

ECMA

EUROPEAN COMPUTER MANUFACTURERS ASSOCIATION

ECMA STANDARD

for

the Nominal Character Dimensions of the OCR-A Font

April 1965

Brief History

ECMA TC 4 started its standardization work in the field of Optical Character Recognition in June 1961. In the course of its work, several character sets already in existence, were evaluated. As a result of this evaluation and under consideration of the widely varying European OCR requirements, it was decided to develop two fonts, a stylized (Class A) numeric character set and a conventional one (Class B).

The ECMA concept of a stylized set was then submitted to the Committee ISO/TC97/SC3 in The Hague in November 1963. As a result, two ISO expert groups, with the participation of ECMA in both, were formed to seek a compromise between several proposals. This joint effort led to a draft proposal, which was accepted by ISO/TC97/SC3 in New York in May 1964.

This Standard ECMA-8 corresponds to said ISO proposal.

Representatives of following Companies participated in the work of the Committee :

Aktiebolaget ADDO
Compagnie des Machines Bull
N. V. Electrologica
English Electric-Leo-Marconi Computers Ltd
IBM-WTEC
ICT International Computers and Tabulators Ltd
ITT Europe Inc.
NCR The National Cash Register Company Ltd
Ing. C. Olivetti & Co. S.p.A.
SEA Société d'Electronique et d'Automatisme
Siemens & Halske AG
Sperry Rand International Corp.
Telefunken Aktiengesellschaft

In addition this Technical Committee has cooperated closely with the
Business Equipment Manufacturers Association (BEMA)

Adopted on April 30, 1965 by the General Assembly of
ECMA as Standard ECMA-8.

1. Scope

This document specifies the shapes of a stylized numeric character set for Optical Character Recognition. Included are the nominal dimensions of the characters, i. e., height, width, radii and stroke width.

This document does not include any specification of tolerances on print quality or other requirements such as those pertaining to paper, printing materials and format. These matters have been deliberately left for future standardization.

2. Nominal Character Dimensions (printed image)

The nominal dimensions of the characters as printed are listed below. The letters W, H, T and L refer to the dimensions indicated in figures 1 to 14.

Size	I	II	III	IV
Centreline Character Width (W) in mm	1,40	1,40	1,52	2,04
Centreline Character Height (H) in mm	2,40	2,84	3,20	3,80
Nominal Stroke Width (T) in mm	0,35	0,35	0,38	0,51
Minimum length (L) of Long Vertical Mark in mm	3,75	4,50	5,00	6,00

3. Shapes

The character shapes are specified in figures 1 - 14 and are designated as follows :

<u>NAME</u>	<u>CHARACTER REFERENCE NUMBER</u>
ONE	1
TWO	2
THREE	3
FOUR	4
FIVE	5
SIX	6
SEVEN	7
EIGHT	8
NINE	9
ZERO	10
HOOK	11
FORK	12
CHAIR	13
LONG VERTICAL MARK	14

