GORTON PERFECTED SPECIMEN

A SHIFT HAPPENS BOOKLET №2

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MARCIN WICHARY

NOW IS
THE TIME
FOR ALL
GOOD
PEOPLE
TO COME
TO THE
AID OF
THE
PARTY

If you're a person of a certain age, you have typed on a keyboard whose keycaps used the Gorton font, and you will recognize it immediately. BBC computers, Compaq portables, DEC and TeleVideo terminals, CDC supercomputers, many PC clones, and Apple II all relied on Gorton. IBM eventually moved over to Helvetica, but before that they had also borrowed a version of Gorton's typeface. Hell, keys with Gorton on them even made it to the Moon aboard Apollo 11 and its famous DSKY keyboard.

But Gorton is older than the oldest of these computers. It started as a generic sans serif font used by the George Gorton Machine Company of Racine, Wisconsin, in their engraver machines. "They are used by leading brass and general engravers, engineers, and makers of hardware; in making stamps, dies, and original type-models for printing; moulds for glass, rubber, soap, etc.; and for engraving seals. They are employed in leading Railway and Ship Building Works, in the United States Navy Yards, in the Royal Arsenals, Dockyards, and observatories, and in Government Telegraph Factories, variously scattered throughout the world," boasted a brochure all the way from 1902. That's right: this font is a 19th century creation.

Since then you could spot it – or a version of it, as many existed over time – on various pieces of heavy machinery, on signs, and even on typewriter keycaps, and perhaps even more places where the durability of engraved letters felt more important than the quality of printed ones.

Gorton's quality is indeed… suspect. Technical constraints of engraving required a uniform stroke, which is sneered upon in both typography and calligraphy. Some of the shapes, like the 4, 6, 7, Q, &, or the very distinctive @ would be laughed out of a type design crit. In a way, Gorton became a victim of its medium – the same fate that met the monospace fonts of typewriters, and the bitmap fonts of early microcomputers.

All this, of course, made it a perfect font for *Shift Happens*. As there was never an official or authoritative digital version of Gorton, I recreated the font from drawings and keycaps, and used it in the book. I then hired Inga Plönnings, a talented type designer from Germany, to make it fully usable for typesetting. Inga redrew the shapes, making them more typographically accurate, consistent, and attractive. She also recreated lowercase letters, added glyphs for many languages, and created a variable weight allowing the font to be a lot more versatile and find a greater range of purposes.

We named the result Gorton Perfected, a nod to how a "version 2.0" of a thing would be called back when Gorton was new.

I hope you enjoy putting it to use. This booklet aims to walk you both through the capabilities (and easter eggs) of Gorton Perfected the font, but also tell you a little more of the history of its non-digital predecessors.

Marcin Wichary


A-TRONIX
OFF
VOLUME
32
16
8
4
2
1
MEMORY
ADDRESS
TUNE
PROGRAM
REGIS
1
2
3
4
5
6
BT
Q
W
E
R
T
Y
BK
A
S
D
F
G
H
DBLE
CHAR
Z
X
C
V
B


CW KEYBOARD
STER FULL
1
2
3
4
MEMORY
SELECT
SPEED
7
8
9
0
BACK SPACE
REPEAT
U
I
O
P
AS
CQ
J
K
L
AR
KN
SK
N
M
,
.
/
?
2


THE FEATURES
OF GORTON
PERFECTED
TOP
TOP
TOP
TO

You can still buy Gorton keycaps today, but some of the shapes have been adjusted – rounded, softened – over the years. This has been a challenge in resurrecting this font: Which version of Gorton should be given new life? And what of its quirkiness deserved to be kept?

Inga Plönnings, the type designer, and I had many conversations about this. We eventually zeroed in on the 1970s/1980s Gorton as the ultimate edition – an example of that can be seen on the previous spread of a radio teletype keyboard. Recognizing that there is no one single Gorton, we allowed you to have options to choose among.

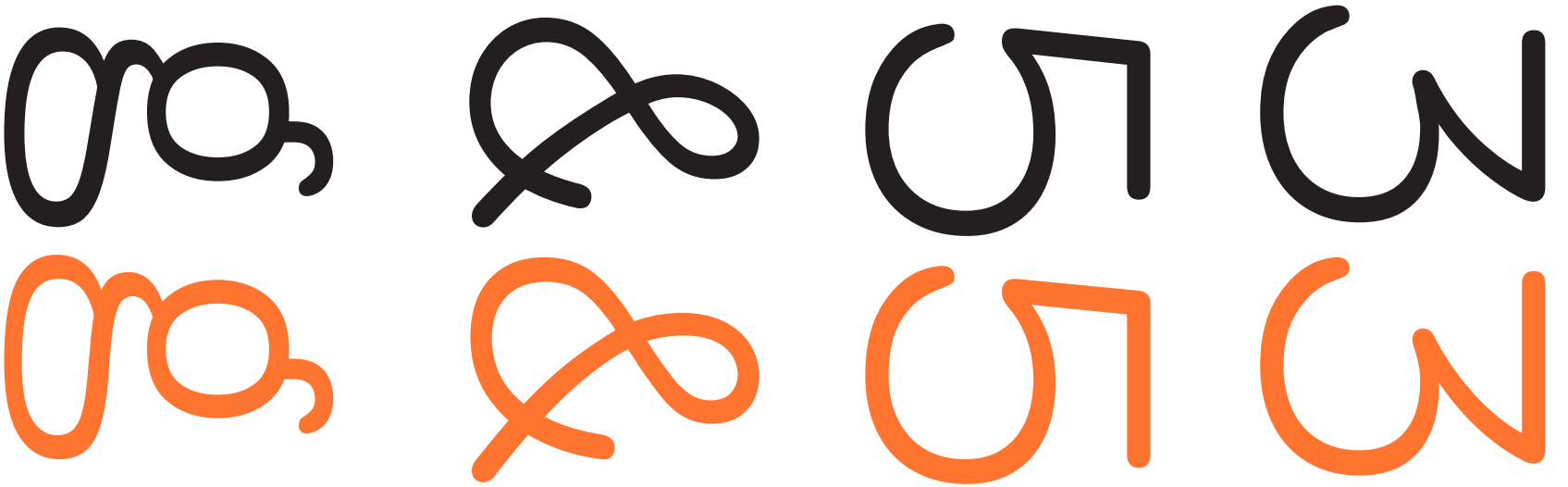
That means that, among its many stylistic sets, Gorton Perfected contains a "not ugly variants" toggle that softens some of its most egregious typographic transgressions. You can also pick among various shapes of QQQ and OΘØ□ that graced keyboards throughout the years, along with alternative shapes of a few other glyphs.

The following pages take you on the tour of Gorton Perfected's nooks and crannies. Hiding within Gorton Perfected are: a variable font weight allowing you to choose any of the hundreds of notches between Light and **Bold**; monospace digits (a.k.a. tabular numerals) that precisely align vertically across rows for things like receipts and spreadsheets; a generous assortment of diacritics and symbols allowing Gorton's use in over 80 languages; and a few symbols coming from keyboards. (These were designed by me, not Inga.)

But perhaps my favorite little feature is the "lowercase ampersand" I have never seen in use before, but which I spotted in one of the Gorton specimens.

STYLISTIC SETS

SS01
NOT UGLY
VARIANTS



SS07
WIDE J

SS06
ALTERNATE G

SS05
WIDE A

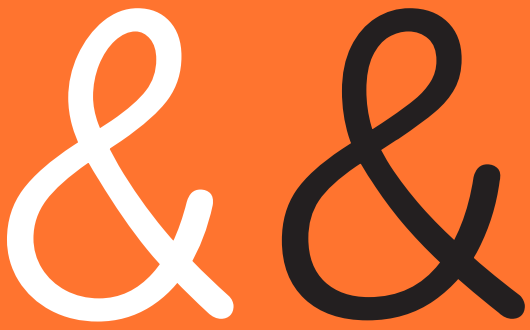
SS08
NARROW R

SS02
Q WITH
A STRAIGHT
TAIL

SS03
Q WITH
A SWUNG
TAIL

SS04
I WITH SERIFS

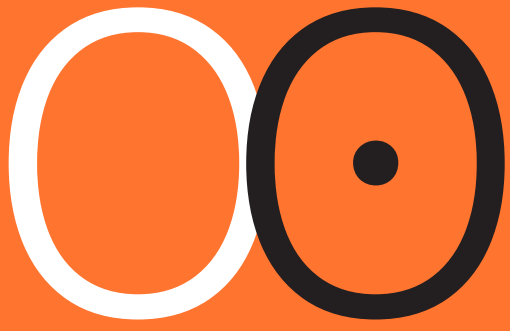
SS12
LOWERCASE
AMPERSAND



SLASHED
ZERO

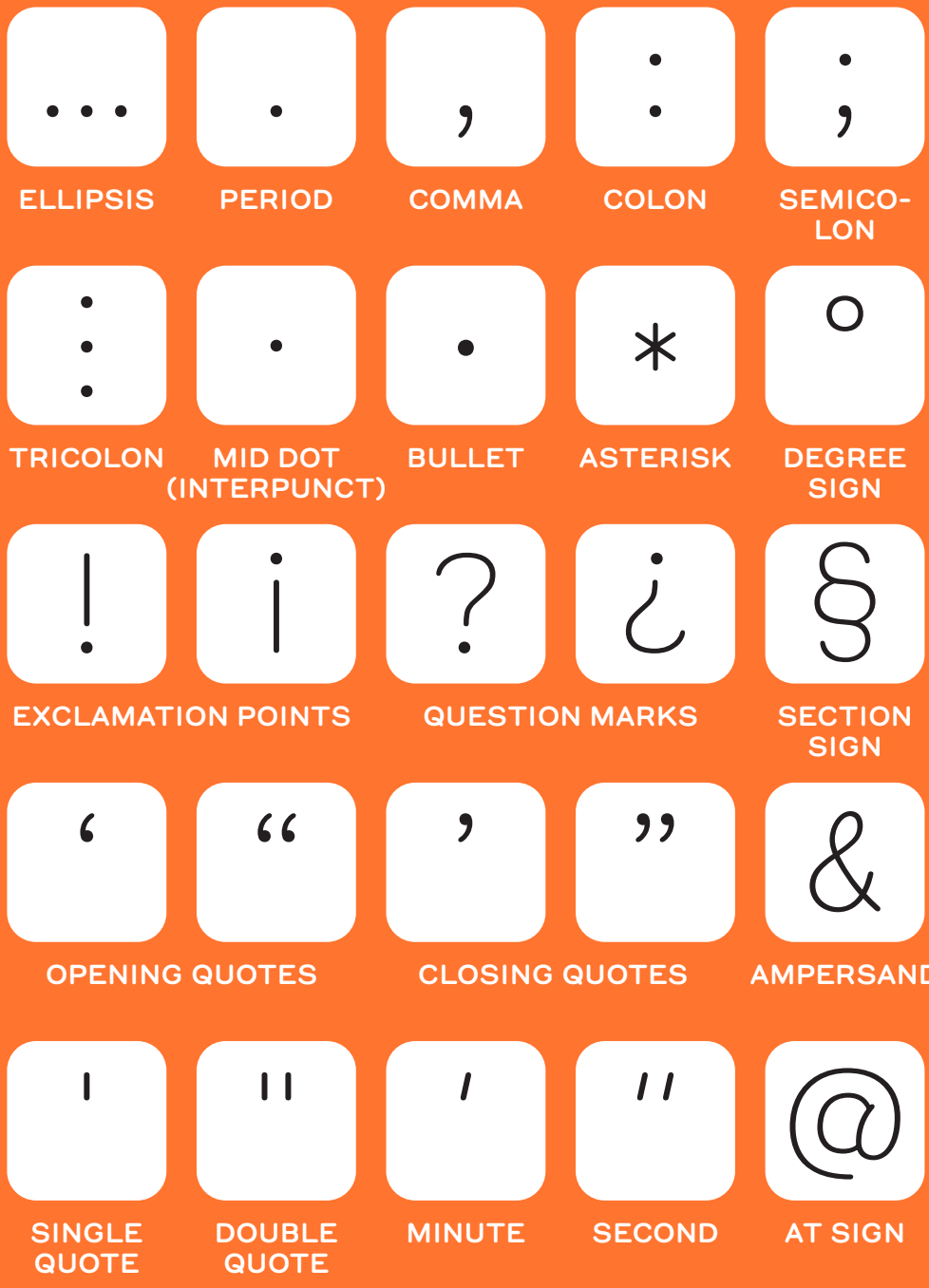
SS09
SQUARE
ZERO

SS10
ZERO WITH
A DOT



SS11
SIMPLE 1

INCLUDED CHARACTERS



PARENTHESES BRACKETS COPYRIGHT SIGN

SINGLE GUILLEMETS BRACES PILCROW

GUILLEMETS SLASH BACK-SLASH PERCENT SIGN

LESS THAN GREATER THAN LESS OR EQUAL GREATER OR EQUAL CURRENCY SIGN

DOLLAR SIGN EURO SIGN POUND SIGN YEN SIGN CENT SIGN

MINUS HYPHEN EN DASH EM DASH UNDER-SCORE

PLUS PLUS/ MINUS MULTIPLI-CATION DIVISION MICRO SIGN

EQUALS SIGN NOT EQUALS APPROXI-MATE NUMBER SIGN NUMERO

VULGAR FRACTIONS ORDINALS

LOGICAL NOT TILDE CIRCUM-FLEX BAR BROKEN BAR

TABULAR NUMERALS

£1.237,10
£584,30
£270,50
£1.237,10
£584,30
£270,50

SUPPORTED LANGUAGES

LATIN/ENGLISH

qwertyuiopasdfghjklzxcvbnm
QWERTYUIOPASDFGHJKLZXCVBNM

POLISH

ąćęłńóśżź
ĄĆĘŁŃÓŚŻŹ

FAROESE

áæíðóøúý
ÁÆÍÐÓØÚÝ

HUNGARIAN

éóöőúüű
ÉÓÖŐÚÜŰ

SLOVAK

áäčďéíĺľňóôŕšťúýž
ÁÄČĎÉÍĹĽŇÓÔŔŠŤÚÝŽ

ICELANDIC

áðéíóúýþæö
ÁÐÉÍÓÚÝÞÆÖ

CZECH

áčďéěňóřšťúůýž
ÁČĎÉĚŇÓŘŠŤÚŮÝŽ

FRENCH

àâæçëèéêïîœôüùûÿ
ÀÂÆÇËÈÉÊÏÎŒÔÜÙÛŸ

LOWER SORBIAN

óćčěłńŕśšźž
ÓĆČĚŁŃŔŚŠŹŽ

UPPER SORBIAN

óćčěłńřšž
ÓĆČĚŁŃŘŠŽ

NORWEGIAN

æøå
ÆØÅ

DANISH

æøå
ÆØÅ

SWEDISH

åäö
ÅÄÖ

FINNISH

åäö
ÅÄÖ

CATALAN

àçèéíïòóúü·
ÀÇÈÉÍÏÒÓÚÜ·

SPANISH

áéíñóúü
ÁÉÍÑÓÚÜ

BASQUE

çñ
ÇÑ

GERMAN

äöüß
ÄÖÜẞ

SWISS GERMAN

äöü
ÄÖÜ

PORTUGUESE

àáâãçéêíòóôõú
ÀÁÂÃÇÉÊÍÒÓÔÕÚ

SLOVAK

áäčďéíĺľňóôŕšťúýž
ÁÄČĎÉÍĹĽŇÓÔŔŠŤÚÝŽ

AFRIKAANS

áâèéêëîïôöû
ÁÂÈÉÊËÎÏÔÖÛ

WESTERN FRISIAN

áäéëÌïòöúüỳ

ÁÄÉËÌÏÒÖÚÜỲ

COLOGNIAN

äåæëöüėœů

ÄÅÆËÖÜĖŒŮ

DUTCH

áäéëíïóöúü

ÁÄÉËÍÏÓÖÚÜIJ

TURKISH

çğıiöşü

ÇĞIİÖŞÜ

SERBIAN

čćđšž

ČĆĐŠŽ

CROATIAN

čćđšž

ČĆĐŠŽ

BOSNIAN

čćđšž

ČĆĐŠŽ

LITHUANIAN

ąčęėįšųūž

ĄČĘĖĮŠŲŪŽ

LATVIAN

āčēģīķļņšūž

ĀČĒĢĪĶĻŅŠŪŽ

ESTONIAN

äõöüšž

ÄÕÖÜŠŽ

ITALIAN

àèéìòóù

ÀÈÉÌÒÓÙ

SCOTTISH GAELIC

àèìòù

ÀÈÌÒÙ

ROMANIAN

ăâîșț

ĂÂÎȘȚ

MALTESE

àèìòùċġħż

ÀÈÌÒÙĊĠĦŻ

ROMANSH

àèéìòù

ÀÈÉÌÒÙ

ALBANIAN

çë

ÇË

WELSH

àáâäèéêëìíîïòóôöùúûüŵẁẃẅýỳŷỳ

ÀÁÂÄÈÉÊËÌÍÎÏÒÓÔÖÙÚÛÜŴẀẂẄÝỲŶỲ

ALSO: ASU, BEMBA, BENA, BRETON, CHIGA, CORNISH, FILIPINO, FRIULIAN, GALICIAN, GUSII, INDONESIAN, KABUVERDIANU, KALENJIN, KINYARWANDA, LUO, LUXEMBOURGISH, LUYIA, MACHAME, MAKHUWA-MEETTO, MAKONDE, MALAGASY, MANX, MĀORI, MORISYEN, NORTH NDEBELE, NYANKOLE, OROMO, QUECHUA, ROMBO, RUNDI, RWA, SAMBURU, SANGO, SANGU, SENA, SHAMBALA, SHONA, SOGA, SOMALI, SWAHILI, TAITA, TESO, UZBEK, VOLAPÜK, VUNJO, AND ZULU

Tricolon

This key appeared on the first Sholes & Glidden typewriter, and was never built into a keyboard after that.

