STANDARD ALPHABETS

FOR HIGHWAY SIGNS

APPROVED BY

AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS

INSTITUTE OF TRAFFIC ENGINEERS

NATIONAL COMMITTEE ON UNIFORM TRAFFIC LAWS AND ORDINANCES

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
1932

FOR SALE BY THE
SUPERINTENDENT OF DOCUMENTS, WASHINGTON, D.C.

STANDARD ALPHABETS FOR HIGHWAY SIGNS

These Standard Alphabets for Highway Signs have been designed by the U. S. Public Roads Administration at the request of the Joint Committee on Uniform Traffic Control Devices, and have been approved by that committee and its constituent agencies, the American Association of State Highway Officials, the Institute of Traffic Engineers, and the National Conference on Street and Highway Safety. They are intended to replace the old "Joint Board" alphabets published nearly 20 years ago when highway signs were first standardized on a national basis. The new "rounded" style has a more pleasing appearance than the old, and extensive tests have shown it to be consistently more legible.

It is not expected that the new letters and numerals will at once displace the old. Existing highway signs, it is assumed, will not ordinarily be scrapped until the end of their normal life, though there may be desirable exceptions as, for example, where two signs are mounted so closely adjacent that a contrast in letter style would be objectionable.

In individual widths, the new letters and numerals closely approximate the old, so that they are easily interchangeable with the old in standard sign designs.

Most highway departments and sign manufacturers will find it desirable to make up a set of templates of fiber or light metal to simplify the laying out of signs. The letters and numerals may be reproduced in any desired size by following the table of dimensions carried on each sheet of the drawings (or by adjusting dimensions proportionally for sizes not shown), or by a photographic enlargement or reduction of drawings of any size. It is not recommended, however, that photographic enlargements be made from the small printed drawings, which will be found to vary slightly in dimensional accuracy.

Although the new letters and numerals are not quite as simply designed as the more mechanical, rectangular characters of the old Joint Board standards, they are not difficult to reproduce on the drawing board. To facilitate the laying out of different sizes, the detailed dimensions are shown only in a letter code referring to the tabulation at the bottom of each sheet. Tangents, major arcs, and certain indicated control points are laid down first, followed by the connecting arcs of shorter radius. Two circumstances must be noted:

1. Under certain conditions the radii of connecting arcs cannot be given precisely. In these cases there is only one possible arc that can fit accurately to all controlling points. The dimension given on the drawing is a close approximation, but the draftsman may have to make a slight adjustment to achieve a perfect fit. This applies especially to the large letters, since the dimensions in the tables were generally derived from measurements on smaller drawings.

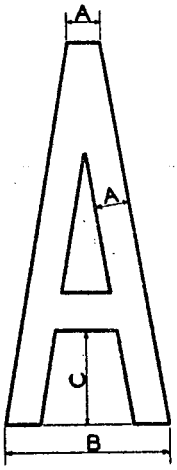
2. For similar reasons, it is not practical to show the exact centers of all arcs. Centers are invariably indicated for the controlling arcs. For others the draftsman must set his compasses and find the center by experiment.

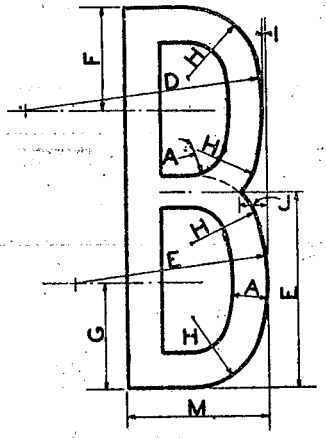
The stroke-width of the letters and numerals is uniform throughout any size and series of alphabet, except where otherwise definitely indicated.

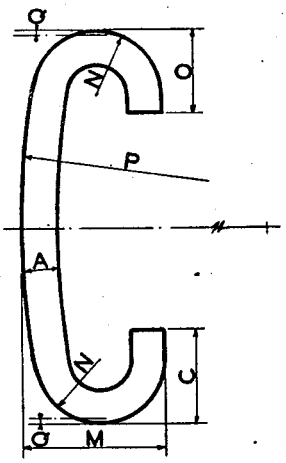
All characters having an arc at top or bottom are extended slightly above or below the line of the other letters. This is in accord with accepted practice for rounded letters.

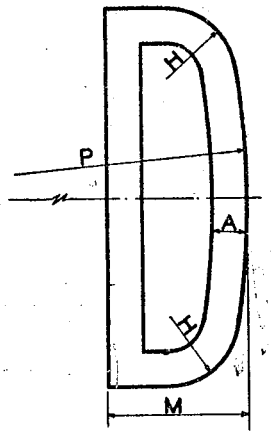
If the design of any particular letter or numeral in a given size is incompatible with any manufacturing process, necessary modifications may be made within reasonable limits. For example, the height or length of a horizontal member may have to be adjusted slightly to permit a satisfactory arrangement of reflector buttons, or to provide necessary clearance for embossing dies.

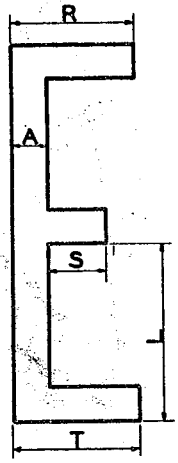
December 1945

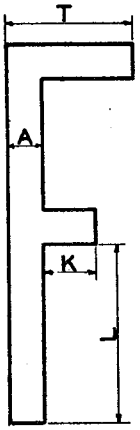






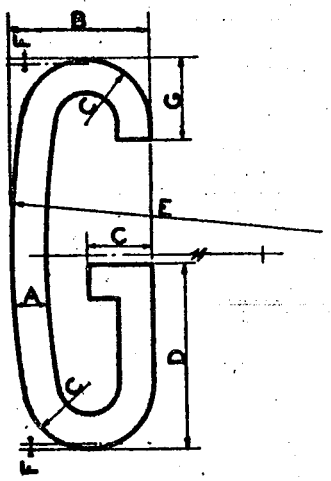


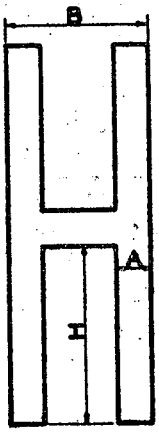


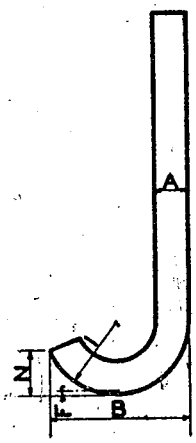


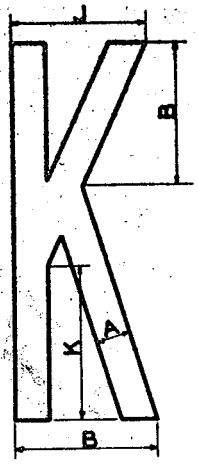
SERIES A LETTERS

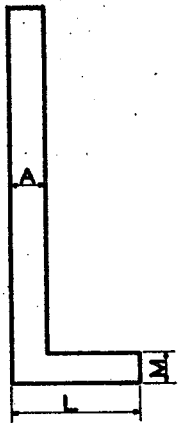
HEIGHT (INCHES)	DIMENSIONS (INCHES)																			
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
2	3/16	7/8	1/2	1 1/4	1 1/32	17/32	9/16	3/8	1/64	9/64	9/32	15/16	3/4	11/32	7/16	4 1/2	1/32	21/32	5/16	43/64
3	9/32	1 5/16	3/4	1 7/8	1 35/64	51/64	27/32	9/16	1/64	13/64	27/64	1 13/32	1 1/8	33/64	21/32	6 3/4	3/64	63/64	15/32	1
4	3/8	1 3/4	1	2 1/2	2 1/16	1 1/16	1 1/8	3/4	1/32	9/32	9/16	1 7/8	1 1/2	11/16	7/8	9	1/16	1 5/16	5/8	1 11/32
5	15/32	2 3/16	1 1/4	3 1/8	2 37/64	1 21/64	1 13/32	15/16	1/32	11/32	45/64	2 11/32	1 7/8	55/64	1 3/32	11 1/4	5/64	1 21/64	25/32	1 43/64
6	9/16	2 5/8	1 1/2	3 3/4	3 3/32	1 19/32	1 11/16	1 1/8	3/64	27/64	27/32	2 13/16	2 1/4	1 1/32	1 5/16	13 1/2	3/32	1 31/32	15/16	2 1/64
7	21/32	3 1/16	1 3/4	4 3/8	3 39/64	1 55/64	1 31/32	1 5/16	3/64	31/64	63/64	3 9/32	2 5/8	1 13/64	1 17/32	15 3/4	7/64	2 13/64	1 3/32	2 11/32
8	3/4	3 1/2	2	5	4 1/8	2 1/8	2 1/4	1 1/2	1/16	9/16	1 1/8	3 3/4	3	1 3/8	1 1/4	18	1/8	2 5/8	1 1/4	2 11/16
12	1 1/8	5 1/4	3	7 1/2	6 3/16	3 3/16	3 3/8	2 1/4	3/32	27/32	1 11/16	5 5/8	4 1/2	2 1/16	2 5/8	27	3/16	3 15/16	1 7/8	4 1/32
18	1 11/16	7 7/8	4 1/2	11 1/4	9 9/32	4 25/32	5 1/16	3 3/8	1/8	1 1/4	2 17/32	8 7/16	6 3/4	3 3/32	3 15/16	40 1/2	9/32	5 29/32	2 13/16	6 1/16





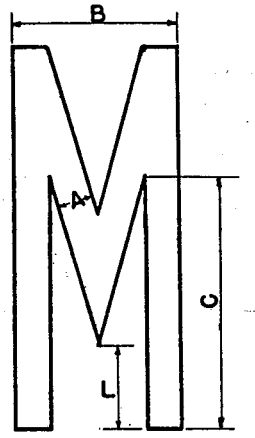


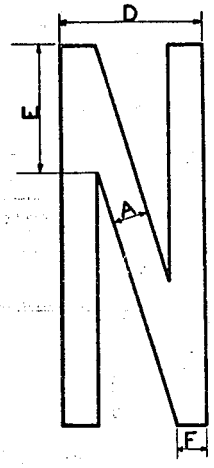


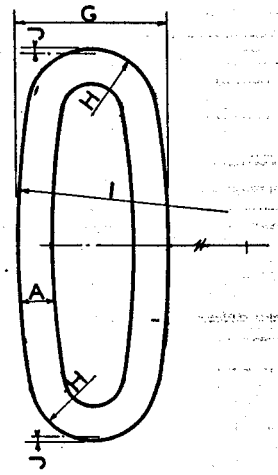


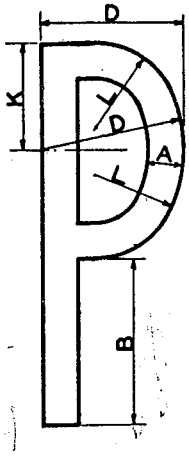
SERIES A LETTERS

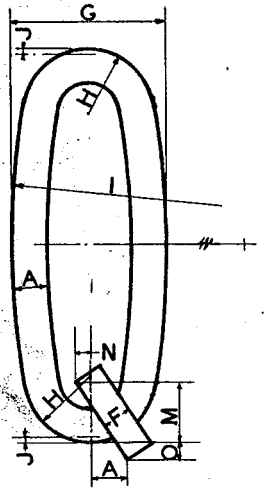
HEIGHT (INCHES)	DIMENSIONS (INCHES)													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
2	3/16	3/4	11/32	31/32	4 1/2	1/32	7/16	15/16	25/64	23/32	13/16	43/64	11/64	1/4
3	9/32	1 1/8	33/64	1 29/64	6 3/4	3/64	21/32	1 13/32	37/64	1 5/64	1 7/32	1	1/4	3/8
4	3/8	1 1/2	11/16	1 15/16	9	1/16	7/8	1 7/8	25/32	1 7/16	1 5/8	1 11/32	11/32	1/2
5	15/32	1 7/8	25/64	2 27/64	11 1/4	5/64	1 3/32	2 11/32	31/32	1 51/64	2 1/32	1 43/64	27/64	5/8
6	9/16	2 1/4	1 1/32	2 29/32	13 1/2	3/32	1 5/16	2 13/16	1 11/64	2 5/32	2 7/16	2 1/64	33/64	3/4
7	21/32	2 5/8	1 13/64	3 25/64	15 3/4	7/64	1 17/32	3 9/32	1 23/64	2 23/64	2 27/32	2 11/32	19/32	7/8
8	3/4	3	1 3/8	3 7/8	18	1/8	1 3/4	3 3/4	1 9/16	2 7/8	3 1/4	2 11/16	11/16	1
12	1 1/8	4 1/2	2 1/16	5 13/16	27	3/16	2 5/8	5 5/8	2 11/32	4 5/16	4 7/8	4 1/32	1 1/32	1 1/2
16	1 1/16	6 3/4	3 3/32	8 23/32	40 1/2	9/32	3 15/16	8 7/16	3 33/64	6 15/32	7 5/16	6 1/16	1 3/16	2 1/4

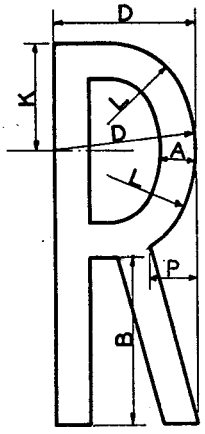






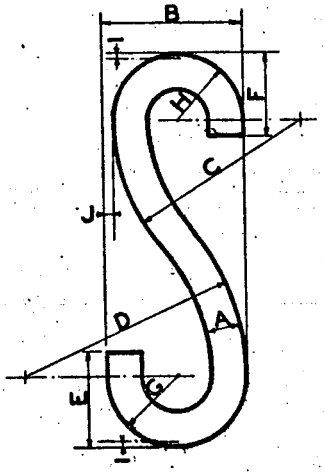


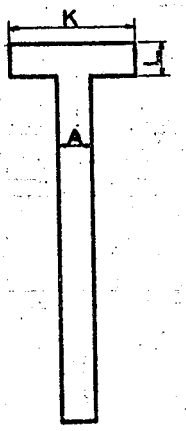


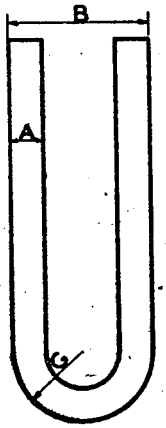


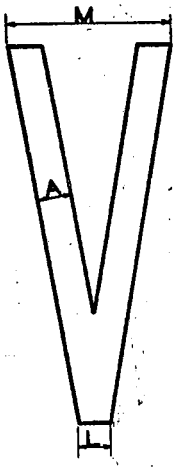
SERIES A LETTERS

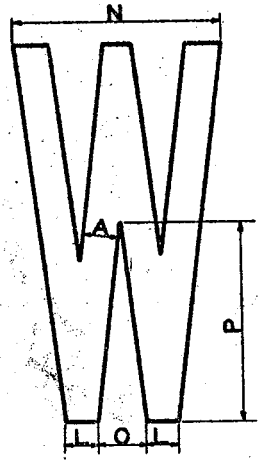
HEIGHT (INCHES)	DIMENSIONS (INCHES)															
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
2	3/16	7/8	1 5/16	3/4	21/32	5/32	13/16	11/32	4 1/2	1/32	9/16	7/16	5/16	5/64	3/32	1/4
3	9/32	1 5/16	1 31/32	1 1/8	63/64	15/64	1 7/32	33/64	6 3/4	3/64	27/32	21/32	15/32	7/64	9/64	3/8
4	3/8	1 3/4	2 5/8	1 1/2	1 5/16	5/16	1 5/8	11/16	9	1/16	1 1/8	7/8	5/8	5/32	3/16	1/2
5	15/32	2 3/16	3 9/32	1 7/8	1 41/64	25/64	2 1/32	55/64	11 1/4	5/64	1 13/32	1 3/32	25/32	3/16	15/64	5/8
6	9/16	2 5/8	3 15/16	2 1/4	1 31/32	15/32	2 7/16	1 1/32	13 1/2	3/32	1 11/16	1 5/16	15/16	15/64	9/32	3/4
7	21/32	3 1/16	4 19/32	2 5/8	2 19/64	35/64	2 27/32	1 13/64	15 3/4	7/64	1 31/32	1 17/32	1 3/32	17/64	21/64	7/8
8	3/4	3 1/2	5 1/4	3	2 5/8	5/8	3 1/4	1 1/8	18	1/8	2 1/4	1 3/4	1 1/4	5/16	3/8	1
12	1 1/8	5 1/4	7 7/8	4 1/2	3 15/16	15/16	4 7/8	2 1/16	27	3/16	3 3/8	2 5/8	1 7/8	15/32	9/16	1 1/2
18	1 11/16	7 7/8	11 13/16	6 3/4	5 29/32	1 13/32	7 5/16	3 3/32	40 1/2	9/32	5 1/16	3 15/16	2 13/16	11/16	27/32	2 1/4

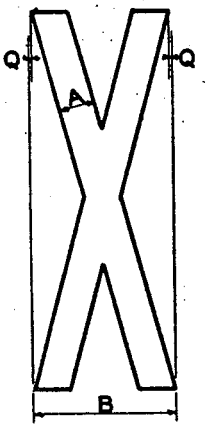






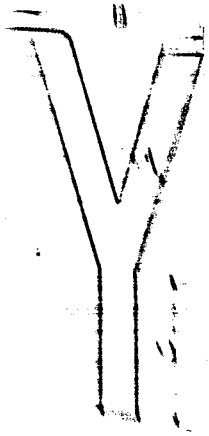


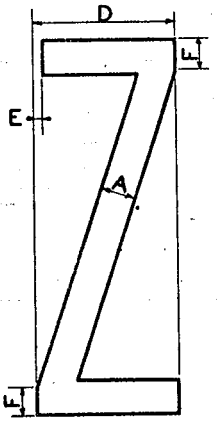


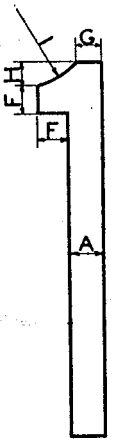


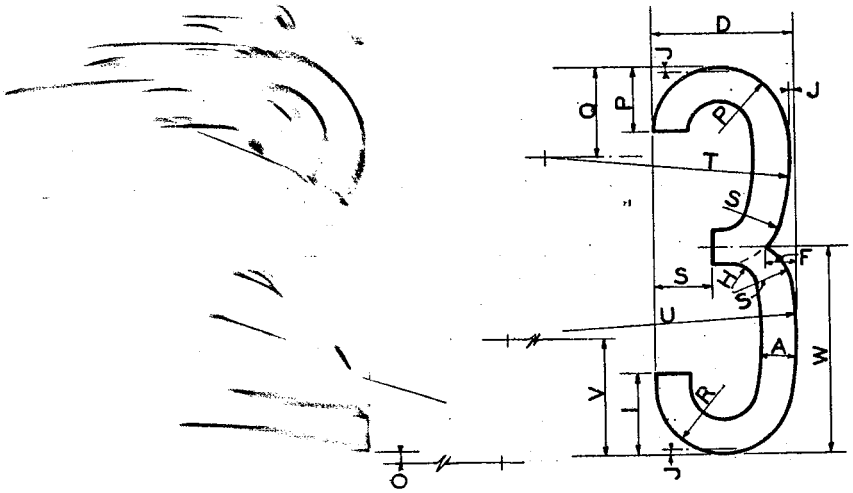
SERIES A LETTERS

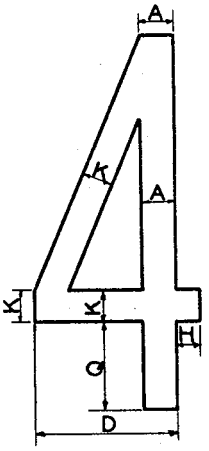
HEIGHT (INCHES)	DIMENSIONS (INCHES)															
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
2	3/16	3/4	1	1 3/16	1/2	7/16	3/8	11/32	1/32	3/64	43/64	11/64	7/8	1 3/32	1/4	1 1/16	1/64
3	3/32	1 1/8	1 1/2	1 25/32	3/4	21/32	9/16	17/32	3/64	1/16	1	1/4	1 5/16	1 41/64	3/8	1 19/32	1/64
4	3/8	1 1/2	2	2 3/8	1	7/8	3/4	45/64	1/16	3/32	1 11/32	11/32	1 3/4	2 3/16	1/2	2 1/8	1/32
5	15/32	1 7/8	2 1/2	2 31/32	1 1/4	1 3/32	15/16	7/8	5/64	7/64	1 43/64	27/64	2 3/16	2 47/64	5/8	2 21/32	1/32
6	9/16	2 1/4	3	3 9/16	1 1/2	1 5/16	1 1/8	1 3/64	3/32	9/64	2 1/64	33/64	2 5/8	3 9/32	3/4	3 3/16	3/64
7	21/32	2 5/8	3 1/2	4 5/32	1 3/4	1 17/32	1 5/16	1 15/64	7/64	5/32	2 11/32	19/32	3 1/16	3 53/64	7/8	3 23/32	3/64
8	3/4	3	4	4 3/4	2	1 3/4	1 1/2	1 13/32	1/8	3/16	2 11/16	11/16	3 1/2	4 3/8	1	4 1/4	1/16
12	1 1/8	4 1/2	6	7 1/8	3	2 5/8	2 1/4	2 7/64	3/16	5/32	4 1/32	1 1/32	5 1/4	6 9/16	1 1/2	6 3/8	3/32
18	1 11/16	6 3/4	9	10 11/16	4 1/2	3 15/16	3 3/8	3 5/32	3/32	7/16	6 1/16	1 3/16	7 7/8	9 27/32	2 1/4	9 9/16	1/8







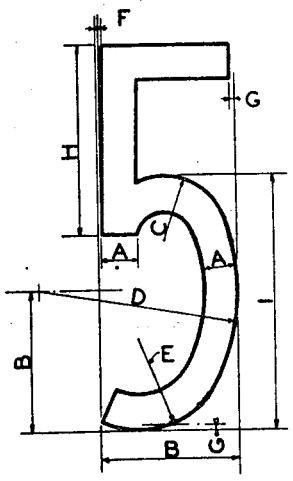


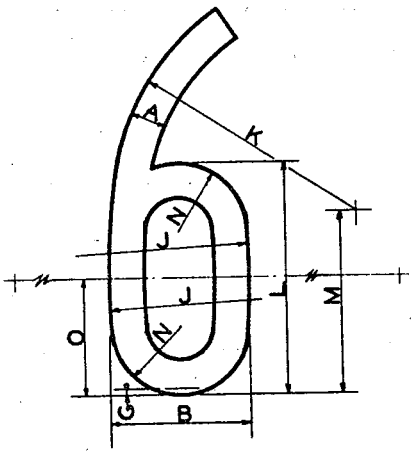


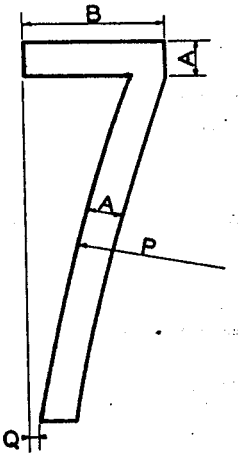
SERIES A LETTERS AND NUMERALS

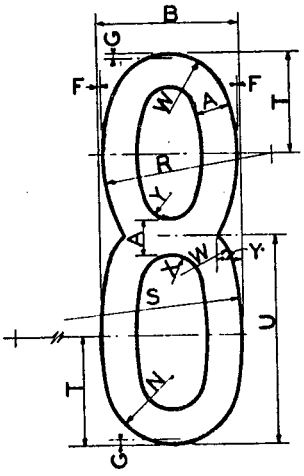
DIMENSIONS (INCHES)