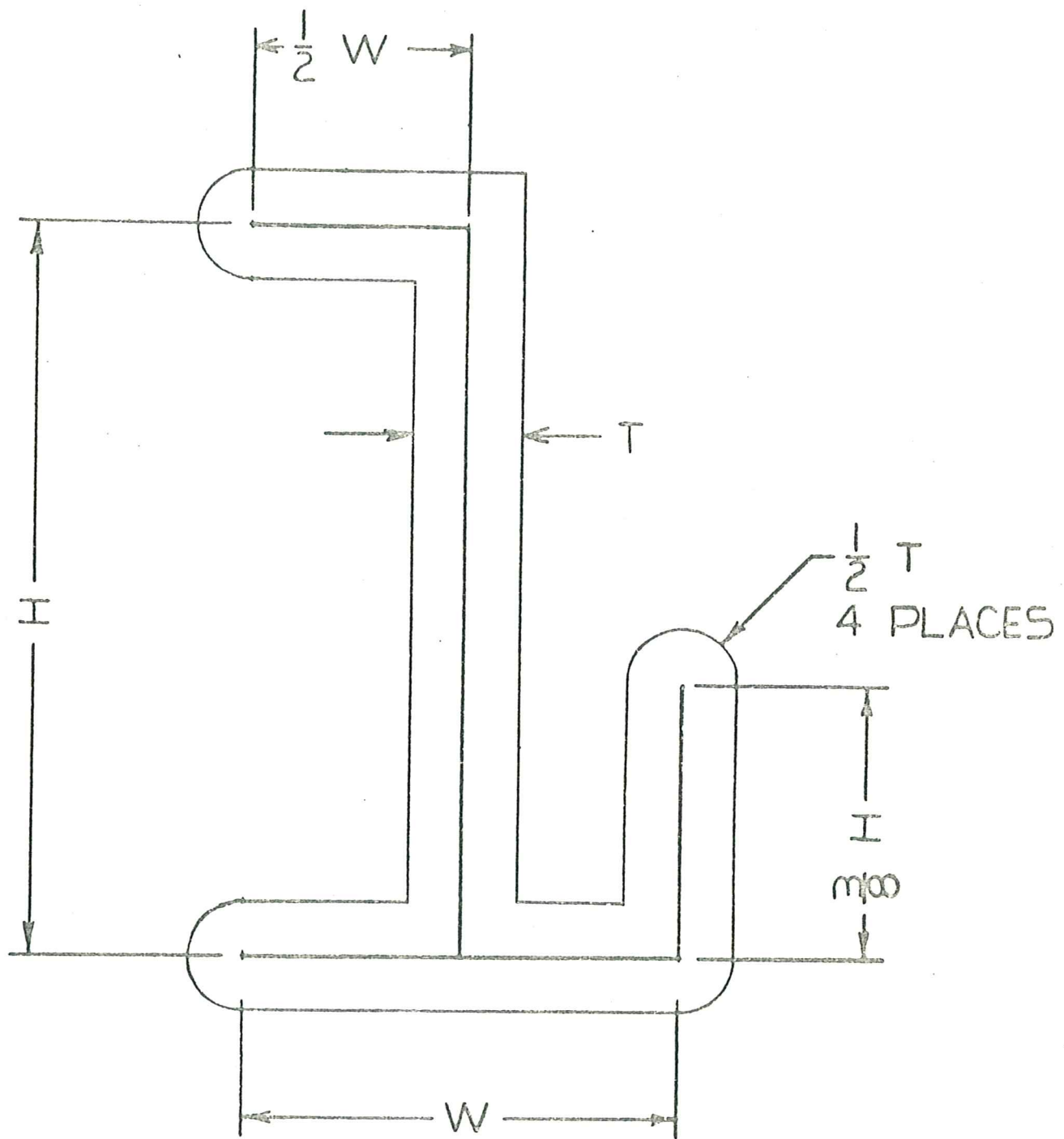


Figure 1

Character Reference Number 1
 Name : ONE

NOMINAL PRINTED IMAGE

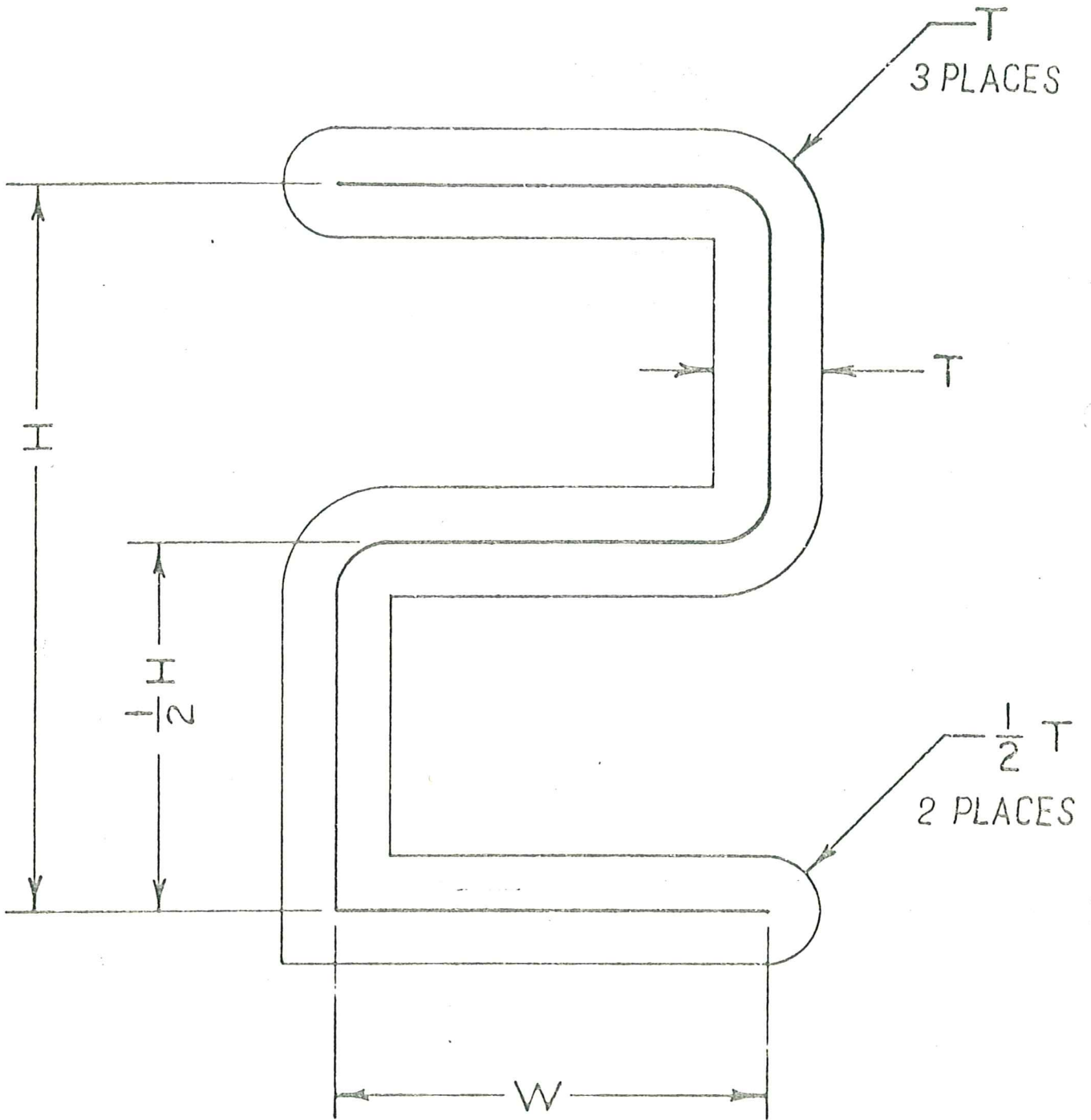


Figure 2

Character Reference Number 2

Name : TWO

NOMINAL PRINTED IMAGE

