by the manufacturer should be followed The hood on scratch wheels should enclose the wheel as completely as the nature of the work allows and should be adjustable so that the protection will not be lessened as the diameter of the wheel decreases The hood should cover the exposed arbor ends, or a smooth nut should be installed on them The work rest should be adjusted so it is about $\frac{1}{8}$ in from the brush wheel

Personal protective equipment is especially important in the operation of scratch wheels because of the tendency of the wires to break off The wearing of aprons of leather, heavy canvas, or other heavy material, leather gloves, face shields, and goggles should be mandatory

These procedures should be adopted

1 If possible, the workpiece should be held at the horizontal center of the brush

2 Let the wire tips do the work They are designed for this Forcing the work into the brush results in (*a*) merely wiping or dragging the wires across the work with no increase in cutting action, (*b*) an increase in wire breakage, and (*c*) a tendency of the work to become snagged

3 Small pieces being brushed should be held in a simple jig or fixture which will prevent the operator's hands from contacting the surface of the brush

4 A straight, heavy steel rod or bar should be used to clean the wire wheels, never use a small ring

5 When cleaning small (narrow) brushes, the operator should use a work rest or plate A work rest cannot be used for wide brushes, but some method should be developed so that the cleaning rod or bar is strongly supported

References

American Standards Institute, 1430 Broadway, New York, N Y 10018
Grinding, Polishing, and Buffing Equipment Sanitation, Z43
Markings for Identifying Grinding Wheels and other Bonded Abrasives, B5 17
National Electrical Code, C1 (Also available from National Fire Protection Association)
National Electrical Safety Code, C2 (Also available from National Bureau of Standards)
Safety Code for Use, Care, and Protection of Abrasive Wheels, B7 1 (Also available from Grinding Wheel Institute)
Safety Requirements for Floor and Wall Openings, Railings, and Toe Boards, A12 1
Specifications for Standard Shapes and Sizes of Grinding Wheels, B74 2

Grinding Wheel Institute, 2130 Keith Bldg , Cleveland, Ohio 44115
Lewis, Kenneth B *The Grinding Wheel*, 1959
Safety Recommendations for Grinding Wheel Operation

National Machine Tool Builders Assn , 2139 Wisconsin Ave NW , Washington, D C 20007

National Safety Council, 425 North Michigan Ave , Chicago, Ill 60611
Guards Illustrated, 2nd ed
Industrial Data Sheets
Coated Abrasives, 452
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Gear-Hobbing Machines, 362
Horizontal Metal Boring Mills, 269
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United Auto Workers, 8000 E Jefferson Ave , Detroit, Mich 48214 (General)

U S Department of Labor, Bureau of Labor Standards, Washington, D C 20210
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