

TOOLS

"Bridger" Shoulder Line Gun Kit

.45 Caliber

1. GENERAL

1.01 This section covers the description, operation, maintenance and safety precautions for the *"Bridger"* .45 caliber shoulder line gun.

1.02 It is reissued to:

- Revise section title.
- Include information on new shoulder line gun.
- Update the format to comply with Pacific Company (PAC) standards.
- Include the appropriate legend on Page 1 in accordance with AT&T's "Guidelines and Procedures for Safeguarding Information" and PAC's System Instruction (SI) 178.

Note: Marginal arrows used to denote changes are omitted.

1.03 The gun is used to project a pilot line over inaccessible terrain such as canyons, over water, and over trees.

1.04 This gun is a firearm and should be handled as such. Only employees thoroughly familiar with this section should be permitted to handle the cartridges or to fire the gun.

2. DESCRIPTION

2.01 The *"Bridger"* .45 caliber shoulder line gun is a smoothbore, short-barrel, .45-70 caliber gun with an attached line cannister.

2.02 A special blank cartridge is used to propel a brass rod projectile to which a special nylon line is attached.

2.03 The maximum range with standard 140 pound test nylon line is 300 to 550 feet depending on the wind, target area elevation and firing angle. Seventy (70) pound test line of 950 feet length can be used for extreme distances up to 800 feet shots.

2.04 The complete set of equipment is shown in Figs. 1 and 2. The description is as follows:

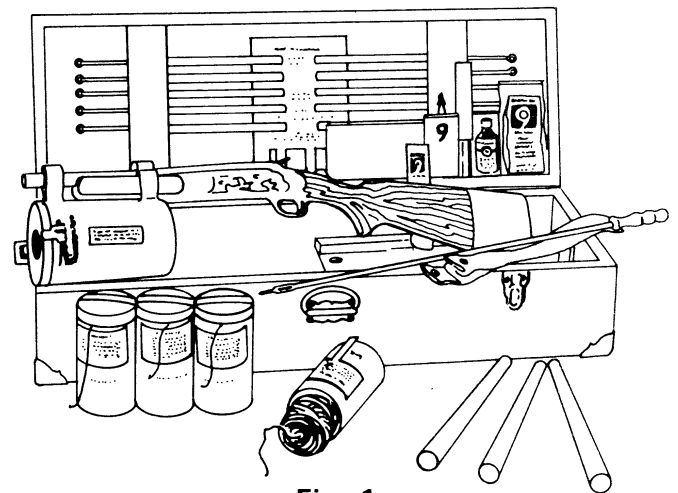


Fig. 1

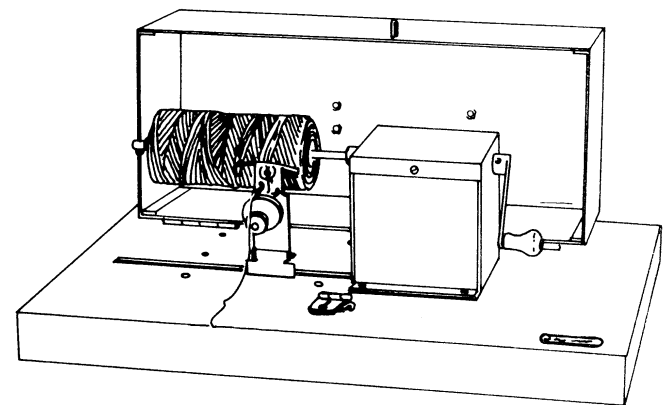


Fig. 2

**Registered trademark of Naval Company, Inc.*

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

SECTION 081-020-921PT

- (a) Gun with attached canister for holding roll of line.
- (b) Ten brass projectiles, 14 inches long, weighing 8 ounces each.
- (c) One box of 20 cartridges, .45-70 caliber blank.
- (d) Four rolls of nylon line, each 550 feet long, and four spindles.
- (e) Gun cleaning rod with slotted tip and brush.
- (f) Gun oil.
- (g) Case, for storing gun and accessories.
- (h) Rewinding machine with case.

3. OPERATION

3.01 Select firing area so that path of projectile is free from obstructions such as trees. The target area must be cleared of people and animals and should be away from buildings. Morning hours are usually the calmest and therefore the most favorable.

3.02 Remove the spindle from a roll of line as follows: Position the wide end of the spindle over the hole in the base of the rewinding machine. Press the spindle out using a small board to exert pressure on the small end. Remove the rewinding tie and place the line in the canister. Allow a portion of the line from the outside of the roll to protrude through the slot near bottom of the canister when replacing the rear cap. Tie a plain knot in this end to hold the line in case it is all pulled out.

3.03 Pull about 4 feet of line from the center of the roll through the hole in the front end of the canister. Attach this end to the projectile using a bowline knot with a loop long enough so that the knot is behind the projectile as shown in Fig. 3.

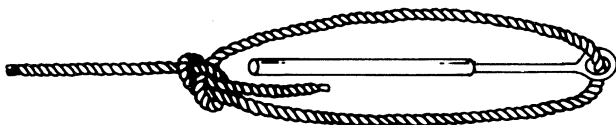


Fig. 3

3.04 Put a few drops of gun oil on the projectile, spreading it evenly over the entire length.

3.05 See that the barrel of the gun is clean and free of corrosion deposits before loading.

3.06 Wear a pair of leather gauntlet gloves to protect hands and cushion the shock of recoil.

3.07 Approved eye protection is **required**, preferably safety goggles, to protect against possible powder flash.

3.08 Approved ear protection is **required** by the operator during the actual firing of the shoulder line gun.

3.09 Insert projectile **part way** into muzzle. It should fit snugly but not bind. A projectile requiring force to insert **must not** be used.