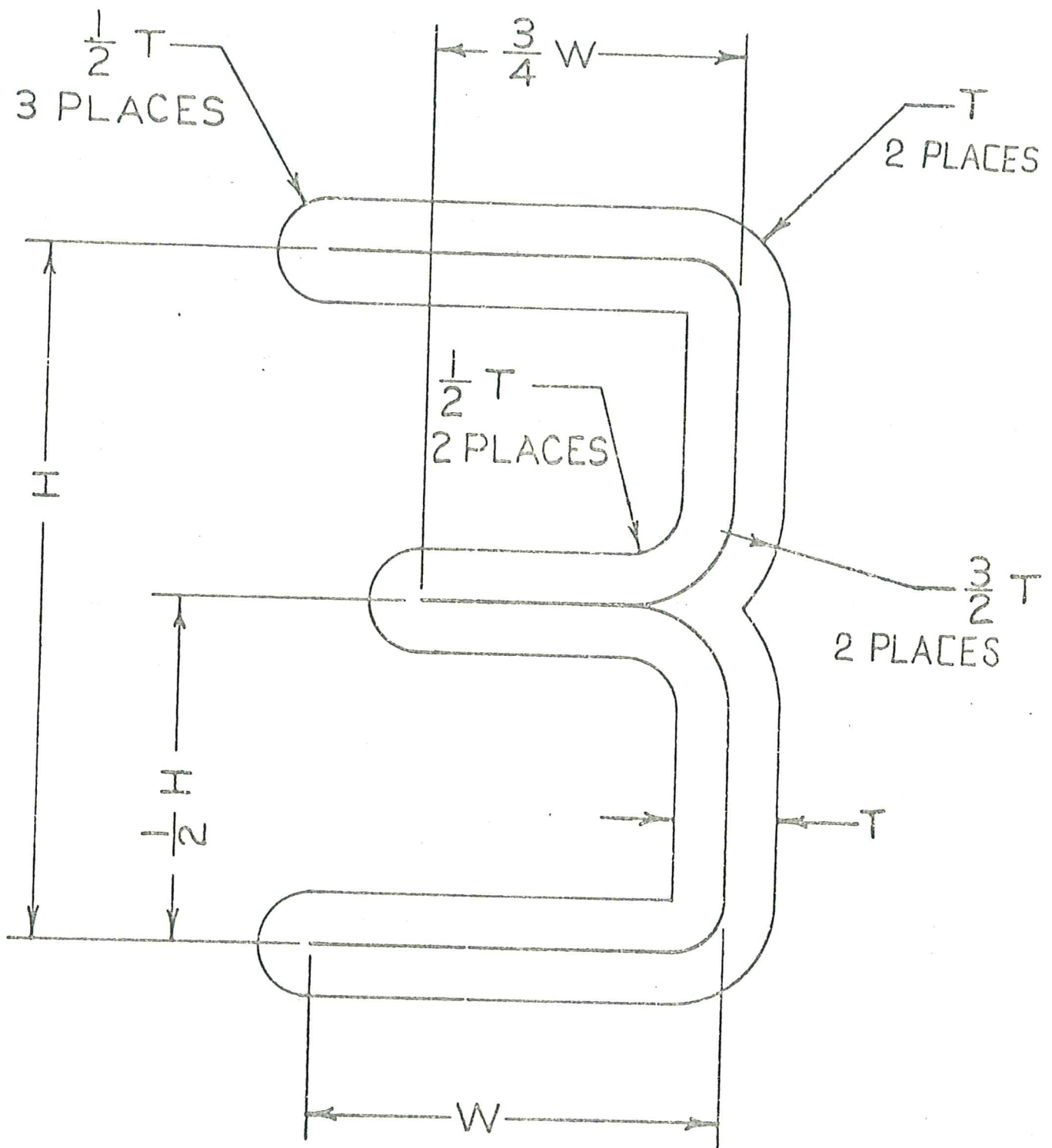


Figure 3

Character Reference Number 3
 Name : THREE

NOMINAL PRINTED IMAGE

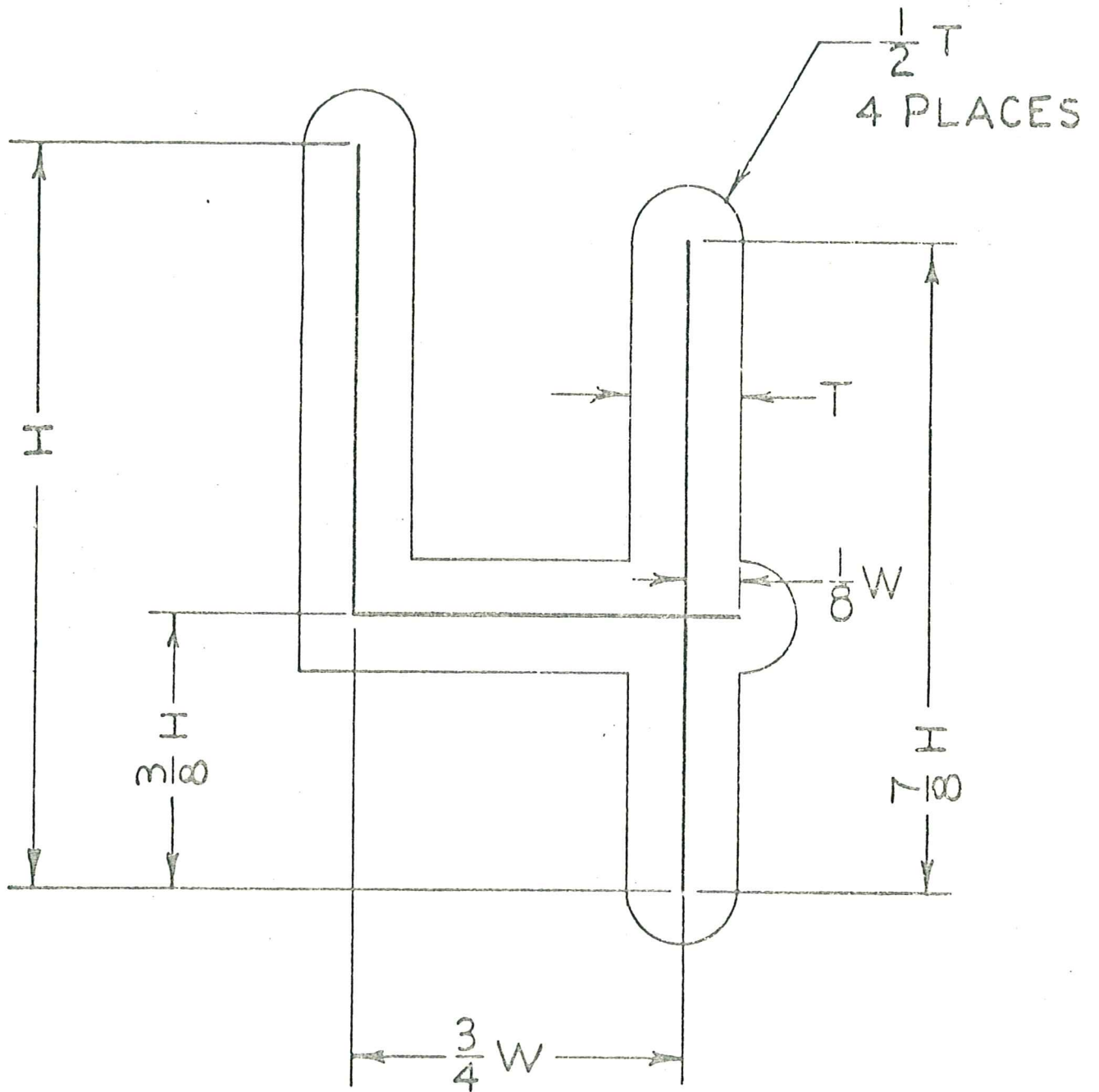


Figure 4

Character Reference Number 4
 Name : Four

NOMINAL PRINTED IMAGE