Tab

The symbol for the Tab key depicts going to the next tabulation stop.

Backspace

The common symbol for this key today comes from erasing typewriters of the 1970s.

Back Tab

The Back Tab was particularly important in form-based terminals of the 1970s, often being its own key, separate from Tab.

Shift

It's hard to know the origin of the hollow arrow to denote shifting, because various versions of arrows were used for decades.

Delete

This is basically a reverse of (modern) Backspace, and sometimes called Forward Delete.

Return

The classic "carriage return" symbol denotes the movement of the paper position, or the cursor.

Delete (alt.)

This alternate "editorial" symbol for Delete was used by IBM terminal keyboards in the 1970s.

Control

The tradition to use a caret to indicate Control comes from DEC computers in the 1960s.

Insert

This symbol for the Insert key was also used by IBM terminal and PC keyboards in the 1970s and 1980s.

Command

Designed by Susan Kare for the original Macintosh in 1984, the symbol is inspired by a Swedish cartographic symbol for a "point of interest."

Option

The symbol originally appeared on Apple Lisa in 1983, depicting an alternate electric flow.

A keyboard for Harris ViewWriter, one of the word processors from the late 1980s


NEXT
HARRIS
WP
1 SPACING
1½ SPACING
2 SPACING
½ SPACE
BACK SPACE
RETRN
SHIFT
CTRL
INS
DEL
STOP CONT
PRINT
GO TO
CNCL
MARK
HELP

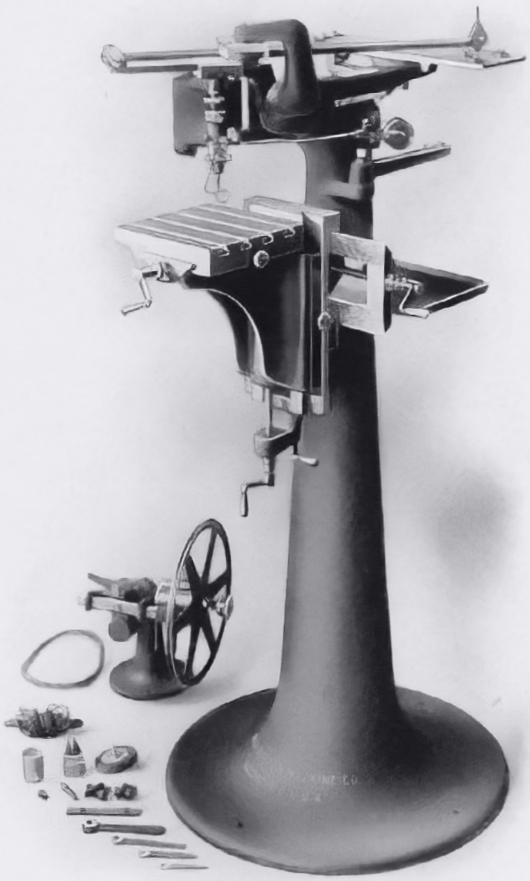

GORTON
BEFORE PIXELS
TOP

The main principle driving Gorton and other fonts like it was manually tracing the shapes of letters or digits from the original masters (see on the left for an example of one) using a pantograph, a motor-driven machine, which could be set up to reduce or enlarge the size as desired.

I don't personally know much about how engraving was carried out or the machinery that allowed machinists to do so, but on the following pages I wanted to give you some sense of what using Gorton was actually like – from the photos of the defunct George Gorton Machine Company machinery, throughs scans of various manuals and photos of a few accessories, to snapshots of the engraving process.

Gorton was advertised in 1952 as "our most popular type face – universally accepted as standard – perfect proportions and simplicity make this the most used of all type faces. A minimum of sharp corners for rapid tracing with a smooth stroke... most adaptable to many uses," highlighting how the simplicity of reproduction was among its chief selling points.

In a strange twist of fate, the Keuffel & Esser Co. from New Jersey also used Gorton pantographs to prepare their popular Leroy Lettering sets, extending the reach of Gorton even further. From that, the letterforms then travelled to drawing tools and machines like Stano-Script or Max Cadliner.



NO. 1 ENGRAVING MACHINE.

BELT DRIVEN.

Complete as Per Details Given on Page 7.

For **engraving in relief** and for **ornamental intaglio engraving,** suitable line engravings or enlarged models in sheet metal may be employed as copies.

The Cutters (see page 11) for engraving, are generally of the half-round section here shown, but their points may be shaped to produce cuts with curved, straight, or bevelled sides, flat bottomed or otherwise, as may be desired. The **V** shaped cut of the common hand graver is effected by the machine with a conical-pointed cutter which leaves a clean and brilliant cut without burr, and makes it possible to engrave polished or lacquered goods after they are finished.

The Cutter-grinder, which forms part of every machine, sharpens the cutters in a very perfect manner, but is quite simple in its action, so that a boy can use it.

The Feed advances the cutter and withdraws it from its work rapidly, and can be set to gauge the depth of cut in hundredths of an inch or less, as desired.

Flat Plates of any length may be engraved and, if under six inches wide, are held by the Dogs on the Slide-rest Table.

The No. 1 Large Plate Holder extends the Slide-rest Table, and takes plates up to twenty inches wide and of any length.

The Table can be lowered to admit objects up to six inches thick, or moved laterally to clear larger objects.

The Circular Attachment (see page 12) is for holding curved and circular objects, such as cylinders, cones, circular flat dials, and spherical surfaces, and for presenting successive portions to the action of the cutter.

The great variety in size of work done by this machine is explained by the fact that the work is held stationary while the cutter alone moves; and the cutters are all comparatively small.

EXAMPLES OF MACHINE ENGRAVING

IT IS IMPOSSIBLE TO REPRODUCE, ON PAPER, THESE SAMPLES WITH THEIR ORIGINAL PERFECTION.

No. 679.
Full size reproduction, showing sunk letters .01 in. deep engraved on brass casting. 160 letters in nine minutes. Special copy used without circular attachment.

No. 558.
Impression from brass seal. The engraved seal is one-half the diameter of above and the lettering is in relief.

No. 560.
Impression from brass seal . . . . . The engraved seal is one-half the length of above and the lettering is in relief.

No. 559.
Showing sunk characters .02 in. deep engraved close to a hub projecting $\frac{1}{16}$ in. Engraved on brass in five and on steel in six minutes by means of circular attachment and standard copy. Engraved with special copy in one minute

No. 561.
Full size reproduction of brass label plate having sunk flat bottomed lettering, suitable for wax filling. Depth of cut .05 inch. 8 letters engraved in three minutes. This is very similar to label plates as produced on this machine by U. S. Navy Yards, European Yards, and many shipbuilding firms.

STANDARD COPIES FOR PLAIN SUNK LETTERING AND FIGURES

These Copies are line engravings on hard brass, and are arranged in the grooves of the corresponding copy holders like printers' movable type. We keep these Standard Copies in stock. For suitable holders, see page 10.

No. 2. This copy is on strips **1.25** inches wide, fitting the No. 2 copy holder. Capitals are **.75** inches high. One set consists of about **185** capitals, figures, stops, and spacings.
Code Word—MUSTINESS. **Price Per Set,**

QUICK 5 QUICK 5

No. 2L. This copy is on strips **1.25** inches wide, fitting the No. 2 copy holder. One set consists of about **88** lower case letters only (no spacings), and is for use with No. 2 Standard Copy only.
Code Word—MUTABILITY. **Price Per Set,**

eat eat

No. 2C. This copy is on strips **1.25** inches wide, fitting the No. 2 copy holder. Capitals are **.75** inches high. One set consists of about **185** capitals, figures, stops and spacings.
Code Word—MUTABLE. **Price Per Set,**

QUICK 5 QUICK 5

No. 3. This copy is on strips **3.50** inches wide, fitting the No. 3 copy holder. Capitals are **3** inches high. One set consists of about **38** capitals, figures, etc. (no spacings).
Code Word—MUSROL. **Price Per Set,**

Q5 QUICK 5

No. 3C. This copy is on strips **3.50** inches wide, fitting the No 3 copy holder. Capitals are **3** inches high. One set consists of about **38** capitals, figures, etc. (no spacings).
Code Word—MUSKWOOD. **Price Per Set,**

Q5 QUICK 5

No. 4. This copy is on strips **4.50** inches wide, fitting the No. 4 copy holder. Capitals are **3** inches high. One set consists of about **64** capitals, figures, and lower case letters (no spacings).
Code Word—MUSKETOON. **Price Per Set,**

Nt 5 Nt 5

No. 5 This copy is on strips **2.25** inches wide, fitting the No. 5 copy holder. Capitals are **1.50** inches high. One set consists of about **131** capitals, figures, stops and spacings.
Code Word—IVY. **Price Per Set,**

Q5 QUICK 5

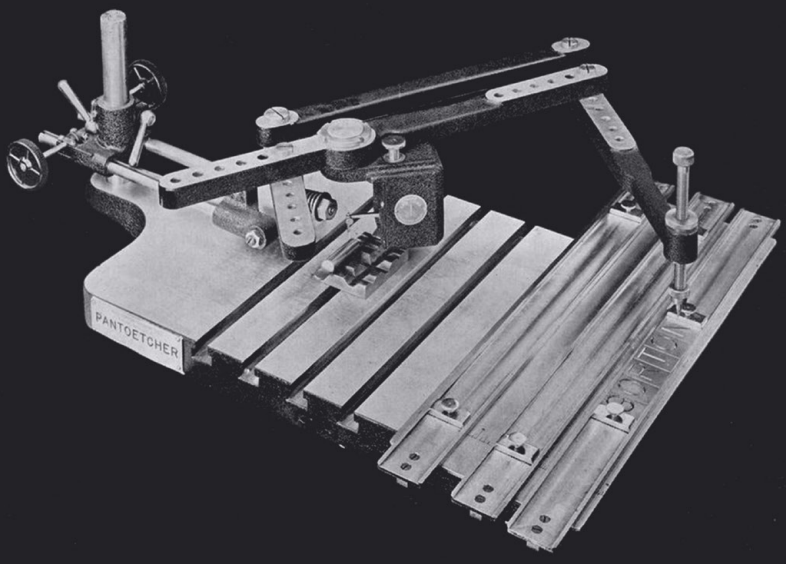
No. 5L. This copy is on strips **2.25** inches wide, fitting the No. 5 copy holder. One set consists of about **48** lower case letters only (no spacings), and is for use with No. 5 Standard Copy only.
Code Word—IVORY. **Price Per Set,**

eat eat

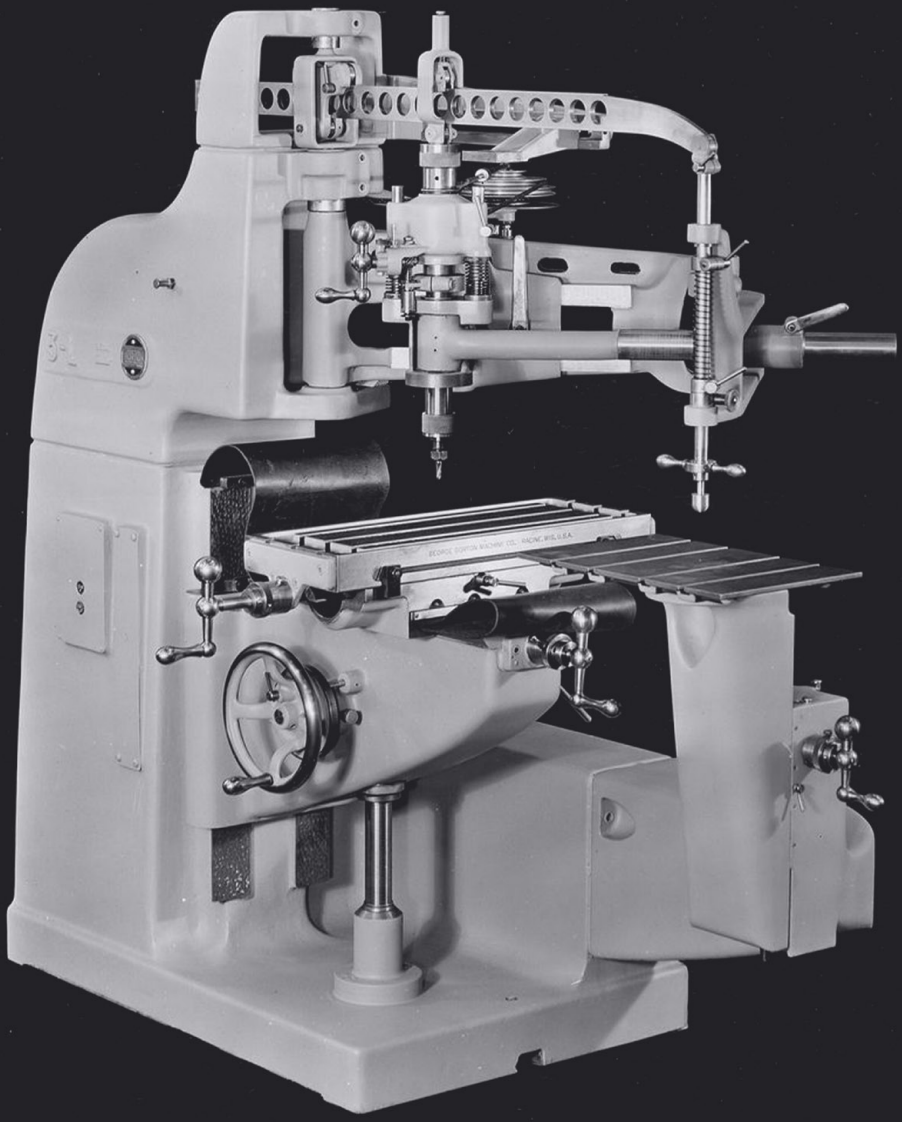
No. 5C. This copy is on strips **2.25** inches wide, fitting the No. 5 copy holder Capitals are **1.50** inches high. One set consists of about **131** capitals, figures, stops and spacings.
Code Word—ITERATE. **Price Per Set,**

Q5 QUICK 5

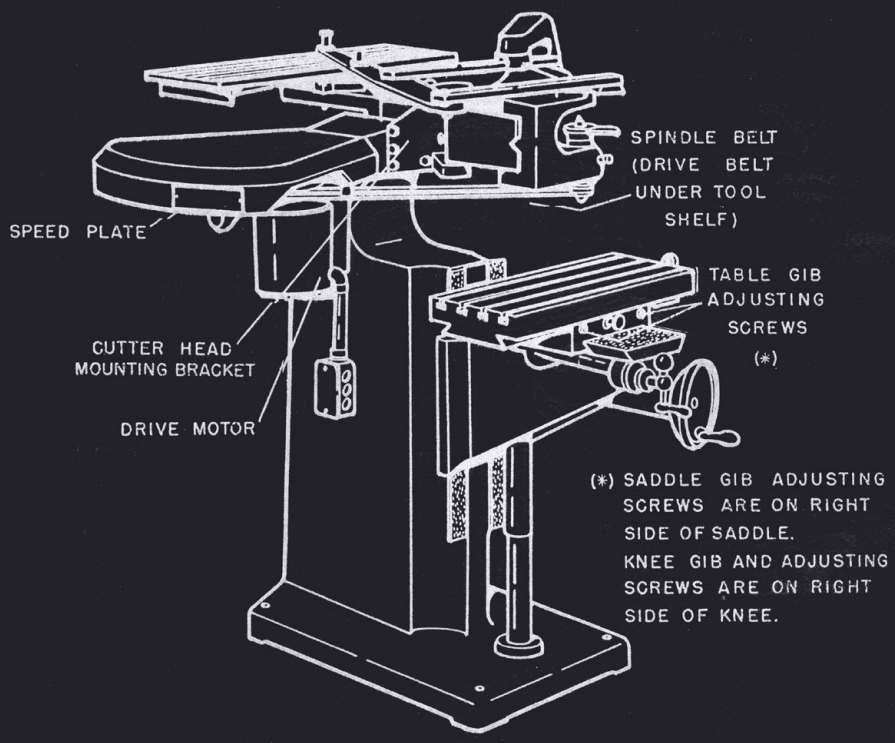
NOTE.—These prints show the largest and smallest work ordinarily cut from standard copy of various sizes. In each case intermediate sizes can be cut by setting pantograph on graduations provided. The width of letter faces may be as per these prints, or a mere hair line as desired. In each case, the larger print represents engraving produced with the pantograph set for $\frac{1}{2}$ reduction. The smaller print with pantograph set for $\frac{1}{4}$ reduction


PANTOETCHER

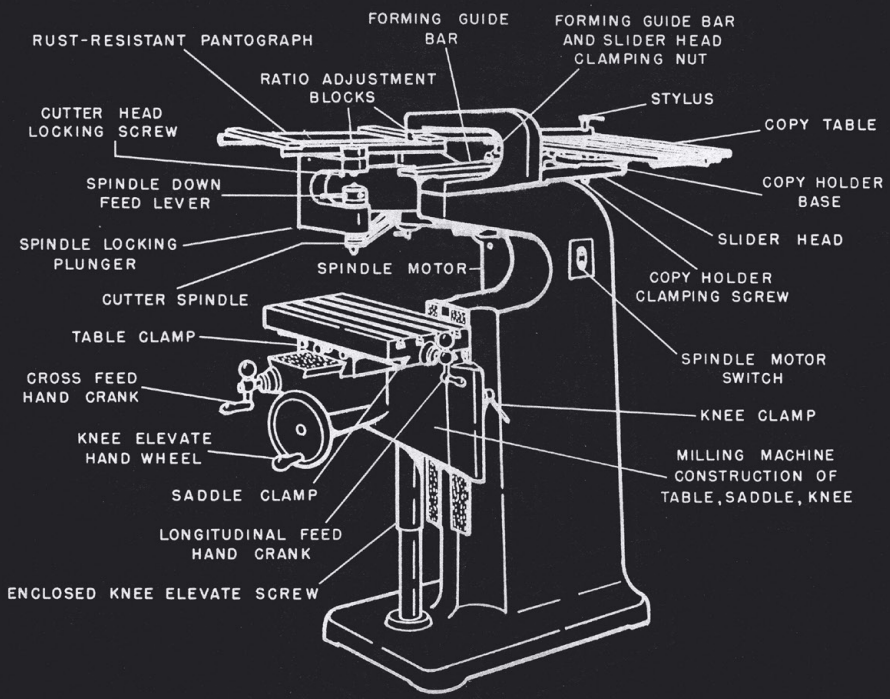

GORTON



P1-2 PANTOGRAPH (2-Dimensional)
from Left



P1-2 PANTOGRAPH (2-Dimensional)
from Right




0123456789ABCDEFGHIJKLMNPQRSTUVWXYZ&.:;-!
NO. 38-1.

