12-TYPE KEYBOARD

Early Model 12 Type Keyboard. Transmitting cam sleeve (missing) and receiving distributor cam sleeve. Subsequently developed into high production Model 12 keyboard.

YEARS PRODUCED & QUANTITY: Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

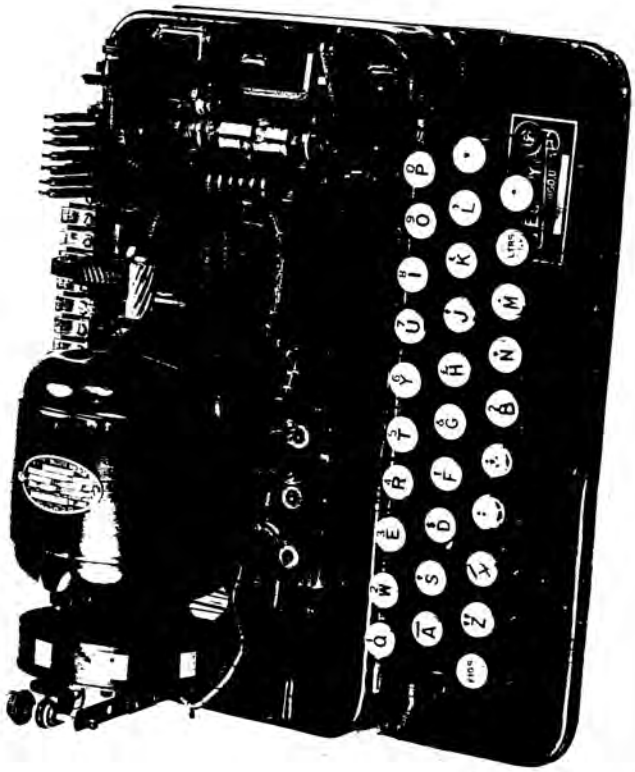
MUSEUM EQUIPMENT CODE: 9.3C-1

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 631108-70,71,72

PATENT(S):

LIBRARY REFERENCE(S):



ANSWER-BACK

Early experimental Drum Type Answer-back mechanism.

YEARS PRODUCED & QUANTITY: Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

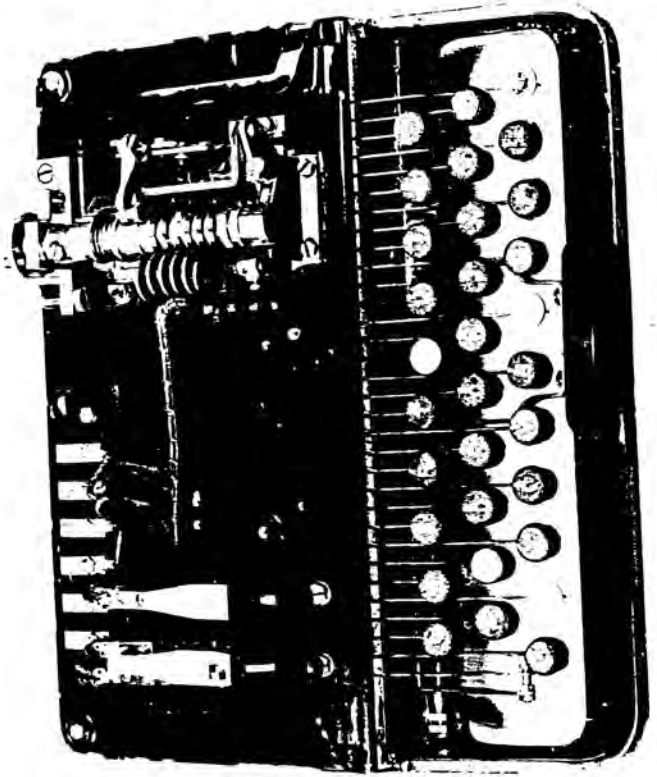
MUSEUM EQUIPMENT CODE: 9.3C-2

TECHNICAL BULLETINS & SPECS: Case No. 1514-1

PHOTO NO(S): 390623-64 631108-34

PATENT(S):

LIBRARY REFERENCE(S):



PUSH BUTTON KEYBOARD

Push button keyboard probably used as a control panel.

