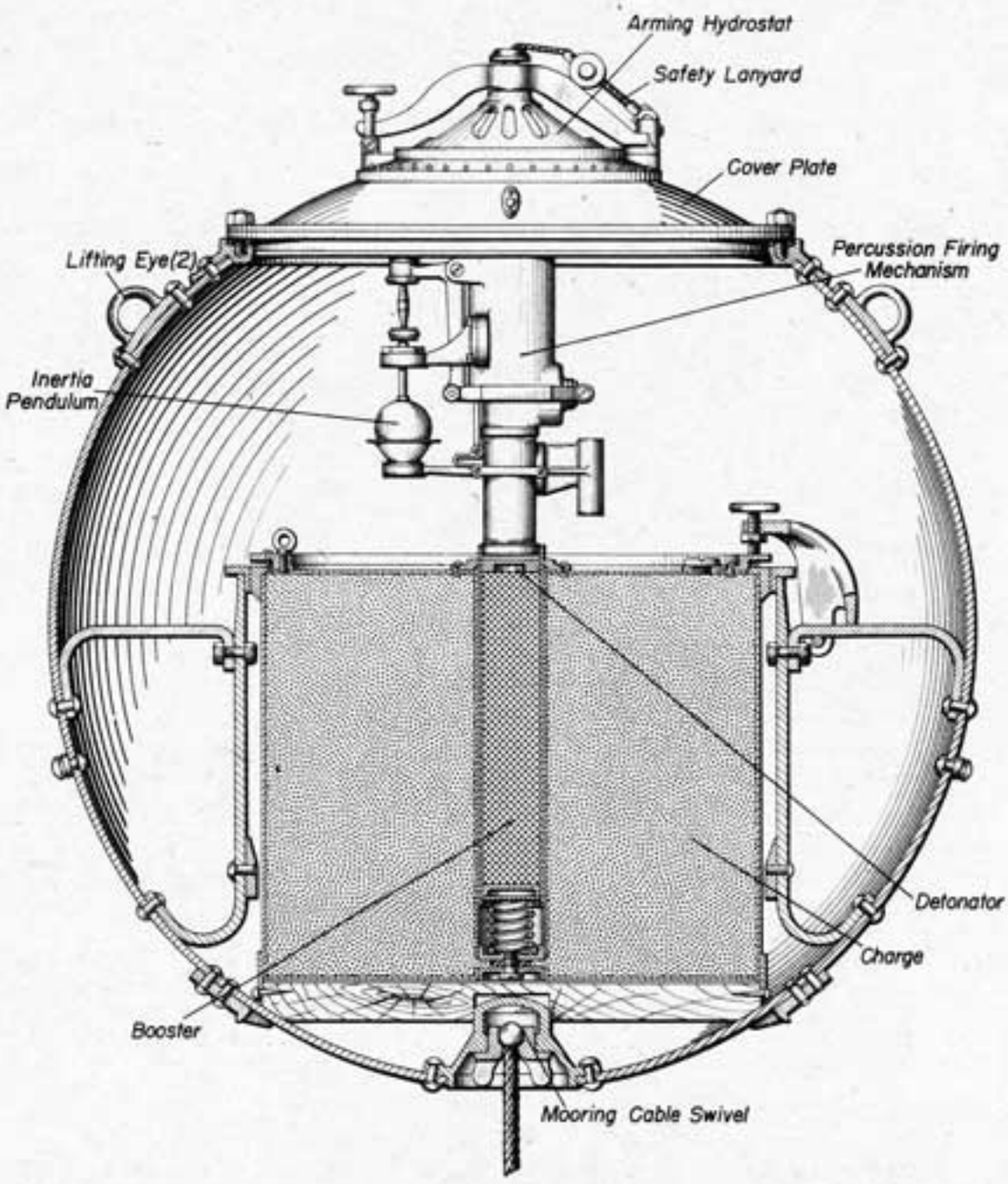

Fig. 5 - Percussion Mine, Sectional View

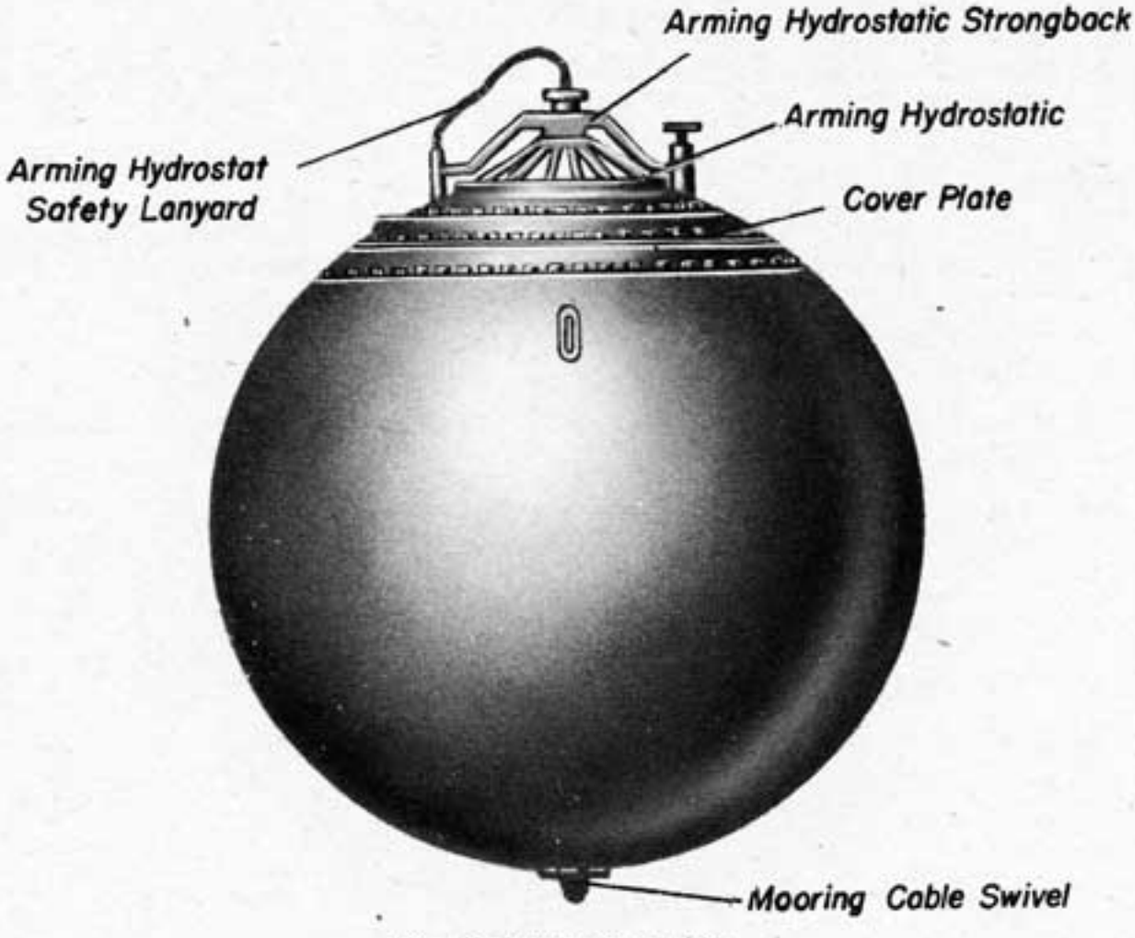

Fig. 6 - Percussion Mine

Dutch Percussion

General

1. Moored, contact, percussion-firing mine, laid by surface craft.
2. Dutch designation unknown.
3. Defensive mine for use against surface craft. Maximum depth of case when moored is 40 ft.

Description

1. Case

Shape	Spherical
Color	Black
Material	Steel
Diameter	35"
Charge	200 lb.
Total weight in air	Unknown

2. External fittings

Cover plate	20 1/4" diam., in center of upper hemisphere, secured by bolts.
Arming hydrostat	11 1/4" diam., in center of cover plate, secured by strongback. Lanyard leads from center of hydrostat to fitting on side of cover plate.
Lifting eyes	Two, 180° apart, on upper hemisphere, adjacent to cover plate.
Mooring cable swivel	In center of lower hemisphere.

Operation

1. Mine takes depth by plummet. Hydrostatic pressure lifts a guard from the inertia pendulum of the firing mechanism and compresses the firing spring, arming the mine.
2. Mine fires upon receipt of a blow sufficient to displace the pendulum. Pendulum movement operates a firing pin release, allowing the spring-loaded firing pin to impinge on the detonator.
3. The only self-disarming device is the arming hydrostat which is designed to replace the guard and lock the firing pendulum upon release of hydrostatic pressure.

Precautions

1. Check the hydrostat lanyard. If the bitter end thereof can be easily secured to the bracket on the cover plate, the mine is unarmed. If, however, the length of lanyard exposed is too short to reach the bracket, the mine is armed and extraordinary care should be taken not to move or jar the mine except from a safe distance.