FORM
1463

FORMULA FOR OBTAINING SPECIAL REDUCTIONS ON No. 3-B ENGRAVING MACHINE.

EXAMPLE

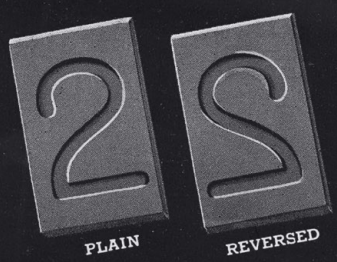
REDUCTION REQUIRED 2.4

CONSTANT → 1.6
REDUCTION → 2.4 = 6.667

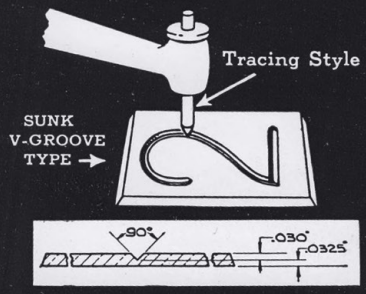
CONSTANT → 8.000
−6.667
1.333"

DISTANCE IN INCHES TO SET ALL FOUR SLIDER BLOCKS FROM GRADUATION 2 FOR 2.4 REDUCTION.

THE THREE BASIC FORMS—



SUNK V-GROOVE (90°)

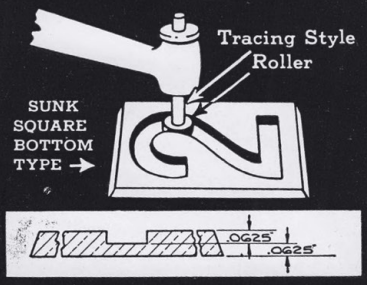


SUNK V-GROOVE TYPE—Principal uses: (1) to engrave reading matter on label plates, instruments, tools, etc.

(2) to cut sunken lettering in dies and molds, the most common use.

Different widths of face are made by varying width of cutter used, or by varying depth of cut taken with conical shaped cutter.

SUNK SQUARE BOTTOM GROOVE

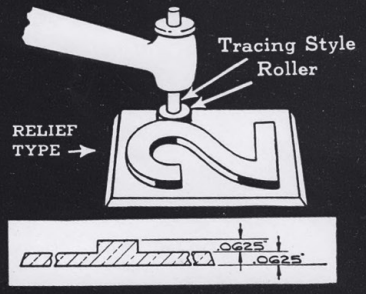


SUNK SQUARE BOTTOM GROOVE TYPE—Principal uses: (1) to produce sunken shaded lettering, as in Century, Roman, or Old English.

(2) to produce unshaded lettering wherever square corners are required, as in Chamfer Gothic.

Tracing styles used are cylindrical with square ends.

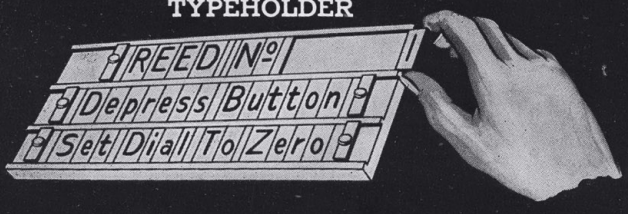
RELIEF (Raised)



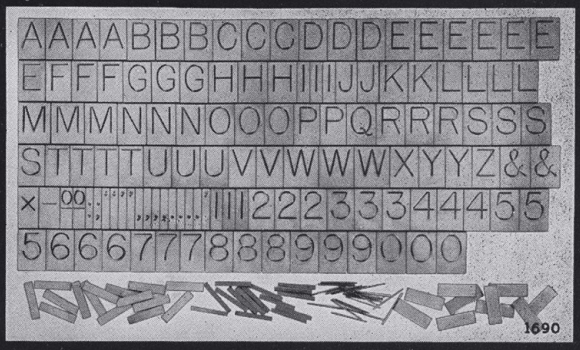
RELIEF (Raised) TYPE—Principal use:—to produce raised or relief characters on molds, dies, brass and steel stamps, etc. Tracing styles used are cylindrical with square ends.

THREE-DIMENSIONAL RELIEF (Raised) TYPE—Principal use—to produce raised steel letters on stamps and dies. Tracing styles used are conical shaped according to side wall angle required. See page 14 for complete description.

TYPEHOLDER



4-A SET OF TYPE—Capitals



REDUCTIONS—Full Size to 1/10th or 1/100th

SIXTH REDUCTION HEAVY
SIXTH REDUCTION MEDIUM
SIXTH REDUCTION LIGHT

EIGHTH REDUCTION HEAVY
EIGHTH REDUCTION MEDIUM
EIGHTH REDUCTION LIGHT

TENTH REDUCTION HEAVY
TENTH REDUCTION MEDIUM
TENTH REDUCTION LIGHT

TWELFTH REDUCTION HEAVY

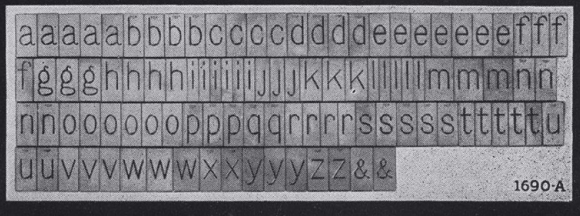
FOURTEENTH REDUCTION HEAVY

SIXTEENTH REDUCTION HEAVY

A few reductions possible from one size of type—Note the variation obtainable in width of face by using various sizes of cutters.

1663-K

5-a SET OF TYPE—Lower Case



LUCKY IS HE WHO CAN ACCEPT HIS BROKEN SWORD FROM FATE THE CONQUEROR, WITH A MANLY AND A HUMBLE HEART.
ABCDEFGHIJKLMNOPQRSTUVWXYZ& .,;:'' x - º 1234567890

Lucky Is He Who Can Accept His Broken Sword From Fate The Conqueror, With A Manly And A Humble Heart.

abcdefghijklmnopqrstuvwxyz&

GORTON NORMAL — capitals with matching lower case sets

Our most popular type face — universally accepted as standard — perfect proportions and simplicity make this the most used of all type faces. A minimum of sharp corners for rapid tracing with a smooth stroke . . . most adaptable to many uses.

Gorton lower case is especially designed for use with Gorton Normal Capitals but can also be used with either Gorton Extended or Gorton Condensed. All characters have identical center lines when of the same size. Height is measured from center line to center line on face of character. Matching Sets of Capitals and lower case are paired together as shown in the table. However, any Set listed, either Capitals or lower case, may be purchased singly.

Important — All lower case copy on pages 21, 22 and 23 is interchangeable with Capitals as indicated by repetition of Cat. No. Sets bearing the same Cat. No. are identical.

Where master copy type is subject to constant use on production work, we recommend the purchase of the brass type Sets, hard chromium plated; or steel type Sets, case hardened. Steel type on bodies larger than 1-1/4" cannot be produced successfully due to warpage in heat treating.

Hard chromium plated Brass Master Copy Type Sets — Price: Two times catalog price. Steel, case hardened, Master Copy Type Sets — Price: Three times catalog price. For individual pieces and Special Masters, prices quoted on request.

Plain — **SUNK V-GROOVE** — **Reversed**

Cat. No.	Case	Type Size	Body Size	Set Size	Ship. Wt.	Cat. No.	Case	Type Size	Body Size	Set Size	Ship. Wt.
832-1	Caps	3/8"	1-1/4"	4-A	3 lbs.	**835-1**	Caps	3/8"	1-1/4"	4-A	3 lbs.
833-1	Lower	3/8"	1-1/4"	5-a	2 lbs.	**836-1**	Lower	3/8"	1-1/4"	5-a	2 lbs.
10-1	Caps	3/4"	1-1/4"	4-A	3 lbs.	**70-1**	Caps	3/4"	1-1/4"	4-A	3 lbs.
11-1	Lower	3/4"	1-1/4"	5-a	2 lbs.	**77-1**	Lower	3/4"	1-1/4"	5-a	2 lbs.
834-1	Caps	1"	1-1/4"	4-A	3 lbs.	**837-1**	Caps	1"	1-1/4"	4-A	3 lbs.
16-1	Caps	1-1/2"	2-1/4"	2-A	6 lbs.	**71-1**	Caps	1-1/2"	2-1/4"	2-A	6 lbs.
17-1	Lower	1-1/2"	2-1/4"	4-a	5 lbs.	**74-1**	Lower	1-1/2"	2-1/4"	4-a	5 lbs.
13-1	Caps	3"	3-1/2"	1-A	9 lbs.	**73-1**	Caps	3"	3-1/2"	1-A	9 lbs.
15-1	Caps	3"	4-1/2"	1-A	10 lbs.	**72-1**	Caps	3"	4-1/2"	1-A	10 lbs.
404-1	Lower	3"	4-1/2"	1-a	6 lbs.	**403-1**	Lower	3"	4-1/2"	1-a	6 lbs.

Plain — **SUNK SQUARE BOTTOM GROOVE** — **Reversed**

Cat. No.	Case	Type Size	Body Size	Set Size	Ship. Wt.	Cat. No.	Case	Type Size	Body Size	Set Size	Ship. Wt.
543-1	Caps	3/4"	1-1/4"	1-A	2 lbs.	**544-1**	Caps	3/4"	1-1/4"	1-A	2 lbs.

Plain — **RELIEF** — **Reversed**

Cat. No.	Case	Type Size	Body Size	Set Size	Ship. Wt.	Cat. No.	Case	Type Size	Body Size	Set Size	Ship. Wt.
262-1	Caps	3/4"	1-1/4"	1-A	2 lbs.	**261-1**	Caps	3/4"	1-1/4"	1-A	2 lbs.
868-1	Caps	3/4"	1-1/4"	4-A	7 lbs.	**871-1**	Caps	3/4"	1-1/4"	4-A	7 lbs.

1/16 1/8 3/16 1/4 5/16 3/8 7/16 1/2 9/16 5/8 11/16 3/4 13/16 7/8 15/16

GORTON FRACTIONS — sixteenths

Specially designed for use with Gorton Normal but can be used with any of the Gorton faces. All characters have identical center lines when of the same size. Height is measured from the top center line on the face of the upper characters to the bottom center line on the face of the lower characters.

Plain — **SUNK V-GROOVE** — **Reversed**

Cat. No.	Type Size	Body Size	Set Size	Ship. Wt.	Cat. No.	Type Size	Body Size	Set Size	Ship. Wt.
860-1	3/8"	1-1/4"	1 ea.	1 lb.	**862-1**	3/8"	1-1/4"	1 ea.	1 lb.
458-1	3/4"	1-1/4"	1 ea.	1 lb.	**497-1**	3/4"	1-1/4"	1 ea.	1 lb.

1/32 3/32 5/32 7/32 9/32 11/32 13/32 15/32 17/32 19/32 21/32 23/32
25/32 27/32 29/32 31/32

GORTON FRACTIONS — thirty-seconds

Plain — **SUNK V-GROOVE** — **Reversed**

Cat. No.	Type Size	Body Size	Set Size	Ship. Wt.	Cat. No.	Type Size	Body Size	Set Size	Ship. Wt.
864-1	3/8"	1-1/4"	1 ea.	1 lb.	**866-1**	3/8"	1-1/4"	1 ea.	1 lb.
457-1	3/4"	1-1/4"	1 ea.	1 lb.	**496-1**	3/4"	1-1/4"	1 ea.	1 lb.

CHARACTER HEIGHT measured from center of engraved cut	Nominal	1/16	3/32	1/8	3/16	1/4	3/8	1/2
	Decimal	.062	.093	.125	.188	.250	.375	.500
SUGGESTED SPACE BETWEEN LINES	Minimum	.03	.04	.05	.07	.09	.14	.18
	Maximum	.058	.086	.116	.174	.232	.349	.465
RECOMMENDED SPACE BETWEEN WORDS		.045	.068	.090	.136	.180	.272	.360

Doubled between sentences.

GORTON

10-1 NORMAL TYPE FACE ENGRAVING CHART

A	.273	V	.273
B, C, D, E	.283	W	.350
F	.260	X	.283
G	.283	Y	.260
H	.293	Z	.273
I	.127	1	.127
J	.226	2	.260
K	.283	3	.273
L	.247	4	.260
M	.333	5, 6	.283
N, O	.293	7	.247
P	.260	8, 9	.283
Q	.293	− x +	.213
R, S	.283	° ( )	.127
T	.247	. , : ; ‘ ’	.087
U	.283	&	.293

WIDTH OF CHARACTERS

Including right and left-hand margin. Copy is self-spacing.

.102	.068	
.75	.131	.087
.141	.106	.070
.130	.097	.065
.136	.102	.068
.063	.047	.031
.130	.097	.065
.136	.102	.068
.260	.097	.065
.283	.106	.070
.247	.092	.061
.283	.106	.070
.213	.080	.053
.127	.047	.031
.087	.032	.021
.293	.110	.073

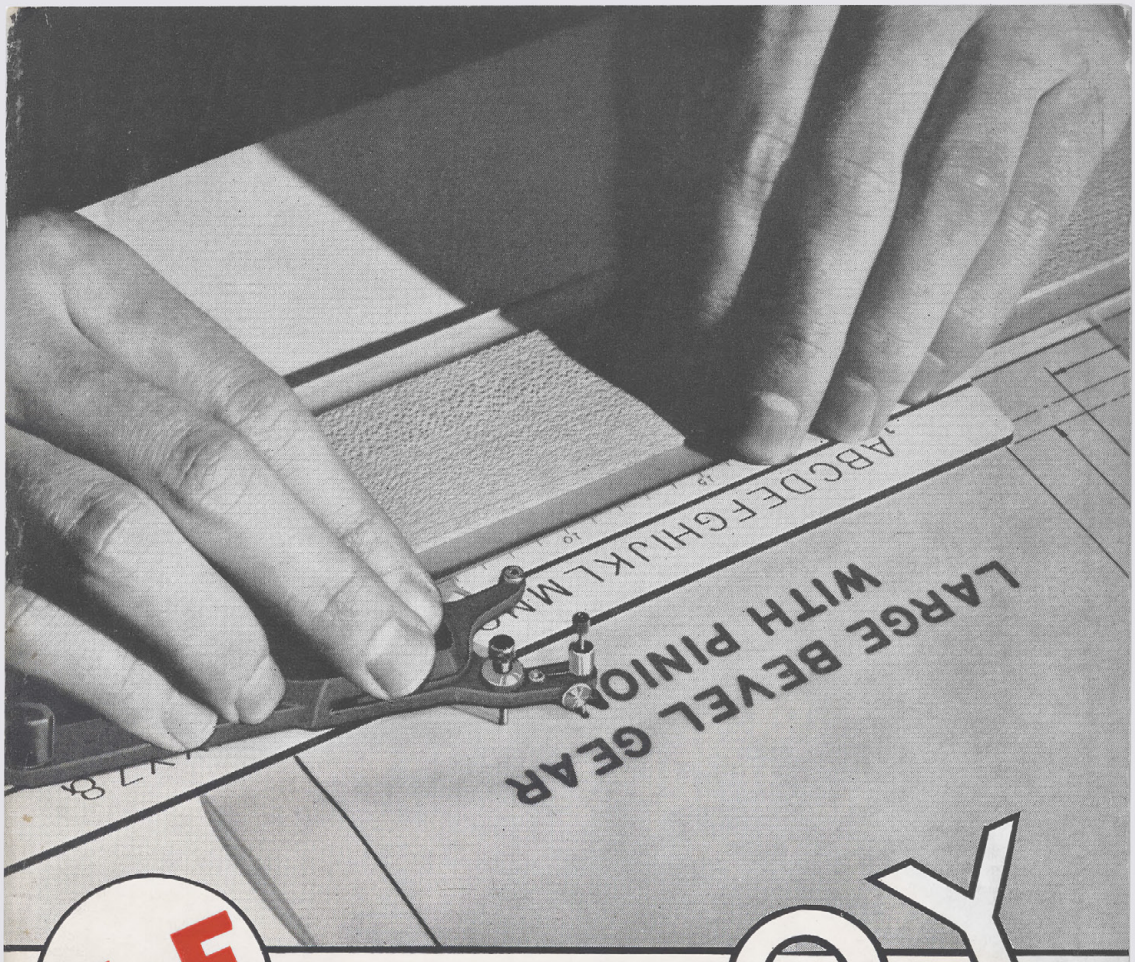
Slide Chart by PERRYGRAF Div. Nashua Corp., L.A., CA 91324 Printed in U.S.A.

