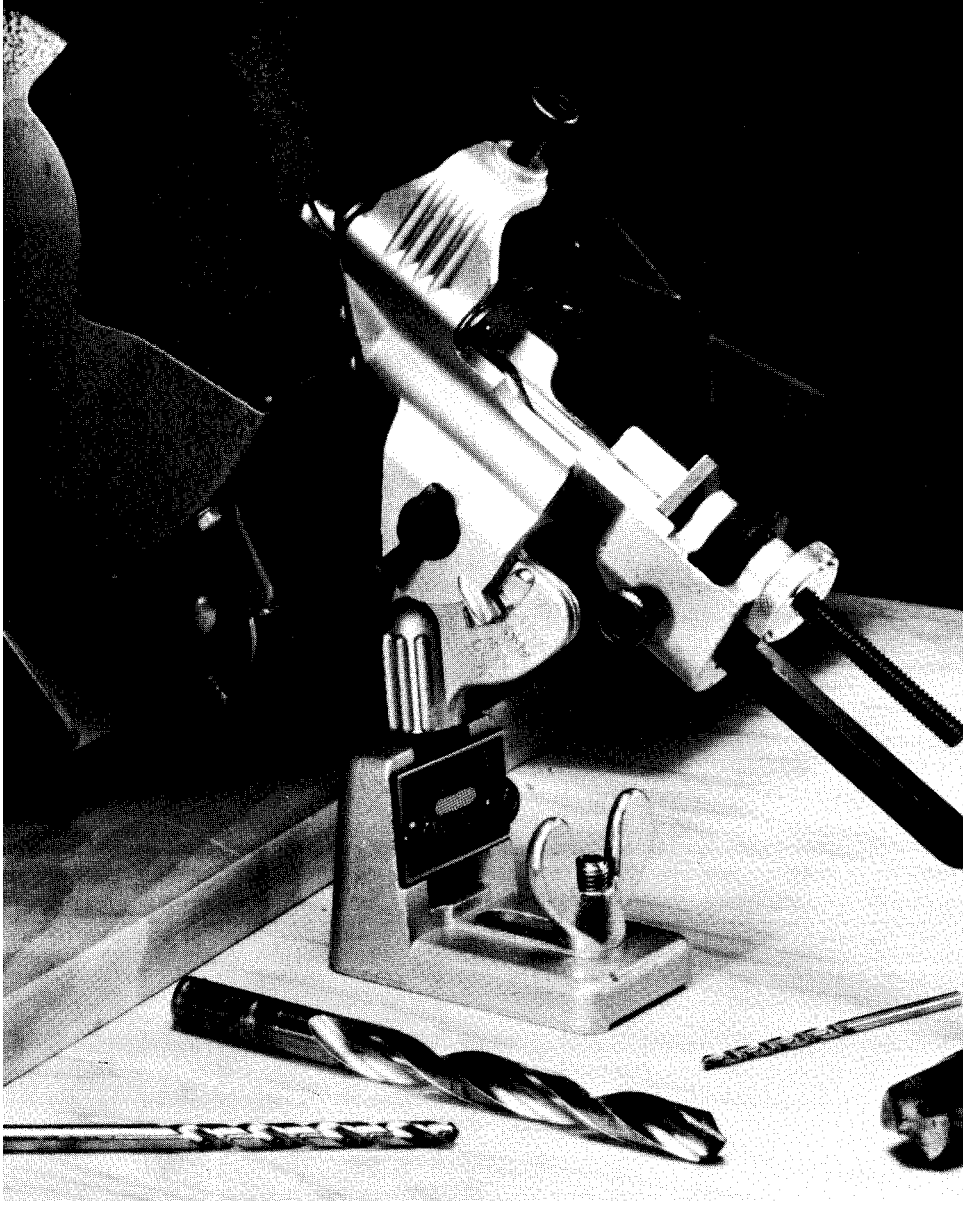
DRILL GRINDING ATTACHMENT

MOUNTING AND USE INSTRUCTIONS



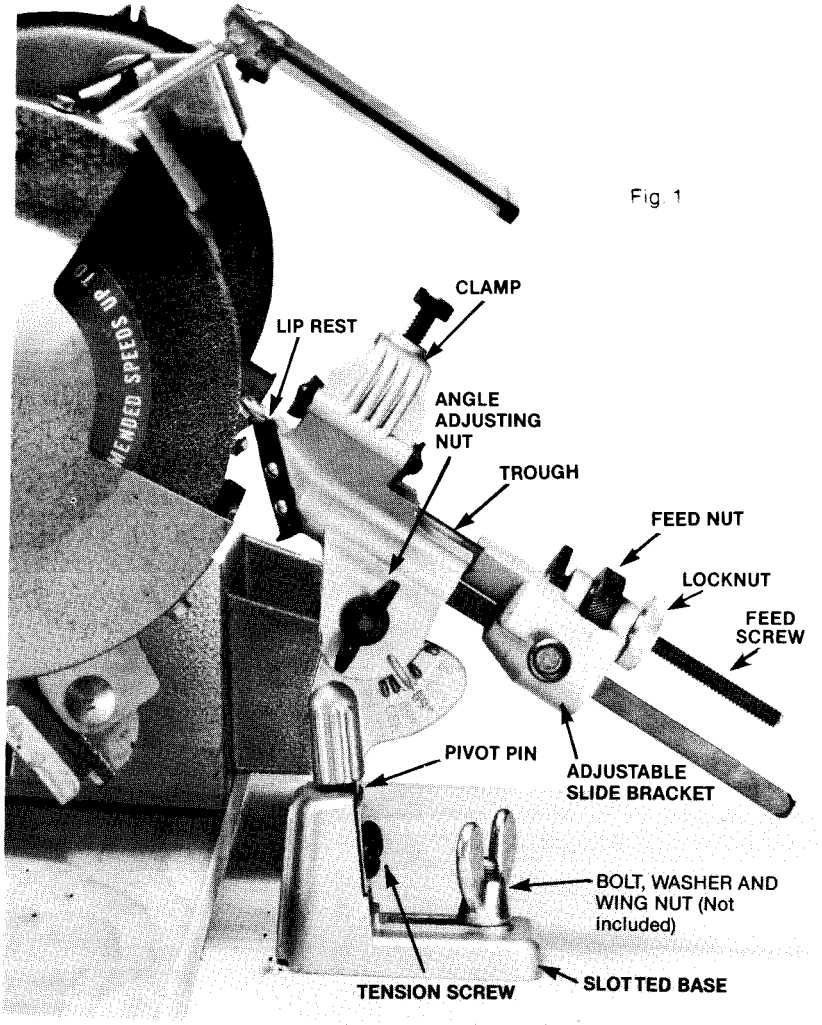


Fig. 1

POINT ANGLE/DRILL OVERHANG CHART

POINT ANGLE	OVERHANG	USAGE
88°	1/16 Inch	Thin Sheets
68°	50% of Drill Dia.	Very Hard Materials
59°	50% of Drill Dia.	General Purpose Drilling
49°	100% of Drill Dia.	Soft Materials (i.e. Copper, Wood, Plastic)
41°	As Required	Countersinks: Wood, Hard Rubber, Fibre etc.

INSTRUCTIONS FOR
DRILL GRINDING ATTACHMENT
No. 825

Your New General Drill Grinding Attachment has been carefully designed and constructed from the finest materials and the latest manufacturing techniques. To obtain the best results from your Drill Grinding Attachment, use only U.L., A.N.S.I., OSHA approved grinding machines and wheels. Please read and observe the following instructions and safety precautions.

MOUNTING INSTRUCTIONS

This Drill Grinding Attachment and your grinder should be fastened firmly to a sturdy bench as in Fig. 1. A 3/8 inch hole for a bolt should be drilled in the bench about 2¼ inches from the front of the grinding wheel. Fasten the attachment to the bench using a bolt, washer and wingnut (not included). Use of tool in side grinding should only be done with a wheel specifically designed for side grinding and approved by A.N.S.I., OSHA.