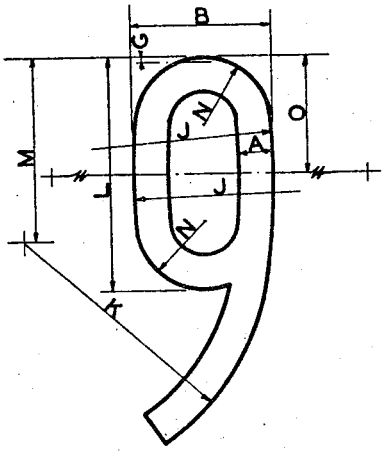
B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1/8	25/32	3/4	3/64	5/32	9/64	1/8	7/16	1/32	11/64	3/8	1 7/16	2 3/16	1/16	11/32	15/32	23/64	5/16	1 9/32	1 13/16	5/8	1 3/32
3/16	1 11/64	1 1/8	1/16	15/64	13/64	3/16	21/32	3/64	1/4	9/16	2 5/32	3 9/32	3/32	33/64	45/64	17/32	15/32	1 59/64	2 23/32	15/16	1 41/64
1/4	1 9/16	1 1/2	3/32	5/16	9/32	1/4	7/8	1/16	11/32	3/4	2 7/8	4 3/8	1/8	11/16	1 5/16	23/32	5/8	2 9/16	3 5/8	1 1/4	2 3/16
5/16	1 61/64	1 7/8	7/64	25/64	11/32	5/16	1 3/32	5/64	27/64	15/16	3 19/32	5 15/32	5/32	55/64	1 11/64	27/64	25/32	3 13/64	4 17/32	1 9/16	2 47/64
3/8	2 11/32	2 1/4	9/64	15/32	27/64	3/8	1 5/16	3/32	33/64	1 1/8	4 5/16	6 9/16	3/16	1 1/32	1 13/32	1 5/64	15/16	3 27/32	5 7/16	1 7/8	3 9/32
7/16	2 47/64	2 5/8	5/32	39/64	31/64	7/16	1 17/32	7/64	19/32	1 5/16	5 1/32	7 21/32	7/32	1 13/64	1 21/64	1 1/4	1 3/32	4 21/64	6 11/32	2 3/16	3 53/64
1/2	3 1/8	3	3/16	5/8	9/16	1/2	1 3/4	1/8	11/16	1 1/2	5 3/4	8 3/4	1/4	1 3/8	1 7/8	1 7/16	1 1/4	5 1/8	7 1/4	2 1/2	4 3/8
9/16	4 11/16	4 1/2	9/32	15/16	27/32	3/4	2 5/8	3/16	1 1/32	2 1/4	8 5/8	13 1/8	3/8	2 1/16	2 13/16	2 5/32	1 7/8	7 11/16	10 7/8	3 3/4	6 9/16
5/8	7 1/32	6 3/4	7/16	1 13/32	1 1/4	1 1/8	3 15/16	9/32	1 9/16	3 3/8	12 15/16	19 11/16	9/16	3 3/32	4 7/32	3 1/4	2 13/16	11 17/32	16 5/16	5 5/8	9 27/32

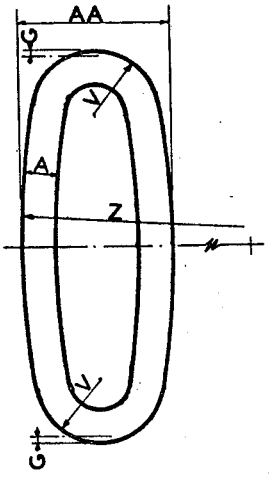






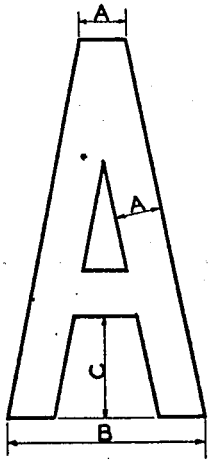


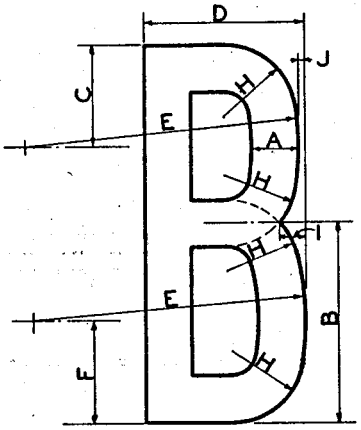


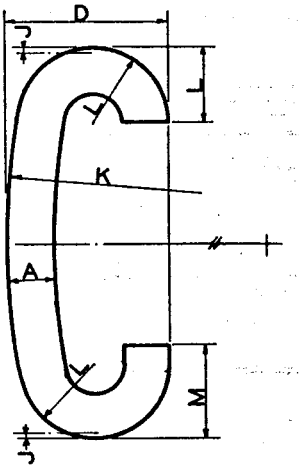


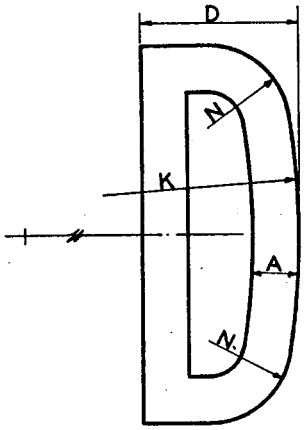
SERIES A NUMERALS

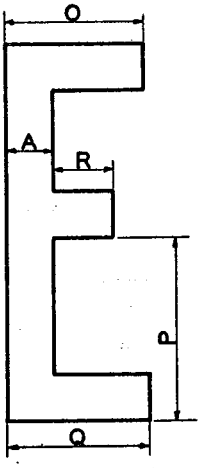
HEIGHT (INCHES)	DIMENSIONS (INCHES)																									
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
2	3/16	3/4	11/32	1/16	31/64	1/64	1/32	1	1 11/32	3 3/4	1 9/32	1 7/32	31/32	23/64	39/64	9	1/16	29/32	1 11/16	17/32	1 3/32	21/64	5/16	9/64	1/8	4 1/2	13/16
3	9/32	1 1/8	33/64	1 19/32	23/32	1/64	3/64	1 1/2	2 1/64	5 5/8	1 59/64	1 63/64	1 29/64	17/32	29/32	13 1/2	3/32	1 23/64	2 17/32	51/64	1 41/64	31/64	15/32	13/64	3/16	6 3/4	1 7/32
4	3/8	1 1/2	11/16	2 1/8	31/32	1/32	1/16	2	2 11/16	7 1/2	2 9/16	2 7/16	1 15/16	23/32	1 7/32	18	1/8	1 13/16	3 3/8	1 1/16	2 3/16	21/32	5/8	9/32	1/4	9	1 5/8
5	15/32	1 7/8	55/64	2 21/32	1 13/64	1/32	5/64	2 1/2	3 63/64	9 3/8	3 13/64	3 3/64	2 27/64	57/64	1 33/64	22 1/2	5/32	2 17/64	4 7/32	1 21/64	2 47/64	13/16	25/32	11/32	5/16	11 1/4	2 1/32
6	9/16	2 1/4	1 1/32	3 3/16	1 29/64	3/64	3/32	3	4 1/32	11 1/4	3 27/32	3 21/32	2 29/32	1 5/64	1 53/64	27	3/16	2 23/32	5 1/16	1 19/32	3 3/32	63/64	15/16	27/64	3/8	13 1/2	2 7/16
7	21/32	2 5/8	1 13/64	3 23/32	1 11/16	3/64	7/64	3 1/2	4 45/64	13 1/8	4 31/64	4 17/64	3 25/64	1/4	2 1/8	31 1/2	7/32	3 11/64	5 29/32	1 55/64	3 53/64	1 9/64	1 3/32	31/64	7/16	15 3/4	2 27/32
8	3/4	3	1 3/8	4 1/4	1 15/16	1/16	1/8	4	5 3/8	15	5 1/8	4 7/8	3 7/8	1 7/16	2 7/16	36	1/4	3 5/8	6 3/4	2 1/8	4 3/8	1 5/16	1 1/4	9/16	1/2	18	3 1/4
12	1 1/8	4 1/2	2 1/16	6 3/8	2 29/32	3/32	3/16	6	8 1/16	22 1/2	7 11/16	7 5/16	5 13/16	2 5/32	3 21/32	54	3/8	5 7/16	10 1/8	3 3/16	6 9/16	1 31/32	1 7/8	27/32	3/4	27	4 7/8
18	1 11/16	6 3/4	3 3/32	9 9/16	4 3/8	1/8	9/32	9	12 3/32	33 3/4	11 17/32	10 31/32	8 23/32	3 1/4	5 1/2	81	9/16	8 5/32	15 3/16	4 25/32	9 27/32	2 15/16	2 13/16	1 1/4	1 1/8	40 1/2	7 5/16

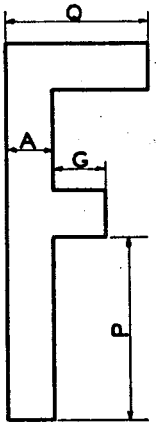






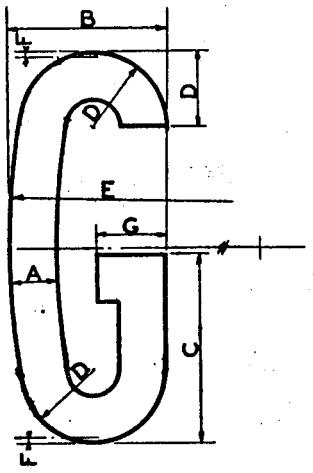


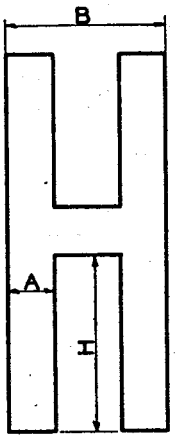


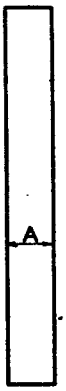


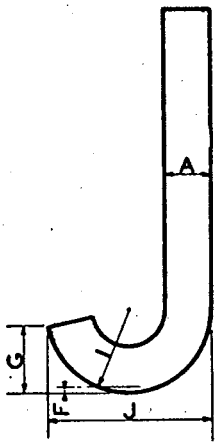
SERIES B LETTERS

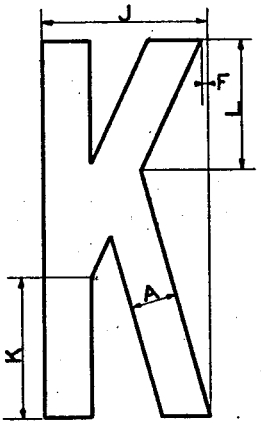
HEIGHT (INCHES)	DIMENSIONS (INCHES)																
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
2	$\frac{1}{4}$	$1\frac{1}{16}$	$\frac{17}{32}$	$\frac{27}{32}$	$1\frac{7}{16}$	$\frac{35}{64}$	$\frac{9}{32}$	$\frac{3}{8}$	$\frac{1}{8}$	$\frac{1}{32}$	4	$\frac{25}{64}$	$\frac{1}{2}$	$\frac{7}{16}$	$\frac{47}{64}$	$\frac{31}{32}$	$\frac{3}{4}$	$\frac{5}{16}$
3	$\frac{3}{8}$	$1\frac{19}{32}$	$\frac{51}{64}$	$1\frac{17}{64}$	$2\frac{5}{32}$	$\frac{13}{16}$	$\frac{27}{64}$	$\frac{9}{16}$	$\frac{3}{16}$	$\frac{3}{64}$	6	$\frac{37}{64}$	$\frac{3}{4}$	$\frac{21}{32}$	$1\frac{3}{32}$	$1\frac{29}{64}$	$1\frac{1}{8}$	$\frac{15}{32}$
4	$\frac{1}{2}$	$2\frac{1}{8}$	$1\frac{1}{16}$	$1\frac{11}{16}$	$2\frac{7}{8}$	$1\frac{3}{32}$	$\frac{9}{16}$	$\frac{3}{4}$	$\frac{1}{4}$	$\frac{1}{16}$	8	$\frac{25}{32}$	1	$\frac{7}{8}$	$1\frac{15}{32}$	$1\frac{15}{16}$	$1\frac{1}{2}$	$\frac{5}{8}$
5	$\frac{5}{8}$	$2\frac{21}{32}$	$1\frac{21}{64}$	$2\frac{7}{64}$	$3\frac{19}{32}$	$1\frac{23}{64}$	$\frac{45}{64}$	$\frac{15}{16}$	$\frac{5}{16}$	$\frac{5}{64}$	10	$\frac{31}{32}$	$1\frac{1}{4}$	$1\frac{3}{32}$	$1\frac{53}{64}$	$2\frac{27}{64}$	$1\frac{7}{8}$	$\frac{25}{32}$
6	$\frac{3}{4}$	$3\frac{3}{16}$	$1\frac{19}{32}$	$2\frac{17}{32}$	$4\frac{5}{16}$	$1\frac{41}{64}$	$\frac{27}{32}$	$1\frac{1}{8}$	$\frac{3}{8}$	$\frac{3}{32}$	12	$1\frac{11}{64}$	$1\frac{1}{2}$	$1\frac{5}{16}$	$2\frac{13}{64}$	$2\frac{29}{32}$	$2\frac{1}{4}$	$\frac{15}{16}$
7	$\frac{7}{8}$	$3\frac{23}{32}$	$1\frac{55}{64}$	$2\frac{61}{64}$	$5\frac{1}{32}$	$1\frac{29}{32}$	$\frac{63}{64}$	$1\frac{5}{16}$	$\frac{7}{16}$	$\frac{7}{64}$	14	$1\frac{23}{64}$	$1\frac{3}{4}$	$1\frac{17}{32}$	$2\frac{9}{16}$	$3\frac{25}{64}$	$2\frac{5}{8}$	$1\frac{3}{32}$
8	1	$4\frac{1}{4}$	$2\frac{1}{8}$	$3\frac{3}{8}$	$5\frac{3}{4}$	$2\frac{3}{16}$	$1\frac{1}{8}$	$1\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{8}$	16	$1\frac{9}{16}$	2	$1\frac{3}{4}$	$2\frac{15}{16}$	$3\frac{7}{8}$	3	$1\frac{1}{4}$
12	$1\frac{1}{2}$	$6\frac{3}{8}$	$3\frac{3}{16}$	$5\frac{1}{16}$	$8\frac{5}{8}$	$3\frac{9}{32}$	$1\frac{11}{16}$	$2\frac{1}{4}$	$\frac{3}{4}$	$\frac{3}{16}$	24	$2\frac{11}{32}$	3	$2\frac{5}{8}$	$4\frac{13}{32}$	$5\frac{13}{16}$	$4\frac{1}{2}$	$1\frac{7}{8}$
18	$2\frac{1}{4}$	$9\frac{9}{16}$	$4\frac{25}{32}$	$7\frac{19}{32}$	$12\frac{15}{16}$	$4\frac{15}{16}$	$2\frac{17}{32}$	$3\frac{3}{8}$	$1\frac{1}{8}$	$\frac{9}{32}$	36	$3\frac{1}{2}$	$4\frac{1}{2}$	$3\frac{15}{16}$	$6\frac{5}{8}$	$8\frac{23}{32}$	$6\frac{3}{4}$	$2\frac{13}{16}$

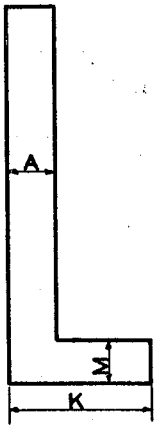






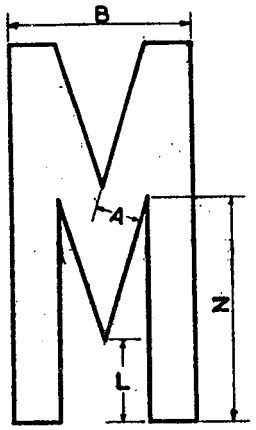


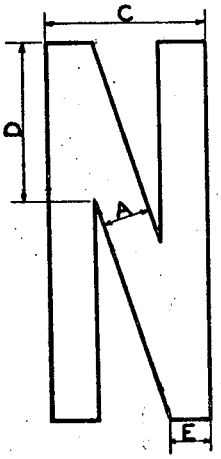


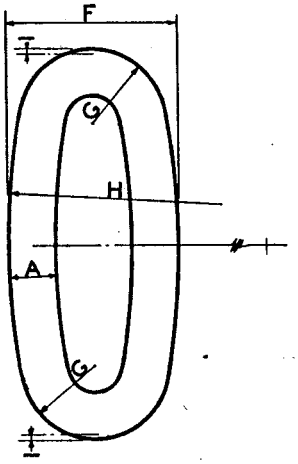


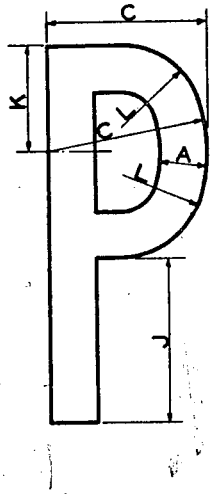
SERIES B LETTERS

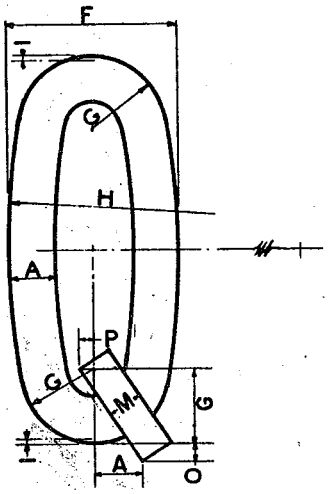
HEIGHT (INCHES)	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	I	J	K	L	M
2	1/4	27/32	1	25/64	4	1/32	3/8	15/16	7/16	7/8	3/4	11/16	15/64
3	3/8	1 17/64	1 1/2	37/64	6	3/64	9/16	1 13/32	21/32	1 5/16	1 1/8	1 1/32	11/32
4	1/2	1 11/16	2	25/32	8	1/16	3/4	1 7/8	7/8	1 3/4	1 1/2	1 3/8	15/32
5	5/8	2 7/64	2 1/2	31/32	10	5/64	15/16	2 11/32	1 3/32	2 3/16	1 7/8	1 23/32	37/64
6	3/4	2 17/32	3	1 11/64	12	3/32	1 1/8	2 13/16	1 5/16	2 5/8	2 1/4	2 1/16	45/64
7	7/8	2 61/64	3 1/2	1 23/64	14	7/64	1 5/16	3 9/32	1 17/32	3 1/16	2 5/8	2 13/32	13/16
8	1	3 3/8	4	1 9/16	16	1/8	1 1/2	3 3/4	1 3/4	3 1/2	3	2 3/4	15/16
12	1 1/2	5 1/16	6	2 11/32	24	3/16	2 1/4	5 5/8	2 5/8	5 1/4	4 1/2	4 1/8	1 13/32
18	2 1/4	7 13/32	9	3 1/2	36	9/32	3 3/8	8 7/16	3 15/16	7 7/8	6 3/4	6 3/16	2 1/8

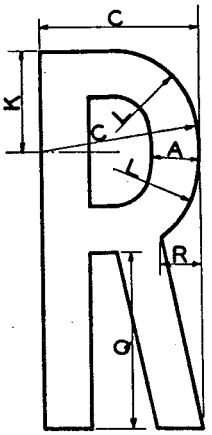






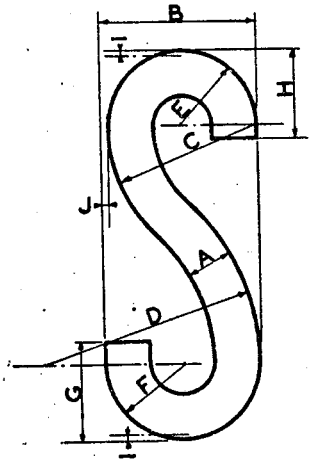


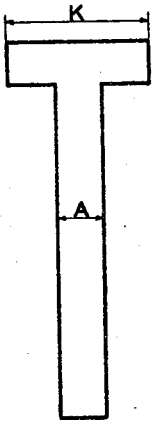


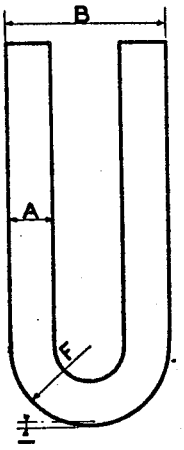


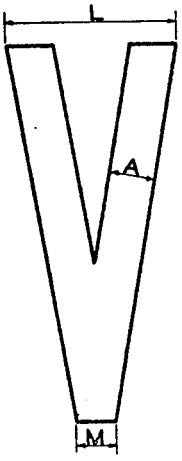
SERIES B LETTERS

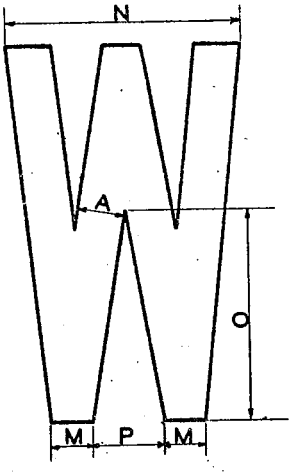
HEIGHT (INCHES)	DIMENSIONS (INCHES)																
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
2	1/4	31/32	27/32	13/16	7/32	29/32	25/64	4	1/32	7/8	17/32	7/16	3/16	1 3/16	3/32	5/64	15/16	13/64
3	3/8	1 29/64	1 17/64	1 7/32	21/64	1 23/64	37/64	6	3/64	1 5/16	51/64	21/32	9/32	1 25/32	9/64	7/64	1 13/32	19/64
4	1/2	1 15/16	1 11/16	1 5/8	7/16	1 13/16	25/32	8	1/16	1 3/4	1 1/16	7/8	3/8	2 3/8	3/16	5/32	1 7/8	13/32
5	5/8	2 27/64	2 7/64	2 1/32	25/64	2 17/64	31/32	10	5/64	2 3/16	1 21/64	1 3/32	15/32	2 31/32	15/64	3/16	2 11/32	1/2
6	3/4	2 29/32	2 17/32	2 7/16	21/32	2 23/32	1 11/64	12	3/32	2 5/8	1 19/32	1 5/16	9/16	3 9/16	9/32	15/64	2 13/16	39/64
7	7/8	3 25/64	2 61/64	2 27/32	49/64	3 11/64	1 23/64	14	7/64	3 1/16	1 55/64	1 17/32	21/32	4 5/32	21/64	17/64	3 9/32	45/64
8	1	3 7/8	3 3/8	3 1/4	7/8	3 5/8	1 9/16	16	1/8	3 1/2	2 1/8	1 3/4	3/4	4 3/4	3/8	5/16	3 3/4	13/16
12	1 1/2	5 13/16	5 1/16	4 7/8	1 5/16	5 7/16	2 11/32	24	3/16	5 1/4	3 3/16	2 5/8	1 1/8	7 1/8	9/16	15/32	5 5/8	1 7/32
18	2 1/4	8 23/32	7 19/32	7 5/16	1 31/32	8 5/32	3 1/2	36	9/32	7 7/8	4 25/32	3 15/16	1 11/16	10 11/16	27/32	11/16	8 7/16	1 13/16