Form 3178-A-2M-9/68


DADO


DADS


DADS
S



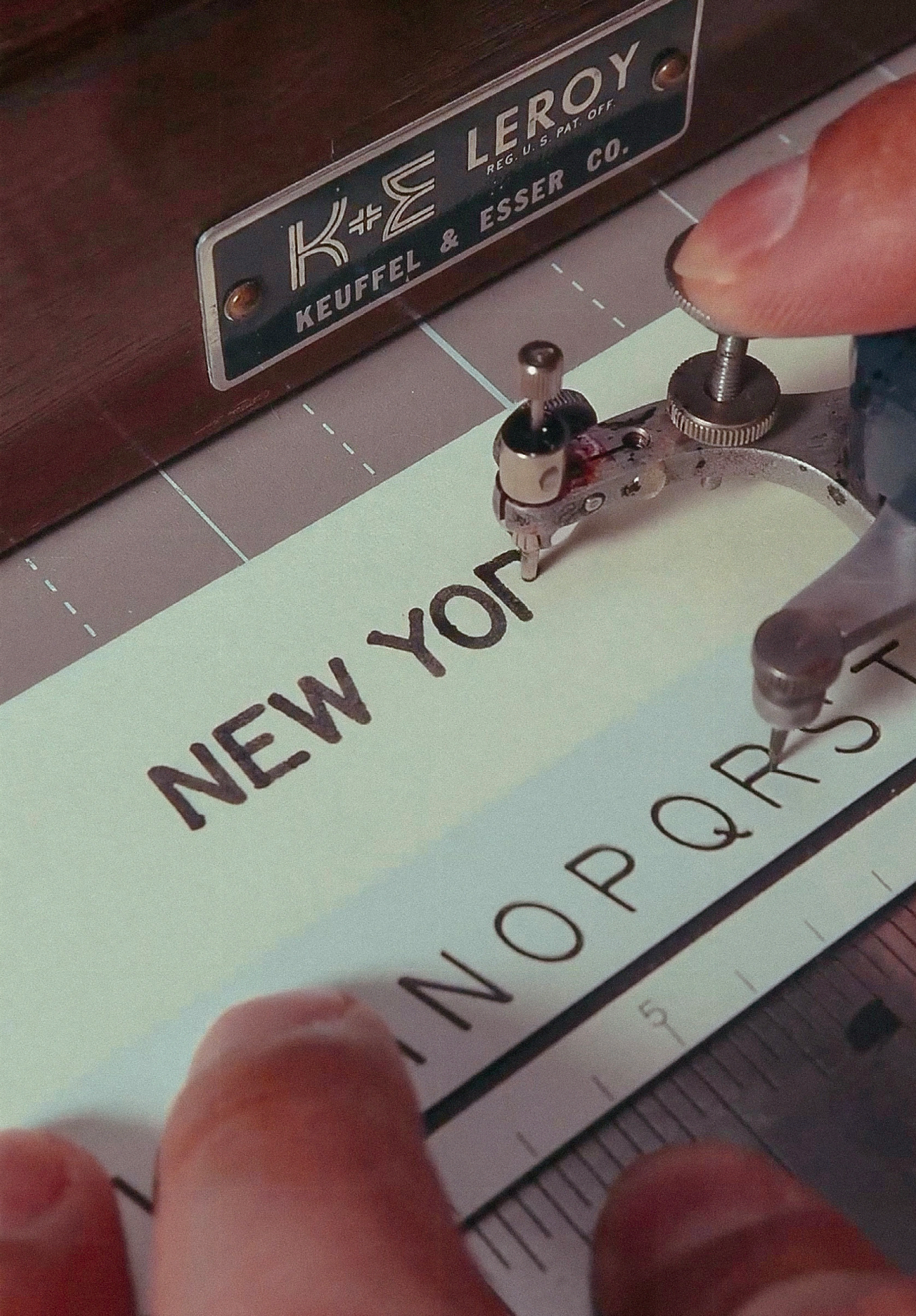
K&E
REG. U.S. PAT. OFF.

LEROY
REG. U.S. PAT. OFF.

LETTERING SETS

FOR SALE BY

GREGORY, MAYER & THOM CO.,
41-45 CADILLAC SQUARE,
DETROIT, MICHIGAN


K+E LEROY
REG. U.S. PAT. OFF.
KEUFFEL & ESSER CO.
NEW YOR
NOPQRST

LEROY LETTERING

ACTUAL SIZE

Series C Templates, continued: This series forms the capital letters and numbers most frequently used on engineering drawings and maps. These can be reproduced either vertically or slantingly with adjustable scriber 3237-2, or *vertically only* with fixed scriber 3237-1.

A FASTER, BETTER WA

Y TO LETTER ENGINE

Template 290C Pen 4

ERING DRAWINGS. A

BCDEFGHIJKLMNO

Template 350C Pen 5

PQRSTUVWXYZ

1234567890. A

Template 425C Pen 6

FASTER, BET

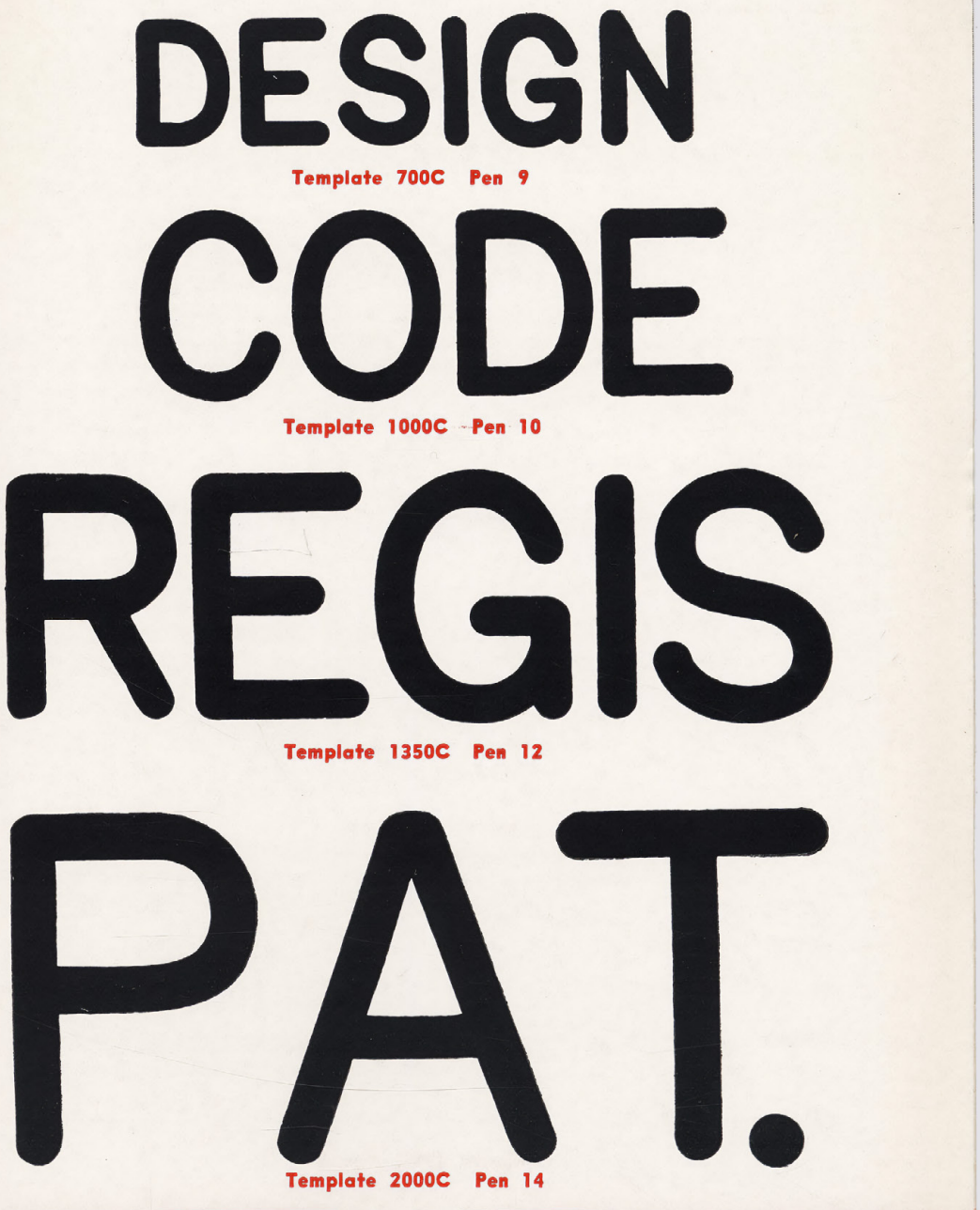
TER WAY TO

Template 500C Pen 8N

LEROY LETTERING

ACTUAL SIZE

Large Templates, Series C: This series provides large capital letters and numbers for titles, patterns and signs. Templates in this group can be used only with fixed scriber 3237-3 and will form vertical letters only.



Max Cadliner CD-750, a Japanese technical typing machine, a “lettering plotter,” and a drawing board accessory, from 1989


ENS
0123456789


HISHIFT_HAPPENS_
MAX CADLINER
SHIFT
LOCK
III
IV
M MR
INS DEL
JUSTIFY A/RTN
A/END A/CTR
A/TABLE L/SPC
LINE SPC SLANT
SPEED SIZE
C&E
SPACE
BS


1 2 3 4 5
Q W E R T
@ A S D F
Z X C V


7
8
9
0
U
I
O
P
H
J
K
L
N
M
#


GORTON
IN REAL LIFE

Gorton's distinctive shapes can be found on industrial machinery of a certain age, various plaques and signage, documents, and intercoms. (This is how I found Gorton's numero – on an intercom sign in Madrid, in 2022.) In those instances, touching the letters immediately betrays their origins and the process that made them come to life, as the text is sunken – or, more rarely, raised.

But this might give you pause: outside of a rare and unpleasant keyboard like the one on the previous spread, keys don't have an indented or raised feel to them. What explains this is the fact that on most keyboards, Gorton isn't carved into a keycap's surface. Instead, in a process known as double-injection molding, the letter is first formed in one color of plastic (first mold), and then the key is built around it using a different color (second mold). The carving is used in the process of making molds, but the letter and the rest of the key surface present a unified front to your finger.

Then there are more traditionally printed instances of Leroy/Gorton: technical documents, or even comic books (a lot of EC Comics output used Leroy lettering in the 1950s).

The next spreads show many examples I found of Gorton in actual use around the world, in all of its editions: engraved, filled, printed. We'll travel from parks in America to submarines in Australia – and see many, many keycaps. (Note that Gorton also existed in condensed and extended forms that can be spotted here. Those are more rare on keyboards.)

COO-2007-78

DEMONSTRATION OF THE FIRST VISIBLE WAVELENGTH DIRECT NUCLEAR PUMPED LASER

by

MARVIN ALFRED AKERMAN

NUCLEAR ENGINEERING PROGRAM

UNIVERSITY of ILLINOIS at URBANA-CHAMPAIGN

URBANA, 1976

MIGRANT MOTHER AND CHILDREN

CALIFORNIA

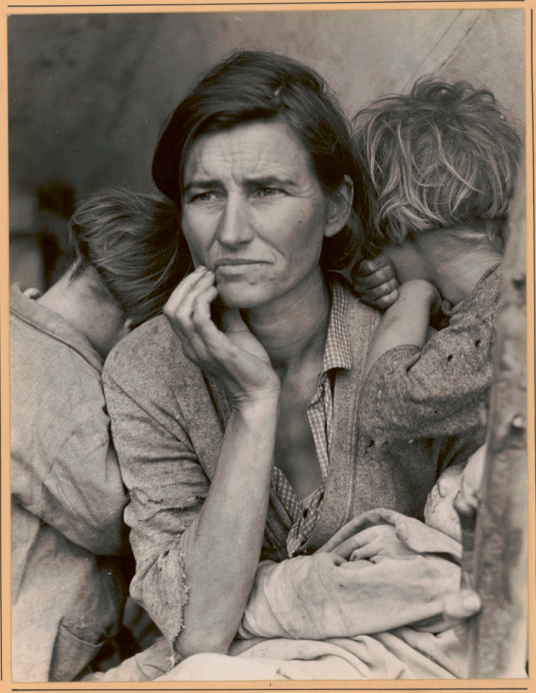


PHOTO BY LANGE

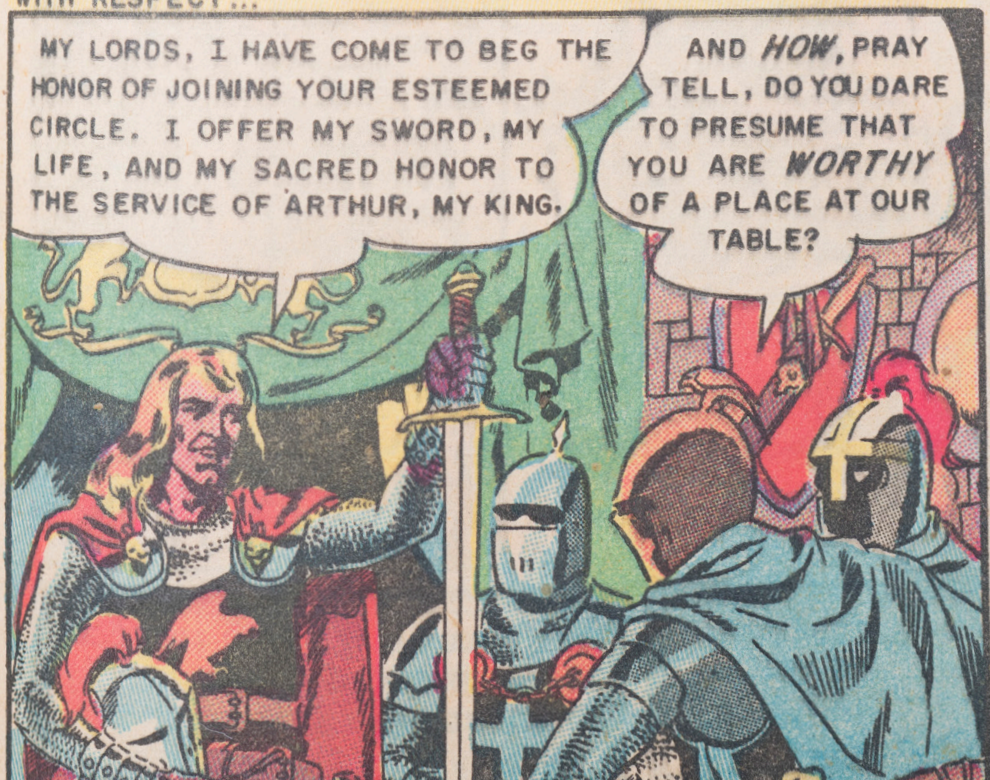
PUBLICATIONS WHICH THEY HAVE APPEARED

1935-'36-'37-'38-'39

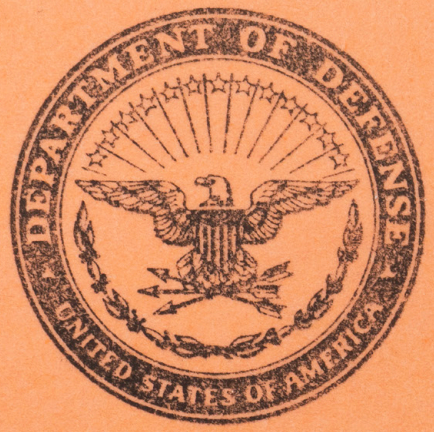
PAPER	DATE	PAPER	DATE
New York Times	July, 5. 1936		
San Francisco News	3-11-36		
" "	Oct. 5, 1936		
U. S. News	1936		
San Francisco Chronicle	3-7-36		
Theater And Film	April, 1936		
Scholastic	Sept. 26, 1936		
Survey Graphic	Sept. 1936		
Building America	1937		
Midweek Pictorial	Oct. 17, 1936		
Světozor	1937		
Survey Graphic	1936		
Washington Post	June 23, 1938		
Epworth Highroad	Feb. 1938		
Washington Post	March 7, 1937		
New York Times	July 5, 1935		
San Francisco Examiner	Feb 5, 1936		
Social Action	Feb. 1937		
Sunday Pantagraph, Bloomington, Ill.	June 9, 1940		
The Pilgrim Highroad	July, 1940		

the King's S

IT WAS THE CENTURY OF ARTHUR, KING OF ENGLAND, LORD KNIGHT OF THE ROUND TABLE. IT WAS THE CENTURY OF BOLD DEEDS AND COWARDICE, FIERCE FEALITY AND TREACHERY, GALLANTRY AND BASENESS. IT WAS IN THOSE DAYS THAT THERE MET IN SECRET SESSION THE BRAVEST MEN OF ALL... THOSE ARMORED GIANTS OF HEART AND SPIRIT... KING ARTHUR AND HIS KNIGHTS OF THE ROUND TABLE. AND ON ONE OF THOSE DAYS, THERE CAME AMONG THEM A CERTAIN KNIGHT WHO CALLED HIMSELF GEOFFREY OF ASTOLAT... A TALL, FAIR YOUNG MAN IN FULL ARMOR...EXCEPT FOR HIS HELMET, WHICH HE CARRIED UNDER HIS ARM. THE ASSEMBLAGE RECEIVED GEOFFREY IN THEIR FULL ARMOR, HELMETED SO THAT HE MIGHT NOT RECOGNIZE ANY OF THEM. HE FACED HIS INQUISITORS WITH FORTHRIGHT BOLDNESS, YET WITH RESPECT...