RMS

1. Unscrew and remove the hydrostat strongback.
2. Attach a line to the safety lanyard. From a safe distance, exert tension on the lanyard until the hydrostat, firing pin, and detonator come free of the case. It is likely that this procedure will fire the detonator.
3. Remove the cover plate.
4. Remove the booster.
5. Dispose of detonator, booster, and charge.

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DUTCH UNDERWATER ORDNANCE

CHAPTER 2

DUTCH DEPTH CHARGES

SEPTEMBER 1, 1945

Fig. 1 - Depth Charge, Booster End

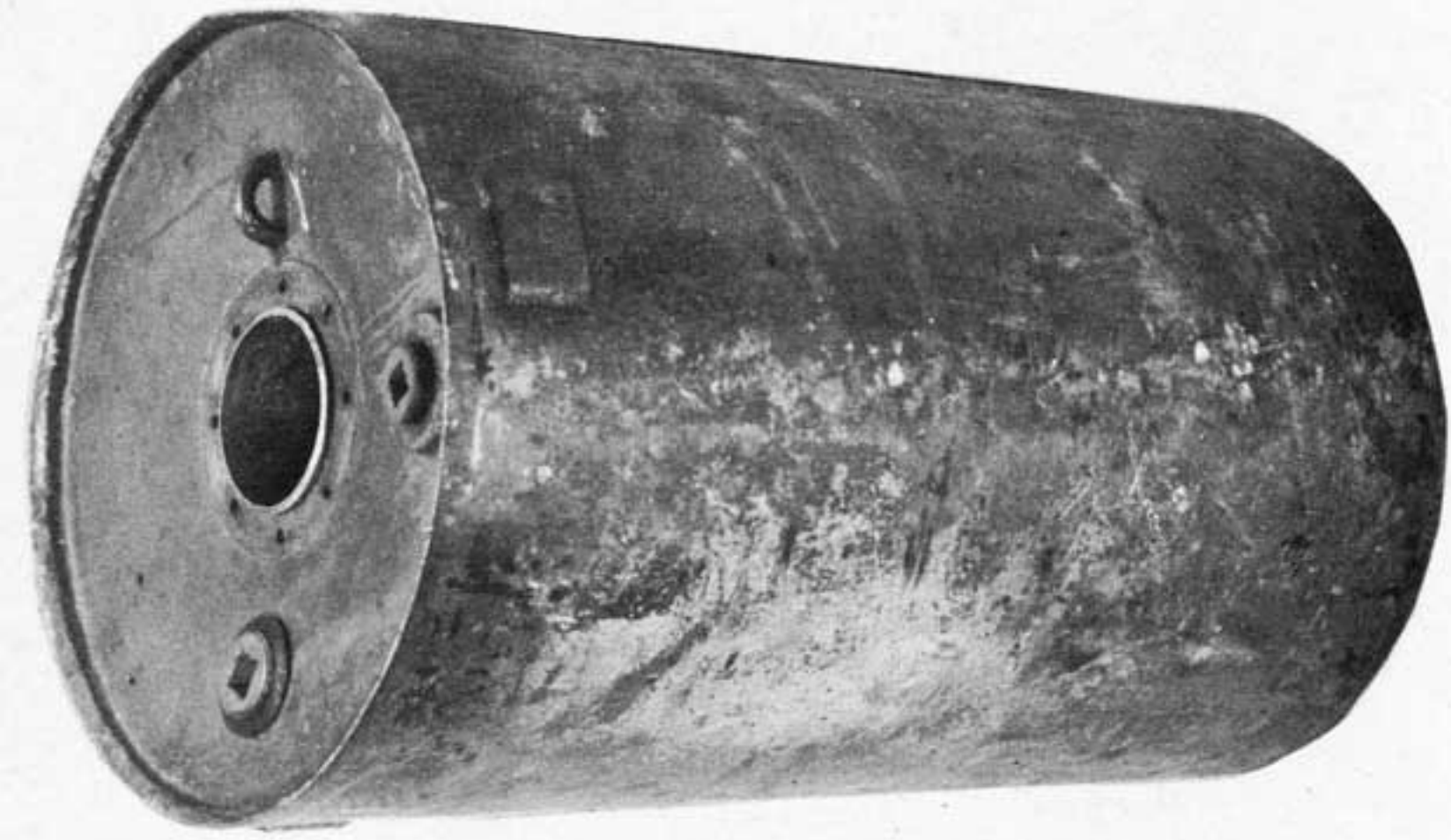

Fig. 2 - Depth Charge, Pistol End

General

1. Hydrostatically operated.
2. Dutch designation unknown.
3. Launched from surface craft.

Description

1. Case

Shape	Cylindrical
Color	Grey
Material	Steel
Diameter Overall Central tube	 17 1/2" 4 1/8"
Length	28 3/4"
Charge	300 lb. TNT approx.
Total weight in air	400 lb. approx.

