

SYMBOLS FOR SCREW THREADNOTATION AND FORMULAS.

The following symbols are being used by the Gage Section, Bureau of Standards, in connection with the inspection of screw thread gages, for expressing relations of screw thread elements, for use on drawings, and other similar purposes. In determining the particular symbols given herein, consideration was given to the following:

USE OF SYMBOLS FOUND ON TYPEWRITER: For convenient reference in reports and letters symbols were chosen that could be written on the typewriter. This made it necessary to abandon the very good practice of using Greek letters for angles, but this was thought to be justified.

CONSISTENT USE OF LARGE AND SMALL LETTERS: Since it seemed desirable to provide symbols for both the diameters and radii of the various elements of the screw, it was decided that the use of the large and small letters in a systematic manner would give the best results.

SYMBOLS FOR SCREW THREAD FORMULAS.

|                                       |                   |
|---------------------------------------|-------------------|
| Major or Full Diameter -----          | D                 |
| Corresponding Radius -----            | d                 |
| Pitch or Effective Diameter -----     | E                 |
| Corresponding Radius -----            | e                 |
| Minor or Core Diameter -----          | K                 |
| Corresponding Radius -----            | k                 |
| Angle of Thread -----                 | A                 |
| Half-angle of Thread -----            | a                 |
| Number of Turns per Inch -----        | N                 |
| Number of Threads per Inch -----      | n                 |
| Lead -----                            | $P = \frac{1}{N}$ |
| Thread Interval -----                 | $p = \frac{1}{n}$ |
| Lead Angle -----                      | s                 |
| Tangent of the Lead Angle -----       | S                 |
| Width of Flat at Crest and Root ----- | F                 |
| Depth of Truncation -----             | f                 |
| Depth of Sharp V Thread -----         | H                 |
| Depth of Standard Thread -----        | h                 |



Radius of Curvature (Whitworth Crest & Root) -- c  
 Width across Crest and Root -Whitworth Thread - G

SYMBOLS USED WITH WIRE MEASUREMENTS.

Measurement over Wires ----- M  
 Diameter of Wire ----- G  
 Corresponding Radius ----- g  
 \*Constant for Wire Measurement ----- X

TAPER THREADS.

Included Angle of Taper----- Y  
 Half-angle of Taper ----- y

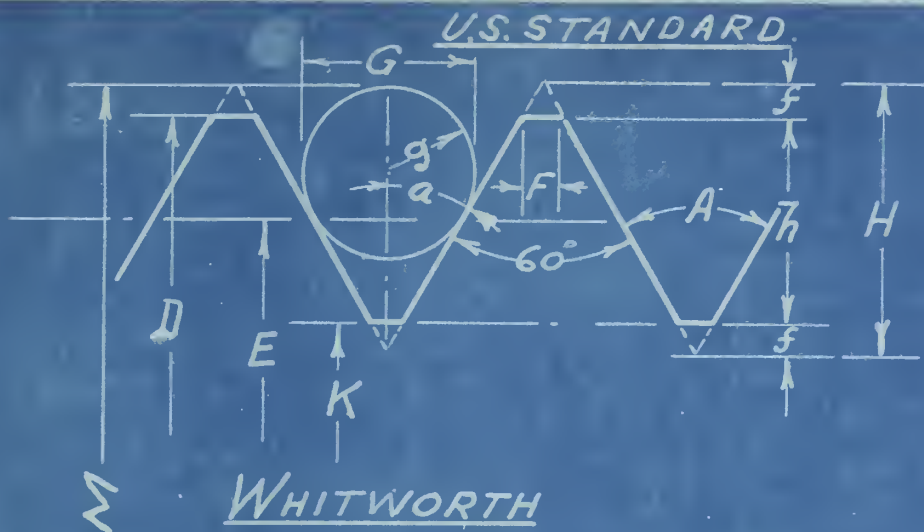
\*Note: For Effective Diameter Measurements  
 on 60° Threads -

$$\text{When } G = \frac{.5774}{n} \text{ only}$$

$$E = M - X$$

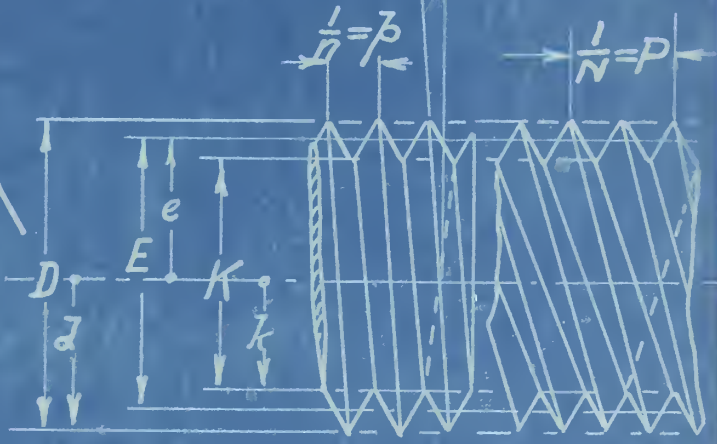
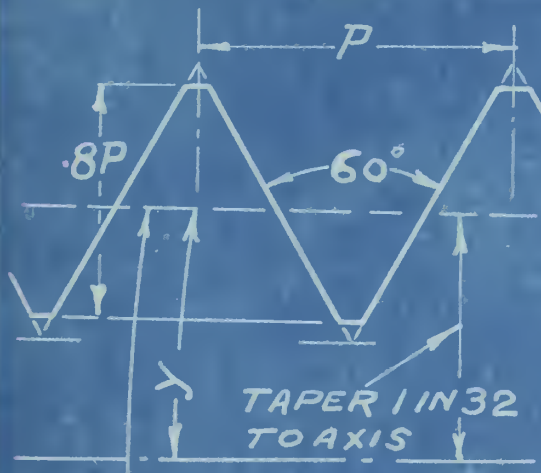
$$X = 1.5G = .8660P$$





$$S = \tan S$$

AMERICAN BRIGGS



**SYMBOLS FOR SCREW THREAD NOTATION**

DEPARTMENT OF COMMERCE  
BUREAU OF STANDARDS  
WASHINGTON, D.C.

|                       |                           |
|-----------------------|---------------------------|
| DRAWN<br>DRC 7/15/19  | CHECKED<br>J. H. 3/17/19  |
| TRACED<br>DRC 3/17/19 | APPROVED<br>J. H. 3/17/19 |
| <b>B-1107.</b>        |                           |