Push button contact arrangement for selection of remote magnets.

NOTE: This type of keyboard used for scoreboard display.

YEARS PRODUCED & QUANTITY: 1925 Production

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

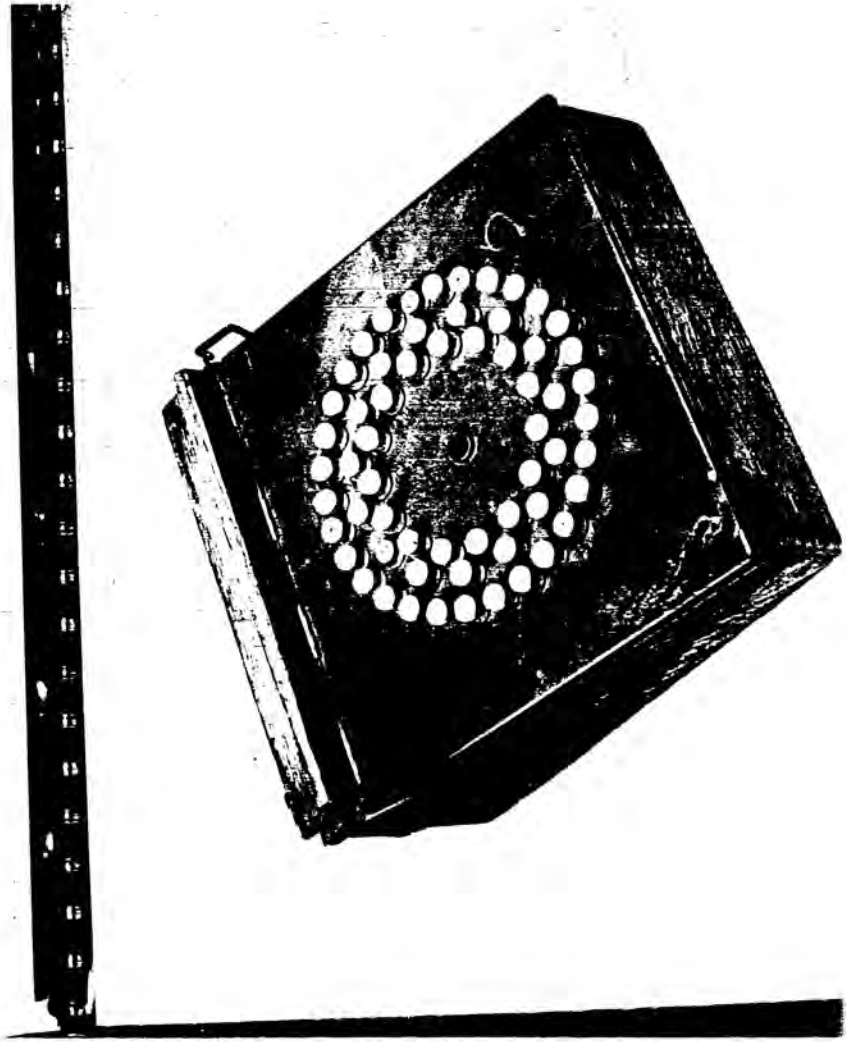
MUSEUM EQUIPMENT CODE: 9.3C-3

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 631108-67,68

PATENT(S):

LIBRARY REFERENCE(S):



END-OF-LINE INDICATOR

Experimental model of end-of-line indicator. Basic mechanism was used in GPE perforator, 5 contact keyboard. This was first used for Irving National Bank.