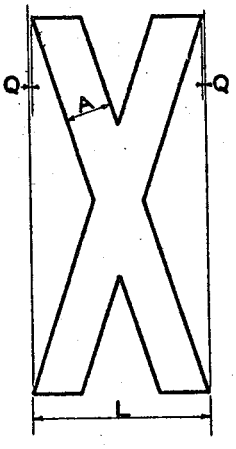






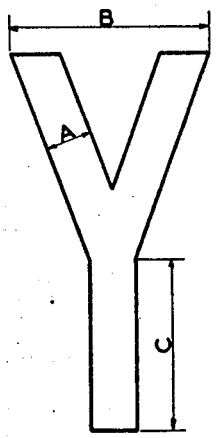


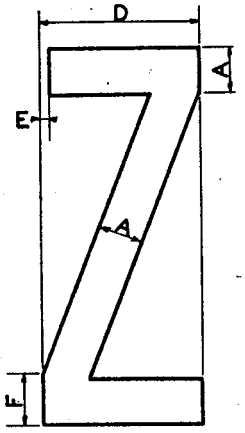


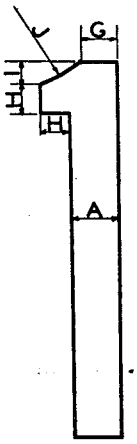


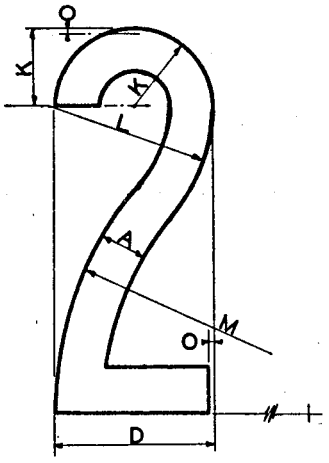
SERIES B LETTERS

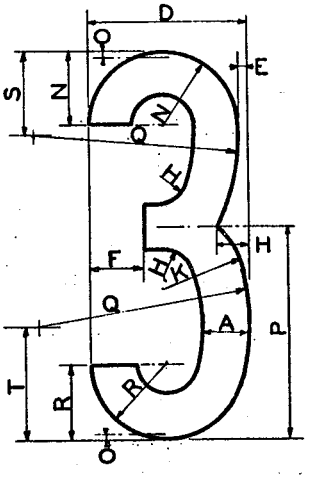
HEIGHT (INCHES)	DIMENSIONS (INCHES)																
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
2	1/4	27/32	51/64	1 5/32	25/64	27/64	17/32	15/32	1/32	3/64	3/4	59/64	7/32	1 1/4	1 1/8	3/8	1/64
3	3/8	1 17/64	1 3/16	1 47/64	19/32	5/8	51/64	45/64	3/64	1/16	1 1/8	1 3/8	21/64	1 7/8	1 11/16	9/16	1/64
4	1/2	1 11/16	1 19/32	2 5/16	51/64	27/32	1 1/16	15/16	1/16	3/32	1 1/2	1 27/32	7/16	2 1/2	2 1/4	3/4	1/32
5	5/8	2 7/64	1 63/64	2 27/64	1	1 3/64	1 21/64	1 11/64	5/64	7/64	1 7/8	2 19/64	35/64	3 1/8	2 13/16	15/16	1/32
6	3/4	2 17/32	2 25/64	3 15/32	1 3/16	1 17/64	1 19/32	1 13/32	3/32	9/64	2 1/4	2 49/64	21/32	3 3/4	3 3/8	1 1/8	3/64
7	7/8	2 61/64	2 25/32	4 3/64	1 25/64	1 15/32	1 25/64	1 41/64	7/64	5/32	2 5/8	3 7/32	49/64	4 3/8	3 15/16	1 5/16	3/64
8	1	3 3/8	3 3/16	4 5/8	1 19/32	1 11/16	2 1/8	1 7/8	1/8	3/16	3	3 11/16	7/8	5	4 1/2	1 1/2	1/16
12	1 1/2	5 1/16	4 25/32	6 15/16	2 25/64	2 17/32	3 3/16	2 13/16	3/16	9/32	4 1/2	5 17/32	1 5/16	7 1/2	6 3/4	2 1/4	3/32
18	2 1/4	7 19/32	7 5/32	10 13/32	3 27/64	3 51/64	4 25/32	4 7/32	9/32	7/16	6 3/4	8 5/16	1 31/32	11 1/4	10 1/8	3 3/8	1/8

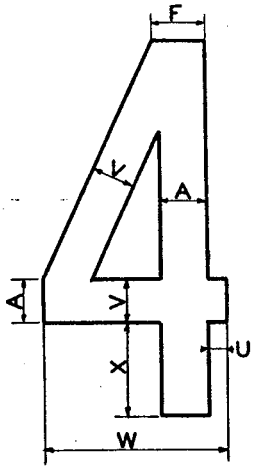






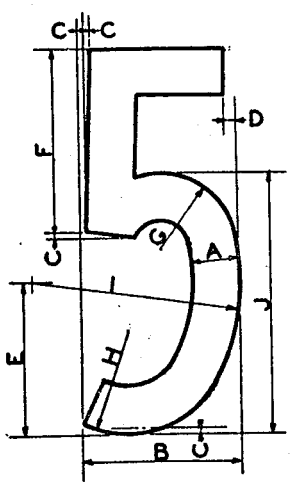


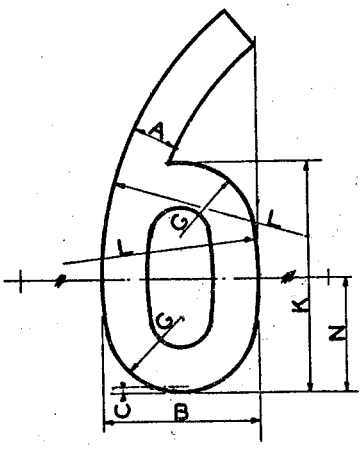


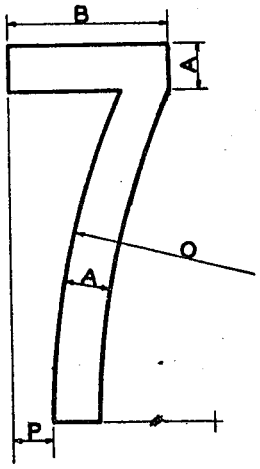


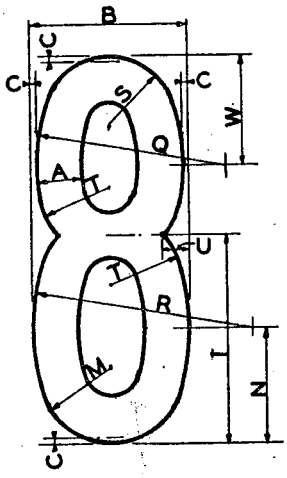
SERIES B LETTERS AND NUMERALS

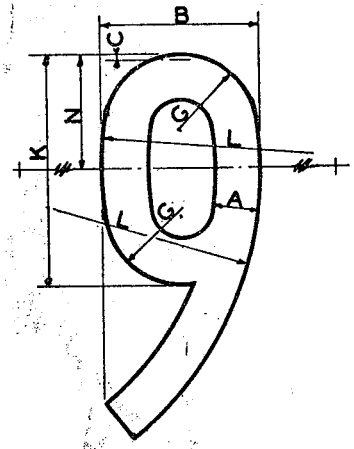
HEIGHT (INCHES)	DIMENSIONS (INCHES)																						
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
2	1/4	1 1/16	29/32	27/32	3/64	9/32	3/16	5/32	1/8	23/32	27/64	7/8	1 13/16	25/64	1/32	1 1/8	1 3/32	13/32	29/64	19/32	3/32	15/64	31/32	1/2
3	3/8	1 19/32	1 23/64	1 17/64	1/16	27/64	9/32	15/64	3/16	1 5/64	5/8	1 5/16	2 23/32	19/32	3/64	1 11/16	1 41/64	39/64	43/64	57/64	9/64	11/32	1 29/64	3/4
4	1/2	2 1/8	1 13/16	1 11/16	3/32	9/16	3/8	5/16	1/4	1 7/16	27/32	1 3/4	3 5/8	51/64	1/16	2 1/4	2 3/16	13/16	29/32	1 3/16	3/16	15/32	1 15/16	1
5	5/8	2 21/32	2 17/64	2 7/64	7/64	45/64	15/32	25/64	5/16	1 31/64	1 3/64	2 3/16	4 17/32	1	5/64	2 13/16	2 47/64	1 1/64	1 1/8	1 31/64	15/64	37/64	2 27/64	1 1/4
6	3/4	3 3/16	2 23/32	2 17/32	9/64	27/32	9/16	15/32	3/8	2 5/32	1 17/64	2 5/8	5 7/16	1 3/16	3/32	3 3/8	3 9/32	1 7/32	1 23/64	1 25/32	9/32	45/64	2 29/32	1 1/2
7	7/8	3 23/32	3 11/64	2 61/64	5/32	63/64	21/32	35/64	7/16	2 33/64	1 15/32	3 1/16	6 5/32	1 25/64	7/64	3 15/16	3 53/64	1 27/64	1 37/64	2 5/64	21/64	13/16	3 25/64	1 3/4
8	1	4 1/4	3 3/8	3 3/8	3/16	1 1/8	3/4	5/8	1/2	2 7/8	1 11/16	3 1/2	7 1/16	1 19/32	1/8	4 1/2	4 3/8	1 5/8	1 13/16	2 3/8	3/8	15/16	3 7/8	2
12	1 1/2	6 3/8	5 7/16	5 1/16	9/32	1 11/16	1 1/8	15/16	3/4	4 5/16	2 17/32	5 1/4	10 7/8	2 25/64	3/16	6 3/4	6 9/16	2 7/16	2 23/32	3 9/16	9/16	1 13/32	5 13/16	3
18	2 1/4	9 9/16	8 5/32	7 19/32	7/16	2 17/32	1 11/16	1 13/32	1 1/8	6 15/32	3 13/16	7 7/8	16 5/16	3 37/64	9/32	10 1/8	9 27/32	3 21/32	4 3/32	5 11/32	27/32	2 1/8	8 23/32	4 1/2

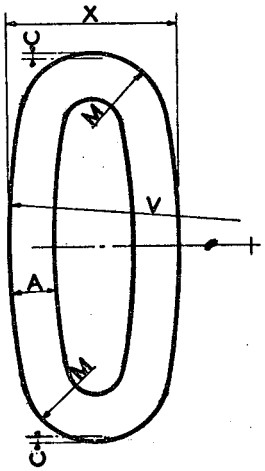






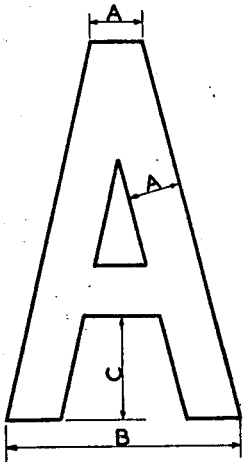


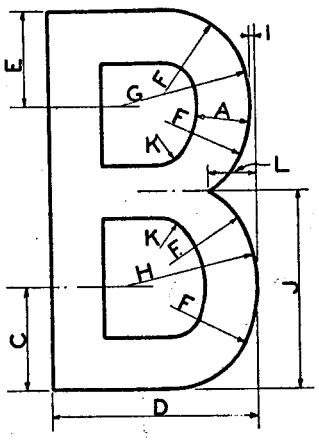


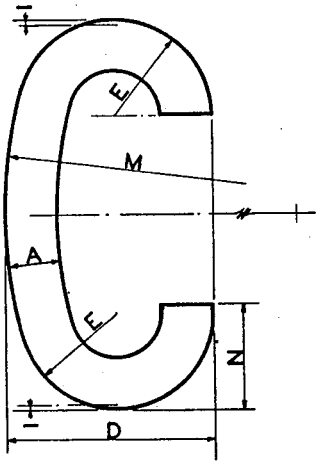


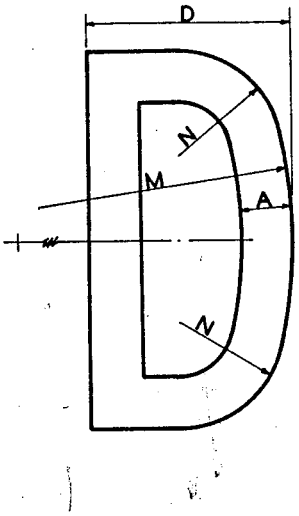
SERIES B NUMERALS

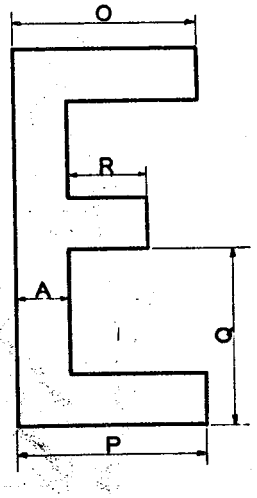
HEIGHT (INCHES)	DIMENSIONS (INCHES)																						
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
2	1/4	27/32	1/32	1/16	13/16	31/32	13/32	35/64	1 3/32	1 3/8	1 7/32	1 27/32	25/64	39/64	4 3/8	7/32	1	1 11/64	11/32	3/8	3/32	4	37/64	29/32
3	3/8	1 17/64	3/64	3/32	1 7/32	1 29/64	39/64	13/16	1 41/64	2 1/16	1 53/64	2 49/64	37/64	29/32	6 9/16	21/64	1 1/2	1 3/4	33/64	9/16	15/64	6	55/64	1 23/64
4	1/2	1 11/16	1/16	1/8	1 5/8	1 15/16	13/16	1 3/32	2 3/16	2 3/4	2 7/16	3 11/16	25/32	1 7/32	8 3/4	7/16	2	2 11/32	11/16	3/4	5/16	8	1 5/32	1 13/16
5	5/8	2 7/64	5/64	5/32	2 1/32	2 27/64	1 1/64	1 23/64	2 47/64	3 7/16	3 3/64	4 39/64	31/32	1 33/64	10 15/16	35/64	2 1/2	2 59/64	55/64	15/16	25/64	10	1 7/16	2 17/64
6	3/4	2 17/32	3/32	3/16	2 7/16	2 29/32	1 7/32	1 41/64	3 3/32	4 1/8	3 61/32	5 17/32	1 11/64	1 53/64	13 1/8	21/32	3	3 33/64	1 1/32	1 1/8	1 5/32	12	1 47/64	2 23/32
7	7/8	2 81/64	7/64	7/32	2 27/32	3 25/64	1 27/64	1 29/32	3 53/64	4 13/16	4 17/64	6 29/64	1 23/64	2 1/8	15 5/16	49/64	3 1/2	4 3/32	1 13/64	1 5/16	35/64	14	2 1/64	3 11/64
8	1	3 3/8	1/8	1/4	3 1/4	3 7/8	1 5/8	2 3/16	4 3/8	5 1/2	4 7/8	7 3/8	1 9/16	2 7/16	17 1/2	7/8	4	4 11/16	1 3/8	1 1/2	5/8	16	2 5/16	3 5/8
12	1 1/2	5 1/16	3/16	3/8	4 7/8	5 13/16	2 7/16	3 9/32	6 9/16	8 1/4	7 5/16	11 1/16	2 11/32	3 21/32	26 1/4	1 5/16	6	7 1/32	2 1/16	2 1/4	15/16	24	3 15/32	5 7/16
18	2 1/4	7 19/32	9/32	9/16	7 5/16	8 23/32	3 21/32	4 15/16	9 27/32	12 3/8	10 31/32	16 19/32	3 1/2	5 1/2	39 3/8	1 31/32	9	10 17/32	3 3/32	3 3/8	1 13/32	36	5 3/16	8 5/32

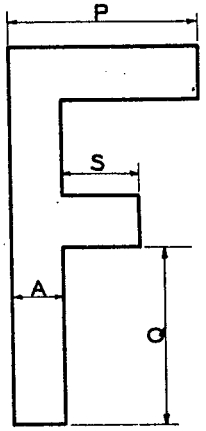












SERIES C LETTERS

HEIGHT (INCHES)	DIMENSIONS (INCHES)																		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
2	9/32	1 1/4	35/64	1 3/32	1/2	7/16	11/16	23/32	1/32	1 3/64	5/32	1/4	2 1/2	9/16	31/32	1	15/16	27/64	13/32
3	27/64	1 7/8	13/16	1 41/64	3/4	21/32	1 1/32	1 5/64	3/64	1 9/16	15/64	3/8	3 3/4	27/32	1 29/64	1 1/2	1 13/32	5/8	39/64
4	9/16	2 1/2	1 3/32	2 3/16	1 1/64	7/8	1 3/8	1 7/16	1/16	2 3/32	5/16	1/2	5	1 1/8	1 15/16	2	1 7/8	27/32	13/16
5	45/64	3 1/8	1 23/64	2 47/64	1 17/64	1 3/32	1 23/32	1 51/64	5/64	2 39/64	25/64	5/8	6 1/4	1 13/32	2 27/64	2 1/2	2 11/32	1 3/64	1 1/64
6	27/32	3 3/4	1 41/64	3 9/32	1 33/64	1 5/16	2 1/16	2 5/32	3/32	3 9/64	15/32	3/4	7 1/2	1 11/16	2 29/32	3	2 13/16	1 17/64	1 7/32
7	63/64	4 3/8	1 29/32	3 33/64	1 49/64	1 17/32	2 13/32	2 33/64	7/64	3 21/32	35/64	7/8	8 3/4	1 31/32	3 25/64	3 1/2	3 9/32	1 15/32	1 27/64
8	1 1/8	5	2 3/16	4 3/8	2 1/32	1 3/4	2 3/4	2 7/8	1/8	4 3/16	5/8	1	10	2 1/4	3 7/8	4	3 3/4	1 11/16	1 5/8
12	1 11/16	7 1/2	3 9/32	6 9/16	3 3/64	2 5/8	4 1/8	4 5/16	3/16	6 9/32	15/16	1 1/2	15	3 3/8	5 13/16	6	5 5/8	2 17/32	2 7/16
18	2 17/32	11 1/4	4 15/16	9 27/32	4 9/16	3 15/16	6 3/16	6 15/32	9/32	9 7/16	1 13/32	2 1/4	22 1/2	5 1/16	8 23/32	9	8 7/16	3 13/16	3 21/32

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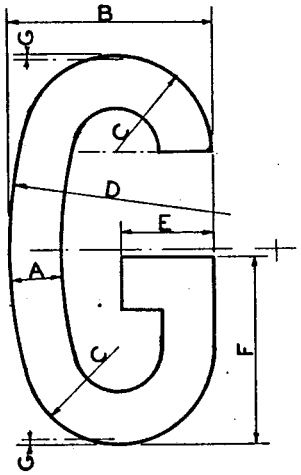
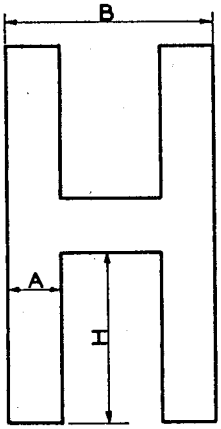
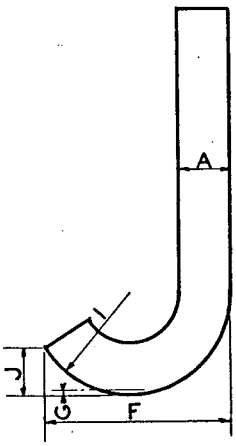
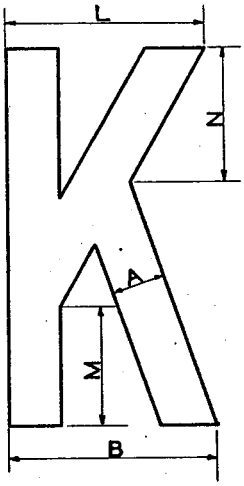
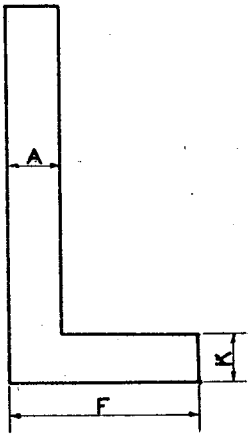




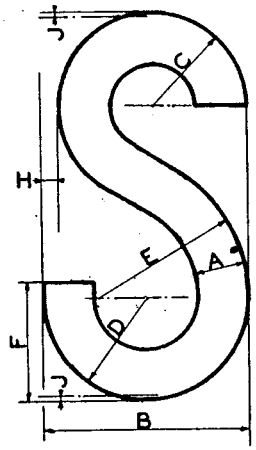


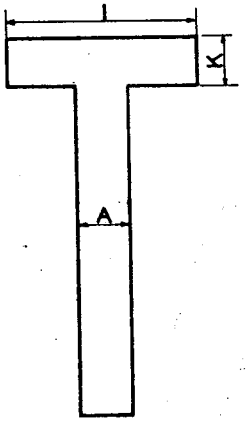


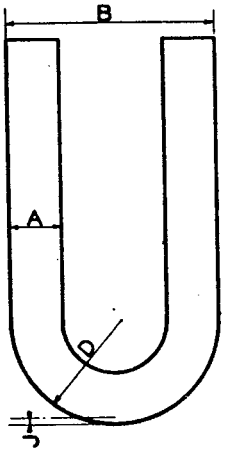


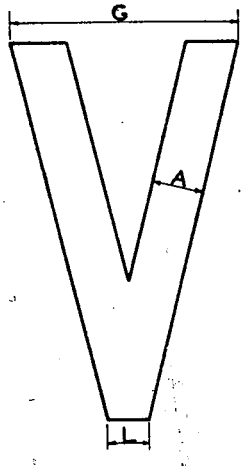
SERIES C LETTERS

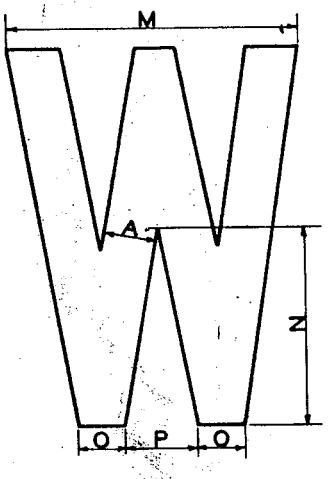
HEIGHT (INCHES)	DIMENSIONS (INCHES)													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
2	9/32	1 3/32	1/2	2 1/2	1/2	1	1/32	29/32	17/32	1/4	17/64	1 3/64	41/64	45/64
3	27/64	1 41/64	3/4	3 3/4	3/4	1 1/2	3/64	1 23/64	51/64	3/8	25/64	1 9/16	61/64	1 3/64
4	9/16	2 3/16	1 1/64	5	1	2	1/16	1 13/16	1 1/16	1/2	17/32	2 3/32	1 9/32	1 13/32
5	45/64	2 47/64	1 17/64	6 1/4	1 1/4	2 1/2	5/64	2 17/64	1 21/64	5/8	21/32	2 39/64	1 19/32	1 3/4
6	27/32	3 9/32	1 33/64	7 1/2	1 1/2	3	3/32	2 23/32	1 19/32	3/4	51/64	3 9/64	1 59/64	2 7/64
7	63/64	3 53/64	1 49/64	8 3/4	1 3/4	3 1/2	7/64	3 11/64	1 55/64	7/8	59/64	3 21/32	2 15/64	2 29/64
8	1 1/8	4 3/8	2 1/32	10	2	4	1/8	3 5/8	2 1/8	1	1 1/16	4 3/16	2 9/16	2 13/16
12	1 11/16	6 9/16	3 3/64	15	3	6	3/16	5 7/16	3 3/16	1 1/2	1 19/32	6 9/32	3 27/32	4 7/32
18	2 17/32	9 27/32	4 9/16	22 1/2	4 1/2	9	9/32	8 5/32	4 25/32	2 1/4	2 3/8	9 7/16	5 3/4	6 5/16