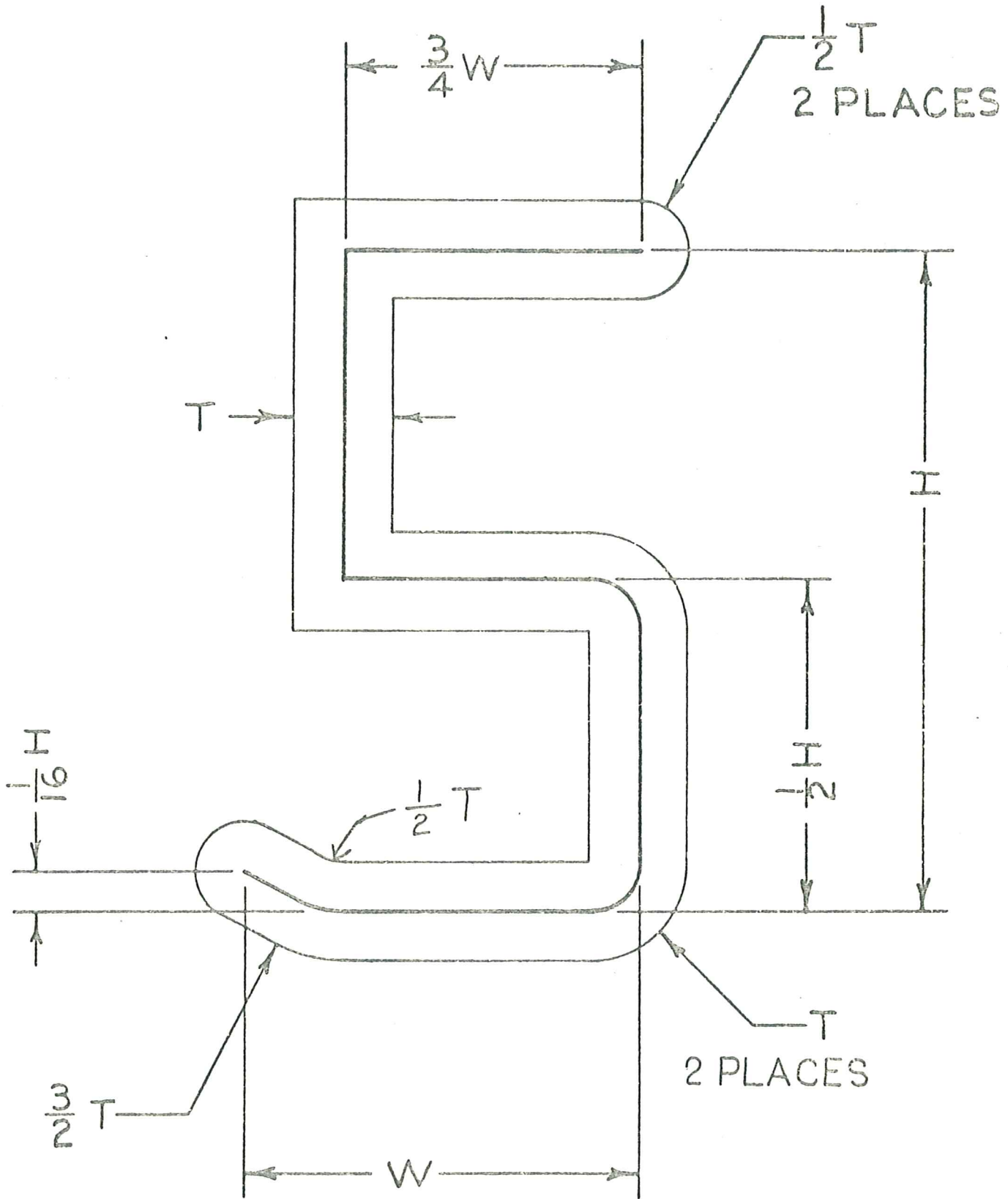


Figure 5

Character Reference Number 5

Name : FIVE

NOMINAL PRINTED IMAGE

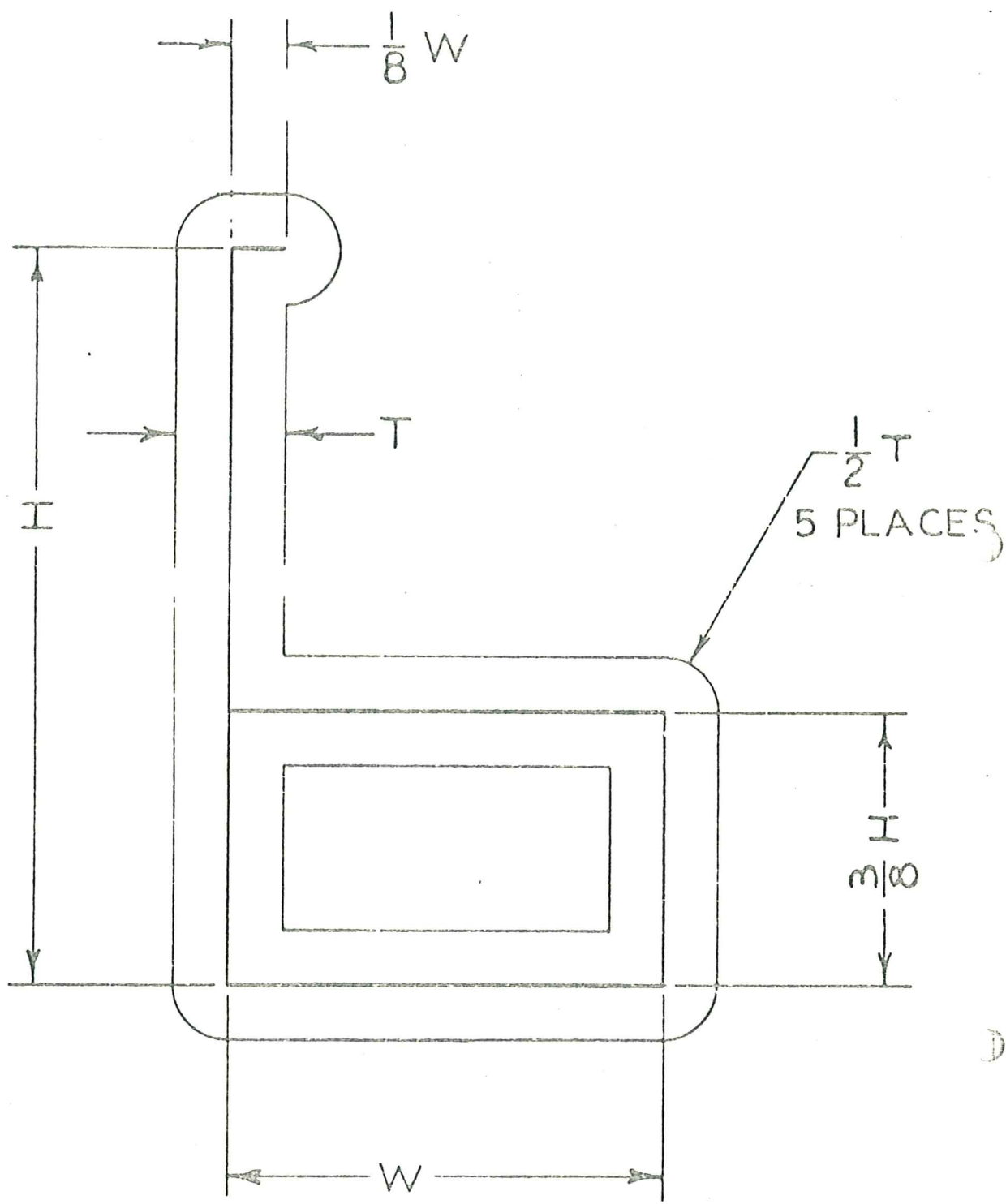


Figure 6

Character Reference Number 6

Name : 6

NOMINAL PRINTED IMAGE