YEARS PRODUCED & QUANTITY: 1928 Production

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 9.3[illegible]

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 281006-3 631108-69

PATENT(S):

LIBRARY REFERENCE(S):

12-TYPE KEYBOARD TRANSMITTER DISTRIBUTOR

12 Type Keyboard transmitter distributor with receiving distributor cam sleeve.

YEARS PRODUCED & QUANTITY: 1922-30

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

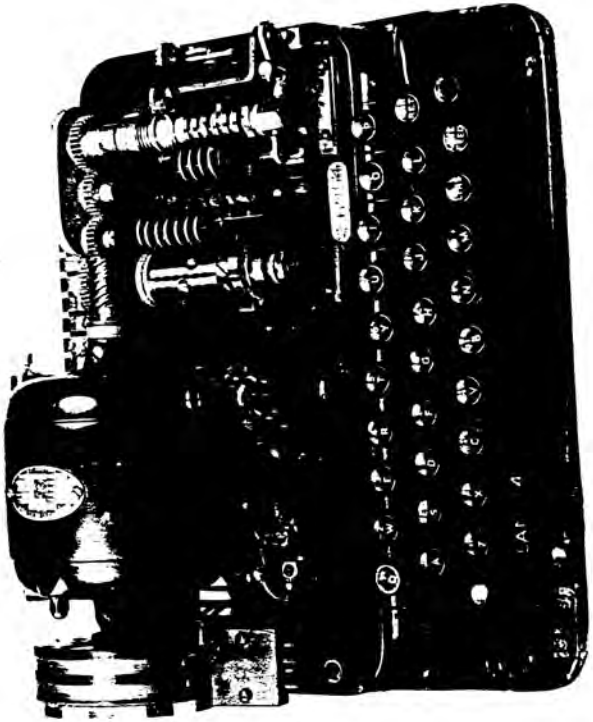
MUSEUM EQUIPMENT CODE: 9.3C-5

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 631108-46,47,48

PATENT(S):

LIBRARY REFERENCE(S):



MODEL 14 KEYBOARD
(Contact Feature)

Model 14 Keyboard with keyboard contact feature, line break key and end-of-line indicator lamp. It had special feel for mounting on military portable unit. This was a heavy production model.

YEARS PRODUCED & QUANTITY: Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

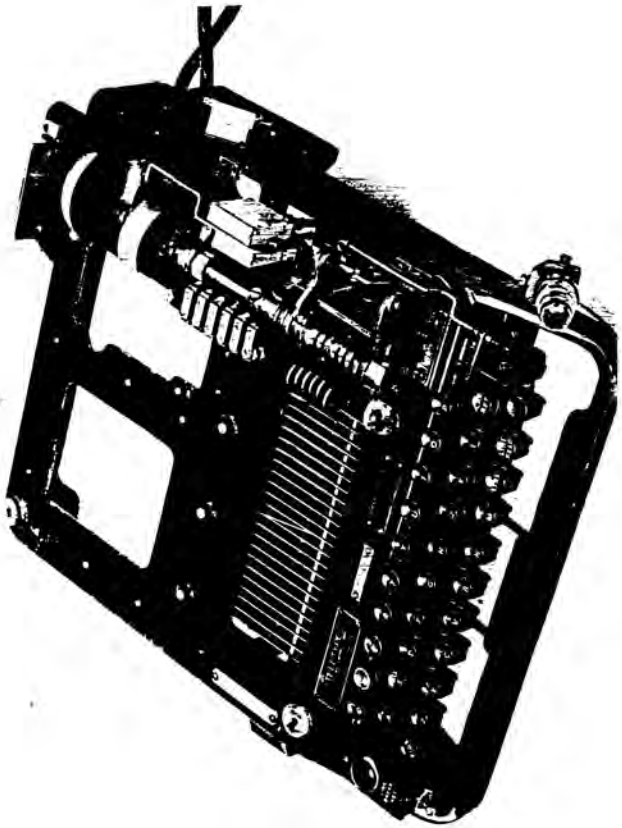
MUSEUM EQUIPMENT CODE: 9.3C-6

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 631105-37

PATENT(S):

LIBRARY REFERENCE(S):



MODEL 15 KEYBOARD

Model 15 Keyboard - Experimental keylever lock mechanism similar to Model 28 ball lock but using discs. Variations in disc finish and disc size are represented in sections across the keylever expanse.