2. External fittings

Pad eyes	Two on pistol end, one on booster end.
Filling holes	Two on pistol.

3. The pistol is made of brass, 10 1/4" long, 3 3/8" diameter. Its depth settings are Safe, 90, 70, 50, 30, and 15 meters. This pistol is similar to the U.S. Mk 3 pistol. Its firing action is similar to that of the U.S. Mk 6 pistol.
4. The booster is a cylindrical brass can 10 1/4" long and 4" in diameter. A booster extender, consisting of metal bellows and spindle, is soldered to the booster can. A safety fork can be placed on the spindle.

Operation

1. Before launching, the depth-setting dial is moved from "Safe" to the desired setting. As the charge sinks, hydrostatic pressure houses the booster over the detonator. Increasing pressure expands a corrugated metal bellows on the pistol, thereby compressing a firing spring and moving a collar around the firing pin. When the depth charge reaches the pre-set depth, lock balls release the firing pin and fire the charge.

Precautions

1. Do not attempt RSP unless absolutely necessary.
2. Do not move or jar.
3. Allow at least one passage of high tide if feasible.
4. Countermine where possible. Do not attempt RSP underwater.
5. Booster extender may fail to retract upon release of hydrostatic pressure.

Rendering Safe Procedure

1. Place a safety fork on the booster extender if possible.
2. Remove the booster extender.
3. Remove the pistol.
4. Remove detonator by unscrewing the detonator holder from the pistol.
5. Dispose of booster and charge.

