**BELL SYSTEM PRACTICES**
**Outside Plant Construction and Maintenance**

**SECTION G86.265.1**
**Issue 1, August, 1958**
**AT&TCo Standard**

# STUD DRIVER AND MASONRY DRILL HOLDER

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## 1. GENERAL

1.01 This section describes the Shure Set Tool R-260 which is a combination stud driver and masonry drill holder. The steel studs used for securing drive rings, cable clamps, backboards, etc., are also described.

1.02 Each stud driver is furnished with an extractor pin which facilitates removal of the present L drills from the tool.

1.03 **Precautions:** Observe the following precautions in the use of the Shure Set Tool.

(a) When driving studs or drilling holes in masonry walls or similar materials, **goggles shall be worn** to protect the eyes from flying chips and other foreign substance.

(b) Do not attempt driving studs or drilling holes in explosive atmosphere because of the sparks which might occur.

## 2. DESCRIPTION

2.01 The following illustrations show the tool and its component parts.

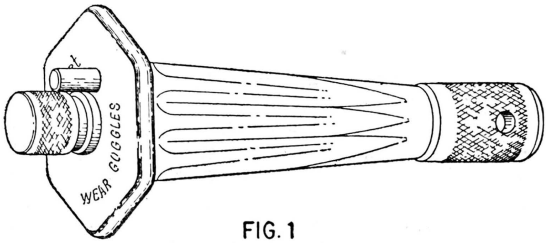


FIG. 1
Shure Set Tool R-260

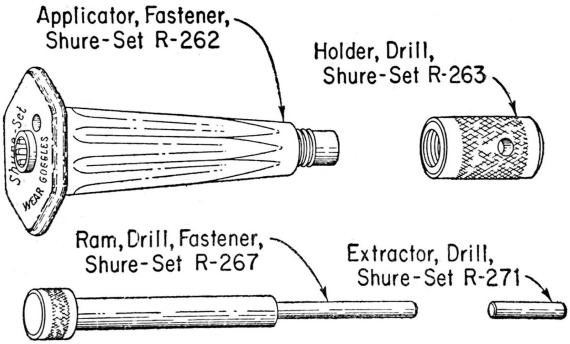


FIG. 2
Component Parts

## 3. OPERATION

3.01 Pull ram out far enough for the fastener to be properly seated in the end of the applicator. See Fig. 3.

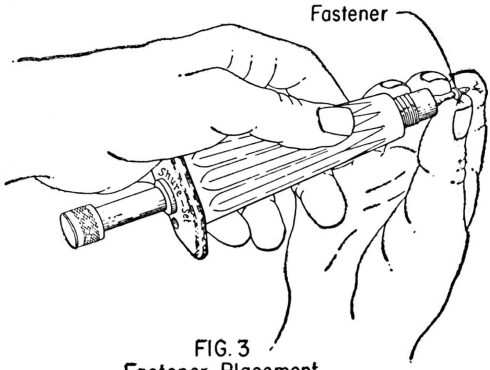


FIG. 3
Fastener Placement

3.02 Place point of fastener against exact location desired. See Fig. 4.

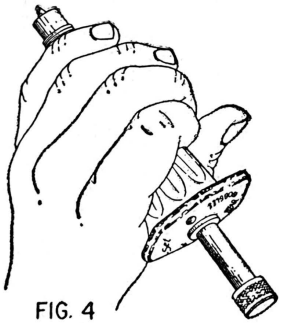

FIG. 4
Fastener Position against Work

3.03 Tap the ram lightly until entire point is embedded in the material then strike with solid blows until fastener is driven home. **Eye protection equipment shall be worn.**

3.04 Install drill holder by screwing to the applicator using the ram as a wrench. See Fig. 5.

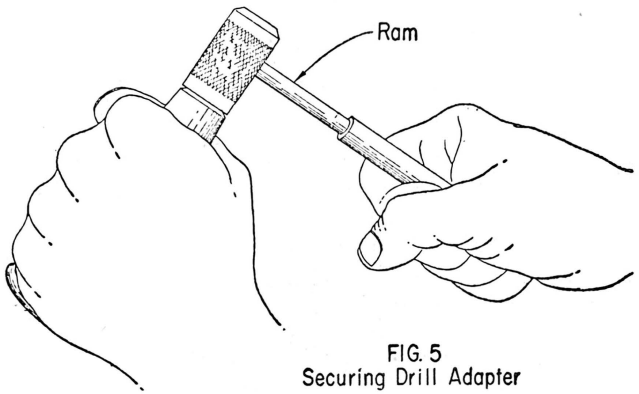


FIG. 5
Securing Drill Adapter

3.05 When drilling in masonry walls, apply light hammer blows and turn drill slightly between blows for best results. This procedure will require less physical effort and results in faster and cleaner hole drilling.