YEARS PRODUCED & QUANTITY: Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

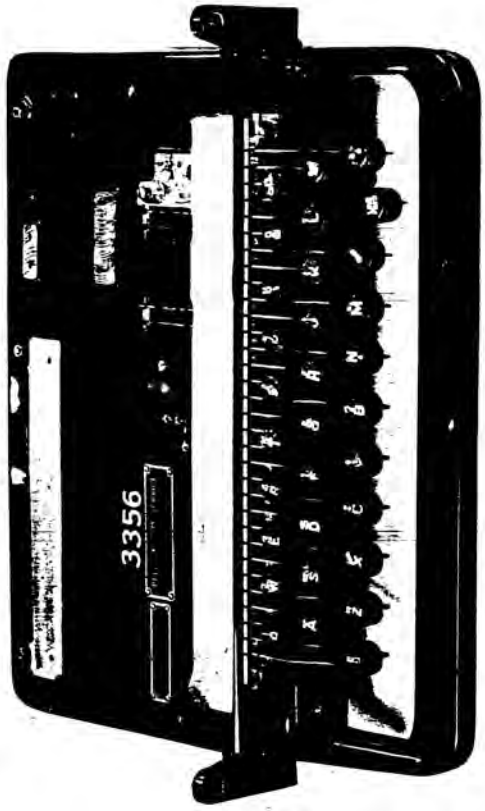
MUSEUM EQUIPMENT CODE: 9.3C-7

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 420228-58 631108-13

PATENT(S): Case No. 2282-1

LIBRARY REFERENCE(S):



MODEL 15 KEYBOARD
(Rubber Key Caps)

Model 15 Keyboard. Model has rubber top key caps. The rubber keytops were subsequently replaced by spring mounted keytops.

YEARS PRODUCED & QUANTITY: 1930 Production

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

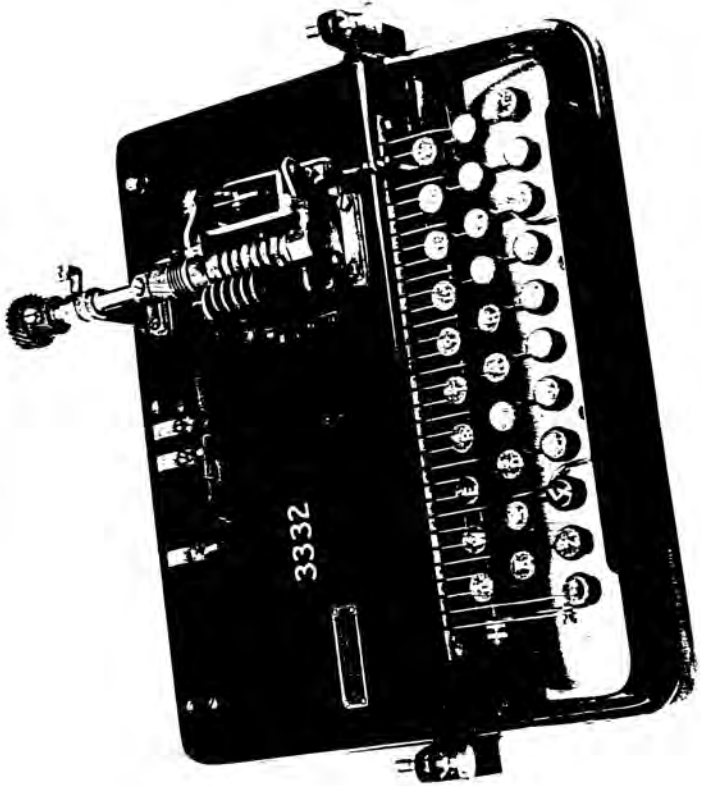
MUSEUM EQUIPMENT CODE: 9.3C-3

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 631108-36

PATENT(S):

LIBRARY REFERENCE(S):



MODEL 15 KEYBOARD

Experimental, early Model 15 Type Keyboard.