TAKEN
SELF UP



DUAL PURPOSE ENGINEERING DOCUMENT CARD

CARD CODE-H UPPER LEGENDS

CARD CODE-T LOWER LEGENDS

LOWER LEGENDS

REVISED

CODE IDENT. NUMBER

REV. LTR

KIND

NUMBER

REV

ACCOM. DOC.

CARD NR

NR OF CARDS

SHEET NR

REV. LTR

NR OF SHEETS

RIGHTS

CONTROL ACTIVITY

SIZE

CARD CODE

SEC. CLASS


DO NOT THROW
REFUSE
OVERBOARD

MAXIMUM
OCCUPANCY
49

TYPE 14

TELEPHONES J.B.4.

LINE Nº	CONNECTS	
[illegible]	MAIN WIRELESS OFFICE	[illegible]
D 14		SECOND WIRELESS OFFICE
D 17		[illegible] V-U/HF ROOM
D 18	FWD SW'BD RM & ELECTRONICS MAINTENANCE RM.	
D 54	EMERGENCY	COMMAND POSITION & WHEELHOUSE
D 65	OPERATIONS ROOM &	WIRELESS OFFICE
D 66		SECOND WIRELESS OFFICE
[illegible] D 85	TYPE 293 OFFICE. RADIO MAINTENANCE ROOM. E.M.R. ELECTRICAL WORKSHOP. T.S. & OPERATIONS ROOM	
D 43	ENGINEER OFFICER'S CABIN & 'A' ENGINE ROOM	
21	AUTO EXCHANGE &	BRIDGE
22		MAIN SIGNAL OFFICE
23		WARDROOM
24		ELECTRONICS MAINT'CE & AMPLIFIER RM
25		EXECUTIVE OFFICER'S CABIN
26		SUPPLY OFFICER'S CABIN & CABIN STN 46-49 (S)
27		C.O'S DAY & SLEEPING CABINS
28 (MESSAGE TELEPHONES)		MAIN SIGNAL OFFICE
29		ENGINEER OFFICER'S CABIN
D 117	U.H.F. [illegible] O M.W.O.	

E
DAF
422

E.L.E.Co LTD ST.ALBANS

D118	BRIDGE
	OPERATIONS ROOM
	SONAR 182 INSTRUMENT COMPT
	QUARTER DECK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COMMISSIONER FOR GOVERNMENT TRANSPORT
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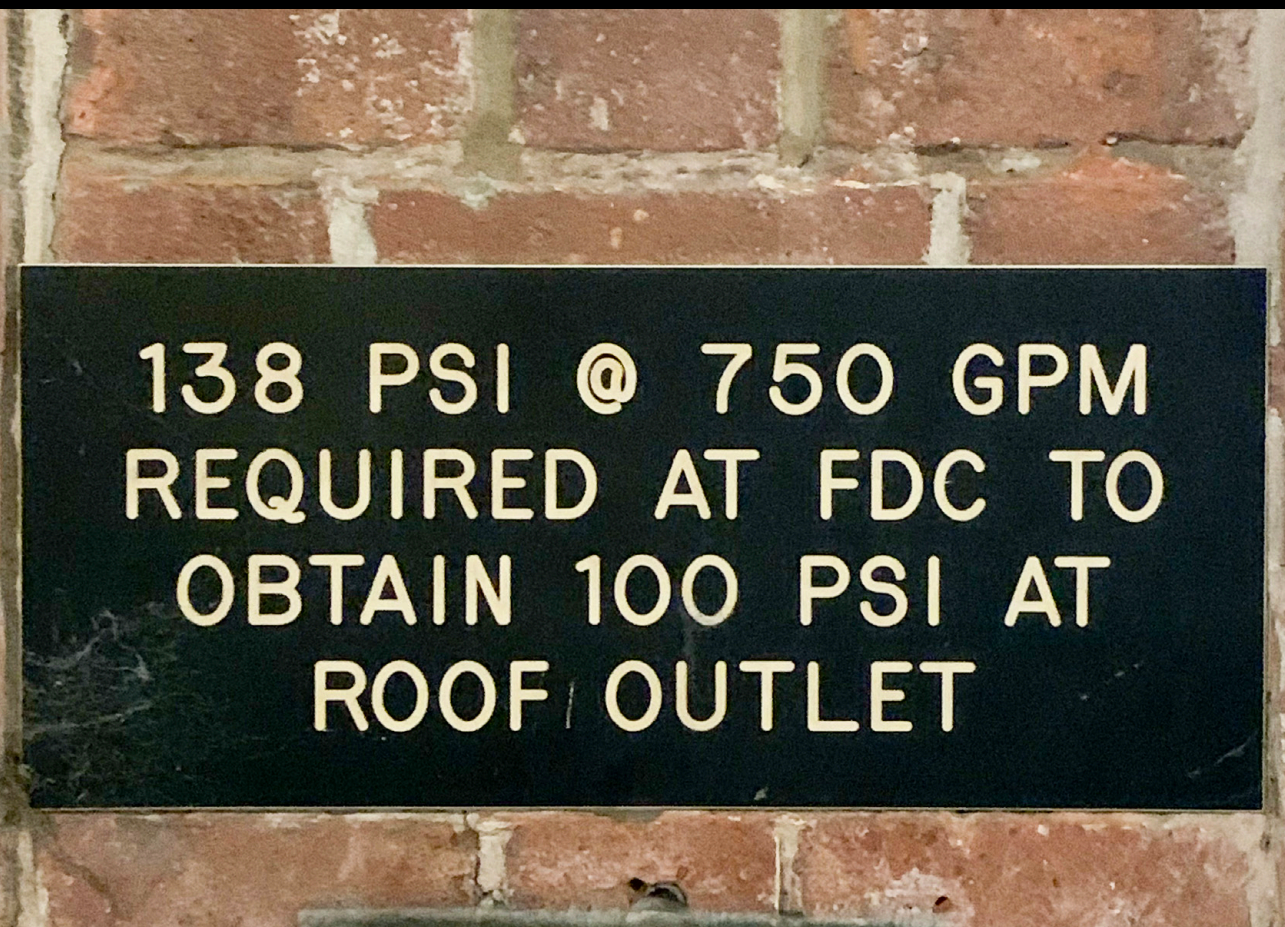
23RD DECEMBER 1861 — 23RD DECEMBER 1961
R.E.MURRAY
CHAIRMAN OF DIRECTORS
NORMAN L.CHINN
MANAGING DIRECTOR


U.S.S. SAN FRANCISCO
KEEL LAID SEPT. 9, 1931
FIRST RIVETS DRIVEN WITH THESE HAMMERS
E.L.IMBODEN ASST.CHF.PLANNER & ESTIMATOR RIVETER
F J.THOMPSON PLANNER & ESTIMATOR RIVETER
W.GEE " " " HOLDER-ON
W.SMITH " " " RIVET HEATER
C.A.GOSHEN " " " RIVET PASSER
E.E.REHN " " " RIVET TESTER


CAUTION
415 VOLTS
CAUTION
WORK OR TEST ON THIS APPARATUS
MUST BE AUTHORISED BY THE
AUTHORISED PERSON


138 PSI @ 750 GPM
REQUIRED AT FDC TO
OBTAIN 100 PSI AT
ROOF OUTLET


MO
63792


BICYCLISTS
WALK
BICYCLES NEXT
300 FT.


LITTLE BEAR LAKE
ELEVATION 6500
PLUMAS National Forest


LAKE LAGUNITAS TROUT REGULATIONS
LIMIT-TWO IN POSSESSION.
SIZE LIMIT-NO TROUT LARGER THAN 14 INCHES TOTAL LENGTH MAY BE RETAINED AND MADE A PART OF THE DAILY BAG LIMIT.
METHODS OF TAKE-FOR ALL SPECIES. ONLY ARTIFICIAL LURES WITH SINGLE BARBLESS HOOK MAY BE USED.
THESE LIMITATIONS WILL BE APPLIED TO LAKE LAGUNITAS ONLY.
MARIN MUNICIPAL WATER DISTRICT
CALIFORNIA DEPARTMENT OF FISH & GAME


BC 14A
LIBERTY ELECT
COUPLING
MIN.
MAX.
CENTURY
TYPE
CAC 188
PUSH FOR
BUZZER
EMERGENCY
TELEPHONE
CONNECTION
PRIMARY
SECONDARY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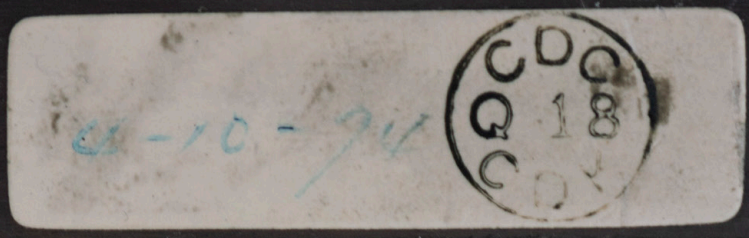
ONE MINUTE VERNIER



STACK FAILURE

SYSTEM TYPE	SYSTEM S/N

STACK TYPE	STACK S/N
6000	76624

- ☐ DEAD ON ARRIVAL
- ☐ SOLID FAILURE
- ☐ INTERMITTENT FAILURE
- ☐ SHOCK SENSITIVE
- ☐ MARGINAL

DATE INSTALLED	FAILURE DATE

AA 4846


R.P.S.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L
LOBBY


Priority Seating for Seniors
or Persons with Disabilities
Please Vacate Upon Request
(Federal Regulation 49 CFR 38)
WHEELCHAIR SECUREMENT AREA
PLEASE VACATE UPON REQUEST


OLUME
ESS
TTON
OUD
OUDER
OUDEST
5·10·25
U.S.
COINS
ONLY
COIN RELEASE


EMERGENCY GENERATOR
TAP BOX


IN CASE OF
FIRE USE
STAIRWAY
FOR EXIT
DO NOT USE
ELEVATOR


KONE ESCALATOR No.6
UP DOWN
EMERGENCY
STOP BUTTON
TO STOP ESCALATOR
PRESS RED BUTTON
PENALTY
FOR IMPROPER USE $40
STOP
ESCALATOR Nº 6
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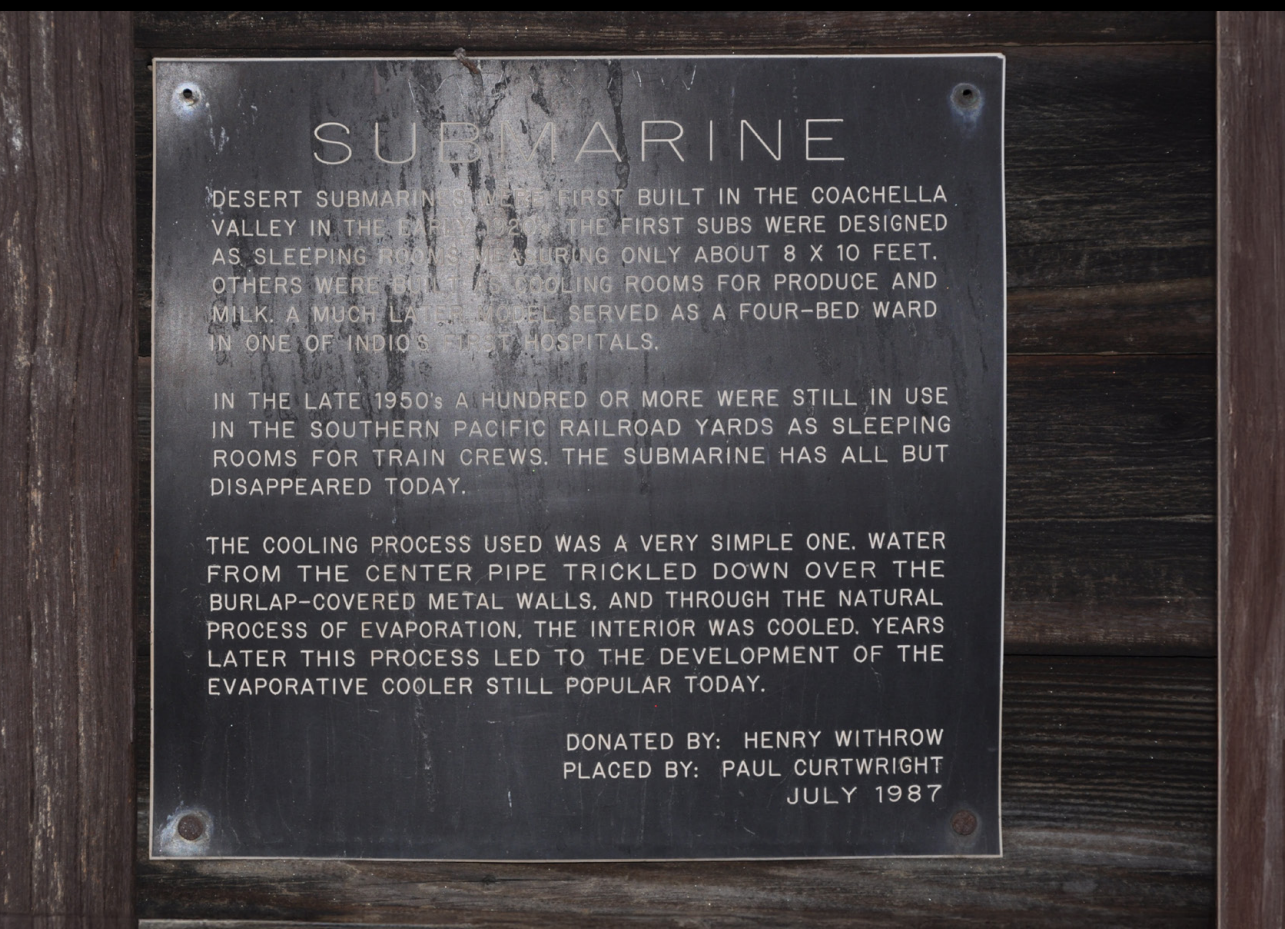
RANGE CONTROL
DUTY OFFICER


SUBMARINE
DESERT SUBMARINES WERE FIRST BUILT IN THE COACHELLA VALLEY IN THE EARLY 1920's. THE FIRST SUBS WERE DESIGNED AS SLEEPING ROOMS MEASURING ONLY ABOUT 8 X 10 FEET. OTHERS WERE BUILT AS COOLING ROOMS FOR PRODUCE AND MILK. A MUCH LATER MODEL SERVED AS A FOUR-BED WARD IN ONE OF INDIO'S EARLY HOSPITALS.
IN THE LATE 1950's A HUNDRED OR MORE WERE STILL IN USE IN THE SOUTHERN PACIFIC RAILROAD YARDS AS SLEEPING ROOMS FOR TRAIN CREWS. THE SUBMARINE HAS ALL BUT DISAPPEARED TODAY.
THE COOLING PROCESS USED WAS A VERY SIMPLE ONE. WATER FROM THE CENTER PIPE TRICKLED DOWN OVER THE BURLAP-COVERED METAL WALLS, AND THROUGH THE NATURAL PROCESS OF EVAPORATION, THE INTERIOR WAS COOLED. YEARS LATER THIS PROCESS LED TO THE DEVELOPMENT OF THE EVAPORATIVE COOLER STILL POPULAR TODAY.
DONATED BY: HENRY WITHROW
PLACED BY: PAUL CURTWRIGHT
JULY 1987