SAFETY PRECAUTIONS

- Securely fasten Drill Grinding Attachment to workbench.
- Wear OSHA AND A.N.S.I. approved eye protection (goggles, face shield) when operating this tool.
- Follow grinder manufacturer's safety recommendations.
- Make sure all guards are in place over grinding wheel.
- For side grinding, use wheel specifically engineered for that purpose.

OPERATING INSTRUCTIONS

1. Using the point angle/drill overhang chart, choose the best point angle for the material to be drilled.
2. Place the drill in trough. The amount that the drill point should overhang lip rest is indicated in chart for each point angle setting. Adjust lip rest until it extends slightly into the flute of the drill as

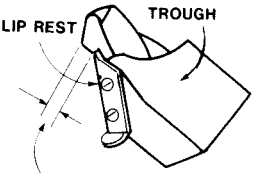


Fig. 2

shown in Fig. 2. Move rear bracket to support back of drill in this position. Tighten clamp keeping drill flute against lip rest (Fig. 3). General's Drill Grinding Attachment automatically sets the clearance angle of the drill point.

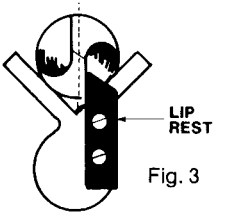


Fig. 3

3. With the grinder off, loosen nut slightly and move slotted base toward the grinding wheel so that the drill just grazes the wheel. Lock base with wing nut. Swing Attachment back and forth past the grinding wheel. If pivot is too free or too stiff, adjust the tension screw slightly until the attachment swings smoothly.
4. To sharpen the first lip of drill, turn on grinder and with slow, short sweeps grind the drill. Ad-

4. To sharpen the first lip of drill, turn on grinder and with slow, short sweeps grind the drill. Advance drill gradually by using the feed screw until the entire surface is ground. The clamp should be loosened slightly while feeding the drill forward, then reclamped to prevent movement of the bit.

5. *Turn off grinder.* Do not remove drill or change adjustment.

6. To grind the second lip of the drill, turn attachment away from the grinding wheel, loosen clamp only. Rotate drill until the opposite flute rests against the lip rest. Retighten clamp.

7. Turn on grinder and with slow, short sweeps, grind the second face of the drill. This method ensures that the two cutting edges are the same length.

8. TURN OFF GRINDER and remove drill from the attachment.

HELPFUL HINTS

Feed drill by small amounts.

When sharpening broken drills, much time may be saved by roughly shaping drills free hand before using attachment. Dip drill in water when shaping freehand to prevent overheating (blue appearance).

Certain drills may sharpen with heel behind the cutting edges. (Fig. 4). Carefully remove this heel free hand so that the drill will cut freely.

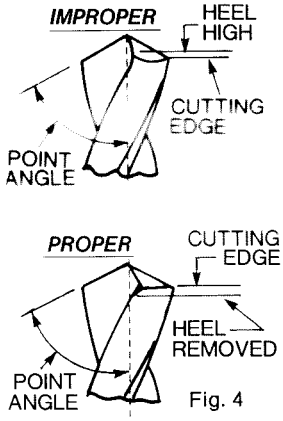


Fig. 4

Frequent sharpening makes drilling easier and gives better life to your drills.

For a drill to cut easily and to size, both cutting edges must be the same length and have the same point angle. Also there should be a definite clearance angle (Fig. 5).

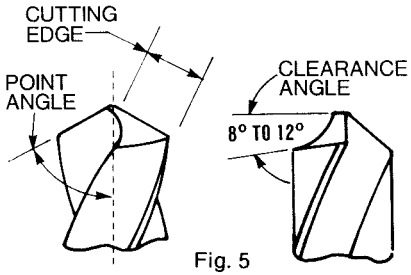


Fig. 5