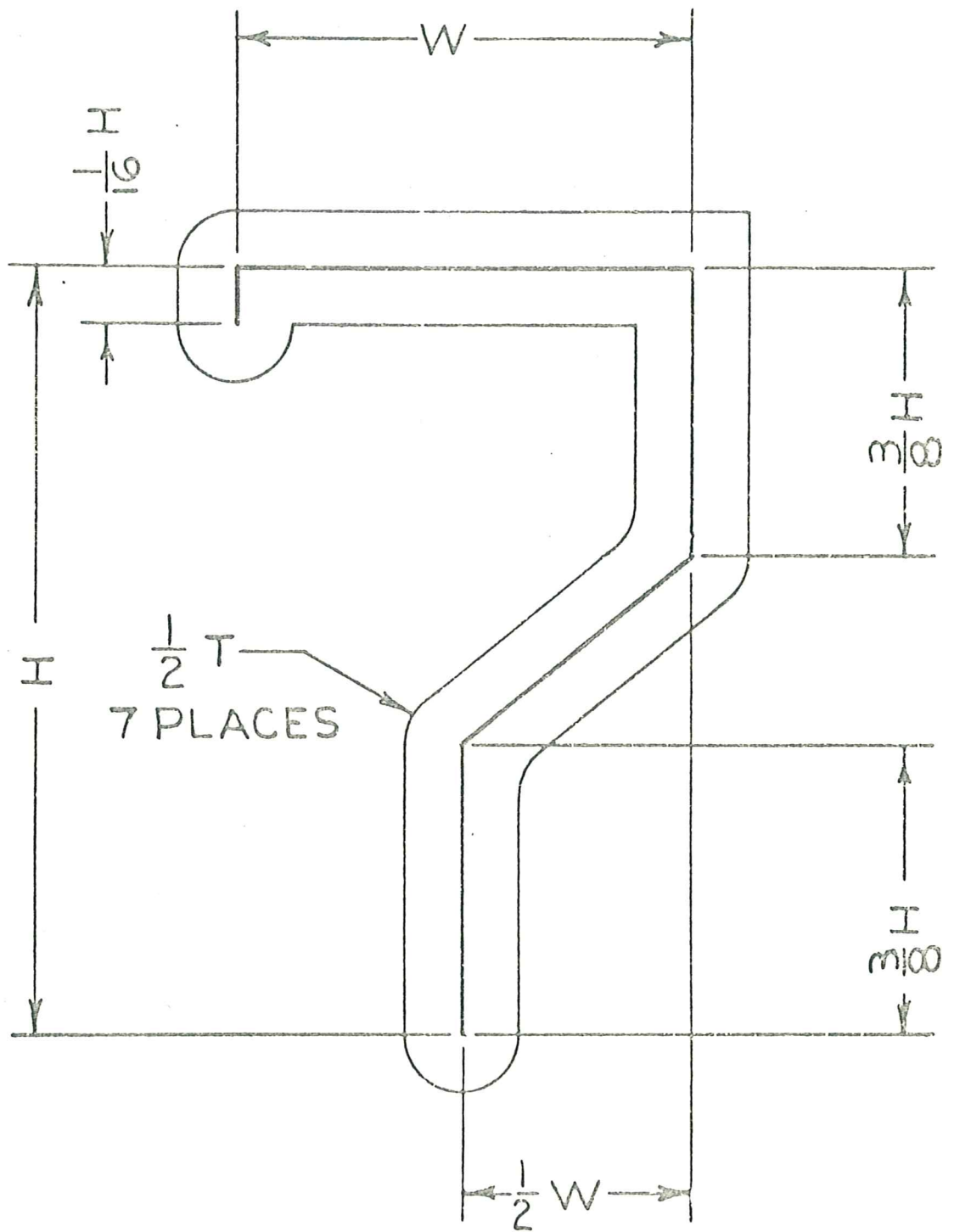


Figure 7

Character Reference Number 7
 Name : SEVEN

NOMINAL PRINTED IMAGE

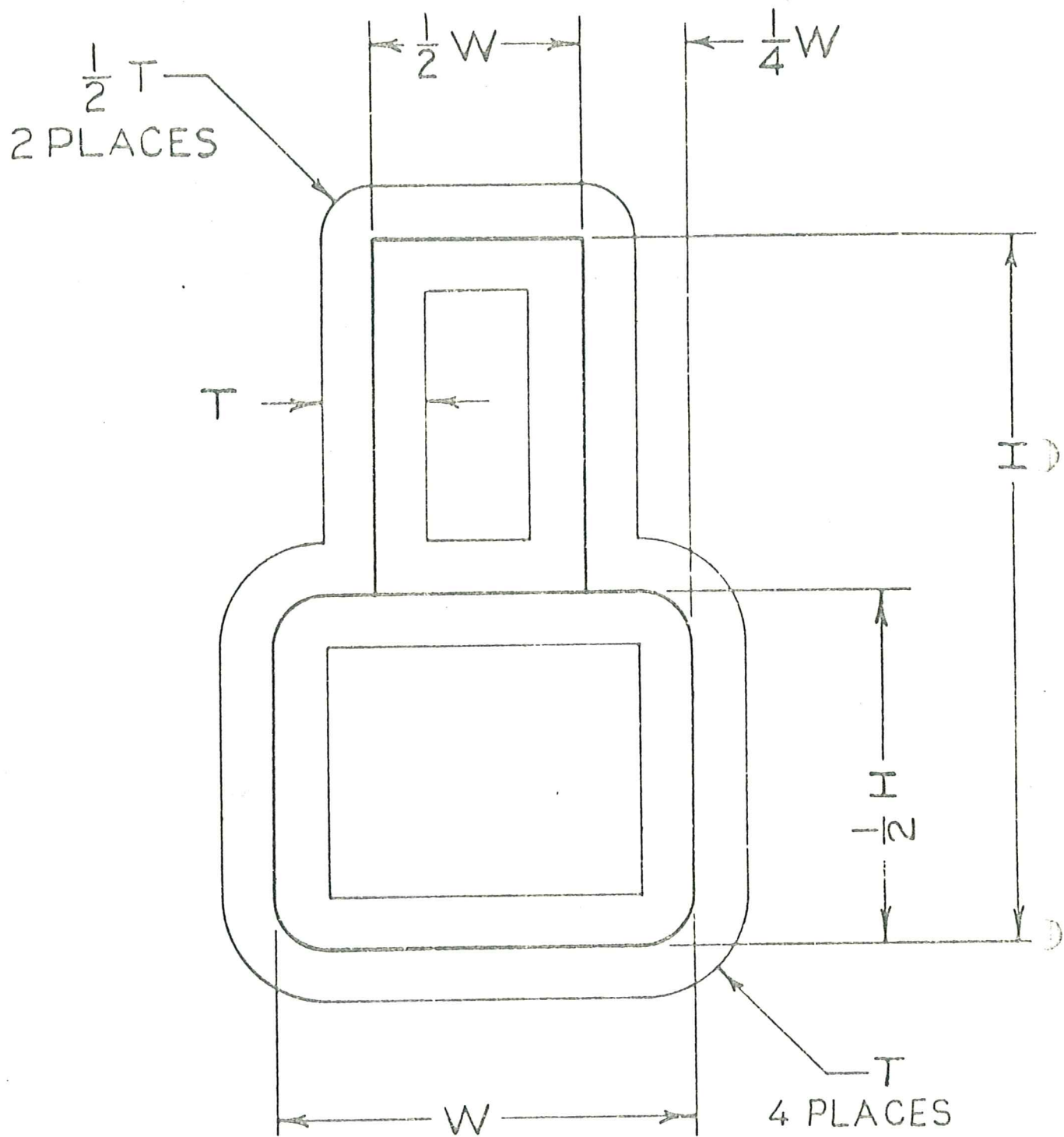


Figure 8

Character Reference Number 8
 Name : EIGHT

NOMINAL PRINTED IMAGE