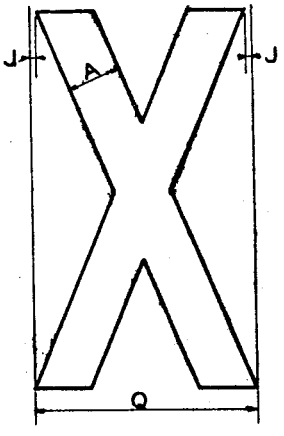






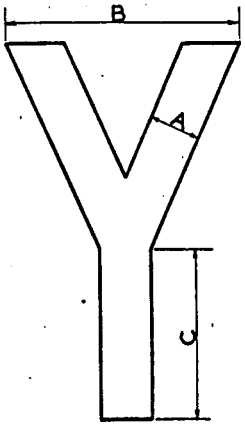


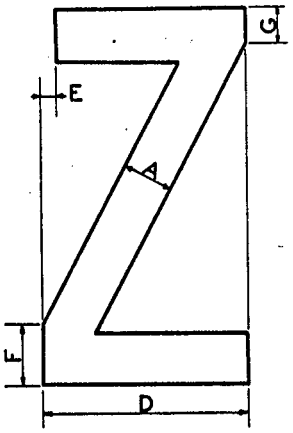


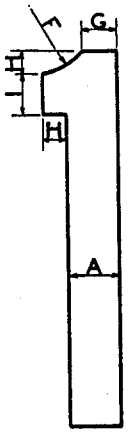


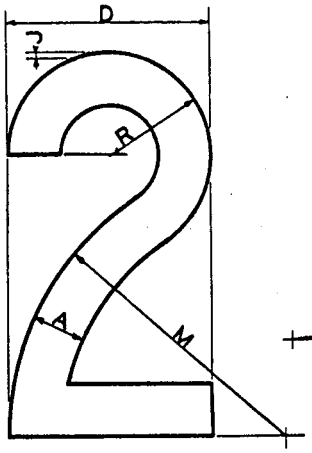
SERIES C LETTERS

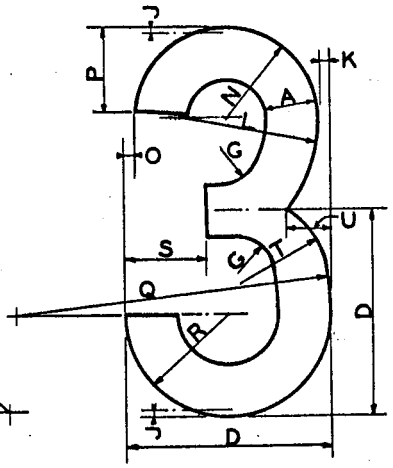
HEIGHT (INCHES)	DIMENSIONS (INCHES)																
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
2	9/32	1 3/32	1/2	35/64	13/16	5/8	1 7/32	3/32	1	1/32	17/64	7/32	1 1/2	1 5/64	1/4	3/8	1 11/64
3	27/64	1 41/64	3/4	13/16	1 7/32	15/16	1 53/64	9/64	1 1/2	3/64	25/64	21/64	2 1/4	1 9/16	3/8	9/16	1 3/4
4	9/16	2 3/16	1	1 3/32	1 5/8	1 1/4	2 7/16	3/16	2	1/16	17/32	7/16	3	2 3/32	1/8	3/4	2 11/32
5	45/64	2 27/64	1 1/4	1 53/64	2 1/32	1 9/16	3 1/64	15/64	2 1/2	5/64	21/32	35/64	3 3/4	2 59/64	5/8	15/16	2 49/64
6	27/32	3 9/32	1 1/2	1 41/64	2 7/16	1 7/8	3 21/32	9/32	3	3/32	51/64	21/32	4 1/2	3 9/64	3/4	1 1/8	3 33/64
7	63/64	3 23/64	1 3/4	1 29/32	2 27/32	2 3/16	4 17/64	21/64	3 1/2	7/64	59/64	49/64	5 1/4	3 21/32	7/8	1 5/16	4 3/32
8	1 1/8	4 3/8	2	2 3/16	3 1/4	2 1/2	4 7/8	3/8	4	1/8	1 1/16	7/8	6	4 3/16	1	1 1/2	4 11/16
12	1 11/16	6 9/16	3	3 9/32	4 7/8	3 3/4	7 5/16	9/16	6	3/16	1 19/32	1 5/16	9	6 9/32	1 1/2	2 1/4	7 1/32
18	2 17/32	9 27/32	4 1/2	4 15/16	7 5/16	5 5/8	10 31/32	27/32	9	9/32	2 3/8	1 31/32	13 1/2	9 7/16	2 1/4	3 3/8	10 5/16

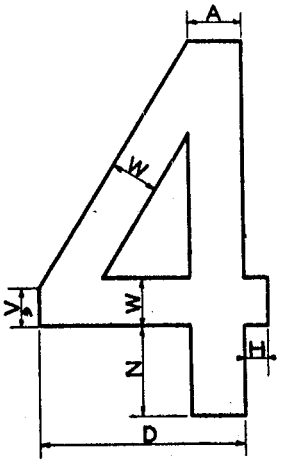






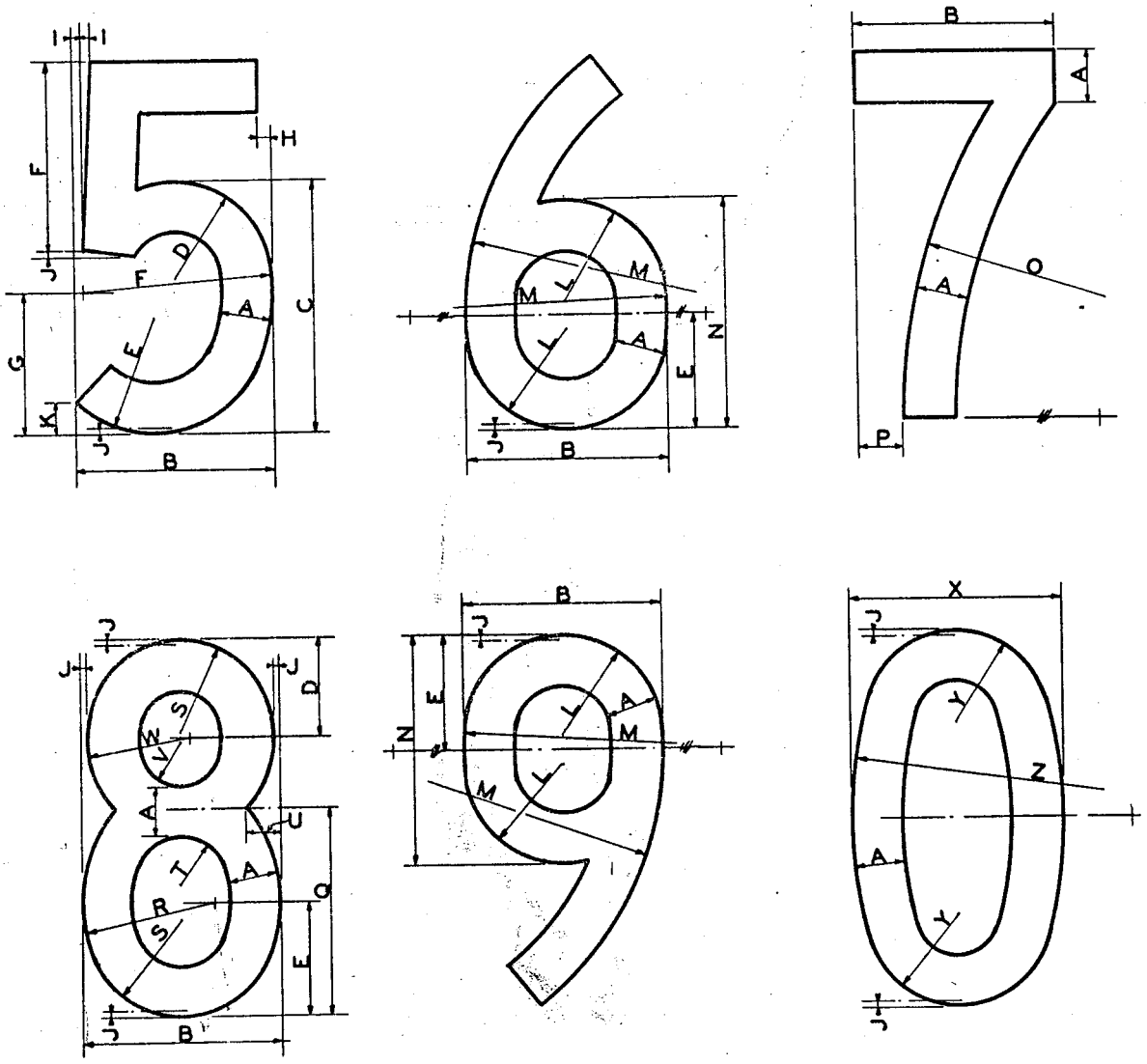






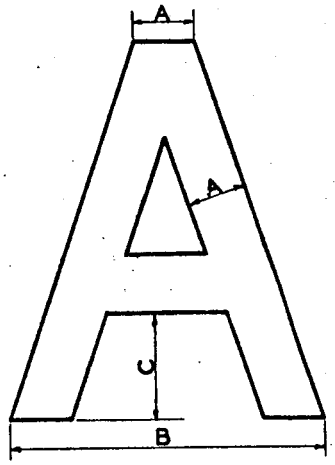
SERIES C LETTERS AND NUMERALS

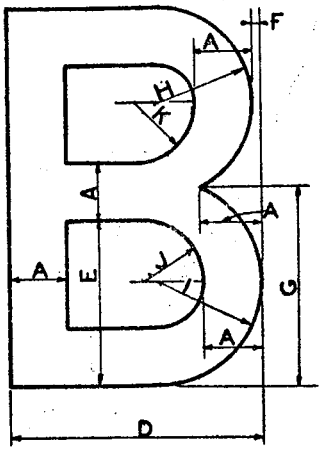
HEIGHT (INCHES)	DIMENSIONS (INCHES)																					
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
2	9/32	1 1/4	29/32	1 3/32	5/64	5/16	3/16	1/8	7/32	1/32	3/64	3/4	1 1/2	31/64	1/16	29/64	1 21/32	25/64	7/16	15/32	15/64	13/64	17/64
3	27/64	1 7/8	1 23/64	1 41/64	7/64	15/32	9/32	3/16	21/64	3/64	1/16	1 1/8	2 1/4	23/32	3/32	43/64	2 31/64	13/16	21/32	45/64	11/32	19/64	25/64
4	9/16	2 1/2	1 13/16	2 3/16	5/32	5/8	3/8	1/4	7/16	1/16	3/32	1 1/2	3	31/32	1/8	29/32	3 5/16	1 3/32	7/8	13/16	15/32	13/32	17/32
5	45/64	3 1/8	2 17/64	2 47/64	3/16	25/32	15/32	5/16	35/64	5/64	7/64	1 7/8	3 3/4	1 13/64	5/32	1 1/8	4 9/64	1 23/64	1 3/32	1 11/64	37/64	1/2	21/32
6	27/32	3 3/4	2 23/32	3 9/32	15/64	15/16	9/16	3/8	21/32	3/32	9/64	2 1/4	4 1/2	1 29/64	3/16	1 23/64	4 31/32	1 41/64	1 5/16	1 13/32	45/64	39/64	51/64
7	63/64	4 3/8	3 11/64	3 53/64	17/64	1 3/32	21/32	7/16	49/64	7/64	5/32	2 5/8	5 1/4	1 11/16	7/32	1 37/64	5 51/64	1 29/32	1 17/32	1 21/64	13/16	45/64	59/64
8	1 1/8	5	3 5/8	4 3/8	5/16	1 1/4	3/4	1/2	7/8	1/8	3/16	3	6	1 15/16	1/4	1 13/16	6 5/8	2 3/16	1 3/4	1 7/8	15/16	13/16	1 1/16
12	1 11/16	7 1/2	5 7/16	6 9/16	15/32	1 7/8	1 1/8	3/4	1 5/16	3/16	9/32	4 1/2	9	2 15/16	■	2 23/32	9 15/16	3 9/32	2 5/8	2 13/16	1 13/32	1 7/32	1 19/32
18	2 17/32	11 1/4	8 5/32	9 7/8	11/16	2 13/16	1 11/16	1 1/8	1 31/32	9/32	7/16	6 3/4	13 1/2	■ 7/16	9/16	4 1/16	14 29/32	4 15/16	3 15/16	4 7/32	2 1/8	1 13/16	2 3/8

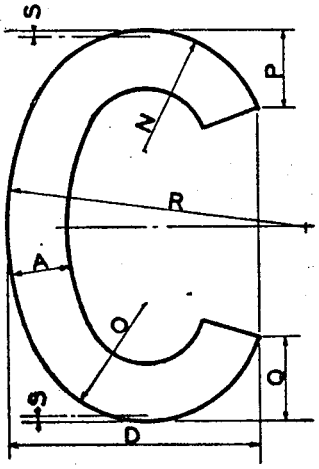


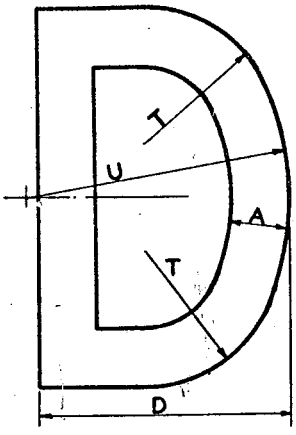
SERIES C NUMERALS

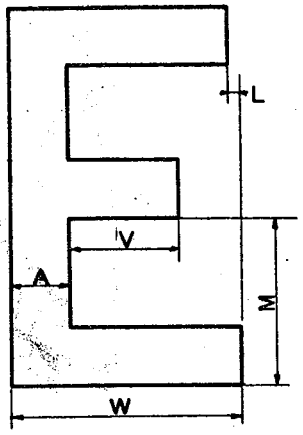
HEIGHT (INCHES)	DIMENSIONS (INCHES)																								
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
2	9/32	1 3/32	1 3/8	17/32	5/8	1 1/32	25/32	5/64	3/64	1/32	11/64	35/64	1 3/4	1 1/4	3 3/16	1/4	1 1/8	3/4	33/64	15/64	3/16	7/32	41/64	1 5/32	1/2	2 1/2
3	27/64	1 41/64	2 1/16	51/64	15/16	1 35/64	1 11/64	7/64	1/16	3/64	1/4	13/16	2 5/8	1 7/8	4 25/32	3/8	1 11/16	1 1/8	49/64	11/32	9/32	21/64	61/64	1 47/64	3/4	3 3/4
4	9/16	2 3/16	2 3/4	1 1/16	1 1/4	2 1/8	1 9/16	5/32	3/32	1/16	11/32	1 3/32	3 1/2	2 1/2	6 3/8	1/2	2 1/4	1 33/64	1 1/32	15/32	3/8	7/16	1 9/32	2 5/16	1 1/64	5
5	45/64	2 47/64	3 7/16	1 21/64	1 9/16	2 37/64	1 61/64	3/16	7/64	5/64	27/64	1 23/64	4 3/8	3 1/8	7 31/32	5/8	2 13/16	1 57/64	1 9/32	37/64	15/32	25/64	1 19/32	2 57/64	1 17/64	6 1/4
6	27/32	3 9/32	4 1/8	1 19/32	1 7/8	3 3/32	2 11/32	15/64	9/64	3/32	33/64	1 41/64	5 1/4	3 3/4	9 9/16	3/4	3 3/8	2 9/32	1 35/64	45/64	9/16	21/32	1 59/64	3 15/32	1 33/64	7 1/2
7	63/64	3 53/64	4 13/16	1 55/64	2 3/16	3 39/64	2 47/64	17/64	5/32	7/64	19/32	1 29/32	6 1/8	4 3/8	11 5/32	7/8	3 15/16	2 21/32	1 51/64	13/16	21/32	49/64	2 15/64	4 3/64	1 3/4	8 3/4
8	1 1/8	4 3/8	5 1/2	2 1/8	2 1/2	4 1/8	3 1/8	5/16	3/16	1/8	11/16	2 3/16	7	5	12 3/4	1	4 1/2	3 1/32	2 1/16	15/16	3/4	7/8	2 9/16	4 5/8	2 1/32	10
12	1 11/16	6 9/16	8 1/4	3 3/16	3 3/4	6 3/16	4 11/16	15/32	9/32	3/16	1 1/32	3 9/32	10 1/2	7 1/2	19 1/8	1 1/2	6 3/4	4 35/64	3 3/32	1 13/32	1 1/8	1 5/16	3 27/32	6 15/16	3 3/64	15
18	2 17/32	9 27/32	12 3/8	4 25/32	5 5/8	9 9/32	7 1/32	11/16	7/16	9/32	1 5/16	4 15/16	15 3/4	11 1/4	28 11/16	2 1/4	10 1/8	6 13/16	4 41/64	2 7/64	1 11/16	1 31/32	5 49/64	10 13/32	4 9/16	22 1/2

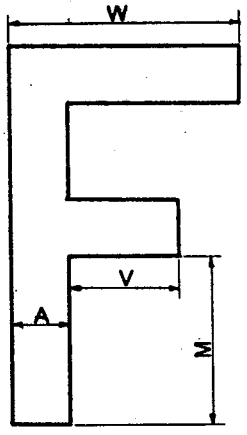






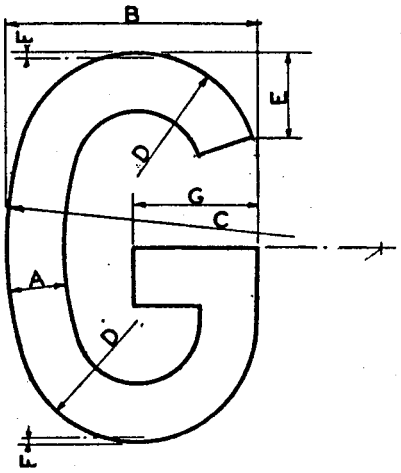


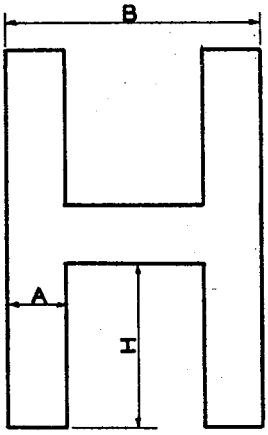


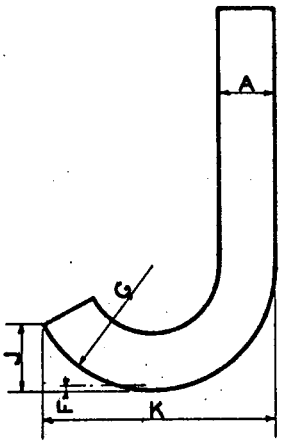


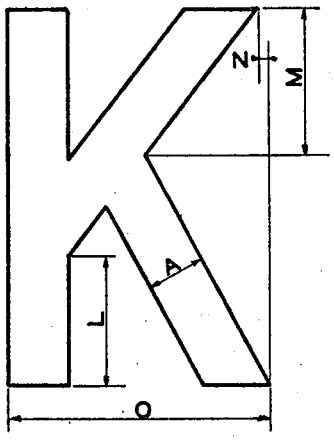
SERIES D LETTERS

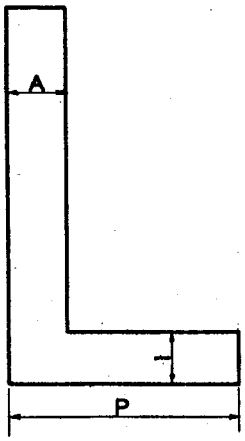
HEIGHT (INCHES)	DIMENSIONS (INCHES)																					
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
2	5/16	1 43/64	9/16	1 11/32	7/8	3/64	1 3/64	1/2	35/64	21/64	5/16	1/16	7/8	21/32	41/64	13/32	7/16	1 9/16	1/32	23/32	1 13/32	37/64	1 7/32
3	15/32	2 1/2	27/32	2 1/64	1 5/16	1/16	1 9/16	3/4	1 3/16	31/64	15/32	3/32	1 5/16	63/64	61/64	39/64	21/32	2 3/8	3/64	1 5/64	2 7/64	55/64	1 53/64
4	5/8	3 11/32	1 1/8	2 11/16	1 3/4	3/32	2 3/32	1	1 3/32	21/32	5/8	1/8	1 3/4	1 5/16	1 9/32	13/16	7/8	3 9/32	1/16	1 7/16	2 13/16	1 5/32	2 7/16
5	25/32	4 3/16	1 13/32	3 23/64	2 3/16	7/64	2 29/64	1 1/4	1 23/64	13/16	25/32	5/32	2 3/16	1 41/64	1 19/32	1 1/64	1 3/32	3 15/16	5/64	1 51/64	3 1/2	1 7/16	3 3/64
6	15/16	5 1/64	1 11/16	4 1/32	2 5/8	9/64	3 9/64	1 1/2	1 41/64	63/64	15/16	3/16	2 5/8	1 31/32	1 59/64	1 7/32	1 5/16	4 3/4	3/32	2 5/32	4 7/32	1 47/64	3 21/32
7	1 3/32	5 27/32	1 31/32	4 45/64	3 1/16	5/32	3 21/32	1 3/4	1 29/32	1 9/64	1 3/32	7/32	3 1/16	2 19/64	2 15/64	1 27/64	1 17/32	5 17/32	7/64	2 33/64	4 59/64	2 1/64	4 17/64
8	1 1/4	6 11/16	2 1/4	5 3/8	3 1/2	3/16	4 3/16	2	2 3/16	1 5/16	1 1/4	1/4	3 1/2	2 5/8	2 9/16	1 5/8	1 3/4	6 5/16	1/8	2 7/8	5 5/8	2 5/16	4 7/8
12	1 7/8	10 1/32	3 3/8	8 1/16	5 1/4	9/32	6 9/32	3	3 3/32	1 31/32	1 7/8	3/8	5 1/4	3 15/16	3 27/32	2 7/16	2 5/8	9 15/32	3/16	4 5/16	8 7/16	3 15/32	7 5/16
18	2 13/16	15 1/16	5 1/16	12 3/32	7 7/8	7/16	9 7/16	4 1/2	4 12/16	2 15/16	2 13/16	9/16	7 7/8	5 29/32	5 3/4	3 21/32	3 15/16	14 3/16	9/32	6 15/32	12 21/32	5 9/16	10 31/32