YEARS PRODUCED & QUANTITY: 1930 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

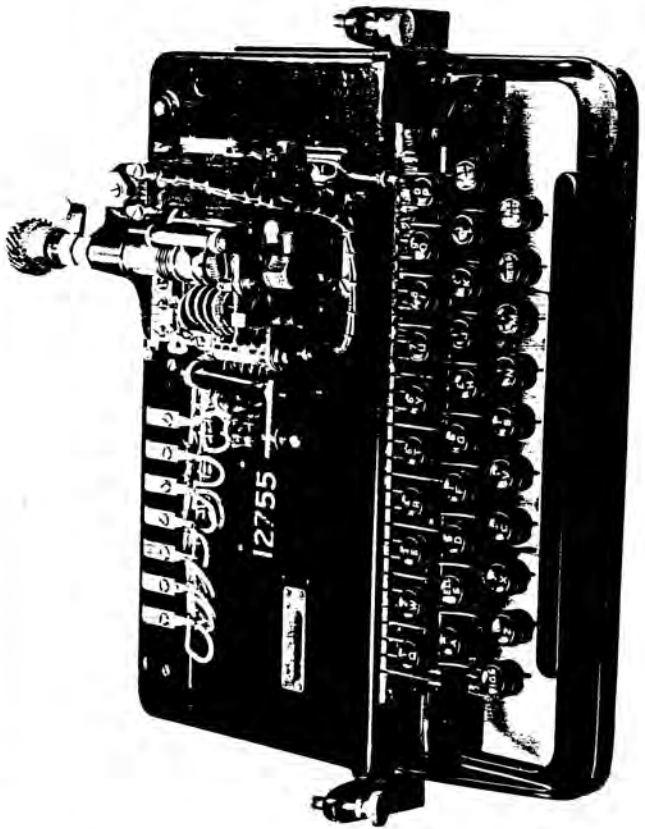
MUSEUM EQUIPMENT CODE: 9.30-?

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 300402-S 631108-32,33

PATENT(S):

LIBRARY REFERENCE(S):



MODEL 20 KEYBOARD

Model 20 keyboard with experimental model of end-of-line indicator.

YEARS PRODUCED & QUANTITY: 1931 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

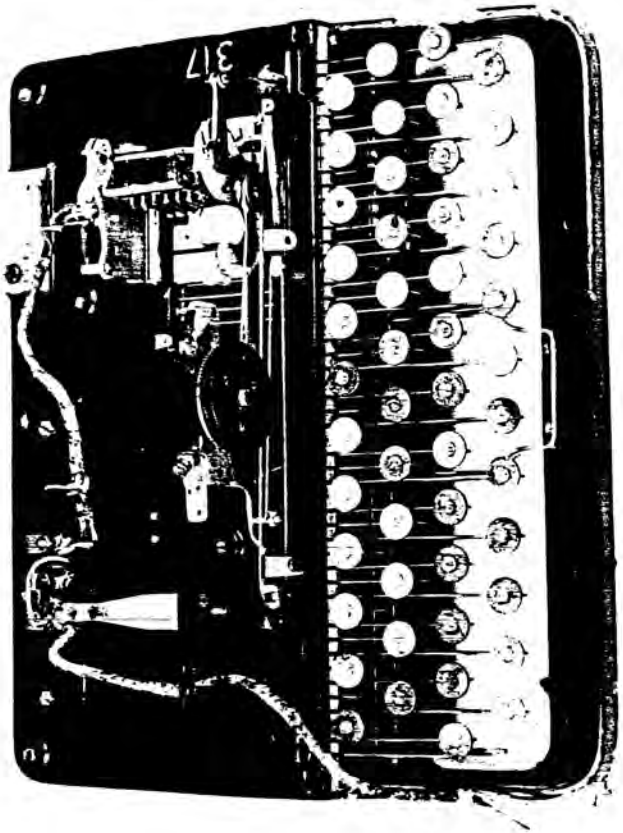
MUSEUM EQUIPMENT CODE: 9.30-10

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 310521-7 631108-43

PATENT(S):

LIBRARY REFERENCE(S):



2 WIRE PRINTEX KEYBOARD

Experimental keyboard associated with two-wire printer. NOTE: 4 row keyboard non-standard keylever spacing and parallel code bar selection system.