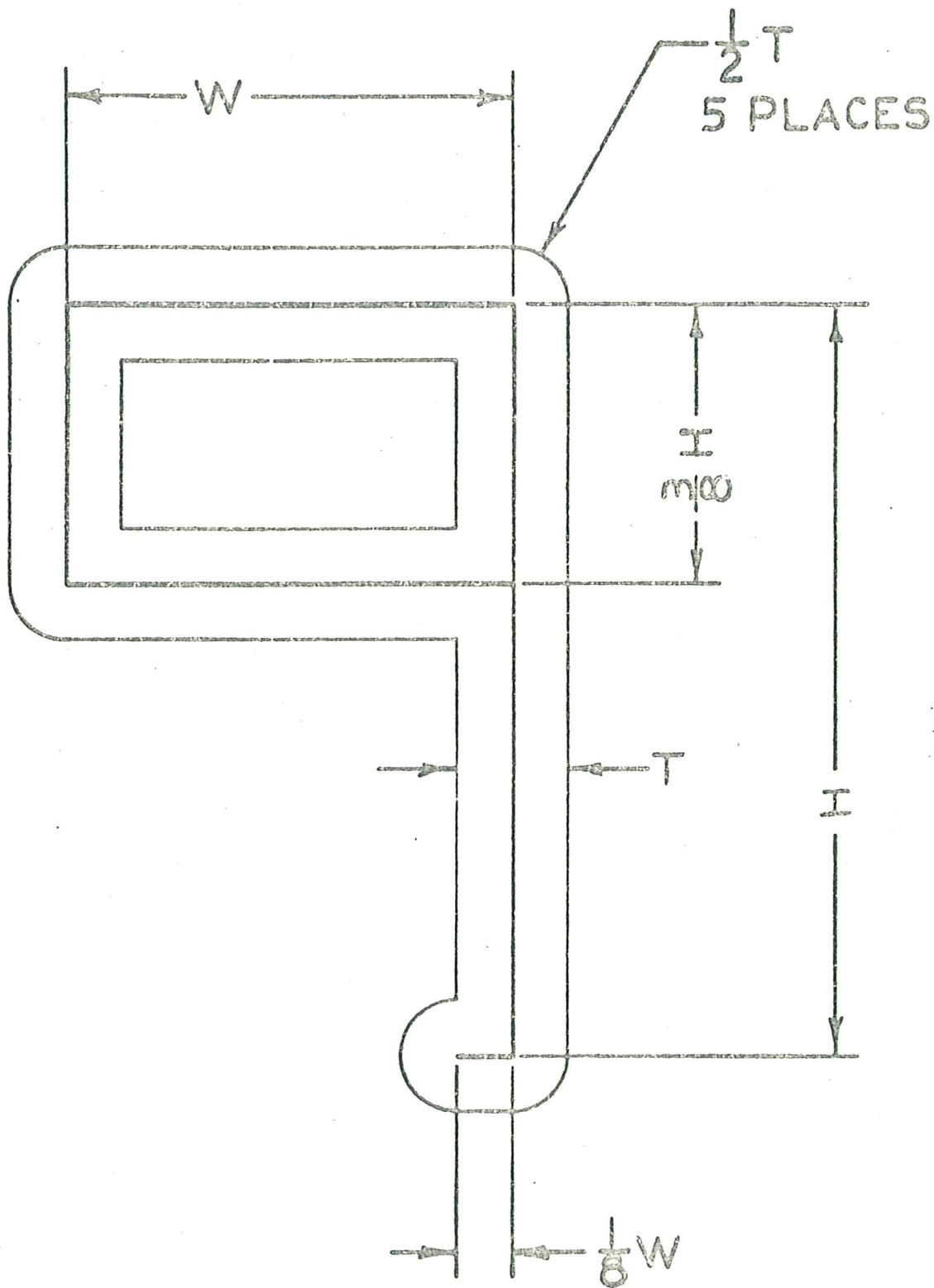


Figure 9

Character Reference Number 9
 Name : NINE

NOMINAL PRINTED IMAGE

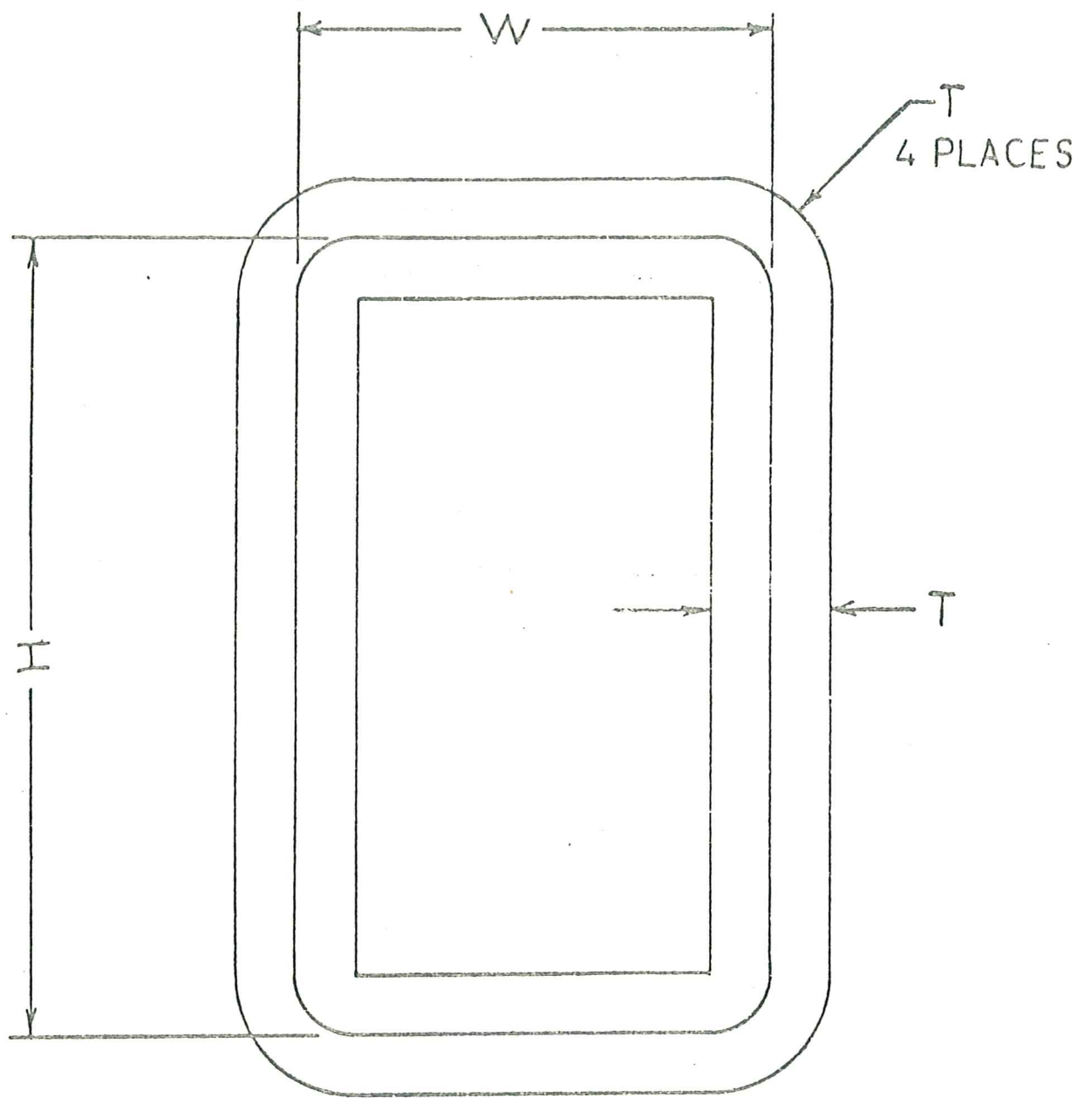


Figure 10

Character Reference Number 10
Name : ZERO

NOMINAL PRINTED IMAGE