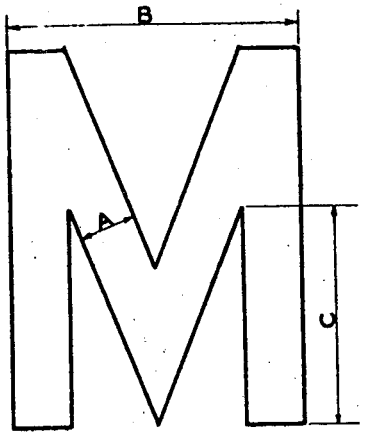


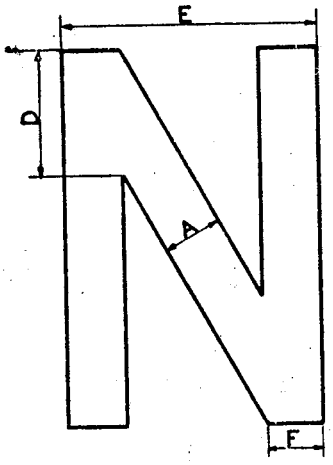


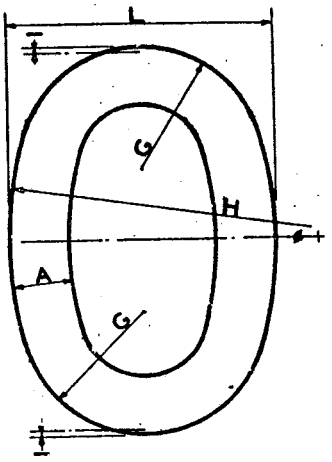


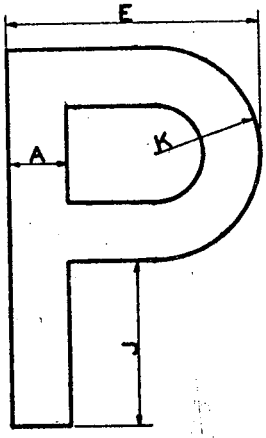
SERIES D LETTERS

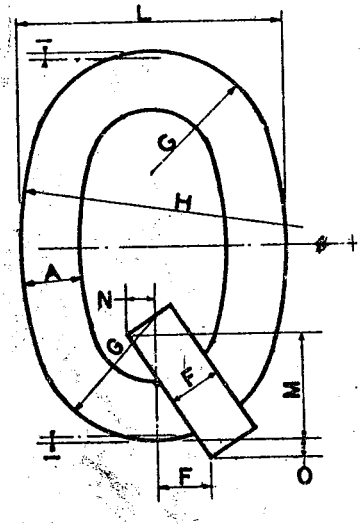
HEIGHT (INCHES)	DIMENSIONS (INCHES)															
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
2	5/16	1 11/32	2	41/64	7/16	1/32	21/32	7/8	19/64	23/64	1 1/4	11/16	25/32	3/64	1 3/8	1 7/32
3	15/32	2 1/64	3	61/64	21/32	3/64	63/64	1 5/16	7/16	17/32	1 7/8	1 1/32	1 11/64	1/16	2 1/16	1 33/64
4	5/8	2 11/16	4	1 9/32	7/8	1/16	1 5/16	1 3/4	19/32	23/32	2 1/2	1 3/8	1 9/16	3/32	2 3/4	2 7/16
5	25/32	3 23/64	5	1 19/32	1 3/32	5/64	1 41/64	2 3/16	47/64	57/64	3 1/8	1 23/32	1 61/64	7/64	3 7/16	3 3/64
6	15/16	4 1/32	6	1 59/64	1 5/16	3/32	1 31/32	2 5/8	57/64	1 5/64	3 3/4	2 1/16	2 11/32	9/64	4 1/8	3 21/32
7	1 3/32	4 45/64	7	2 15/64	1 17/32	7/64	2 13/64	3 1/16	1 1/32	1 1/4	4 3/8	2 13/32	2 47/64	5/32	4 13/16	4 17/64
8	1 1/4	5 3/8	8	2 9/16	1 3/4	1/8	2 5/8	3 1/2	1 3/16	1 7/16	5	2 3/4	3 1/8	3/16	5 1/2	4 7/8
12	1 7/8	8 1/16	12	3 27/32	2 5/8	3/16	3 15/16	5 1/4	1 25/32	2 5/32	7 1/2	4 1/8	4 11/16	9/32	8 1/4	7 5/16
18	2 13/16	12 3/32	18	5 3/4	3 15/16	9/32	5 29/32	7 7/8	2 11/16	3 1/4	11 1/4	6 3/16	7 1/32	7/16	12 3/8	10 31/32

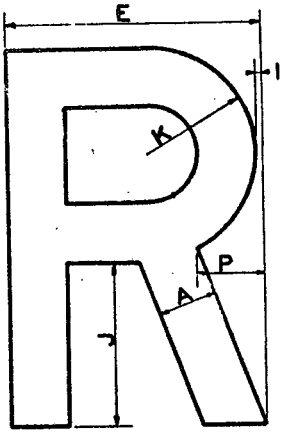






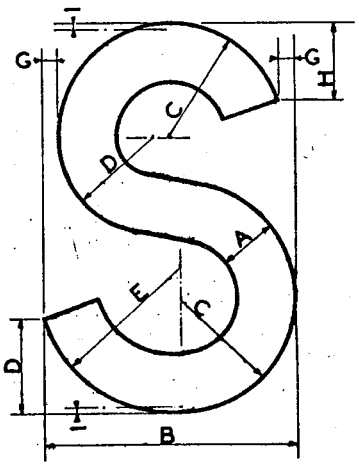


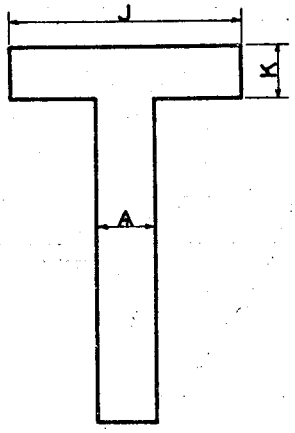


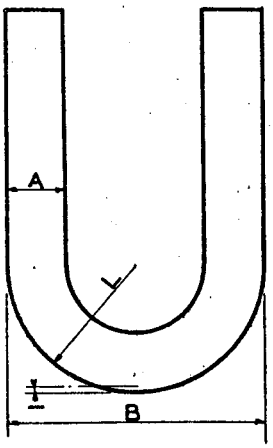


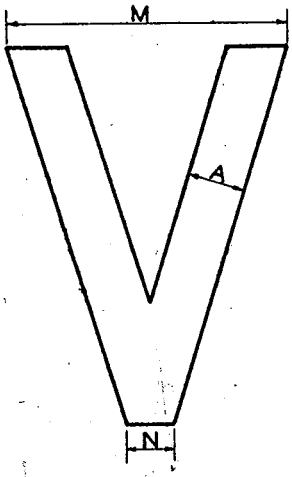
SERIES D LETTERS

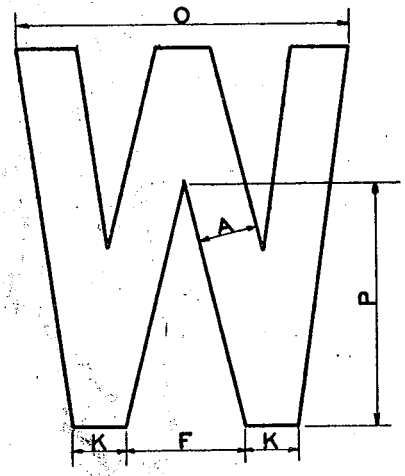
HEIGHT (INCHES)	DIMENSIONS (INCHES)															
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
2	5/16	1 35/64	1 5/32	43/64	1 11/32	9/32	41/64	2	1/32	7/8	9/16	1 13/32	9/16	5/32	3/32	11/32
3	15/32	2 1/16	1 27/64	1	2 1/64	27/64	61/64	3	3/64	1 5/16	27/32	2 7/64	27/32	15/64	9/64	33/64
4	5/8	3 3/32	2 5/16	1 11/32	2 11/16	9/16	1 9/32	4	1/16	1 3/4	1 1/8	2 13/16	1 1/8	5/16	3/16	11/16
5	25/32	3 25/64	2 27/64	1 43/64	3 23/64	45/64	1 19/32	5	5/64	2 3/16	1 13/32	3 1/2	1 13/32	25/64	15/64	55/64
6	15/16	4 21/64	3 15/32	2 1/64	4 1/32	27/32	1 59/64	6	3/32	2 5/8	1 11/16	4 7/32	1 11/16	15/32	9/32	1 1/32
7	1 3/32	5 13/32	4 3/64	2 11/32	4 25/64	63/64	2 15/64	7	7/64	3 1/16	1 31/32	4 59/64	1 31/32	35/64	21/64	1 13/64
8	1 1/4	6 3/16	4 5/8	2 11/16	5 3/8	1 1/8	2 3/16	8	1/8	3 1/2	2 1/4	5 5/8	2 1/4	5/8	3/8	1 3/8
12	1 7/8	9 9/32	6 15/16	4 1/32	8 1/16	1 11/16	3 27/32	12	3/16	5 1/4	3 3/8	8 7/16	3 3/8	15/16	9/16	2 1/16
18	2 13/16	13 15/16	10 13/32	6 1/16	12 3/32	2 17/32	5 3/4	18	9/32	7 7/8	5 1/16	12 21/32	5 1/16	1 13/32	27/32	3 3/32

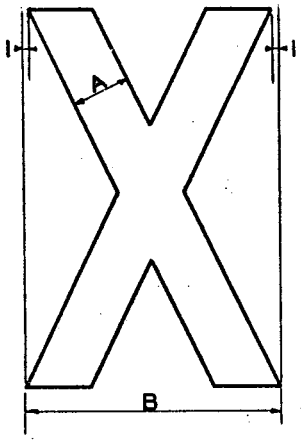






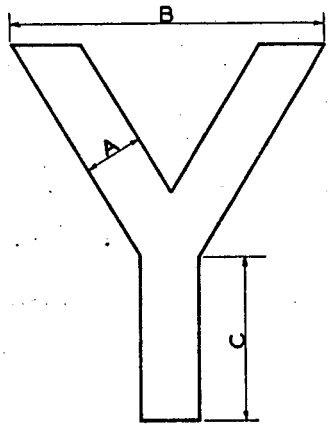


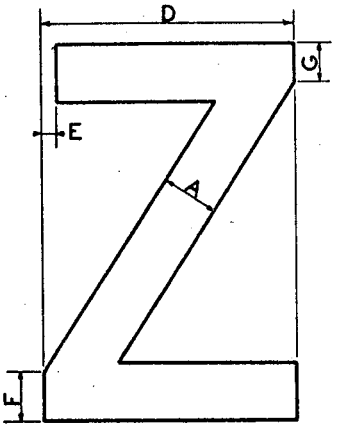


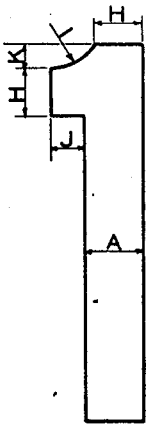


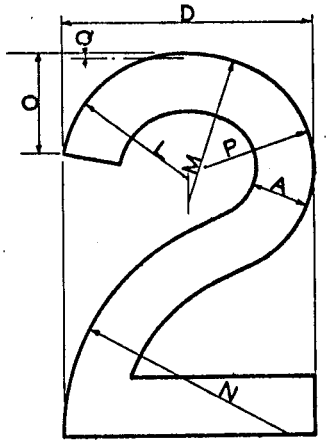
SERIES D LETTERS

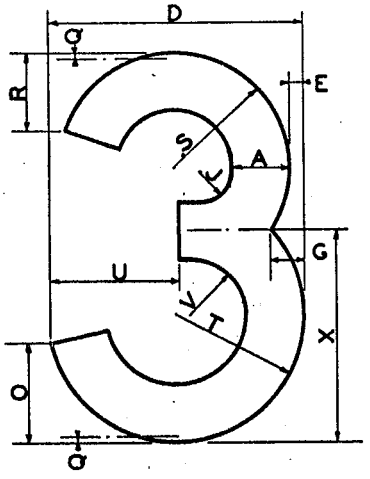
HEIGHT (INCHES)	DIMENSIONS (INCHES)															
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
2	5/16	1 11/32	39/64	1/2	25/32	5/8	5/64	13/32	1/32	1 7/32	9/32	43/64	1 1/2	1/4	1 3/4	1 9/32
3	15/32	2 1/64	29/32	3/4	1 11/64	15/16	7/64	39/64	3/64	1 53/64	27/64	1	2 1/4	3/8	2 5/8	1 59/64
4	5/8	2 11/16	1 7/32	1	1 9/16	1 1/4	5/32	13/16	1/16	2 7/16	9/16	1 11/32	3	1/2	3 1/2	2 9/16
5	25/32	3 23/64	1 33/64	1 1/4	1 61/64	1 9/16	5/16	1 1/64	5/64	3 3/64	45/64	1 43/64	3 3/4	5/8	4 3/8	3 13/64
6	15/16	4 1/32	1 53/64	1 1/2	2 11/32	1 7/8	15/64	1 7/32	3/32	3 21/32	27/32	2 1/64	4 1/2	3/4	5 1/4	3 27/32
7	1 3/32	4 45/64	2 1/8	1 3/4	2 47/64	2 3/16	17/64	1 27/64	7/64	4 17/64	63/64	2 11/32	5 1/4	7/8	6 1/8	4 31/64
8	1 1/4	5 3/8	2 7/16	2	3 1/8	2 1/2	5/16	1 5/8	1/8	4 7/8	1 1/8	2 11/16	6	1	7	5 1/8
12	1 7/8	8 1/16	3 21/32	3	4 11/16	3 3/4	15/32	2 7/16	3/16	7 5/16	1 11/16	4 1/32	9	1 1/2	10 1/2	7 11/16
18	2 13/16	12 3/32	5 1/2	4 1/2	7 1/32	5 5/8	11/16	3 21/32	9/32	10 31/32	2 17/32	5/64	13 1/2	2 1/4	15 3/4	11 17/32

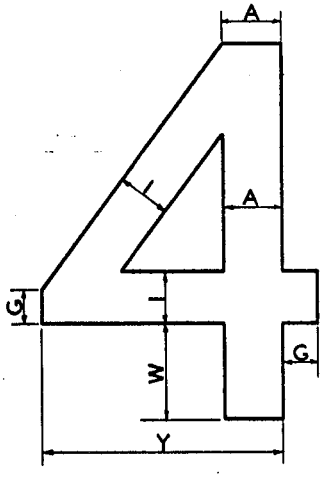






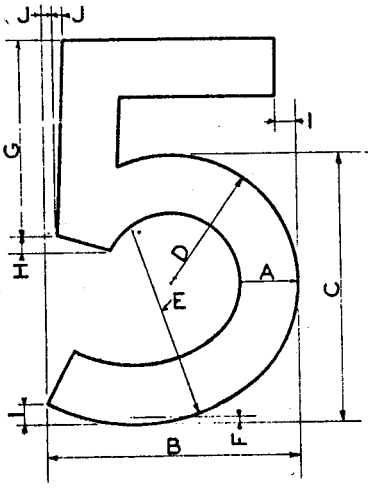


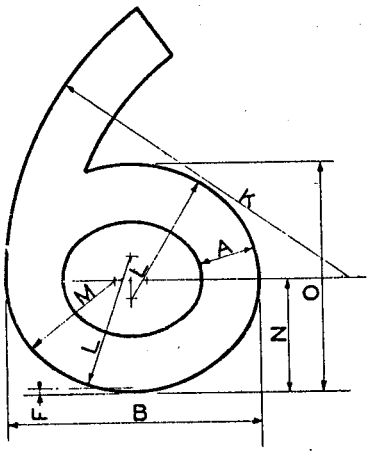


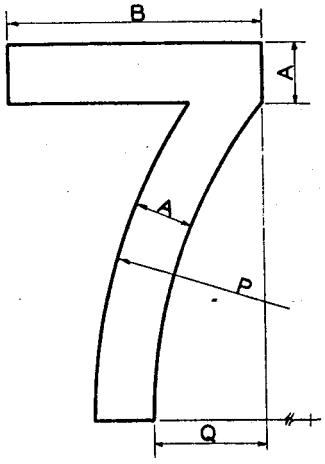


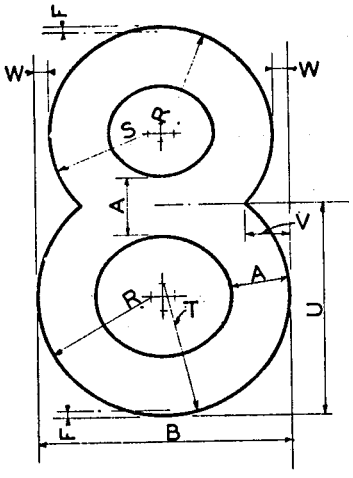
SERIES D LETTERS AND NUMERALS

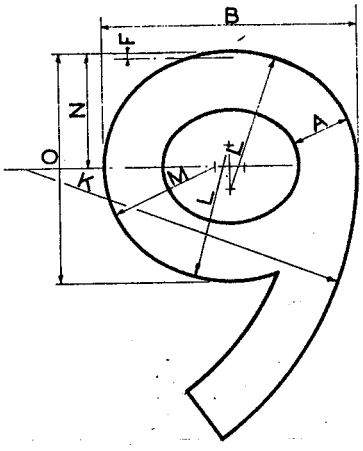
HEIGHT (INCHES)	DIMENSIONS (INCHES)																							
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
2	5/16	1 11/16	7/8	1 11/32	5/64	17/64	3/16	1/4	9/32	11/64	1/8	21/32	25/32	1 7/32	17/32	37/64	1/32	13/32	39/64	43/64	11/16	19/64	1/2	1 1/8	1 9/32
3	15/32	2 17/32	1 5/16	2 1/64	7/64	25/64	9/32	3/8	27/64	1/4	3/16	63/64	1 11/64	1 53/64	51/64	55/64	3/64	39/64	29/32	1	1 1/32	7/16	3/4	1 11/16	1 59/64
4	5/8	3 3/8	1 3/4	2 11/16	5/32	17/32	[redacted]	1/2	9/16	11/32	1/4	1 5/16	1 9/16	2 7/16	1 1/16	1 5/32	1/16	13/16	1 7/32	1 11/32	1 3/8	19/32	1	2 1/4	2 9/16
5	25/32	4 7/32	2 3/16	3 23/64	3/16	21/32	15/32	5/8	45/64	27/64	5/16	1 41/64	1 61/64	3 3/64	1 21/64	1 7/16	5/64	1 1/64	1 33/64	1 43/64	1 23/32	47/64	1 1/4	2 13/16	3 13/64
6	15/16	5 1/16	2 5/8	4 1/32	15/64	51/64	9/16	3/4	27/32	33/64	3/8	1 31/32	2 11/32	3 21/32	1 19/32	1 47/64	3/32	1 7/32	1 53/64	2 1/64	2 1/16	57/64	1 1/2	3 3/8	3 27/32
7	1 3/32	5 29/32	3 1/16	4 45/64	17/64	59/64	21/32	7/8	63/64	19/32	7/16	2 19/64	2 47/64	4 17/64	1 55/64	2 1/64	7/64	1 27/64	2 1/8	2 11/32	2 13/32	1 1/32	1 3/4	3 15/16	4 31/64
8	1 1/4	6 3/4	3 1/2	5 3/8	5/16	1 1/16	3/4	1	1 1/8	11/16	1/2	2 5/8	3 1/8	4 7/8	2 1/8	2 5/16	1/8	1 5/8	2 7/16	2 11/16	2 3/4	1 3/16	2	4 1/2	5 1/8
12	1 7/8	10 1/8	5 1/4	8 1/16	15/32	1 19/32	1 1/8	1 1/2	1 11/16	1 1/32	3/4	3 15/16	4 11/16	7 5/16	3 3/16	3 15/32	3/16	2 7/16	3 21/32	4 1/32	4 1/8	1 25/32	3	[redacted] 3/4	7 11/16
18	2 13/16	15 3/16	7 7/8	12 3/32	11/16	2 3/8	1 11/16	2 1/4	2 17/32	1 9/16	1 1/8	5 29/32	7 1/32	10 31/32	4 25/32	5 3/16	9/32	3 21/32	5 1/2	6 1/16	6 3/16	2 11/16	4 1/2	10 1/8	11 17/32

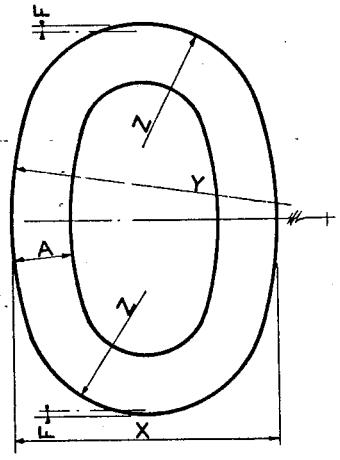






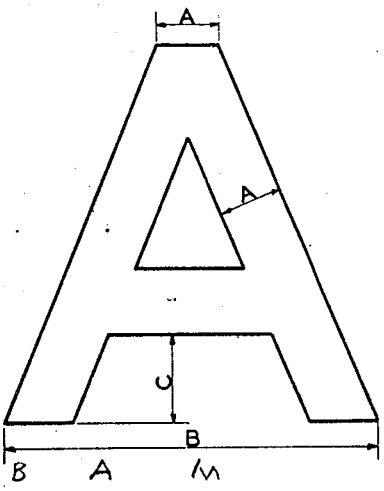


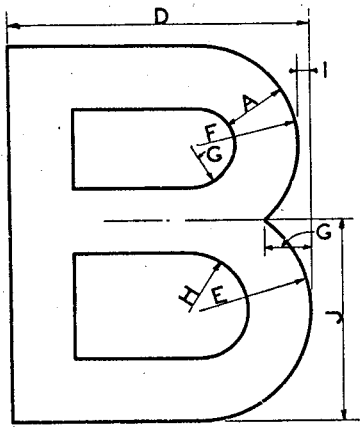


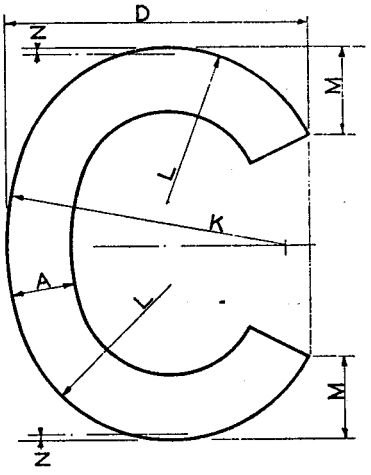


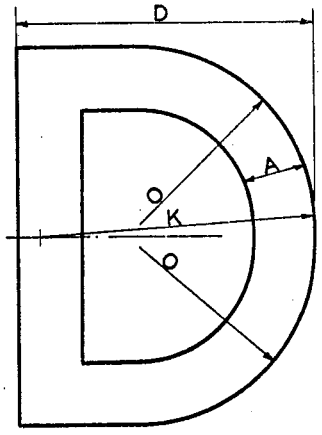
SERIES D NUMERALS

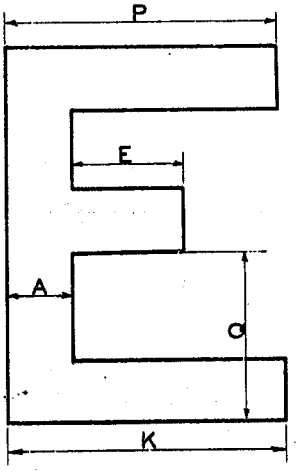
HEIGHT (INCHES)	DIMENSIONS (INCHES)																								
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
2	5/16	1 11/32	1 7/16	43/64	1 1/64	1/32	1 1/32	3/32	7/64	3/64	1 25/32	23/32	37/64	39/64	1 7/32	3	19/32	39/64	33/64	11/16	1 1/8	15/64	5/64	1 13/32	2	41/64
3	■	2 1/64	2 5/32	1	1 33/64	3/64	1 39/64	9/64	5/32	1/16	2 43/64	1 5/64	55/64	29/32	1 53/64	4 1/2	57/64	29/32	49/64	1 1/32	1 11/16	11/32	7/64	2 27/64	3	61/64
4	5/8	2 11/16	2 7/8	1 11/32	2 1/32	1/16	2 1/16	3/16	7/32	3/32	3 3/16	1 7/16	1 55/32	1 7/32	2 7/16	6	1 3/16	1 7/32	1 1/32	1 7/8	2 1/4	15/32	5/32	2 13/16	4	1 9/32
5	25/32	3 23/64	3 19/32	1 43/64	2 17/32	5/64	2 37/64	15/64	17/64	7/64	4 29/64	1 51/64	1 7/16	1 35/64	3 3/64	7 1/2	1 31/64	1 33/64	1 9/32	1 23/32	2 13/16	17/64	3/16	3 1/2	5	1 19/32
6	19/16	4 1/32	4 5/16	2 1/64	3 3/64	3/32	3 3/32	9/32	21/64	9/64	5 11/32	2 5/32	1 47/64	1 53/64	3 21/32	9	1 59/32	1 33/64	1 35/64	2 1/16	3 3/8	45/64	15/64	4 7/32	6	1 59/64
7	1 3/32	4 45/64	5 1/32	2 11/32	3 35/64	7/64	3 39/64	21/64	3/8	5/32	6 15/64	2 33/64	2 1/64	2 1/8	4 17/64	10 1/2	2 5/64	2 1/8	1 51/64	2 13/32	3 15/16	13/16	17/64	4 53/64	7	2 15/64
8	1 1/4	5 3/8	5 3/4	2 11/16	4 1/16	1/8	4 1/8	3/8	7/16	3/16	7 1/8	2 3/8	2 5/16	2 7/16	4 7/8	12	2 3/8	2 7/16	2 1/16	2 3/4	4 1/2	15/16	5/16	5 5/8	8	2 9/16
12	1 7/8	8 1/16	8 5/8	4 1/32	6 3/32	3/16	6 3/16	9/16	21/32	9/32	10 11/16	4 5/16	3 15/32	3 31/32	7 7/16	18	3 9/16	3 21/32	3 3/32	4 1/8	6 3/4	1 13/32	15/32	8 7/16	12	3 27/32
18	2 13/16	12 3/32	12 15/16	6 1/16	9 5/32	9/32	9 9/32	27/32	1	7/16	16 1/32	6 15/32	5 3/16	5 15/32	10 31/32	27	5 11/32	5 1/2	4 5/8	6 3/16	10 1/8	2 1/8	1 1/16	12 21/32	18	5 3/4