YEARS PRODUCED & QUANTITY: 1932 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

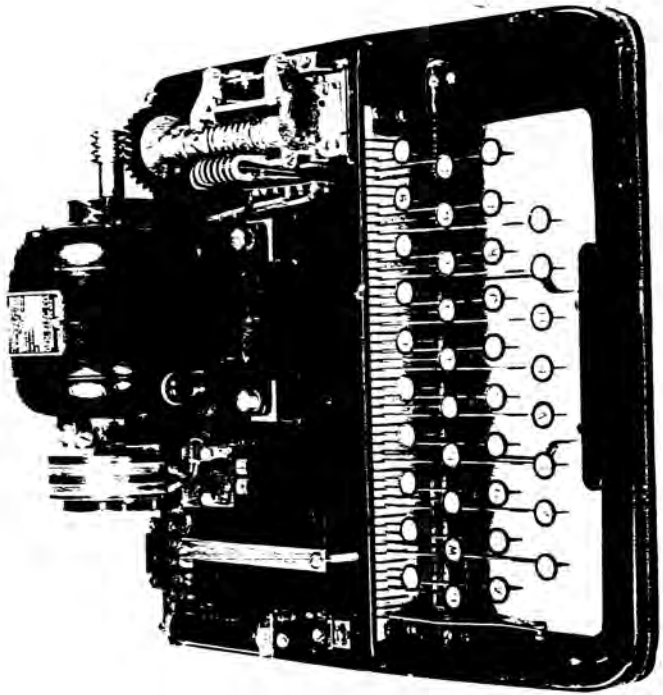
MUSEUM EQUIPMENT CODE: 9.30-11

TECHNICAL BULLETINS & SPECS:

PROD NO(S): 321130-9 321108-11,12

PATENT(S):

LIBRARY REFERENCE(S):



MODEL 15 KEYBOARD
(One Character Storage)

Experimental Model 15 Keyboard with one character storage mechanism. NOTE: T-lever, Y-lever selection arrangement.

YEARS PRODUCED & QUANTITY: 1933 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