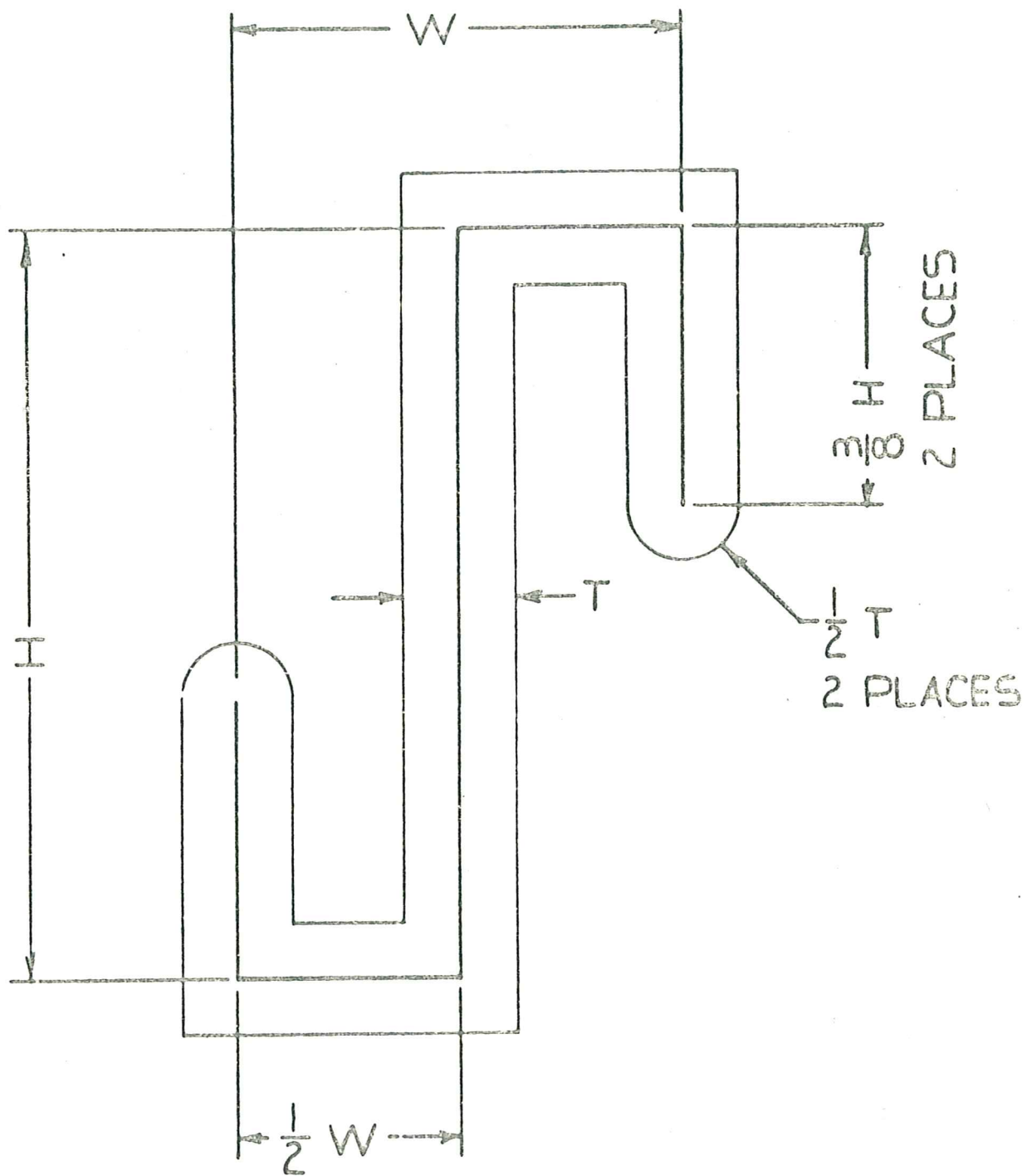


Figure 11

Character Reference Number 11
 Name: HOOK

NOMINAL PRINTED IMAGE

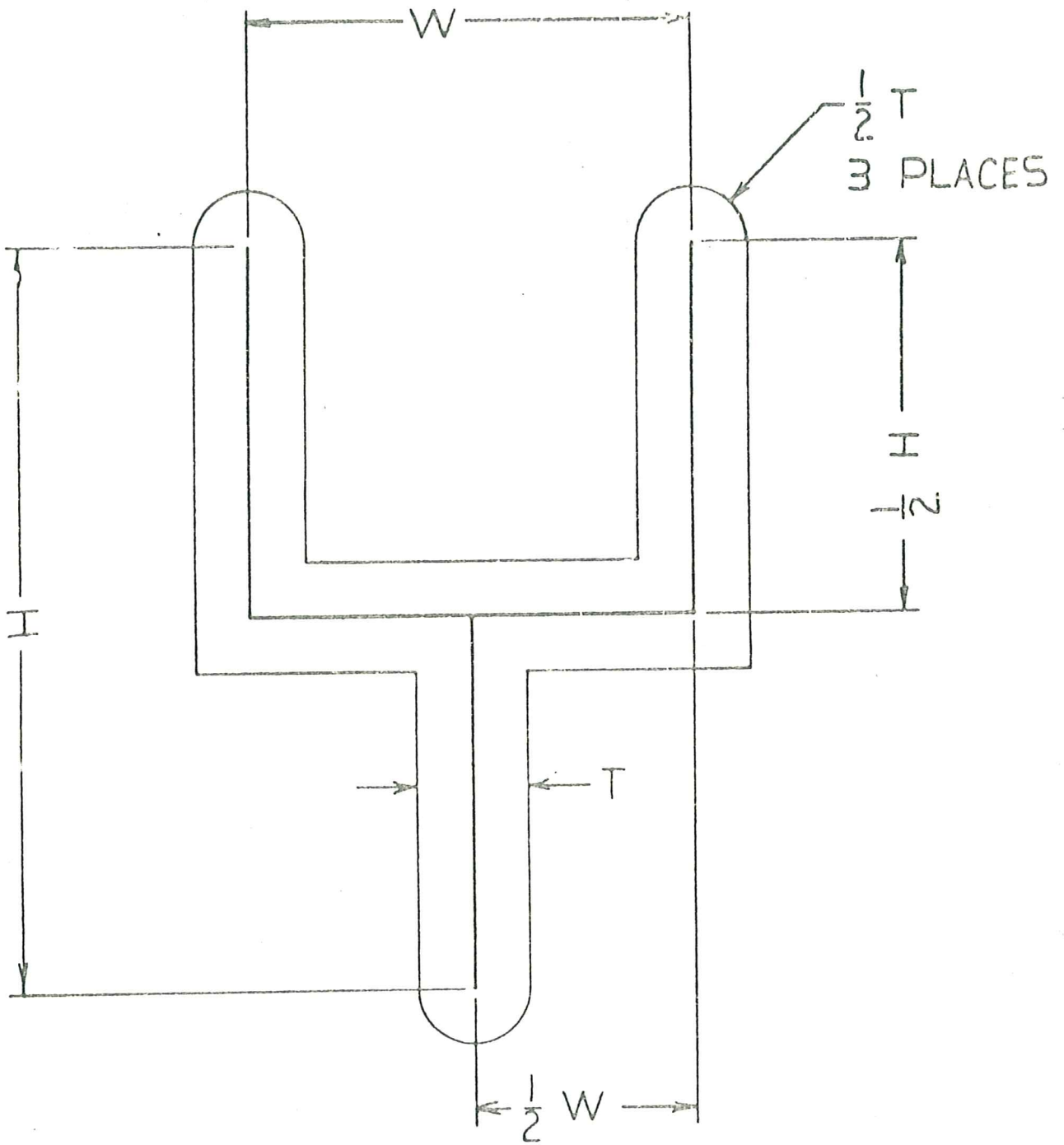


Figure 12

Character Reference Number 12
 Name : FORK

NOMINAL PRINTED IMAGE