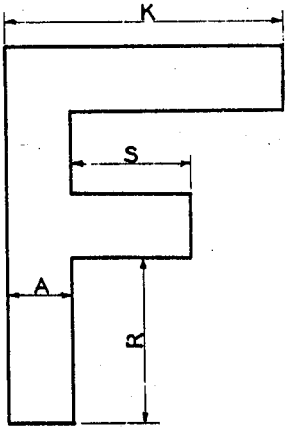






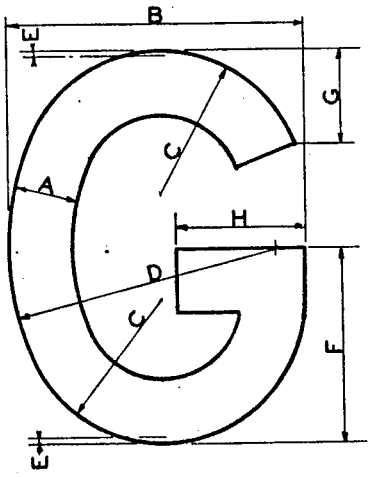


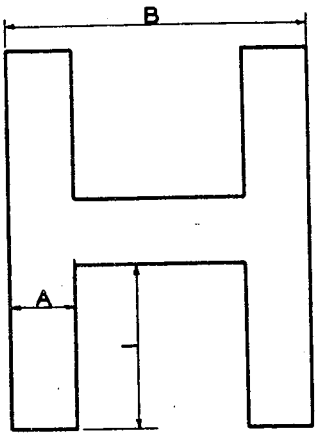


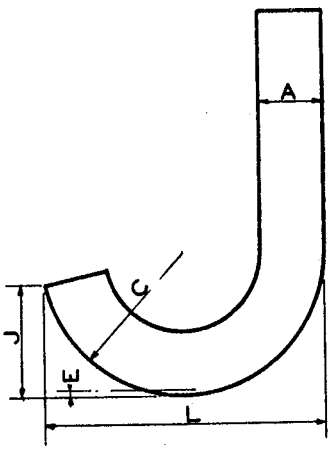


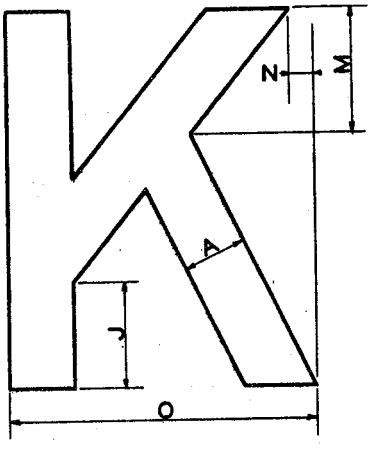
SERIES E LETTERS

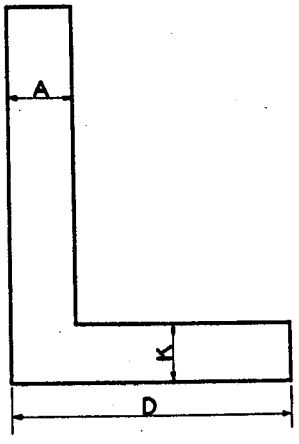
HEIGHT (INCHES)	DIMENSIONS (INCHES)																		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
2	11/32	2	15/32	1 19/32	19/32	17/32	1/4	5/16	1/16	1 1/16	1 15/32	53/64	7/16	1/32	15/16	1 7/16	29/32	7/8	5/8
3	33/64	3	45/64	2 25/64	57/64	51/64	3/8	15/32	3/32	1 19/32	2 13/64	1 15/64	21/32	3/64	1 13/32	2 5/32	1 23/64	1 5/16	15/16
4	11/16	4	15/16	3 3/16	1 3/16	1 1/16	1/2	5/8	1/8	2 1/8	2 15/16	1 21/32	7/8	1/16	1 7/8	2 7/8	1 13/16	1 3/4	1 1/4
5	55/64	5	1 11/64	3 53/64	1 31/64	1 21/64	5/8	25/32	5/32	2 21/32	3 43/64	2 1/16	1 3/32	5/64	2 11/32	3 19/32	2 17/64	2 3/16	1 9/16
6	1 1/32	6	1 13/32	4 25/32	1 25/32	1 19/32	3/4	15/16	3/16	3 3/16	4 13/32	2 31/64	1 5/16	3/32	2 13/16	5/16	2 23/32	2 5/8	1 7/8
7	1 13/64	7	1 41/64	5 37/64	2 5/64	1 55/64	7/8	1 3/32	7/32	3 23/32	5 9/64	2 57/64	1 17/32	7/64	3 9/32	5 1/32	3 11/64	3 1/16	2 3/16
8	1 3/8	8	1 7/8	6 3/8	2 3/8	2 1/8	1	1 1/4	1/4	1/4	5 7/8	3 5/16	1 3/4	1/8	3 3/4	5 3/4	3 5/8	3 1/2	2 1/2
12	2 1/16	12	2 13/16	9/16	3 9/16	3 3/16	1 1/2	1 7/8	3/8	6 3/8	8 13/16	4 31/32	2 5/8	3/16	5 5/8	8 5/8	5 7/16	5 1/4	3 3/4
18	3 3/32	18	4 7/32	14 11/32	5 11/32	4 25/32	2 1/4	2 13/16	9/16	9/16	13 7/32	7 29/64	3 15/16	9/32	8 7/16	12 15/16	8 5/32	7 7/8	5 5/8





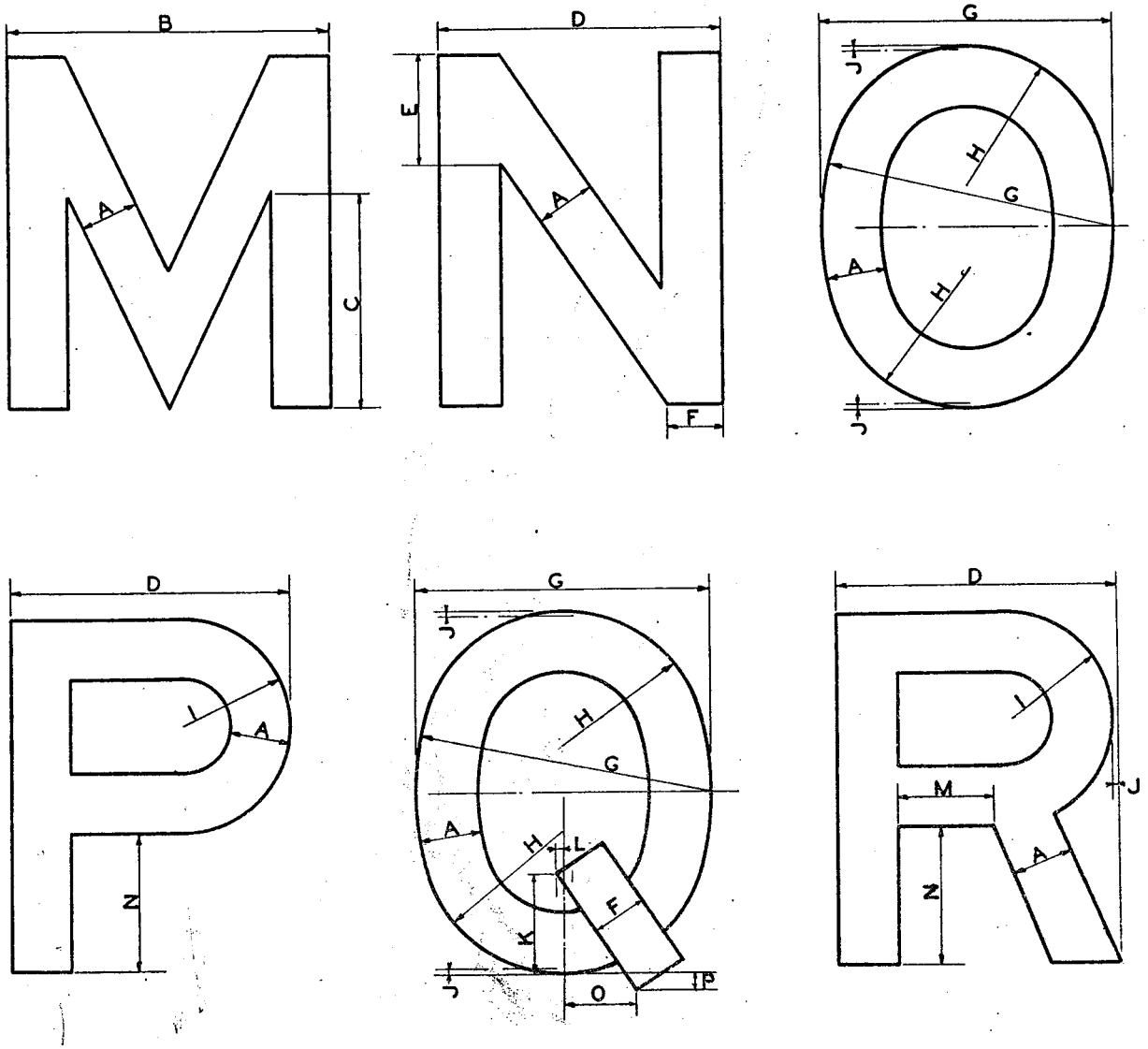






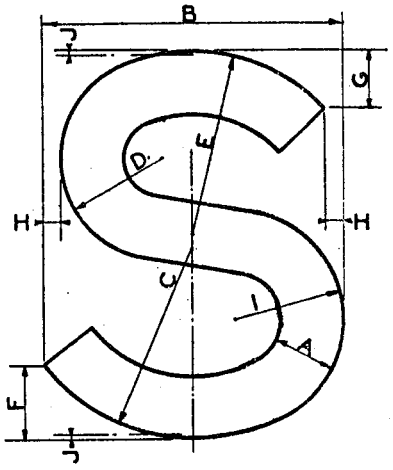
SERIES E LETTERS

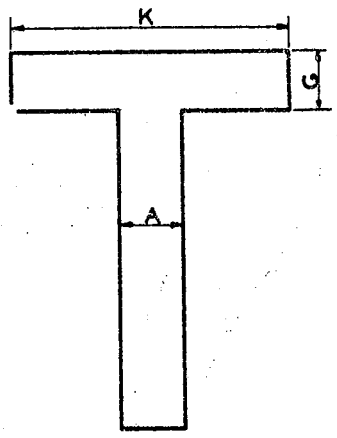
HEIGHT (INCHES)	DIMENSIONS (INCHES)														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
2	11/32	1 19/32	43/64	1 15/32	1/32	1 1/32	1/2	11/16	7/8	9/16	5/16	1 1/2	21/32	1/8	1 5/8
3	33/64	2 25/64	1 9/64	2 13/64	3/64	1 35/64	3/4	1 1/32	1 5/16	27/32	15/32	2 1/4	63/64	3/16	2 7/16
4	11/16	3 3/16	1 17/32	2 1/16	1/16	2 1/16	1	1 3/8	1 3/4	1 1/8	5/8	3	1 5/16	1/4	3 1/4
5	55/64	3 63/64	1 29/32	3 43/64	5/64	2 37/64	1 1/4	1 23/32	2 3/16	1 13/32	25/32	3 3/4	1 31/64	5/16	4 1/16
6	1 1/32	4 25/32	2 19/64	4 13/32	3/32	3 3/32	1 1/2	2 1/16	2 5/8	1 11/16	15/16	4 1/2	1 31/32	3/8	4 7/8
7	1 13/64	5 37/64	2 43/64	5 9/64	7/64	3 39/64	1 3/4	2 13/32	3 1/16	1 31/32	1 3/32	5 1/4	2 19/64	7/16	5 11/16
8	1 3/8	6 3/8	3 1/16	5 7/8	1/8	4 1/8	2	2 3/4	3 1/2	2 1/4	1 1/4	6	2 5/8	1/2	6 1/2
12	2 1/16	9 9/16	4 13/32	8 13/16	3/16	6 3/16	5	4 1/8	5 1/4	3 3/8	1 7/8	9	3 15/16	3/4	9 3/4
18	3 3/32	14 11/32	6 57/64	13 7/32	9/32	9 9/32	4 1/2	6 3/16	7 7/8	5 1/16	2 13/16	13 1/2	5 29/32	1 1/8	14 5/8

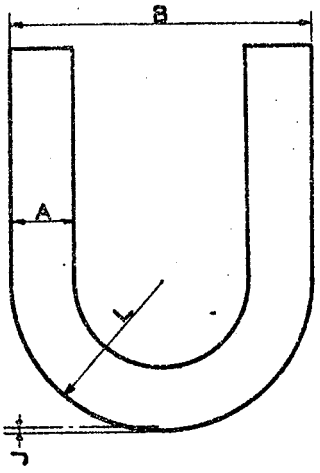


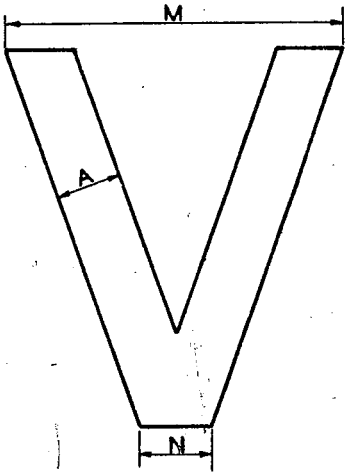
SERIES E LETTERS

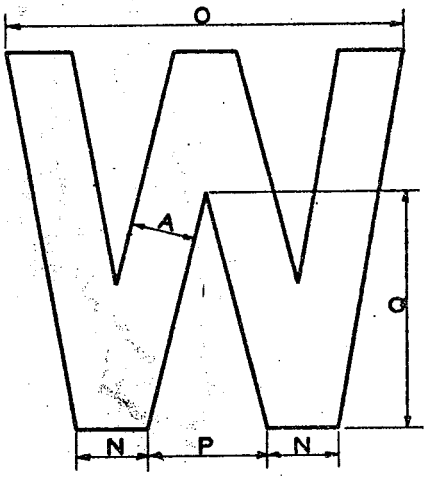
HEIGHT (INCHES)	DIMENSIONS (INCHES)															
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
2	11/32	1 27/32	1 7/32	1 19/32	5/8	5/16	1 21/32	51/64	39/64	1/32	9/16	3/64	17/32	25/32	13/32	3/32
3	33/64	2 49/64	1 53/64	2 25/64	15/16	15/32	2 31/64	1 3/16	29/32	3/64	27/32	1/16	51/64	1 11/64	39/64	9/64
4	11/16	3 11/16	2 7/16	3 3/16	1 1/4	5/8	3 5/16	1 19/32	1 7/32	1/16	1 1/8	3/32	1 1/16	1 9/16	13/16	3/16
5	55/64	4 39/64	3 3/64	3 63/64	1 9/16	25/32	4 9/64	1 63/64	1 33/64	5/64	1 13/32	7/64	1 21/64	1 61/64	1 1/64	15/64
6	1 1/32	5 17/32	3 21/32	4 25/32	1 7/8	15/16	4 31/32	2 [redacted]	1 33/64	3/32	1 11/16	9/64	1 19/32	2 11/32	1 7/32	9/32
7	1 13/64	6 29/64	4 17/64	5 37/64	2 3/16	1 3/32	5 51/64	2 25/32	2 1/8	7/64	1 31/32	5/32	1 53/64	2 [redacted]	1 27/64	21/64
8	1 3/8	7 3/8	4 7/8	6 3/8	2 1/2	1 1/4	6 5/8	3 3/16	2 7/16	1/8	2 1/4	3/16	2 1/8	3 1/8	1 5/8	3/8
12	2 1/16	11 1/16	7 5/16	9 9/16	3 3/4	1 7/8	9 15/16	4 25/32	3 21/32	3/16	3 3/8	9/32	3 3/16	4 11/16	2 7/16	9/16
18	3 3/32	16 19/32	10 31/32	14 11/32	5 5/8	2 13/16	14 29/32	7 11/64	5 1/2	9/32	5 1/16	7/16	4 25/32	7 1/32	3 21/32	27/32

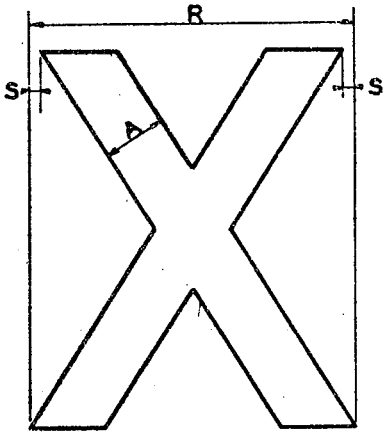






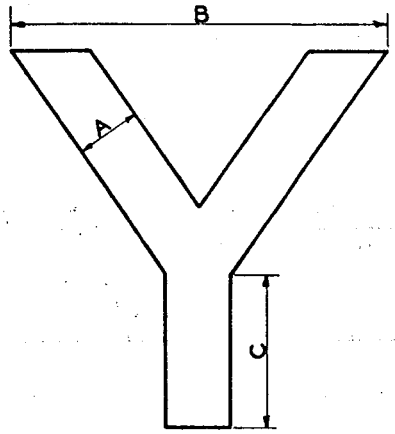


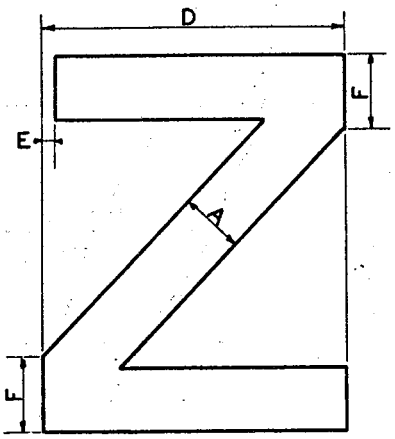


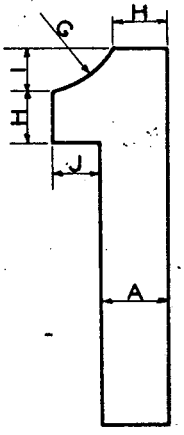


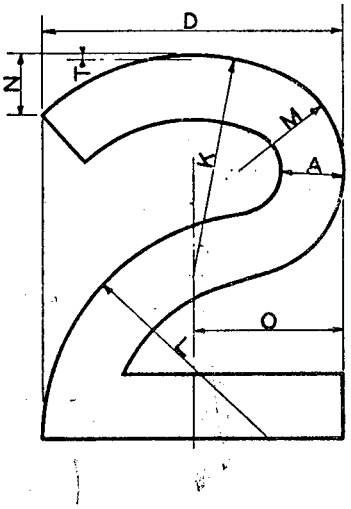
SERIES E LETTERS

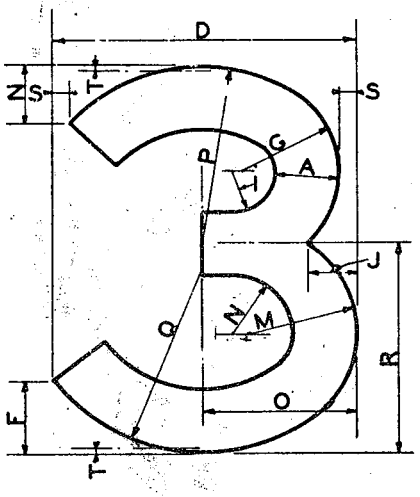
HEIGHT (INCHES)	DIMENSIONS (INCHES)																		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
2	11/32	1 19/32	1	17/32	31/32	25/64	5/16	3/32	37/64	1/32	1 15/32	51/64	1 13/16	3/8	2 3/32	5/8	1 1/4	1 23/32	1/16
3	33/64	2 25/64	1 1/2	51/64	1 29/64	37/64	15/32	9/64	55/64	3/64	2 13/64	1 3/16	2 23/32	9/16	3 9/64	15/16	1 7/8	2 37/64	3/32
4	11/16	3 3/16	2	1 1/16	1 15/16	25/32	5/8	3/16	1 5/32	1/16	2 15/16	1 19/32	3 5/8	3/4	4 3/16	1 1/4	2 1/2	3 7/16	1/8
5	55/64	3 63/64	2 1/2	1 21/64	2 27/64	31/32	25/32	15/64	1 7/16	5/64	3 43/64	1 63/64	4 17/32	15/16	5 15/64	1 9/16	3 1/8	4 19/64	3/32
6	1 1/32	4 25/32	3	1 19/32	2 29/32	1 11/64	15/16	9/32	1 47/64	3/32	4 13/32	2 25/64	5 7/16	1 1/8	6 9/32	1 7/8	3 3/4	5 5/32	3/16
7	1 13/64	5 37/64	3 1/2	1 25/64	3 25/64	1 23/64	1 3/32	21/64	2 1/64	7/64	5 9/64	2 25/32	6 11/32	1 5/16	7 21/64	2 3/16	4 3/8	6 1/64	7/32
8	1 3/8	6 3/8	4	2 1/8	3 7/8	1 9/16	1 1/4	3/8	2 5/16	1/8	5 7/8	3 3/16	7 1/4	1 1/2	8 3/8	2 1/2	5	6 7/8	1/4
12	2 1/16	9 9/16	6	3 3/16	5 13/16	2 11/32	1 7/8	9/16	3 15/32	3/16	8 13/16	4 23/32	10 7/8	2 1/4	12 9/16	3 3/4	7 1/2	10 5/16	3/8
18	3 3/32	14 11/32	9	4 25/32	8 23/32	3 1/2	2 13/16	27/32	5 3/16	9/32	13 7/32	7 11/64	16 5/16	3 3/8	18 27/32	5 5/8	11 1/4	15 15/32	9/16