CERTAIN ITEMS ON
THIS EQUIPMENT
HAVE UNIFIED THREADS


LO / HJERPE / GRASSL
5

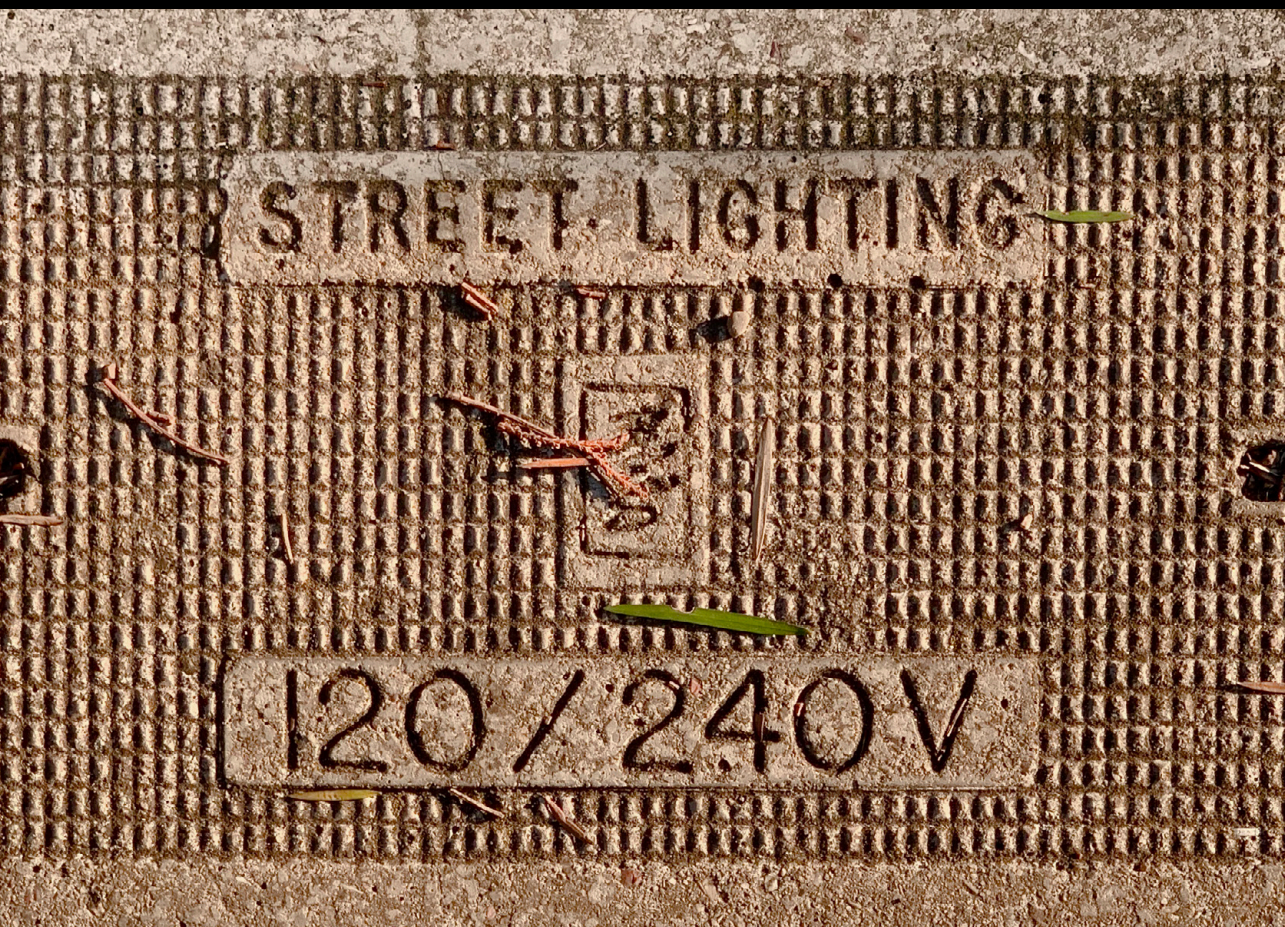

901


NO
DUMPING


WORLD CENTRIC
100% Compostable
COMPOST ME!
76
CUL-CS-12
CAUTION CONTENTS HOT


NOVATO LOCK
892-9111


DANGER
DIATIO
DROP
&
RUN
Co 60
3540
CURIES
7-1-63


STREET LIGHTING
120/240V


REJ
JAN
FEB
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APR
MAY
JUN
JUL
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SEP
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NOV
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CHECK
DEPART
ARRIVE
CANCEL
LIST
OTH AV
SELL
AVAIL
CLEAR


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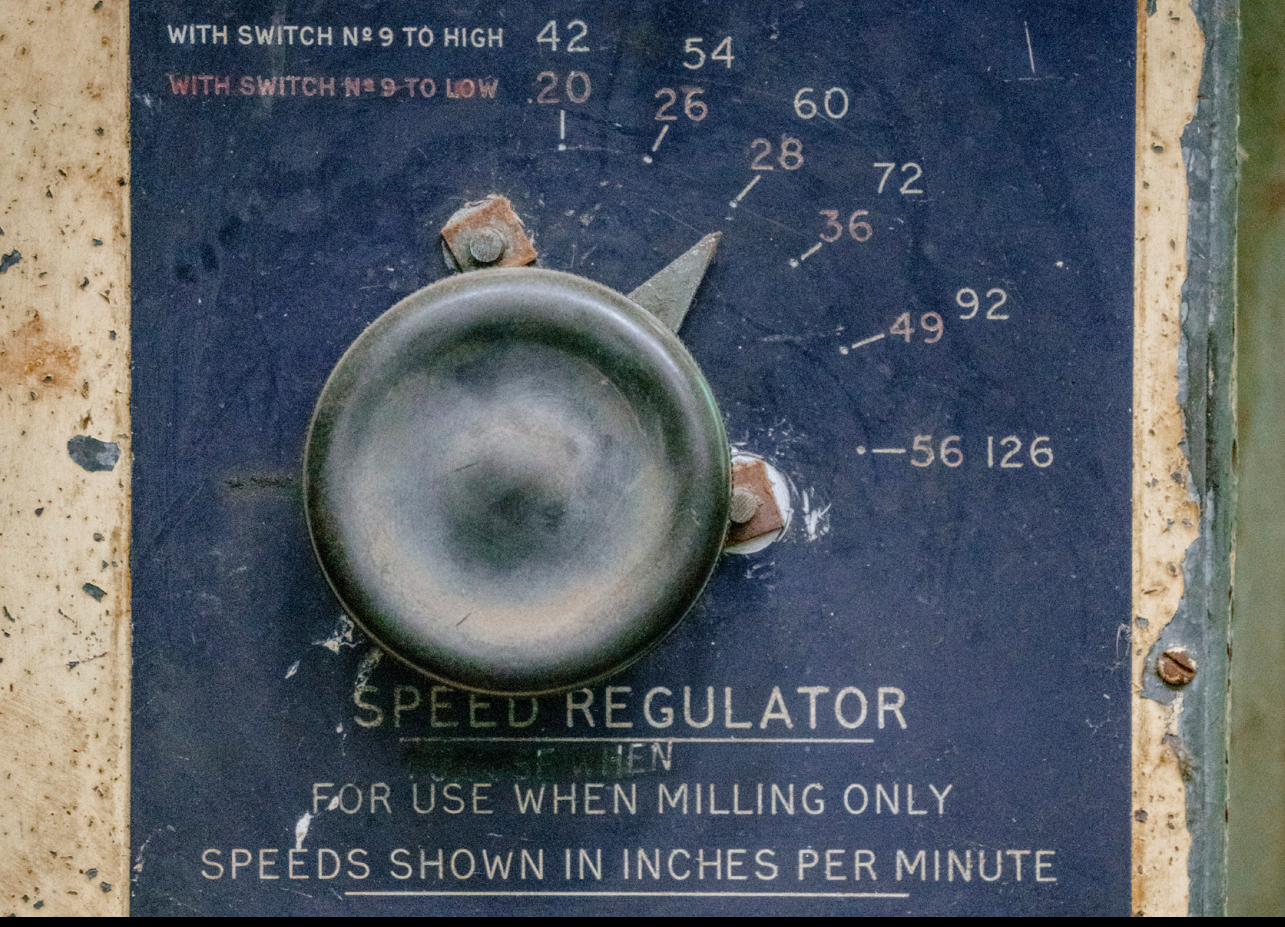
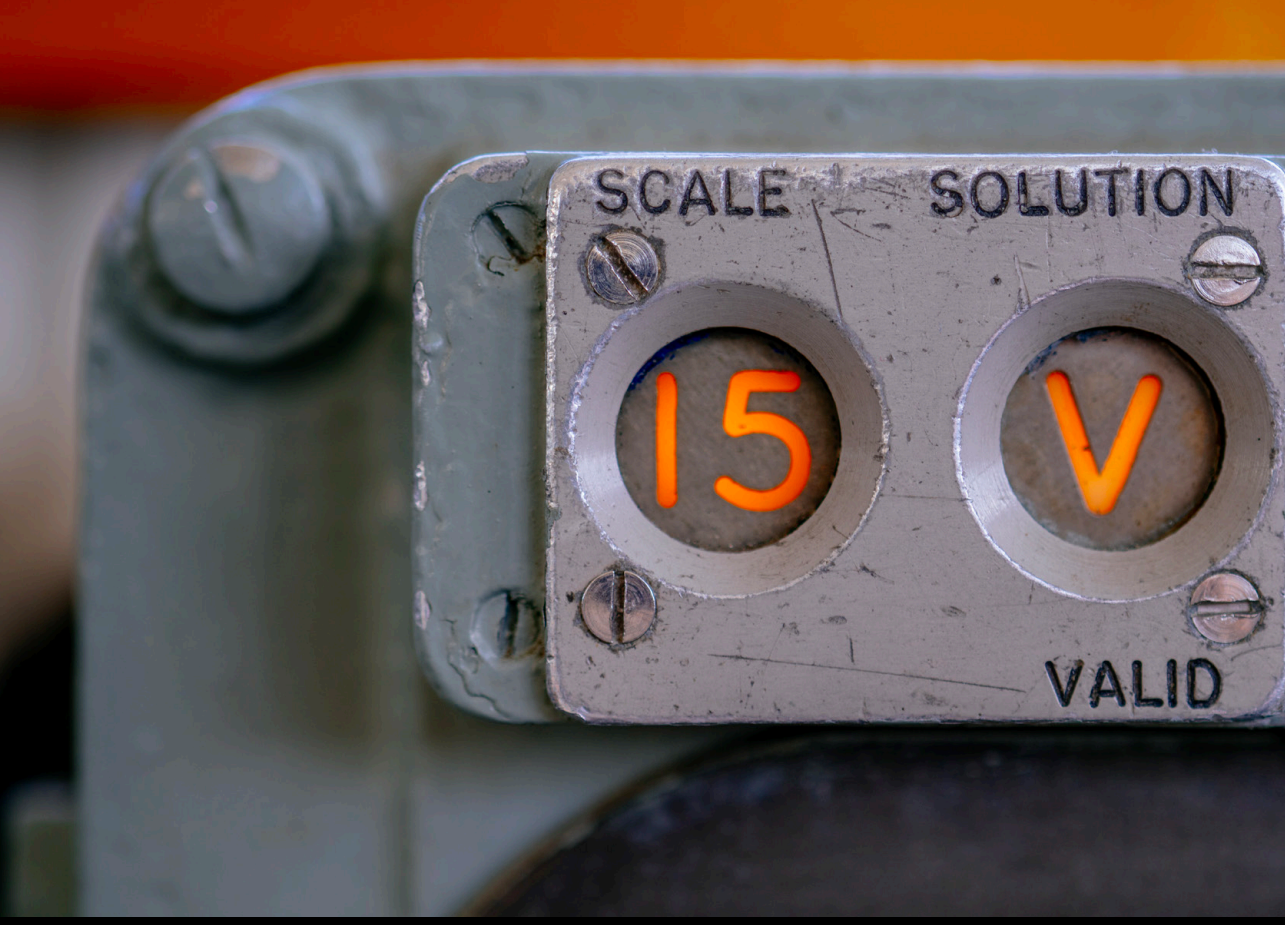
HID
Vertex Security 212-529-7159


REV
LEFT
STEER
RIGHT
TRAVEL
WARNING
BELL
(PUSH)
UP
VERTICAL DRIVE
DOWN


SALT WATER
HOT FRESH
WATER
COLD FRESH
WATER

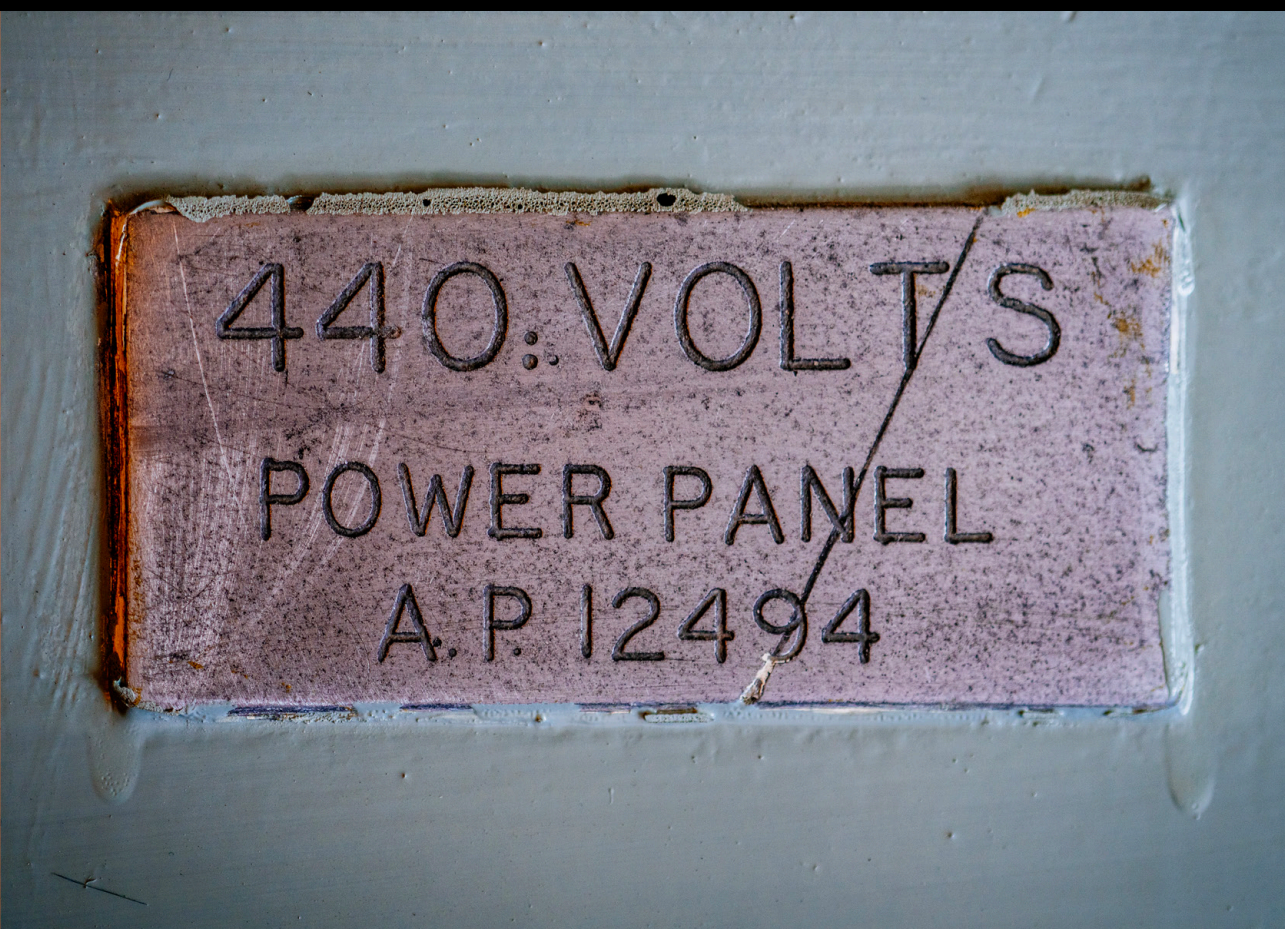

WITH SWITCH Nº 9 TO HIGH
WITH SWITCH Nº 9 TO LOW
42
20
54
26
60
28
72
36
92
49
56 126
SPEED REGULATOR
FOR USE WHEN MILLING ONLY
SPEEDS SHOWN IN INCHES PER MINUTE