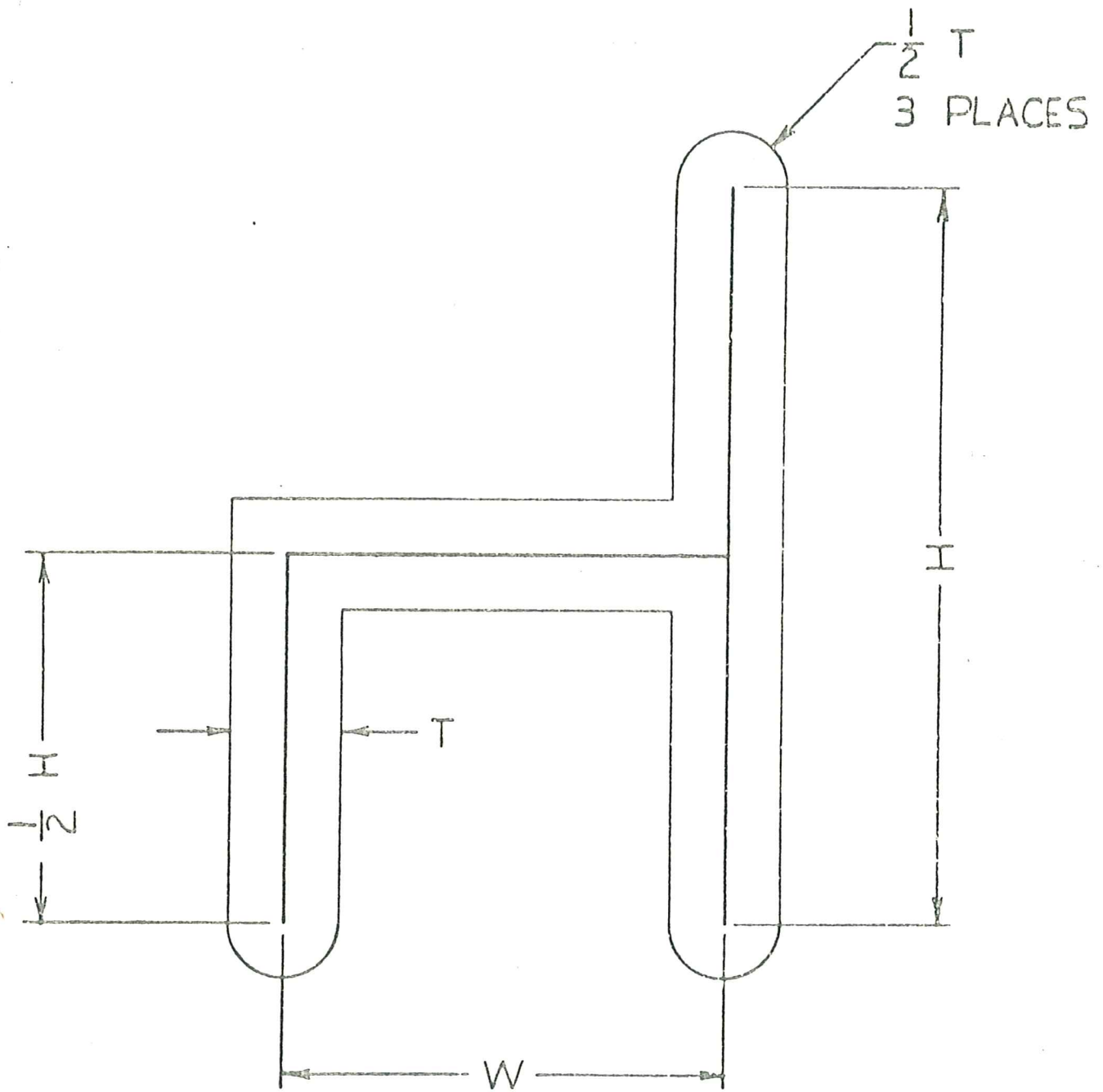


Figure 13

Character Reference Number 13
Name : CHAIR

NOMINAL PRINTED IMAGE

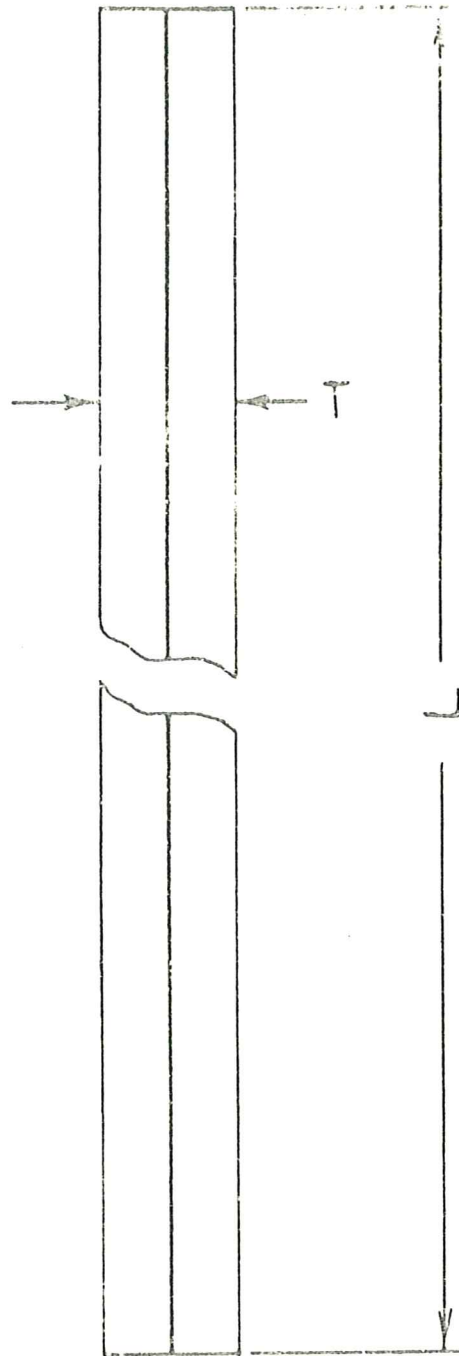


Figure 14

Character Reference Number 14
Name : LONG VERTICAL MARK

NOMINAL PRINTED IMAGE