3.06 Drills are changed by removing the ram and placing the drill extractor into the tool. See Fig. 6. Replace the ram and tap lightly to remove drill.

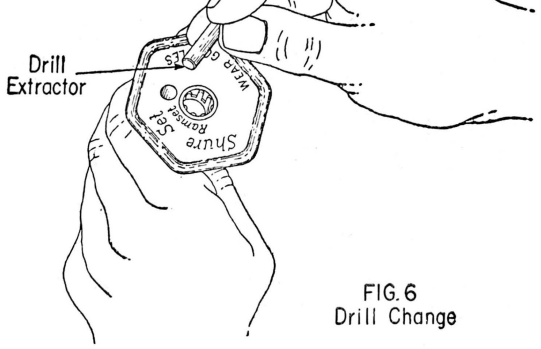


FIG. 6
Drill Change

## 4. FASTENER SELECTION

4.01 The fasteners are available in pins and studs. The pins are for permanant installations and the threaded studs for temporary installations or where equipment is to be removed. Pins come in lengths of 3/4 to 3 inches and studs from 1 to 3-5/8 inches.

4.02 To select proper fasteners see the following table:

| Equipment to be Anchored | Mounting Surface | Pin or Stud | |
|---|---|---|---|
| | | Number | Length inch |
| Metal Moulding(1) | Concrete | P-206 | 3/4 |
| IW Cable Clamps & Cable Clamps | Mortar | P-208 | 1 |
| Metal Boxes, light gauge | Cement Block Cinder | P-210 | 1-1/4 |
| Wood 3/4-inch Thick | Concrete | P-210 | 1-1/4 |
| Example: 82 Type Backboard | Mortar | P-212 | 1-1/2 |
| | Cement Block Cinder | P-214 | 2 |
| Backboards, with Predrilled Holes | Concrete | S-216(2) | 1-3/8 |
| | Mortar | S-218(2) | 1-3/4 |
| | Cement Block Cinder | S-230(2) | 2-1/2 |
| Wire Loops | Concrete | PW-206 | 1-3/4 |
| W-1, 1/2 inch; W-2, 5/8 inch; W-3, 7/8 inch; W-4, 1-1/4 inch | Mortar | PW-208 | 2-5/8 |
| | Cement Block Cinder | PW-210 | 3-1/8 |

(1) Drive pin right through metal moulding.

(2) Nut, Hexagonal 1/4-20 placed on threaded stud to hold backboards or other equipment in place.

4.03 The above table is for materials of average hardness; for soft materials a longer fastener is used and for harder materials a shorter fastener.

(a) If less than three blows are required, use a longer fastener.

(b) If more than six blows are required, use a shorter fastener.

(c) For plaster over masonry walls add thickness of plastic for proper penetration.

(d) Do not place fastener in brittle material, such as glazed tile or brick.

4.04 To remove pins or studs, it is necessary to break the compression bond of the fastener by hitting it on each side with a hammer and removing it with a nail puller.

## 5. FASTENER DESCRIPTION

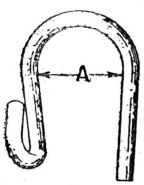


FIG.7
Wire Loop

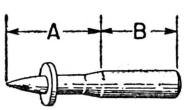


FIG.8
Wire Loop Fastener

| Loop Number | Size A |
|---|---|
| | inch |
| W-1 | 1/2 |
| W-2 | 5/8 |
| W-3 | 7/8 |
| W-4 | 1-1/4 |

| Pin Number | Length | |
|---|---|---|
| | A | B |
| | inch | |
| PW-206 | 3/4 | 1-3/8 |
| PW-208 | 1 | 1-5/8 |
| PW-210 | 1-1/4 | 1-7/8 |

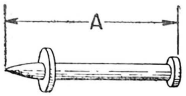


FIG. 9
Drive Pin

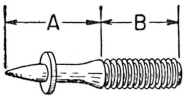


FIG. 10
Threaded Studs

| Pin Number | Length A |
|---|---|
| | inch |
| P-206 | 3/4 |
| P-208 | 1 |
| P-210 | 1-1/4 |
| P-212 | 1-1/2 |
| P-214 | 2 |
| P-216 | 2-1/2 |
| P-218 | 3 |

| Stud Number | Length | |
|---|---|---|
| | A | B |
| | inch | |
| S-206 | 3/4 | 5/8 |
| S-210 | 1-1/4 | 5/8 |

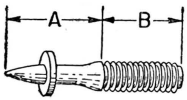


FIG. 11
Threaded Studs with
Plastic Washers for
Pre-drilled Holes.

| Stud Number | Length | |
|---|---|---|
| | A | B |
| | inch | |
| S-216 | 3/4 | 5/8 |
| S-218 | 3/4 | 1 |
| S-220 | 3/4 | 1-1/4 |
| S-230 | 1-1/4 | 1-1/4 |