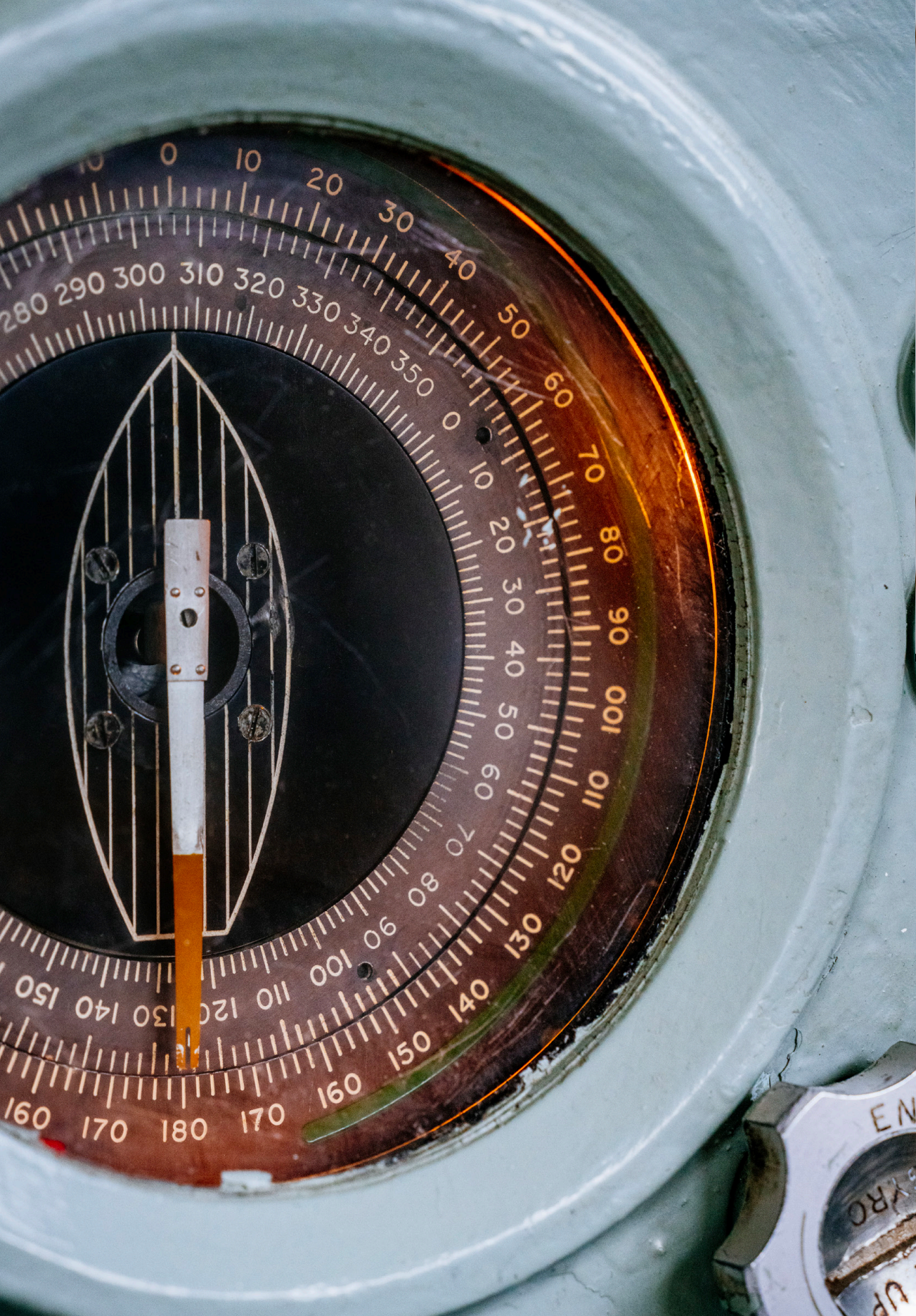

DRESSING ROOMS
SHOWERS & TOILETS

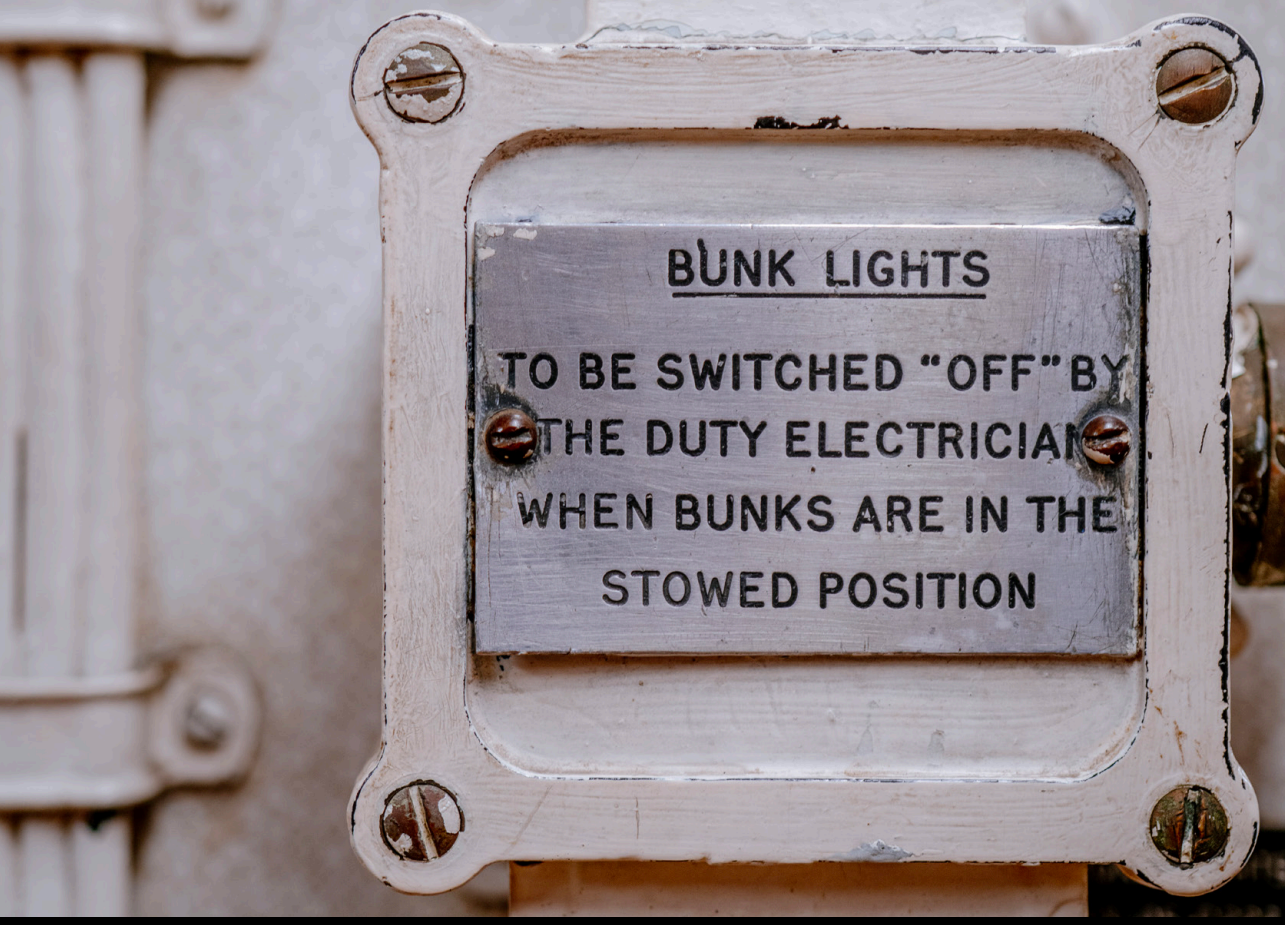

SCALE
SOLUTION
15
V
VALID


PRESS
HARD


START
FIRING
DISABLED

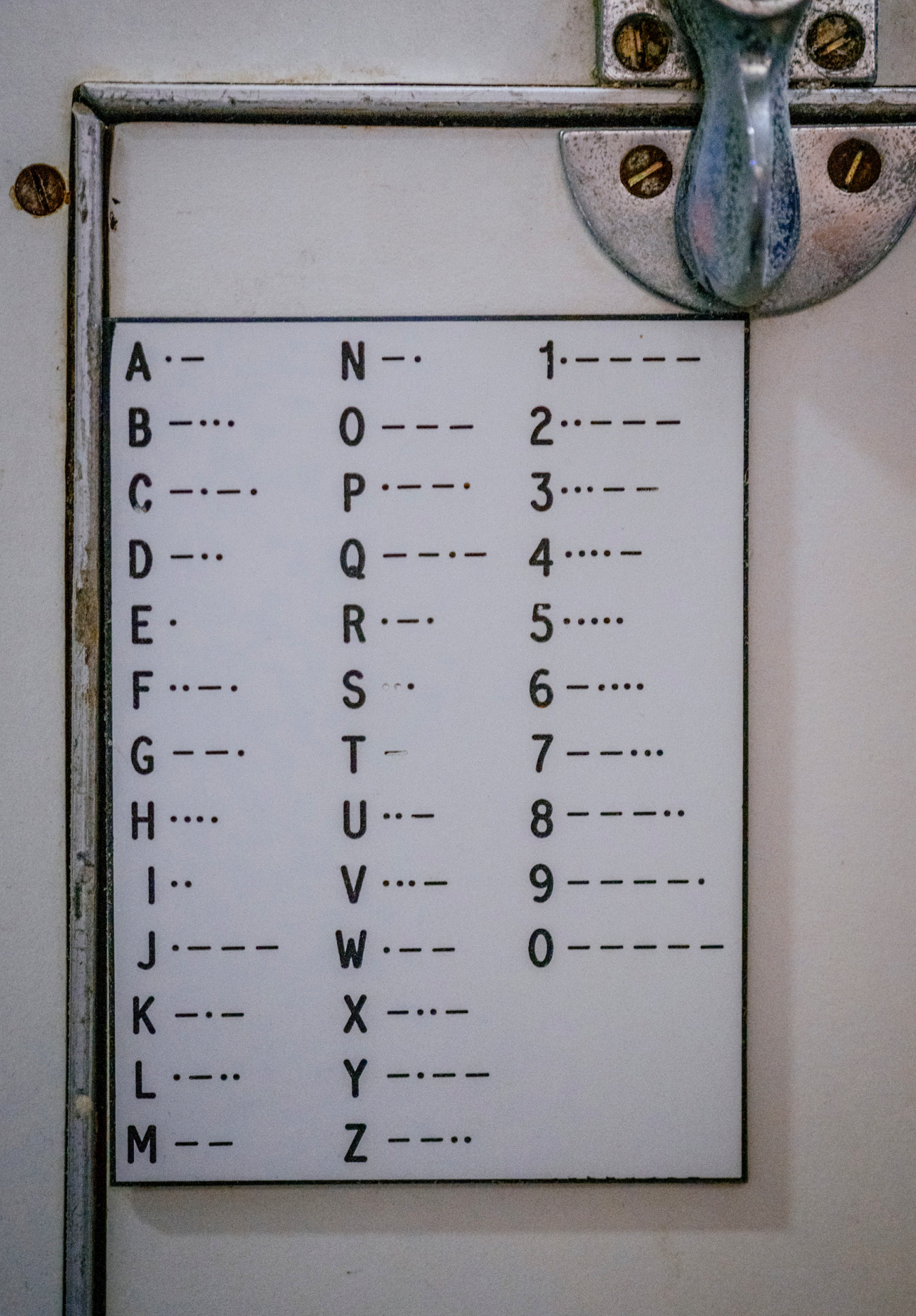

440 VOLTS
POWER PANEL
A.P. 12494


0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 350 340 330 320 310 300 290 280


BUNK LIGHTS
TO BE SWITCHED "OFF" BY
THE DUTY ELECTRICIAN
WHEN BUNKS ARE IN THE
STOWED POSITION


FF2-S


MASTER KEYBOARD
WR DUPLICATES
6
7
8
9
8
11
12
13
15
16
17
18

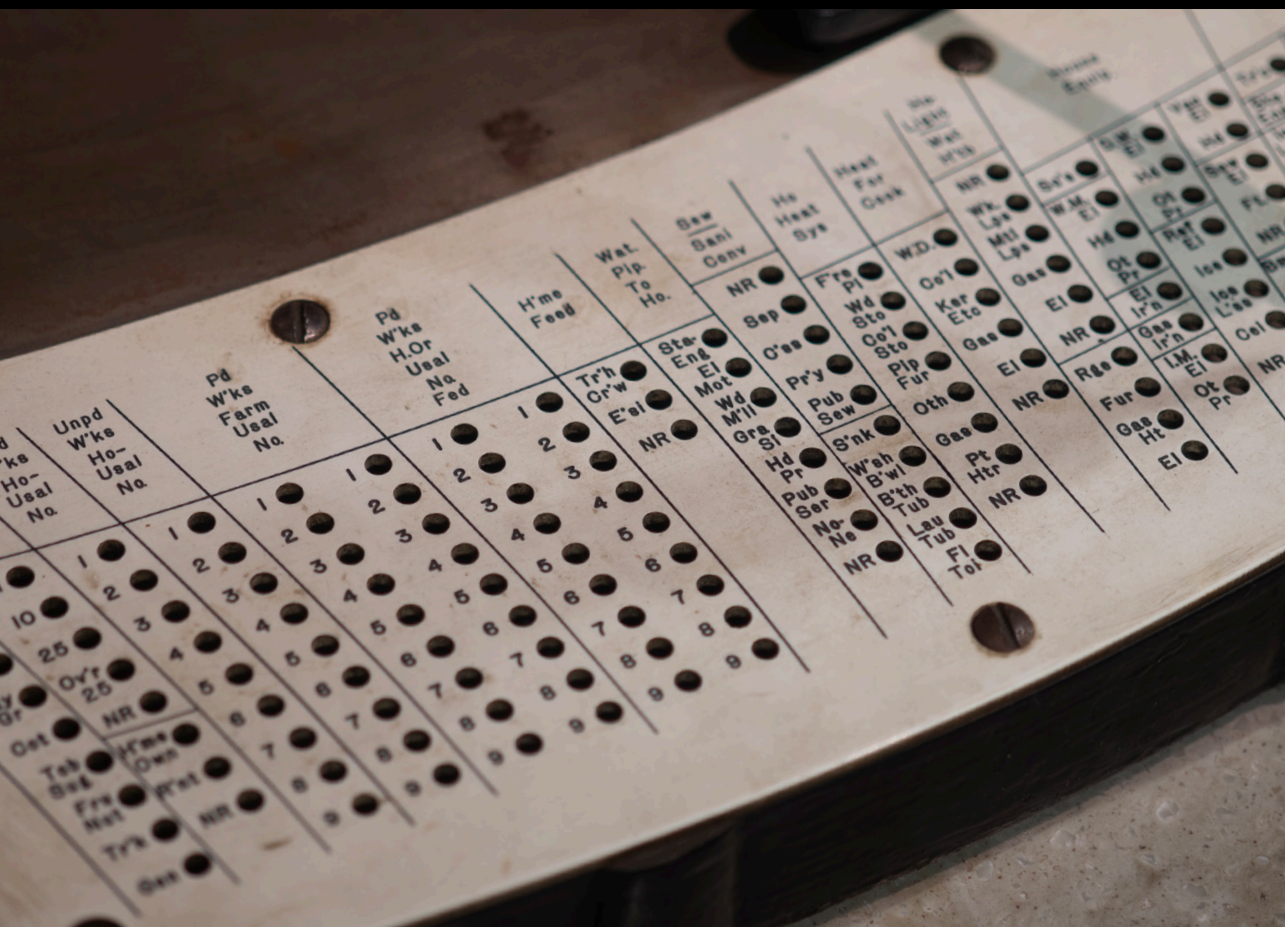

A ·−
B −···
C −·−·
D −··
E ·
F ··−·
G −−·
H ····
I ··
J ·−−−
K −·−
L ·−··
M −−
N −·
O −−−
P ·−−·
Q −−·−
R ·−·
S ···
T −
U ··−
V ···−
W ·−−
X −··−
Y −·−−
Z −−··
1 ·−−−−
2 ··−−−
3 ···−−
4 ····−
5 ·····
6 −····
7 −−···
8 −−−··
9 −−−−·
0 −−−−−


LENNON NO. 3
WILD CARD NO. 3
1
2
3
4
646-632-2128
24 HR
LOCKSMITH
646-632-2128
EMERGENCY

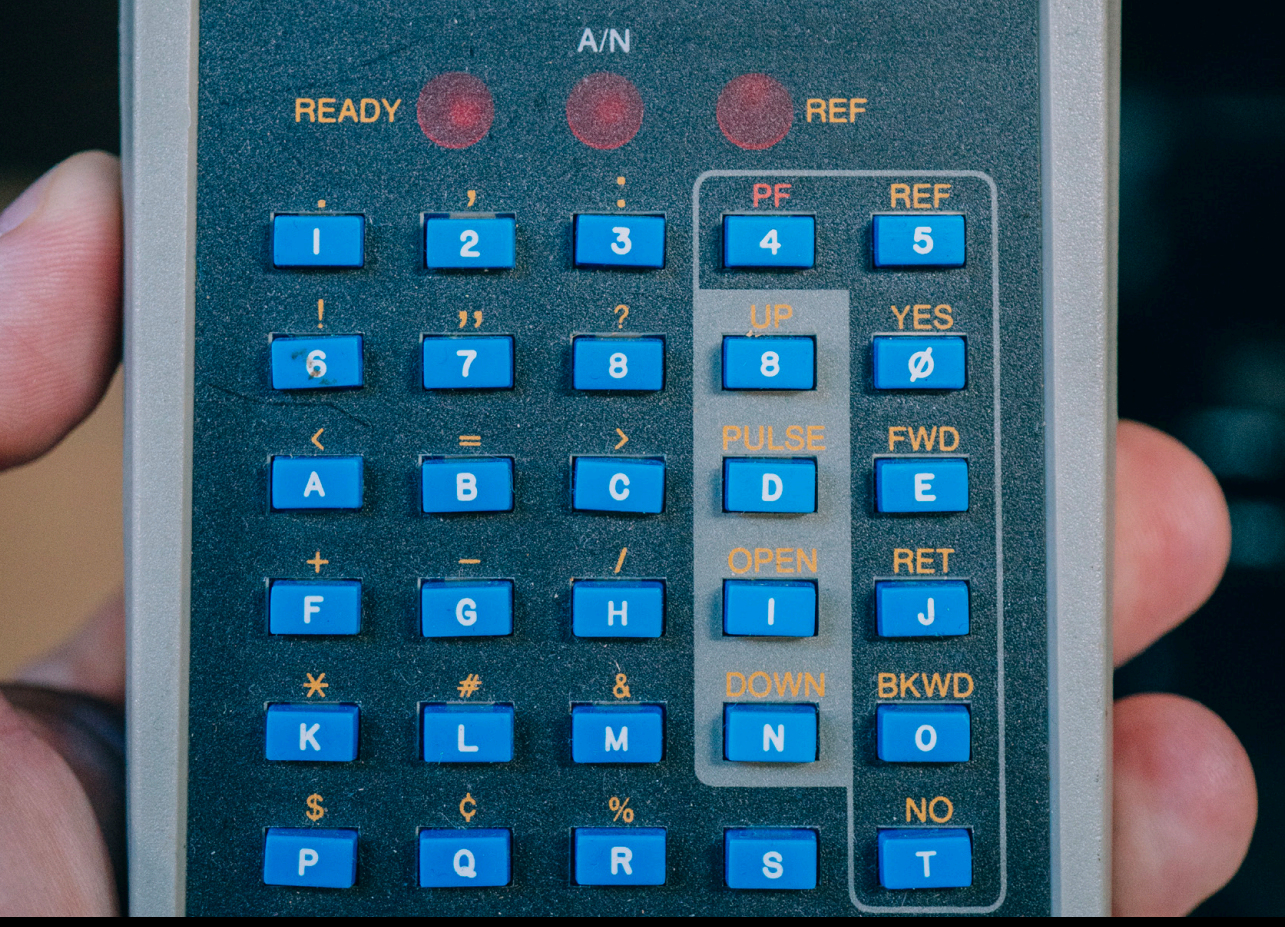

1
2
3


1320-22
DAMEN
1320
1322
3
2
1
3
2
1


UPLINK ACTY
TEMP
NO ATT
GIMBAL LOCK
STBY
PROG
KEY REL
RESTART
OPR ERR
TRACKER
COMP ACTY
VERB
NOUN
CLR
PRO
KEY REL
RSET
VERB
NOUN
+
−
0
1
2
3
4
5
6
7
8
9