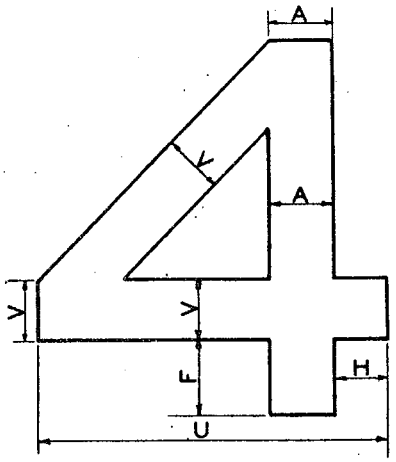






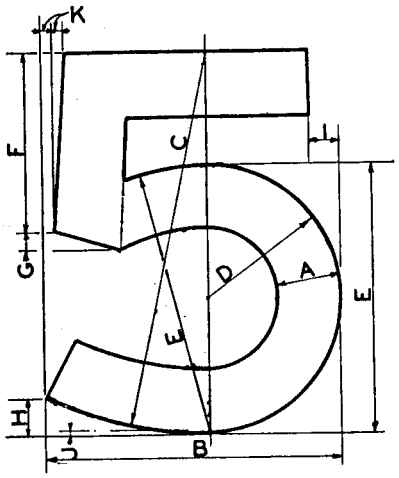


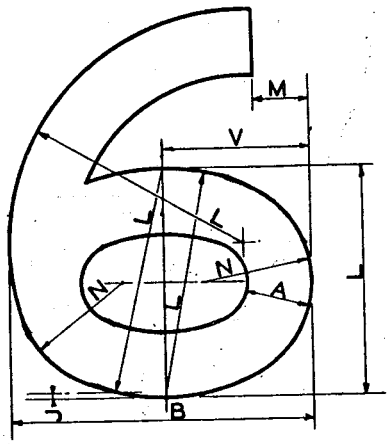


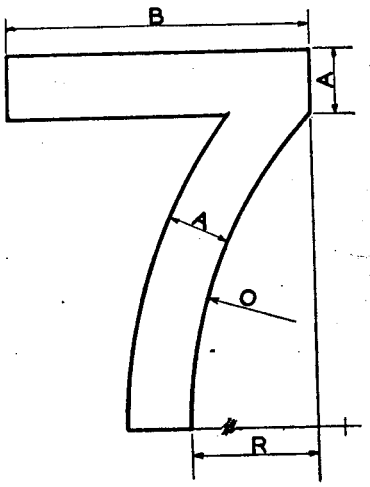


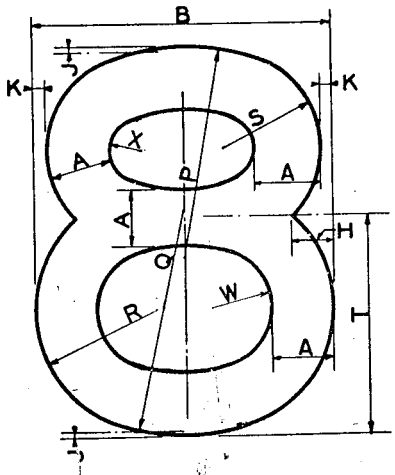
SERIES E LETTERS AND NUMERALS

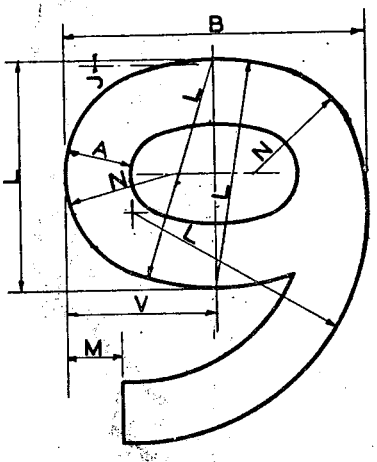
HEIGHT (INCHES)	DIMENSIONS (INCHES)																				
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
2	11/32	2	13/16	1 19/32	1/16	13/32	1/2	9/32	7/32	1/4	1 3/16	1 7/32	9/16	5/16	51/64	15/16	1	1 1/8	3/32	1/32	1 27/32	21/64
3	33/64	3	1 7/32	2 25/64	3/32	39/64	3/4	27/64	21/64	3/8	1 25/32	1 53/64	27/32	15/32	1 3/16	1 13/32	1 1/2	1 11/16	9/64	3/64	2 49/64	■
4	11/16	4	1 3/8	3 3/16	1/8	13/16	1	9/16	7/16	1/2	2 3/8	2 7/16	1 1/8	9/8	1 19/32	1 7/8	2	2 1/4	3/16	1/16	3 11/16	21/32
5	55/64	5	2 1/32	3 63/64	5/32	1 1/64	1 1/4	45/64	35/64	5/8	2 31/32	3 3/64	1 13/32	25/32	1 63/64	2 11/32	2 1/2	2 13/16	15/64	5/64	4 39/64	13/16
6	1 1/32	6	2 7/16	4 25/32	3/16	1 7/32	1 1/2	27/32	21/32	3/4	3 9/16	3 21/32	1 11/16	15/16	2 23/64	2 13/16	3	3 3/8	9/32	3/32	5 17/32	63/64
7	1 13/64	7	2 27/32	5 37/64	7/32	1 27/64	1 3/4	63/64	49/64	7/8	4 5/32	4 17/64	1 31/32	1 3/32	2 25/32	3 9/32	3 1/2	3 15/16	21/64	7/64	6 29/64	1 9/64
8	1 3/8	8	3 1/4	6 3/8	1/4	1 5/8	2	1 1/8	7/8	1	4 3/4	4 7/8	2 1/4	1 1/4	3 3/16	3 3/4	4	4 1/2	3/8	1/8	7 3/8	1 5/16
12	2 1/16	12	4 7/8	9 9/16	3/8	2 7/16	3	1 11/16	1 5/16	1 1/2	7 1/8	7 5/16	3 3/8	1 7/8	4 25/32	5 5/8	6	6 3/4	9/16	3/16	11 1/16	1 31/32
18	3 3/32	18	7 5/16	14 11/32	9/16	3 21/32	4 1/2	2 17/32	1 31/32	2 1/4	10 11/16	10 31/32	5 1/16	2 13/16	7 5/32	8 7/16	9	10 1/8	27/32	9/32	18 19/32	2 15/16

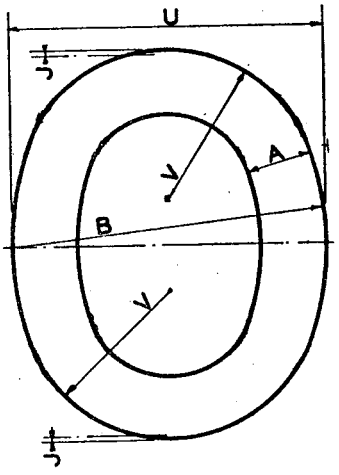






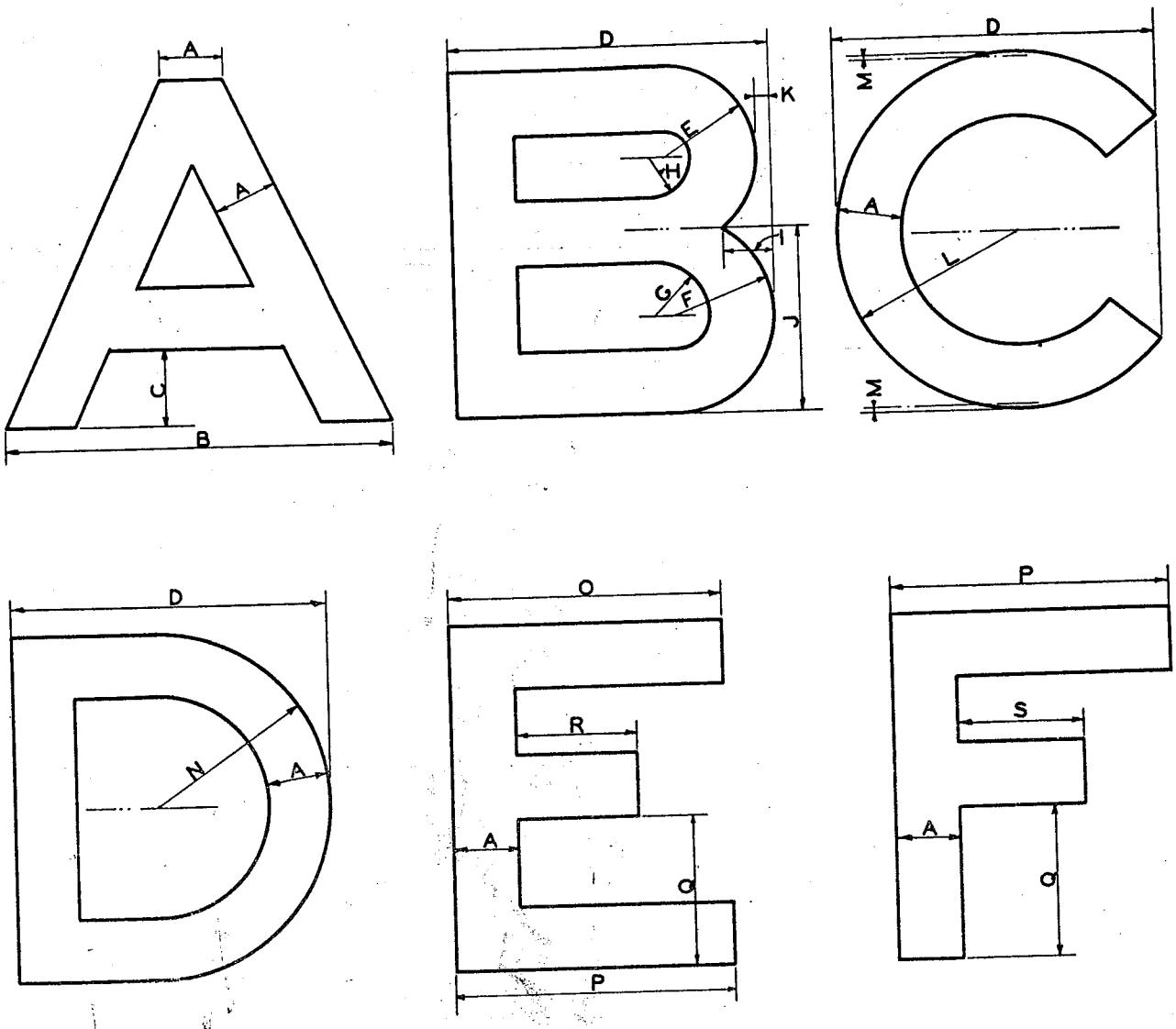






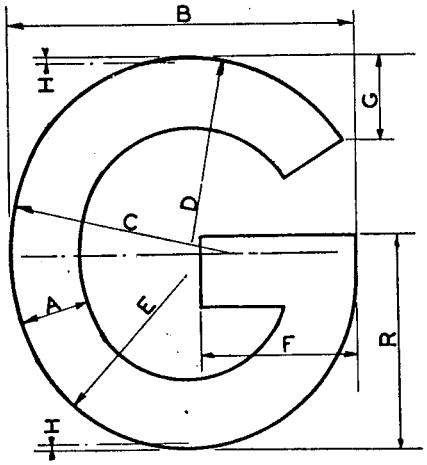
SERIES E NUMERALS

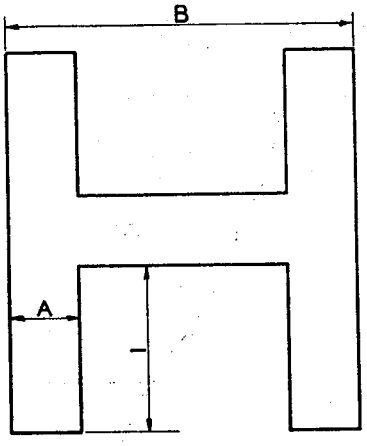
HEIGHT (INCHES)	DIMENSIONS (INCHES)																						
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
2	11/32	1 19/32	2 1/32	23/32	1 7/16	15/16	3/32	7/32	5/32	1/32	1/16	1 7/32	9/32	9/16	2 7/16	1 7/64	1 3/16	21/32	31/64	1 5/32	1 21/32	25/32	19/64	9/64
3	33/64	2 25/64	3 3/64	1 5/64	2 5/32	1 13/32	9/64	21/64	15/64	3/64	3/32	1 53/64	27/64	27/32	3 61/32	1 21/32	1 25/32	63/64	3/4	1 47/64	2 31/64	1 11/64	7/16	7/32
4	11/16	3 3/16	4 1/16	1 7/16	2 7/8	1 7/8	3/16	7/16	9/16	1/16	1/8	2 7/16	9/16	1 1/8	4 7/8	2 7/32	2 3/8	1 5/16	1 63/64	2 5/16	3 5/16	1 3/16	19/32	17/64
5	25/64	3 63/64	5 5/64	1 51/64	3 13/32	2 11/32	[redacted]	35/64	25/64	5/64	5/32	3 3/64	45/64	1 13/32	6 3/32	2 49/64	2 31/32	1 41/64	1 15/64	2 27/64	4 9/64	1 61/64	47/64	23/64
6	1 1/32	4 25/32	6 3/32	2 5/32	4 5/16	2 13/16	9/32	21/32	15/32	3/32	3/16	3 21/32	27/32	1 11/16	7 5/16	3 21/64	3 9/16	1 31/32	1 31/64	3 15/32	4 31/32	2 11/32	57/64	27/64
7	1 13/64	5 37/64	7 7/64	2 33/64	5 1/32	3 9/32	21/64	49/64	35/64	7/64	7/32	4 17/64	63/64	1 31/32	8 17/32	3 7/8	4 5/32	2 19/64	1 47/64	4 3/64	5 61/64	2 47/64	1 1/32	1/2
8	1 3/8	6 3/8	8 1/8	2 7/8	5 3/4	3 3/4	3/8	7/8	5/8	1/8	1/4	4 7/8	1 1/8	2 1/4	9 3/4	4 7/16	4 3/4	2 5/8	1 63/64	4 5/8	6 5/8	3 1/8	1 3/16	17/32
12	2 1/16	9 9/16	12 3/16	4 5/16	8 5/8	5 5/8	9/16	1 5/16	15/16	3/16	3/8	7 5/16	1 11/16	3 3/8	14 5/8	6 21/32	7 1/8	3 15/16	2 31/32	6 15/16	9 15/16	4 11/16	1 25/32	27/32
18	3 3/32	14 11/32	18 9/32	6 15/32	12 15/16	8 7/16	27/32	1 31/32	1 13/32	9/32	9/16	10 31/32	2 17/32	5 1/16	21 15/16	9 63/64	10 11/16	5 29/32	4 29/64	10 13/32	14 29/32	7 1/32	2 43/64	1 17/64

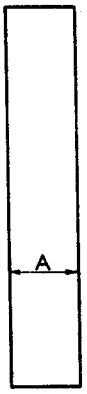


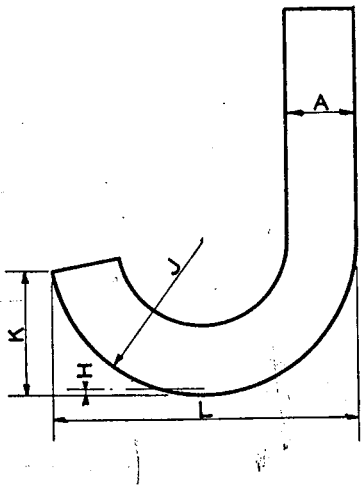
SERIES F LETTERS

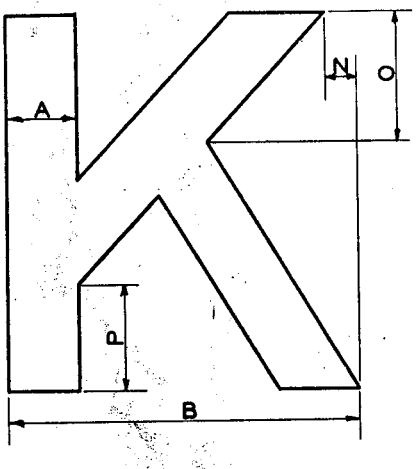
HEIGHT (INCHES)	DIMENSIONS (INCHES)																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
2	3/8	2 1/4	7/16	1 27/32	17/32	9/16	5/16	7/32	9/32	1 1/16	3/32	1 1/32	1/32	1	1 9/16	1 19/32	7/8	11/16	23/32
3	9/16	3 3/8	21/32	2 49/64	51/64	27/32	15/32	21/64	27/64	1 19/32	9/64	1 35/64	3/64	1 1/2	2 11/32	2 25/64	1 5/16	1 1/32	1 5/64
4	3/4	4 1/2	7/8	3 11/16	1 1/16	1 1/8	5/8	7/16	9/16	2 1/8	3/16	2 1/16	1/16	2	3 1/8	3 3/16	1 3/4	1 3/8	1 7/16
5	15/16	5 5/8	1 3/32	4 39/64	1 21/64	1 13/32	25/32	35/64	45/64	2 21/32	15/64	2 37/64	5/64	2 1/2	3 29/32	3 63/64	2 3/16	1 23/32	1 51/64
6	1 1/8	6 3/4	1 5/16	5 17/32	1 19/32	1 11/16	15/16	21/32	27/32	3 3/16	9/32	3 3/32	3/32	3	4 11/16	4 25/32	2 5/8	2 1/16	2 5/32
7	1 5/16	7 7/8	1 17/32	6 29/64	1 55/64	1 31/32	1 3/32	49/64	63/64	3 23/32	21/64	3 39/64	7/64	3 1/2	5 15/32	5 27/64	3 1/16	2 13/32	2 33/64
8	1 1/2	9	1 3/4	7 3/8	2 1/8	2 1/4	1 1/4	7/8	1 1/8	4 1/4	3/8	4 1/8	1/8	4	6 1/4	6 3/8	3 1/2	2 3/4	2 7/8
12	2 1/4	13 1/2	2 5/8	11 1/16	3 3/16	3 3/8	1 7/8	1 5/16	1 11/16	6 3/8	9/16	6 7/16	3/16	6	9 3/8	9 9/16	5 1/4	4 1/8	4 5/16
18	3 3/8	20 1/4	3 15/16	16 19/32	4 25/32	5 1/16	2 13/16	1 31/32	2 17/32	9 9/16	27/32	9 9/32	9/32	9	14 1/16	14 11/32	7 7/8	6 3/16	6 15/32

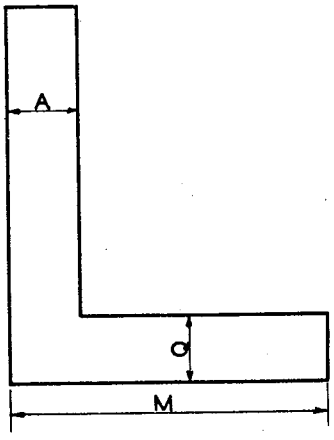






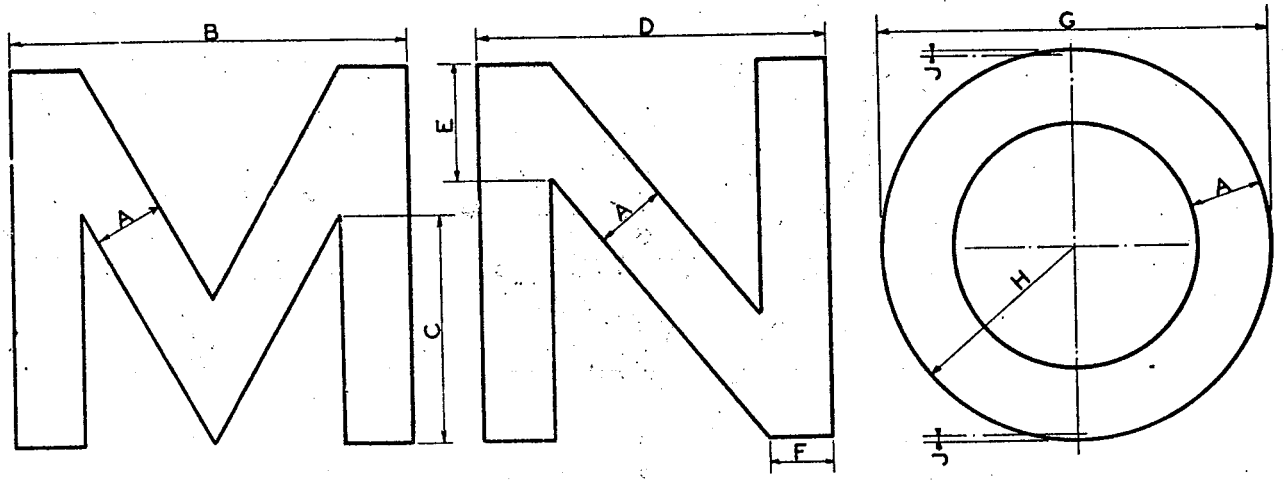


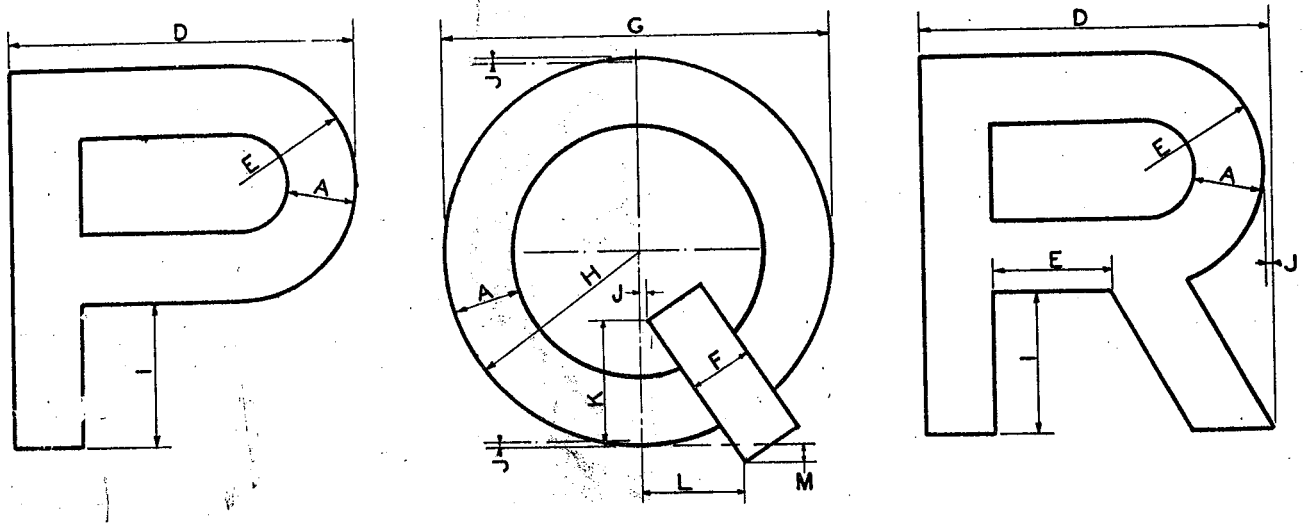




SERIES F LETTERS

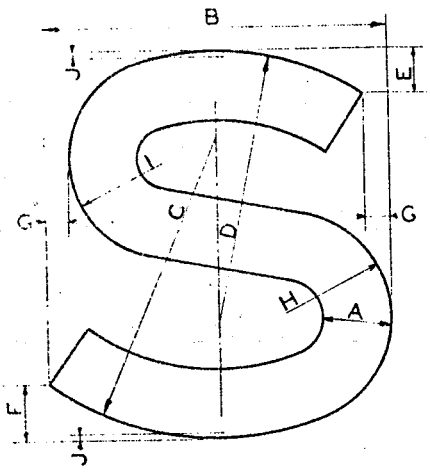
HEIGHT (INCHES)	DIMENSIONS (INCHES)																
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
2	3/8	1 27/32	1 3/16	31/32	29/32	27/32	7/16	1/32	7/8	13/16	21/32	1 5/8	1 11/16	5/32	11/16	9/16	11/32	1 1/8
3	9/16	2 49/64	1 25/32	1 29/64	1 23/64	1 17/64	21/32	3/64	1 5/16	1 7/32	63/64	2 7/16	2 17/32	15/64	1 1/32	27/32	33/64	1 11/16
4	3/4	3 11/16	2 3/8	1 15/16	1 13/16	1 11/16	7/8	1/16	1 3/4	1 5/8	1 5/16	3 1/4	3 3/8	5/16	1 3/8	1 1/8	11/16	2 1/4
5	15/16	4 39/64	2 31/32	2 27/64	2 17/64	2 7/64	1 3/32	5/64	2 3/16	2 1/32	1 41/64	4 1/16	4 7/32	25/64	1 23/32	1 13/32	55/64	2 13/16
6	1 1/8	5 17/32	3 9/16	2 29/32	2 23/32	2 17/32	1 5/16	3/32	2 5/8	2 7/16	1 31/32	4 7/8	5 1/16	15/32	2 1/16	1 11/16	1 1/32	3 3/8
7	1 5/16	6 29/64	4 5/32	3 25/64	3 11/64	2 61/64	1 17/32	7/64	3 1/16	2 27/32	2 19/64	5 11/16	5 29/32	35/64	2 13/32	1 31/32	1 13/64	3 15/16
8	1 1/2	7 3/8	4 3/4	3 7/8	3 5/8	3 3/8	1 3/4	1/8	3 1/2	3 1/4	2 5/8	6 1/2	6 3/4	5/8	2 3/4	2 1/4	1 3/8	4 1/2
12	2 1/4	11 1/16	7 1/8	5 13/16	5 7/16	5 1/16	2 5/8	3/16	5 1/4	4 7/8	3 15/16	9 3/4	10 1/8	15/16	4 1/8	3 3/8	2 1/16	6 3/4
18	3 3/8	16 19/32	10 11/16	8 23/32	8 5/32	7 19/32	3 15/16	9/32	7 7/8	7 5/16	5 29/32	14 5/8	15 3/16	1 13/32	6 3/16	5 1/16	3 3/32	10 1/8