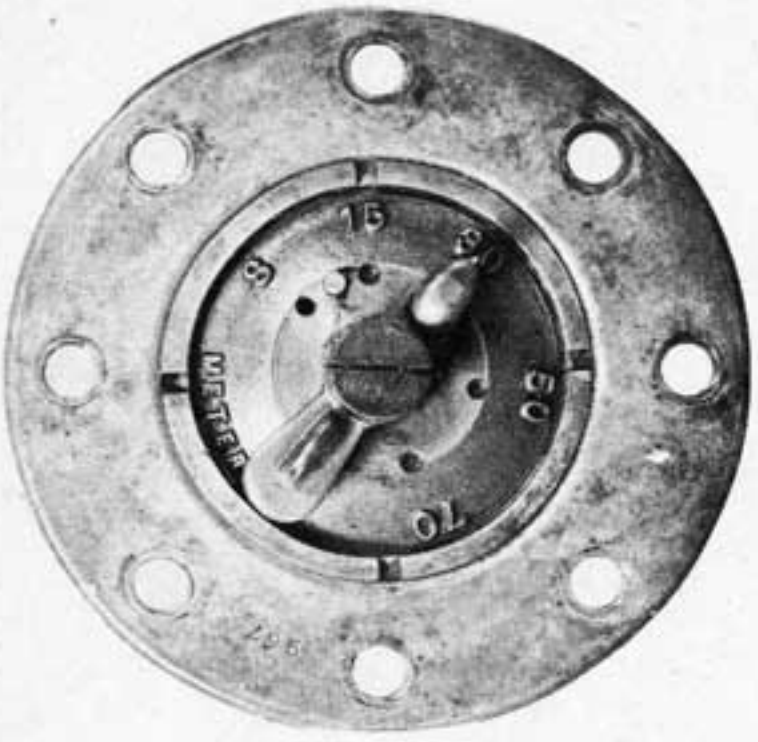

Fig. 3 - Depth Charge Pistol, Dial Setting Face

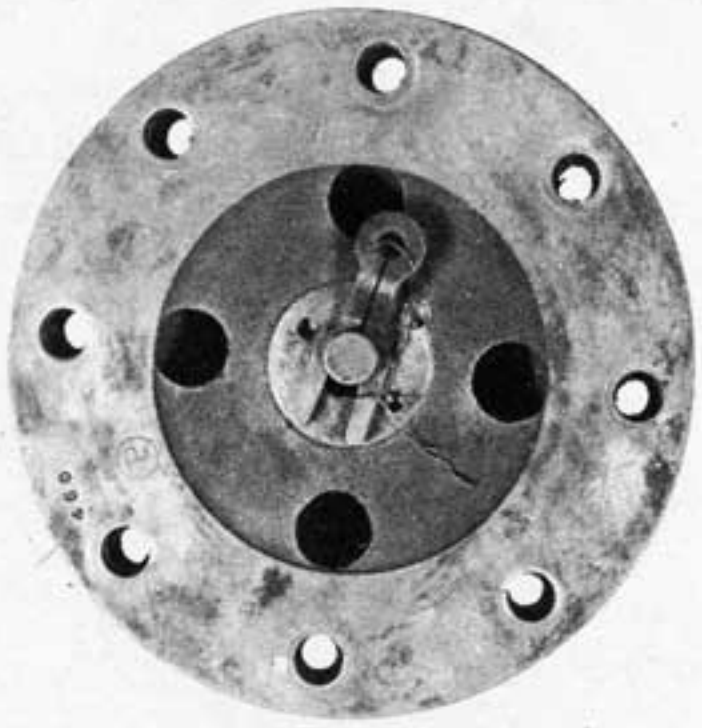

Fig. 4 - Depth Charge Booster Extender, End Plate

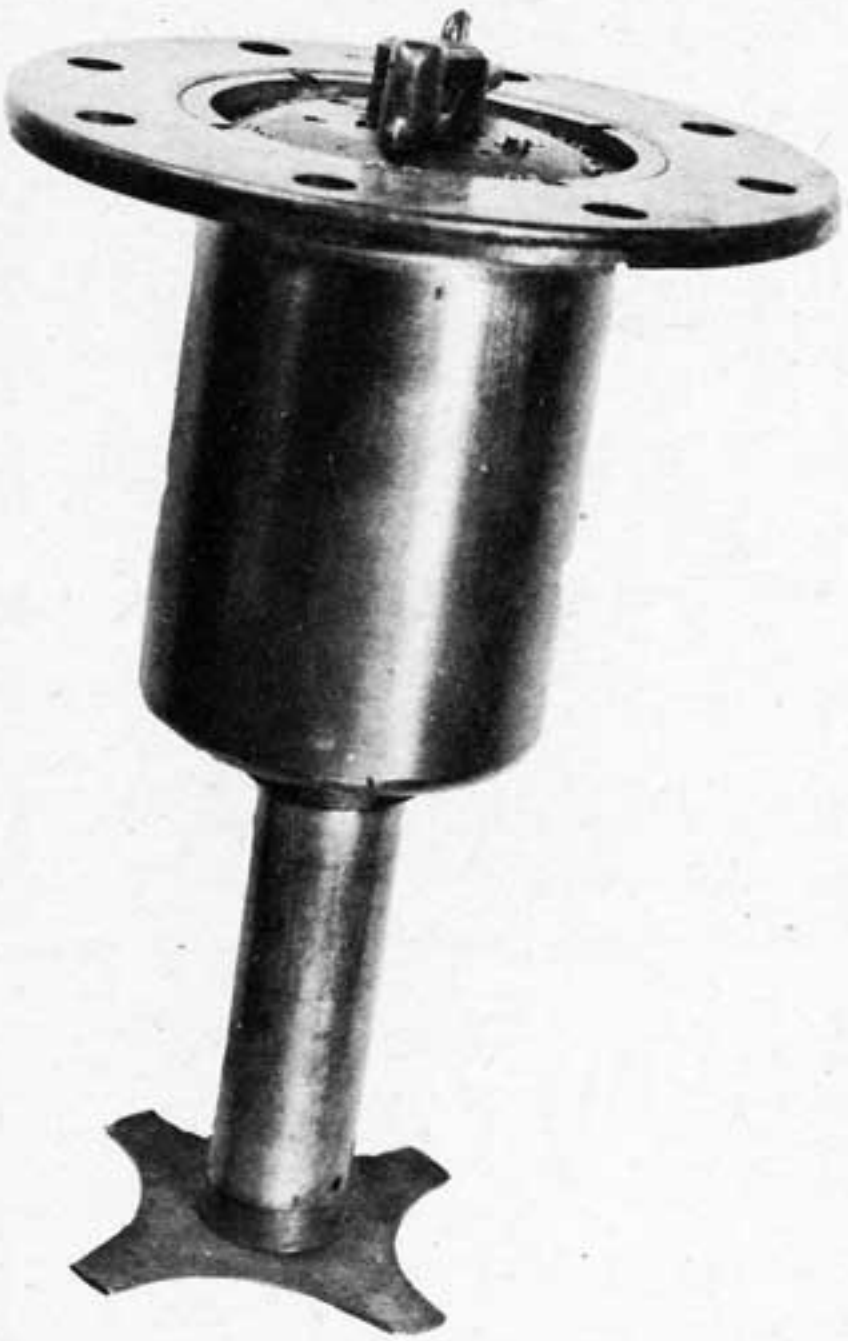

Fig. 5 - Depth Charge Pistol, Side View

Fig. 6 - Depth Charge Booster Extender and Booster