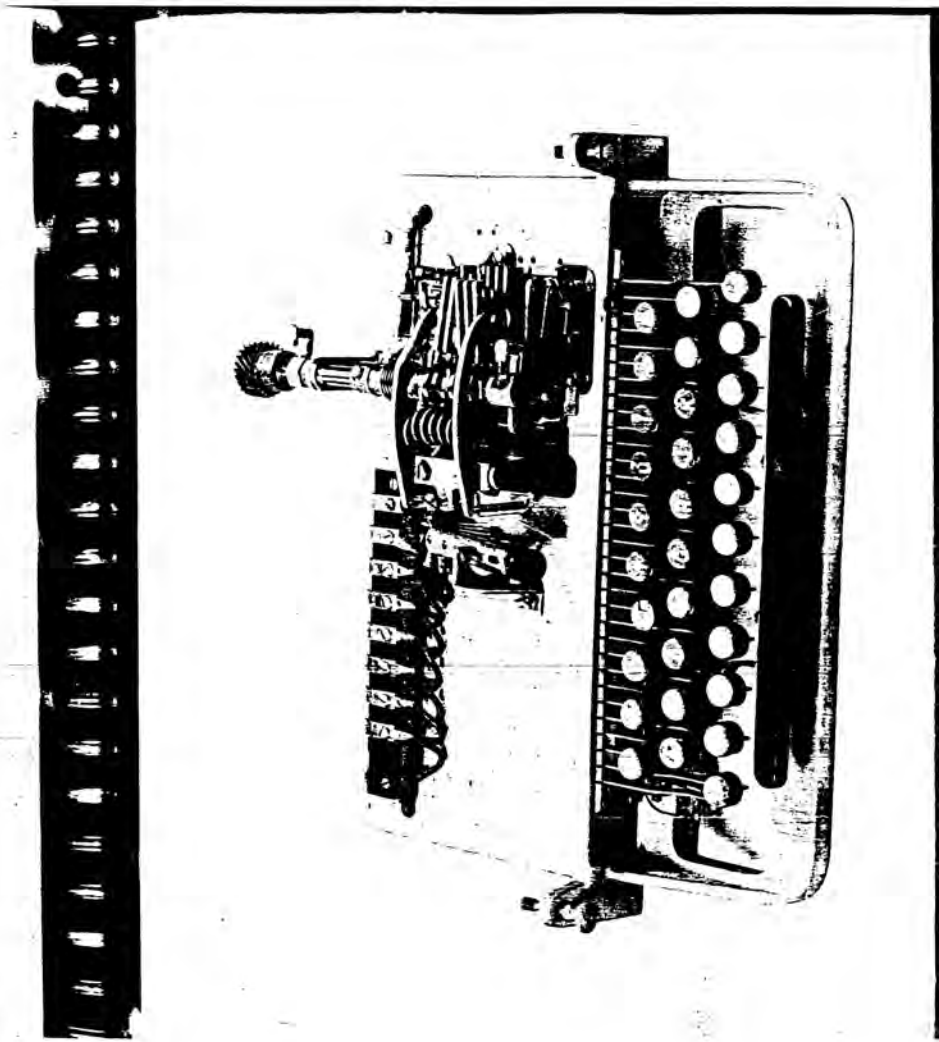
MUSEUM EQUIPMENT CODE: 9.30-12

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 331212-9 631108-30,31

PATENT(S):

LIBRARY REFERENCE(S):



KEYBOARD KX-5AY

6 level code, 4 row keyboard generating signals for delivery to a separate storing transmitter used by Western Union in produce ticker network.

YEARS PRODUCED & QUANTITY: 1933 Prototype

PRIMARY CUSTOMER(S): Western Union

CLASSIFICATION CODE:

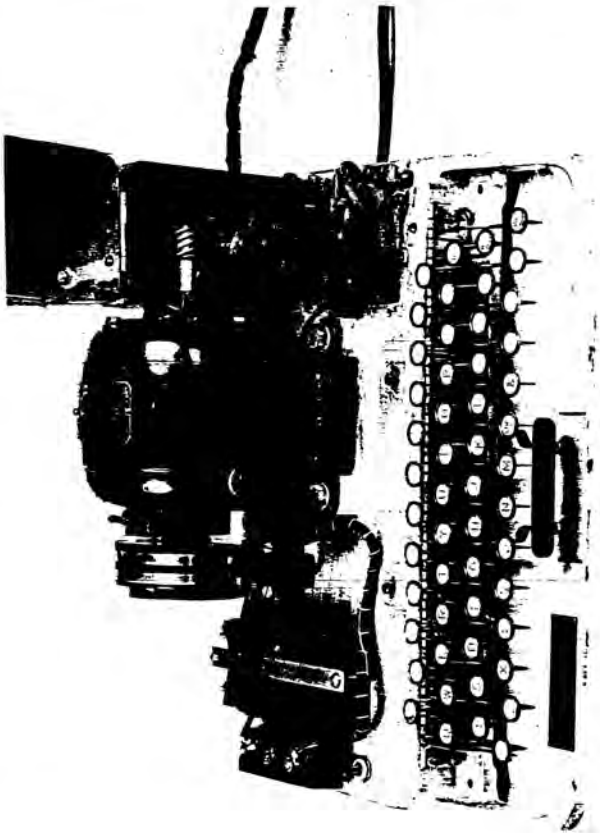
MUSEUM EQUIPMENT CODE: 9.3C-13

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): M1083-3 631111-03,04

PATENT(S):

LIBRARY REFERENCE(S):



MODEL 15 KEYBOARD
(Repeat Key)

Model 51 Keyboard with experimental repeat key. Repeat feature is accomplished by an extension of the space keybar which is separated to act independently.