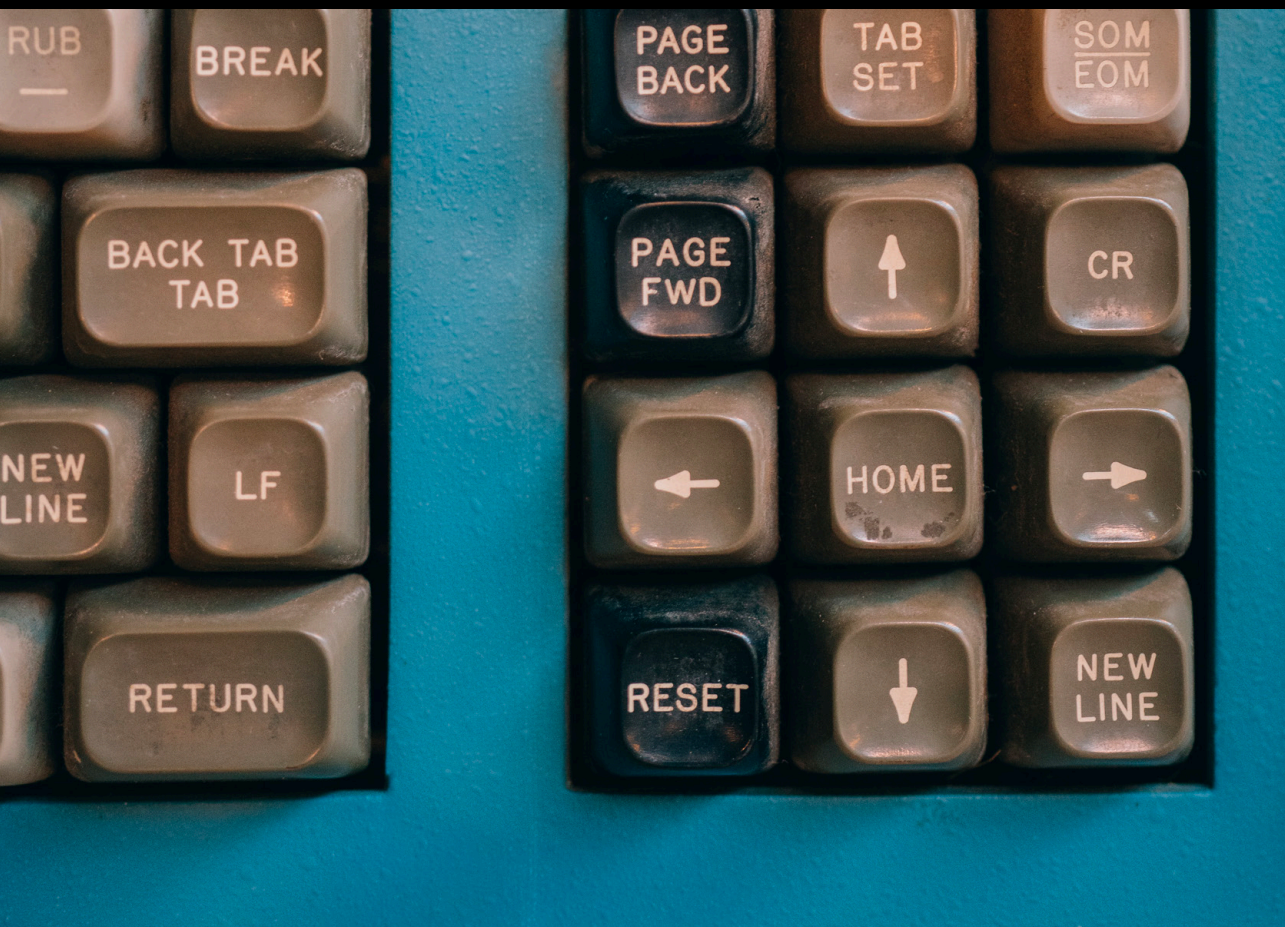

Unpd W'ke Ho– Usal No.
Pd W'ke Farm Usal No.
Pd W'ke H.Or Usal No. Fed
H'me Feed
Wat. Plp To Ho.
Sew Sani Conv
Ho Heat Sys
Heat For Cook
NR
Sep
O'se
Pr'y
Pub Sew
Sta Eng
El
Mot.
Wd M'll
Gra
Sl
Hd Pr
Pub Ser
No Ne
NR
F're Pl
Wd Sto
Co'l Sto
Plp Fur
Oth
S'nk
W'sh B'wl
B'th Tub
Lau Tub
Fl Toi
W.D.
Co'l
Ker Etc
Gas
El
NR
Gas
Pt Htr
NR
Sa's
W.M.
El
Hd
Gas
El
NR
Ref
El
Ice
Ice L'ss
Gas Ir'n
El Ir'n
LM.
El
Ot Pr
Res
Fur
Gas Ht
El
Cel
NR
10
25
Ov'r 25
NR
Tub Bat
Fre Nat
Tr'k
Gas
H'me Own
Rnt
NR


HELP
PAGE UP
PAGE DOWN
BACK TAB
TAB
LOCK


A/N
READY
REF
PF
REF
UP
YES
PULSE
FWD
OPEN
RET
DOWN
BKWD
NO


COMMD
SHIFT LOCK
SHIFT


61 62 112 113 114 121 122 123 124 131
33 34 35 41 42 43 44 51 52 53
15 16 21 22 23 24 25 26 31 32
1 2 3 4 5 6 7 12 13 14

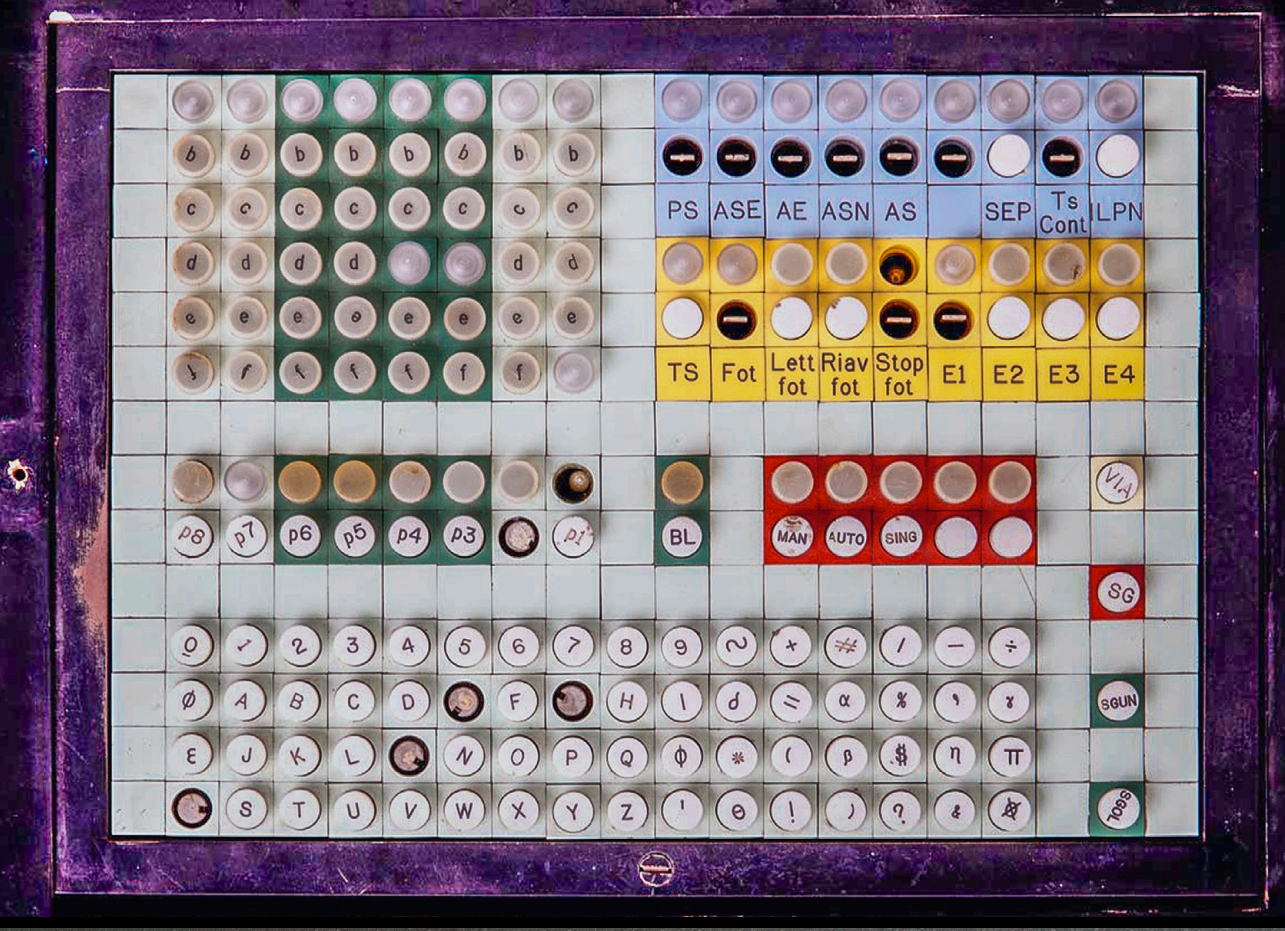

RUB
BREAK
BACK TAB
TAB
NEW
LINE
LF
RETURN
PAGE
BACK
TAB
SET
SOM
EOM
PAGE
FWD
CR
HOME
RESET
NEW
LINE


MEM
5
FONT
3
TAPE
FEED
MEM
3
FONT
2
MEM
1
FONT
1


CHAR
INSRT
OFF LN
LN PG
CHAR
DEL
ON LN
ENTER
LN
MODE
PG
REC
SEND
BREAK
TAPE
B.SP.
REPT
BELL
FIGS
LTRS
LINE
FEED


Wright PUNCH
MODEL 2600
WRIGHT LINE
WORCESTER, MASS. • USA
12
11
0
1
2
3
4
5
6
7
8
9
S


12
13
14
15
16


PS
ASE
AE
ASN
AS
SEP
Ts Cont
LPN
TS
Fot
Lett fot
Riav fot
Stop fot
E1
E2
E3
E4
VIA
BL
MAN
AUTO
SING
SG
SGUN
SGOL

A Compugraphic Compuwriter IV TG phototypesetting keyboard, including keys for typical font sizes


MPUGRA
24
30
36
48
60
72

RESET
FILE
READ
WRITE
SEC READ
DIREC-TORY
PAGE
1
TAB SKIP
CANCEL
6
LINE LEN'TH
SIZE
STYLE
STORE PL
STORE S L
ADV FEED
INDENT
RAG-GED
REV FEED
PLUS 1/2 UNIT
MINUS 1/2 UNIT
FIXED SPACE
INSERT SPACE
EN SPACE
EM SPACE
SUPER SHIFT
TAB
LOCK
SHIFT


2 COARSE ZOOM
3 WINDOW RATIO
4 LEFT TOP MARGIN
5 RIGHT TOP MARGIN
2
3
4
5
END STORE
MODE
RE-COUNT
7
8
9
0
DATA
REPEAT
8
9
0
D
+ 1 PT
− 1 PT
USE LEAD'R
U
I
O
P
SEC LS
LEFT
RIGHT
J
K
L
RETURN
CENTER
M
SHIFT
COMMAND
INSERT
SEARCH
SCROL
WORD ERASE
SINGLE ERASE
DEFINE ERASE
HOME


TRANSISTORISED
AUTOMATIC
COMPUTER
ANALOG COMPUTER Nº1


9
SPACE
Ø
=
-
O
P


%
5
^
6
&
7
^
6


^
6
%
5
^
6
&
7


ESC (SEL)
TAB SKIP
GRAPHIC
SHIFT LOCK
CTRL
SHIFT


Power
Off
On
Speed
10
15
30
Error
Mode
Local
Half
Full
On Line
ESC
CTRL
SHIFT LOCK
SHIFT


RESET
RESET
LINE FEED
RETURN
RUB
CLEAR
SHIFT
REPEAT
RUN STOP
HOME


Miniterm
BACK SPACE
RETURN
LINE FEED
RUBOUT
SHIFT
REPT
BREAK


CLEAR
ERASE INPUT
ERASE EOF
TEST REQ
F1
PA 3
NUM LOCK
NUMERIC
RESET
FIELD MARK
DUP


ESC
CTRL
SHIFT
POWER
BELL
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PRINTED IN U.S.A.

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Underwood
77
MADE IN U.S.A.
BACK SPACER
SHIFT LOCK
SHIFT KEY
TAB
SHIFT KEY
UNDERWOOD ELLIOTT FISHER COMPANY


tronic KB5151
ofessional Series

GORTON'S SURPRISING ORIGINS

Many of us associate Gorton with keyboards. Others connect it with mid-century signage, or – via Leroy – various technical drawings or comic books.

But Gorton turns out to be older than all these, and digging into its history reveals that its original use case, and even its name, were different. It turns out, proto-Gorton originated some time after 1886 in the United Kingdom, at a precision manufacturing maker Taylor, Taylor & Hobson Limited. The company needed some way to add markings to enclosures of their first product – photographic lenses – and to accomplish that, they built engravers and then designed a font.

The engravers themselves soon became a product, and TT&H licensed them to a few companies, including Deckel in Germany, and... George Gorton Machine Co. in America.

It's very likely some of the photos of signage in the U.K. or Australia on previous pages show successors of that unnamed font that didn't come from machines made by Gorton in Racine, Wisconsin – and that retroactively naming that font "Gorton" is a historical transgression.

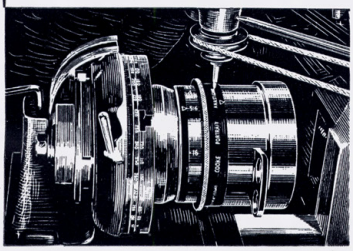
But I don't know what other name to use.

The next pages show some of the Gorton's very early years, lending its new skills to a very different cause. Perhaps one day someone will employ a modern CNC cutter or 3D printer, grab Gorton Perfected, and combine both to explain a new piece of photographic equipment, and in this way bring it all the way back to its 130-plus-years-old origins.

CRAFTSMANSHIP

by

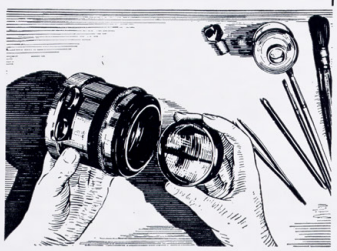
TAYLOR-HOBSON



5. ENGRAVING

All inscription details, such as iris diaphragm scales, focussing, depth of focus scaling calibration, etc., are made a permanent feature of every Taylor-Hobson lens by being engraved indelibly on the circular lens mount. It was to perform this important duty that we originated and developed the Taylor-Hobson Engraving Machine which incidentally has since achieved a world-wide popularity for use in all classes of machine engraving.

Taylor-Hobson Projection Lenses are to be found where only the best is good enough. The skill and craftsmanship behind every Taylor-Hobson lens is reflected in the results shewn upon the screen. Give your Projectionist the backing his skill deserves by insisting on Taylor-Hobson lenses.



6. ASSEMBLY

After manufacture of the constituent optical glass elements and the numerous components which comprise the mounting for the required compound photographic lens, the next production stage is that of assembly. Using specially designed equipment, glasses are mounted into their cells, separations between them adjusted in accordance with the computed design and the complete assembly optically centred and trued in the precision made mounting. Only when the lens has passed subsequent rigorous laboratory instrumentation and photographic tests is it approved for use.

TAYLOR-HOBSON

TAYLOR, TAYLOR & HOBSON LIMITED

150, HOLBORN, LONDON, E. C. 1.


TAYLOR TAYLOR & HOBSON LTD
Leicester & London.


COOKE LENS
H.D.Taylor's Patents
Series III.
4¼ x 3¼ Eq. Focus 5.06 in.

Gorton Perfected specimen
A Shift Happens booklet №2

ISBN 979-8-9858739-2-4

Specimen edition 1.5

Gorton Perfected release history:
0.95 Initial release
0.96 Line height changes
0.97 Tabular numerals
1.00 First public release
1.01 Variable font fix on macOS
1.02 Cropped diacritics fix on Windows
1.03 Non-breakable space fix

Thank you to Glenn Fleishman, Jesse Vincent, Mr & Mrs Vintage Typewriters, Jonathan Hoefler, Jeff Kellem, Lars M Olsson, Dadsinhisworkshop, Eli Janssen, Kim Slawson, David Sudweeks, and Inga Plönnings.

Send font or specimen feedback to *mwichary@aresluna.org*

shifthappens.site
ingaploennigs.com


TOP