3.10 Make sure that all persons are **behind** the gun and at a **safe** distance.

3.11 Place cartridge in chamber and **seat projectile firmly on cartridge**. Place the gun firmly against the shoulder. Support the stock with the forward hand fingers over the barrel to hold the gun from kicking up. Keep the **face away** from the stock to prevent injury. It is not necessary to closely aim along the barrel when sighting in. (See Fig. 4.)

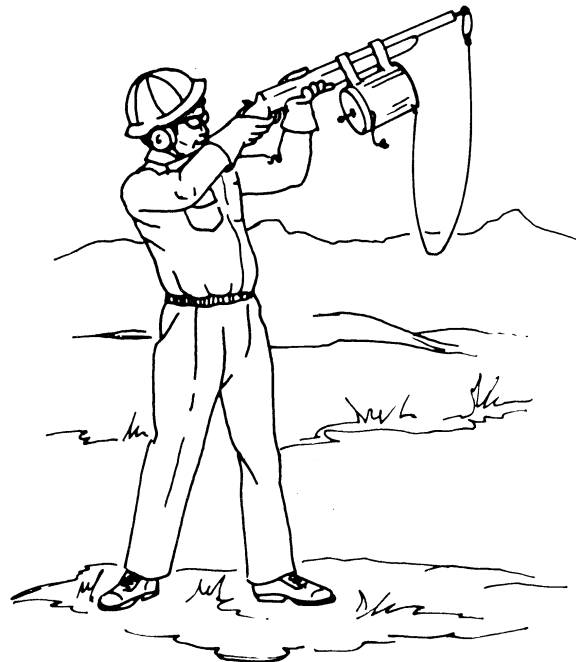


Fig. 4

3.12 For maximum range, hold the gun at an elevation of 30 to 35 degrees. Make a small allowance for crosswinds. Cock the hammer and pull

the trigger to fire. Maintain the hold on the gun in approximately the same position as prior to firing until the line has been pulled out.

3.13 In event of a misfire, cock the hammer and pull the trigger again. If it still does not fire, hold the gun in firing position for one minute, then eject the cartridge. Examine the primer cap for indentation. No indentation indicates a faulty firing pin. Otherwise, the cartridge is defective.

3.14 Clean gun thoroughly and oil lightly after each firing to prevent corrosion. Powder deposits are best removed with gun patches and brush dampened with solvent. Wipe surfaces dry with patches and apply oil.

3.15 As soon as practical, the shot line should be used to pull in a heavier pulling line.

3.16 Recovered projectiles should be inspected for burrs and any roughness. **Discard** bent projectiles.

PRECAUTIONS

4.01 The operation area should be carefully surveyed to avoid contact with power leads. Make arrangements to de-energize any power wires in the probable path of the projectile. The operator should pick a level area to fire the shoulder line gun. A firm and stable stance is important.

Caution: *The operator should never brace any part of the body against an immovable object to fire the gun, serious injury from recoil would be most probable.*

4.02 Comply with all local, state and federal requirements relative to use of firearms.

4.03 Keep the gun clean and lightly oiled at all times. Be sure to clean and oil after each firing.

4.04 Except under emergency conditions, firing should be done during minimum wind conditions.

4.05 Do not fire projectile unless shot line is securely attached by bowline knot. A projectile free of shot line will travel further and may endanger persons or property.

4.06 Do not hammer on tapered rewinding spindles.

4.07 Lubricate rewinding machine occasionally with gun oil.

5. REWINDING SHOT LINE

5.01 Lines may be easily rewound by hand as follows.

(a) Attach the end of the line to the slit in the small end of the spindle.

(b) Closely wind up the spindle once to within about 2 inches of the end. Then continue winding in the same manner as a kite string, ie, diagonally to and fro, but ***the spindle and whole reel must be constantly turned so as to allow the line to wind evenly and not to bunch up in the middle or at the ends.***

(c) When the line is rewound in this manner to about 12 feet of the end, wind closely once over the whole reel and fasten the end.

(d) The winding ***must*** be done quite tightly.

(e) The reel of line ***must*** be wound as evenly as possible, so that it will pay out from the center readily.

(f) Lines ***must*** be thoroughly dried before rewinding.

5.02 Shot lines recovered in good condition may be reused. To rewind shot line proceed as follows if the optional line rewinder is available:

(a) Dry the line thoroughly before rewinding.

(b) Attach the handle to the winding machine.

(c) Lock the end of the line between the wooden spindle and plunger on the left hand side or use a closed hitch. Lock the spindle in the machine, with the large end to the right.

(d) Place the line through the eyelet, and between the tension discs in a clockwise direction. Lead the line out through the left hand guide.

SECTION 081-020-921PT

(e) Do not wind the line too tightly. When spindles are hard to remove, the line has been wound too tight. The tension is controlled by the knurled screw on the tension discs.

(f) Be sure that the traveling guide is all the way over to the left before starting to wind.

(g) By turning the handle, the line can be rewound. When the line is about 10 feet from the end, finish by hand and fasten the end.