

## TOGGLE BOLTS

### 1. GENERAL

1.01 Toggle bolts are of two general types, flop-over and spring (Fig. 1).

They are intended for use in attaching fixtures to hollow tile and similar supports. A secure toggle bolt installation depends on a satisfactory bearing area for the toggle. The hole should be restricted to the size that will accommodate the toggle in the collapsed condition. Tables A and B contain the various sizes of toggle bolts and the diameter to which the drilled hole should be restricted for best results.

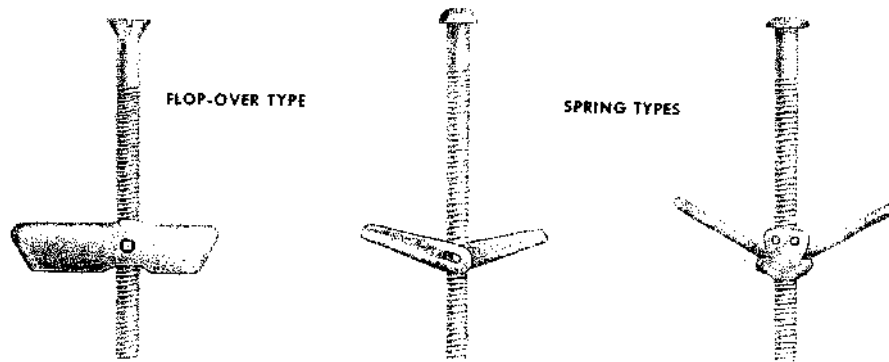


Fig. 1 -- Toggle Bolts

TABLE A  
FLOP-OVER TYPE

Size Dia-Length	Spread of Toggle	Type of Head	Dia of Head	Dia of Drilled Hole
in.	in.		in.	in.
1/4x3	2-1/2	Round	15/32	3/4
1/4x4	2-1/2	Round	15/32	3/4
5/16x5	2-3/4	Round	9/16	1
5/16x6	2-3/4	Flat	19/32	1

TABLE B  
SPRING TYPE

Size Dia-Length	Spread of Wing	Type of Head	Dia of Head	Dia of Drilled Hole
			in.	in.
1/8x3	2	Mushroom	5/16	1/2
1/8x4	2	Mushroom	5/16	1/2
3/16x3	2-1/4	Mushroom	7/16	5/8
3/16x4	2-1/4	Mushroom	7/16	5/8
1/4x3	2-1/2	Mushroom	15/32	3/4
1/4x4	2-1/2	Round	15/32	3/4
5/16x5	2-3/4	Round	9/16	1
5/16x6	2-3/4	Flat	19/32	1