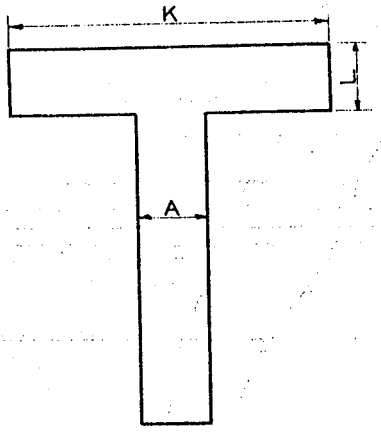


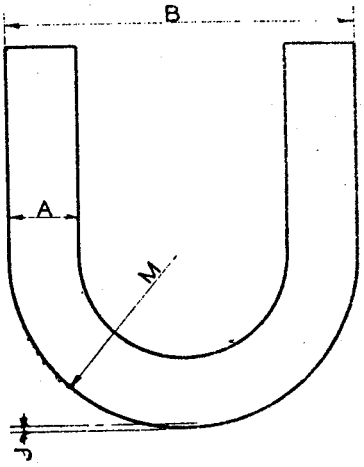


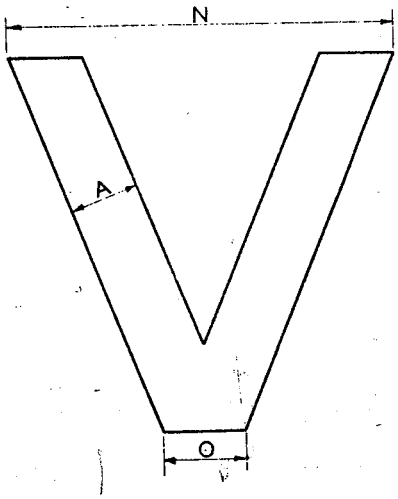
SERIES F LETTERS

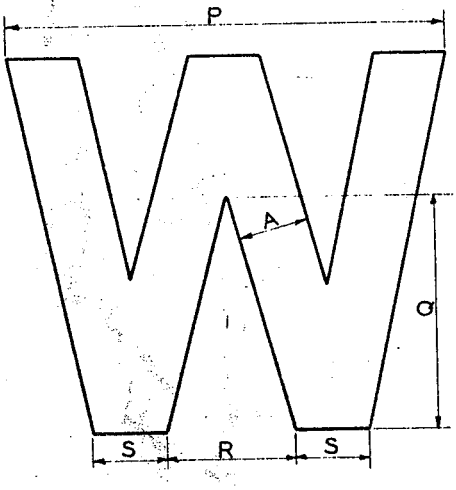
HEIGHT (INCHES)	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	I	J	K	L	M
2	$\frac{3}{8}$	$2\frac{1}{8}$	$1\frac{3}{16}$	$1\frac{27}{32}$	$\frac{5}{8}$	$\frac{11}{32}$	$2\frac{1}{16}$	$1\frac{1}{32}$	$\frac{3}{4}$	$\frac{1}{32}$	$\frac{21}{32}$	$\frac{17}{32}$	$\frac{3}{32}$
3	$\frac{9}{16}$	$3\frac{3}{16}$	$1\frac{25}{32}$	$2\frac{49}{64}$	$\frac{15}{16}$	$\frac{33}{64}$	$3\frac{3}{32}$	$1\frac{35}{64}$	$1\frac{1}{8}$	$\frac{3}{64}$	$\frac{63}{64}$	$\frac{51}{64}$	$\frac{9}{64}$
4	$\frac{3}{4}$	$4\frac{1}{4}$	$2\frac{3}{8}$	$3\frac{11}{16}$	$1\frac{1}{4}$	$\frac{11}{16}$	$4\frac{1}{8}$	$2\frac{1}{16}$	$1\frac{1}{2}$	$\frac{1}{16}$	$1\frac{5}{16}$	$1\frac{1}{16}$	$\frac{3}{16}$
5	$\frac{15}{16}$	$5\frac{5}{16}$	$2\frac{31}{32}$	$4\frac{39}{64}$	$1\frac{9}{16}$	$\frac{55}{64}$	$5\frac{5}{32}$	$2\frac{37}{64}$	$1\frac{7}{8}$	$\frac{5}{64}$	$1\frac{41}{64}$	$1\frac{21}{64}$	$\frac{15}{64}$
6	$1\frac{1}{8}$	$6\frac{3}{8}$	$3\frac{9}{16}$	$5\frac{17}{32}$	$1\frac{7}{8}$	$1\frac{1}{32}$	$6\frac{3}{16}$	$3\frac{3}{32}$	$2\frac{1}{4}$	$\frac{3}{32}$	$1\frac{31}{32}$	$1\frac{19}{32}$	$\frac{9}{32}$
7	$1\frac{5}{16}$	$7\frac{7}{16}$	$4\frac{5}{32}$	$6\frac{29}{64}$	$2\frac{3}{16}$	$1\frac{13}{64}$	$7\frac{7}{32}$	$3\frac{39}{64}$	$2\frac{5}{8}$	$\frac{7}{64}$	$2\frac{19}{64}$	$1\frac{55}{64}$	$\frac{21}{64}$
8	$1\frac{1}{2}$	$8\frac{1}{2}$	$4\frac{3}{4}$	$7\frac{3}{8}$	$2\frac{1}{2}$	$1\frac{3}{8}$	$8\frac{1}{4}$	$4\frac{1}{8}$	3	$\frac{1}{8}$	$2\frac{5}{8}$	$2\frac{1}{8}$	$\frac{3}{8}$
12	$2\frac{1}{4}$	$12\frac{3}{4}$	$7\frac{1}{8}$	$11\frac{1}{16}$	$3\frac{3}{4}$	$2\frac{1}{16}$	$12\frac{3}{8}$	$6\frac{3}{16}$	$4\frac{1}{2}$	$\frac{3}{16}$	$3\frac{15}{16}$	$3\frac{3}{16}$	$\frac{9}{16}$
18	$3\frac{3}{8}$	$19\frac{1}{8}$	$10\frac{11}{16}$	$16\frac{19}{32}$	$5\frac{5}{8}$	$3\frac{3}{32}$	$18\frac{9}{16}$	$9\frac{9}{32}$	$6\frac{3}{4}$	$\frac{9}{32}$	$5\frac{29}{32}$	$4\frac{25}{32}$	$\frac{27}{32}$

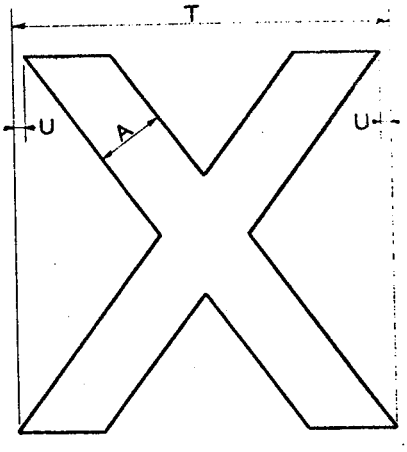






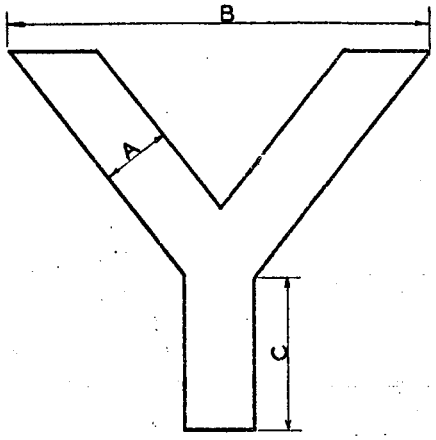


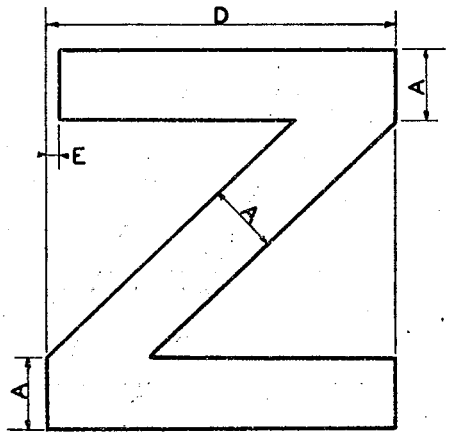


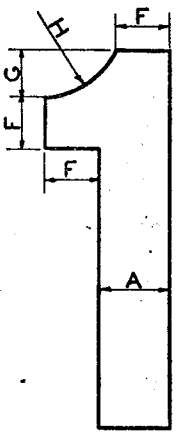


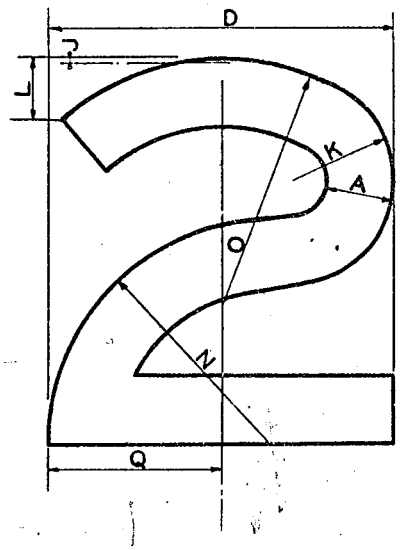
SERIES F LETTERS

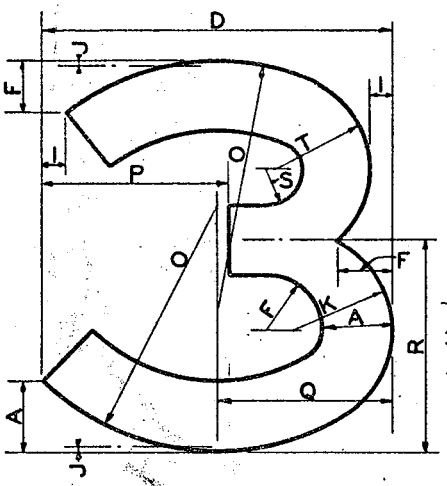
HEIGHT (INCHES)	DIMENSIONS (INCHES)																			
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
2	3/8	1 27/32	1 9/16	1 7/16	15/64	19/64	1/8	9/16	17/32	1/32	1 11/16	11/32	59/64	2 1/16	7/16	2 5/16	1 1/4	11/16	13/32	2	1/16
3	9/16	2 3/4	2 11/32	2 5/32	11/32	7/16	3/16	27/32	51/64	3/64	2 17/32	33/64	1 3/8	3 3/32	21/32	3 15/32	1 7/8	1 1/32	39/64	3	3/32
4	3/4	3 11/16	3 1/8	2 7/8	15/32	19/32	1/4	1 1/8	1 1/16	1/16	3 3/8	11/16	1 27/32	4 1/8	7/8	4 5/8	2 1/2	1 3/8	13/16	4	1/8
5	15/16	4 19/32	3 29/32	3 19/32	37/64	47/64	5/16	1 13/32	1 21/64	5/64	4 7/32	55/64	2 19/64	5 5/32	1 3/32	5 25/32	3 1/8	1 23/32	1 1/64	5	5/32
6	1 1/8	5 17/32	4 11/16	4 5/16	45/64	57/64	3/8	1 11/16	1 19/32	3/32	5 1/16	1 1/32	2 49/64	6 3/16	1 5/16	6 15/16	3 3/4	2 1/16	1 7/32	6	3/16
7	1 5/16	6 7/16	5 15/32	5 1/32	1 3/16	1 1/32	7/16	1 31/32	1 55/64	7/64	5 29/32	1 13/64	3 7/32	7 7/32	1 17/32	8 3/32	4 3/8	2 13/32	1 27/64	7	7/32
8	1 1/2	7 3/8	6 1/4	5 3/4	15/16	1 3/16	1/2	2 1/4	2 1/8	1/8	6 3/4	1 3/8	3 11/16	8 1/4	1 3/4	9 1/4	5	2 3/4	1 5/8	8	1/4
12	2 1/4	11 1/16	9 3/8	8 5/8	1 13/32	1 25/32	3/4	3 3/8	3 3/16	3/16	10 1/8	2 1/16	5 17/32	12 3/8	2 5/8	13 7/8	7 1/2	4 1/8	2 7/16	12	3/8
18	3 3/8	16 19/32	14 1/16	12 15/16	2 1/8	2 11/16	1 1/8	5 1/16	4 29/32	9/32	15 3/16	3 3/32	8 19/64	18 9/16	3 15/16	20 13/16	11 1/4	6 3/16	3 21/32	18	9/16

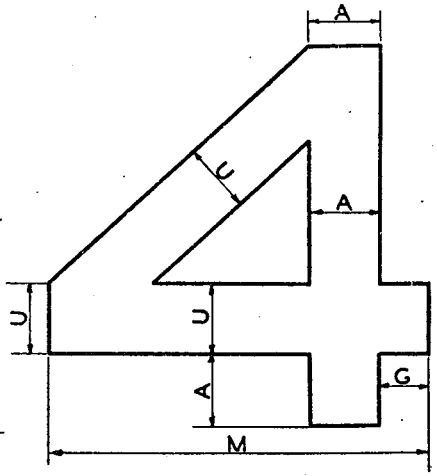






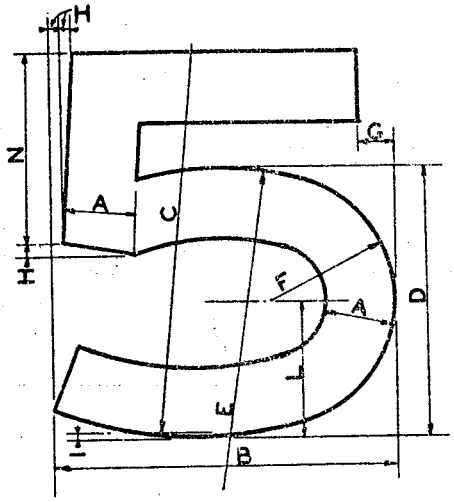


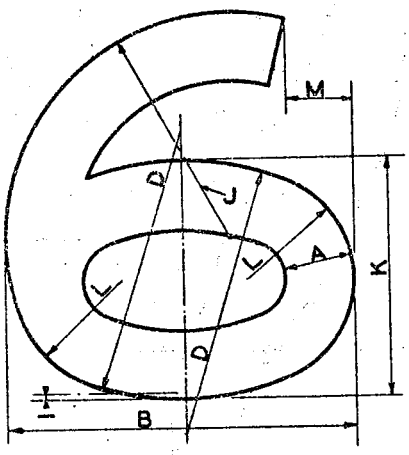


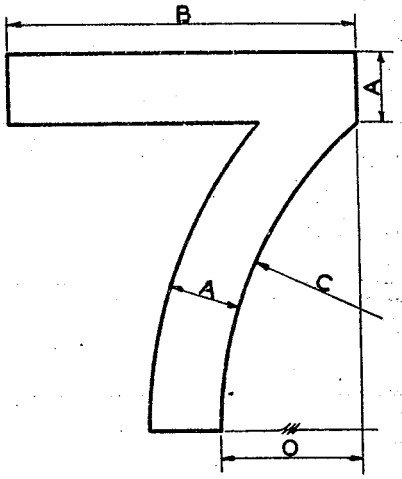


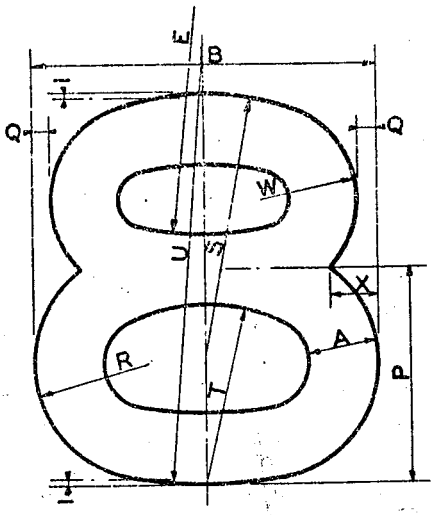
SERIES F LETTERS AND NUMERALS

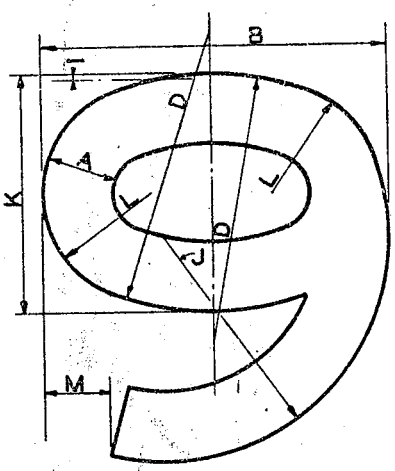
HEIGHT (INCHES)	DIMENSIONS (INCHES)																			
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
2	3/8	2 1/4	13/16	1 27/32	1/16	9/32	1/4	7/16	1/8	1/32	35/64	21/64	2	1 3/16	1 5/16	31/32	59/64	1 1/8	3/16	1/2	23/64
3	9/16	3 3/8	1 7/32	2 49/64	3/32	27/64	3/8	21/32	3/16	3/64	13/16	31/64	3	1 25/32	1 31/32	1 29/64	1 3/8	1 11/16	9/32	3/4	17/32
4	3/4	4 1/2	1 5/8	3 11/16	1/8	9/16	1/2	7/8	1/4	1/16	1 3/32	21/32	4	2 3/8	2 5/8	1 15/16	1 27/32	2 1/4	3/8	1	23/32
5	15/16	5 5/8	2 1/32	4 39/64	5/32	45/64	5/8	1 3/32	5/16	5/64	1 23/64	13/16	5	2 31/32	3 9/32	2 27/64	2 19/64	2 13/16	15/32	1 1/4	27/64
6	1 1/8	6 3/4	2 7/16	5 17/32	3/16	27/32	3/4	1 5/16	3/8	3/32	1 41/64	63/64	6	3 9/16	3 15/16	2 29/32	2 49/64	3 3/8	9/16	1 1/2	1 5/64
7	1 5/16	7 7/8	2 27/32	6 29/64	7/32	63/64	7/8	1 17/32	7/16	7/64	1 29/32	1 9/64	7	4 5/32	4 19/32	3 25/64	3 7/32	3 15/16	21/32	1 3/4	1 1/4
8	1 1/2	9	3 1/4	7 3/8	1/4	1 1/8	1	1 3/4	1/2	1/8	2 3/16	1 5/16	8	4 3/4	5 1/4	3 7/8	3 11/16	4 1/2	3/4	2	1 7/16
12	2 1/4	13 1/2	4 7/8	11 1/16	3/8	1 11/16	1 1/2	2 5/8	3/4	3/16	3 9/32	1 31/32	12	7 1/8	7 7/8	5 13/16	5 17/32	6 3/4	1 1/8	3	2 5/32
18	3 3/8	20 1/4	7 5/16	16 19/32	9/16	2 17/32	2 1/4	3 15/16	1 1/8	9/32	4 15/16	2 15/16	18	10 11/16	11 13/16	8 23/32	8 5/16	10 1/8	1 11/16	4 1/2	3 1/4

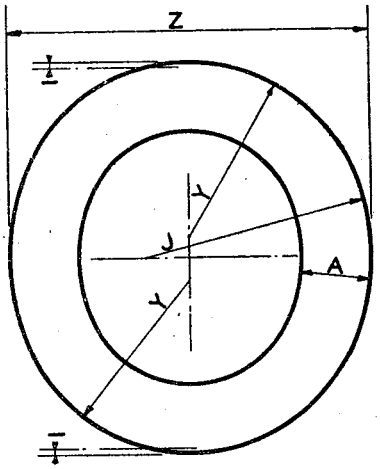












SERIES F NUMERALS

HEIGHT (INCHES)	DIMENSIONS (INCHES)																						
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
2	3/8	1 27/32	2 1/16	1 7/16	1 1/2	21/32	3/16	1/16	1/32	1 3/16	1 1/4	9/16	11/32	1	3/4	1 1/8	3/32	19/32	1 13/32	15/16	2 9/32	23/32	1/2	1/4	59/64	1 29/32
3	9/16	2 49/64	3 3/32	2 5/32	2 1/4	63/64	9/32	3/32	3/64	1 25/32	1 7/8	27/32	33/64	1 1/2	1 1/8	1 11/16	9/64	57/64	2 7/64	1 13/32	3 27/64	1 5/64	3/4	3/8	1 3/8	2 55/64
4	3/4	3 11/16	4 1/8	2 7/8	3	1 5/16	3/8	1/8	1/16	2 3/8	2 1/2	1 1/8	11/16	2	1 1/2	2 1/4	3/16	1 3/16	2 13/16	1 7/8	4 9/16	1 7/16	1	1/2	1 27/32	3 13/16
5	15/16	4 39/64	5 5/32	3 19/32	3 3/4	1 41/64	15/32	5/32	5/64	2 21/32	3 1/8	1 13/32	55/64	2 1/2	1 7/8	2 13/16	15/64	1 31/64	3 1/2	2 11/32	5 45/64	1 51/64	1 1/4	5/8	2 19/64	4 49/64
6	1 1/8	5 17/32	6 3/16	4 5/16	4 1/2	1 31/32	9/16	3/16	3/32	3 9/16	3 3/4	1 11/16	1 1/32	3	2 1/4	3 3/8	9/32	1 25/32	4 7/32	2 13/16	6 27/32	2 5/32	1 1/2	3/4	2 49/64	5 23/32
7	1 5/16	6 29/64	7 7/32	5 1/32	5 1/4	2 19/64	21/32	7/32	7/64	4 5/32	4 3/8	1 31/32	1 13/64	3 1/2	2 5/8	3 15/16	21/64	2 5/64	4 59/64	3 9/32	7 63/64	2 33/64	1 3/4	7/8	3 7/32	6 43/64
8	1 1/2	7 3/8	8 1/4	5 3/4	6	2 5/8	3/4	1/4	1/8	4 3/4	5	2 1/4	1 3/8	4	3	4 1/2	3/8	2 3/8	5 5/8	3 3/4	9 1/8	2 7/8	2	1	3 11/16	7 5/8
12	2 1/4	11 1/16	12 3/8	8 5/8	9	3 15/16	1 1/8	3/8	3/16	7 1/8	7 1/2	3 3/8	2 1/16	6	4 1/2	6 3/4	9/16	3 9/16	8 7/16	5 5/8	13 11/16	4 5/16	3	1 1/2	5 17/32	11 7/16
18	3 3/8	16 19/32	18 9/16	12 15/16	13 1/2	5 29/32	1 11/16	9/16	9/32	10 11/16	11 1/4	5 1/16	3 3/32	9	6 3/4	10 1/8	27/32	5 11/32	12 21/32	8 7/16	20 17/32	6 15/32	4 1/2	2 1/4	8 5/16	17 5/32

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