YEARS PRODUCED & QUANTITY: Prototype

REL. CUSTOMER(S):

CLASSIFICATION CODE:

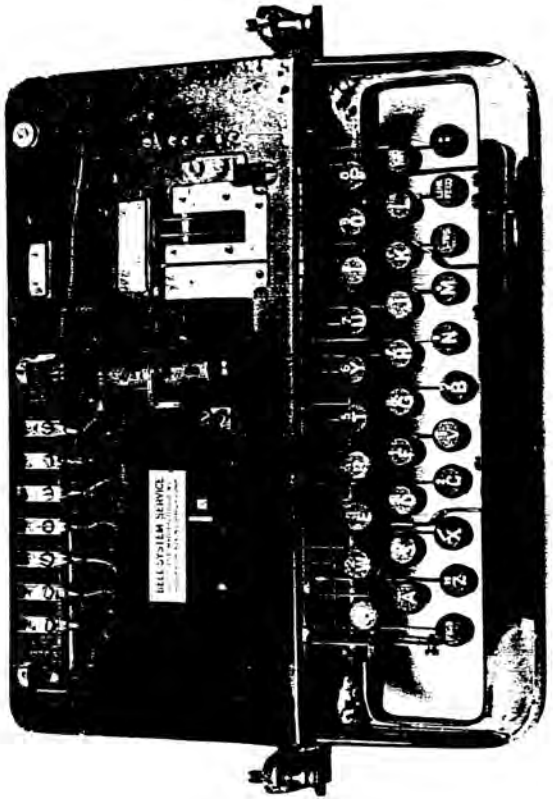
MODERN EQUIPMENT CODE: 9.30-14

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 310512-9 311DM-35

PATENT(S):

LIBRARY REFERENCE(S):



EARLY MODEL 15 KEYBOARD

Early Model 15 Keyboard arranged for use with Model 18 Printer.

YEARS PRODUCED & QUANTITY: 1937 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

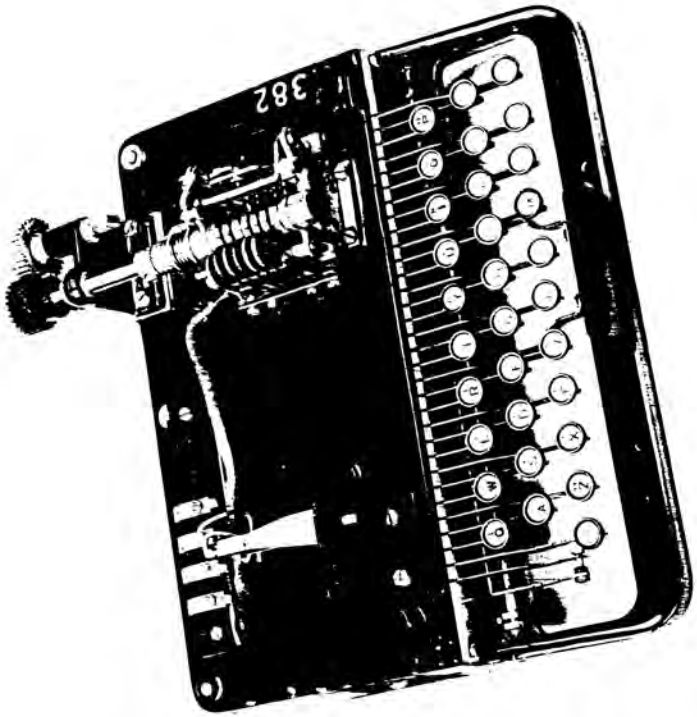
MUSEUM EQUIPMENT CODE: 9.30-15

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 631108-53

PATENT(S):

LIBRARY REFERENCE(S):



TRANSMITTING KEYBOARD (KX12)
(Fire Alarm)

Transmitting keyboard consisting of transmitting contacts, five banks of push-button switches for setting up code combinations, and four 25 point 6-level stepping switches, three of which are work for setting up time signals and one for selecting the push-button banks and connecting them in the proper sequence to the transmitting contacts.

YEARS PRODUCED & QUANTITY: 1938 Production .

PRIMARY CUSTOMER(S): Cincinnati Fire Dept.

CLASSIFICATION CODE:

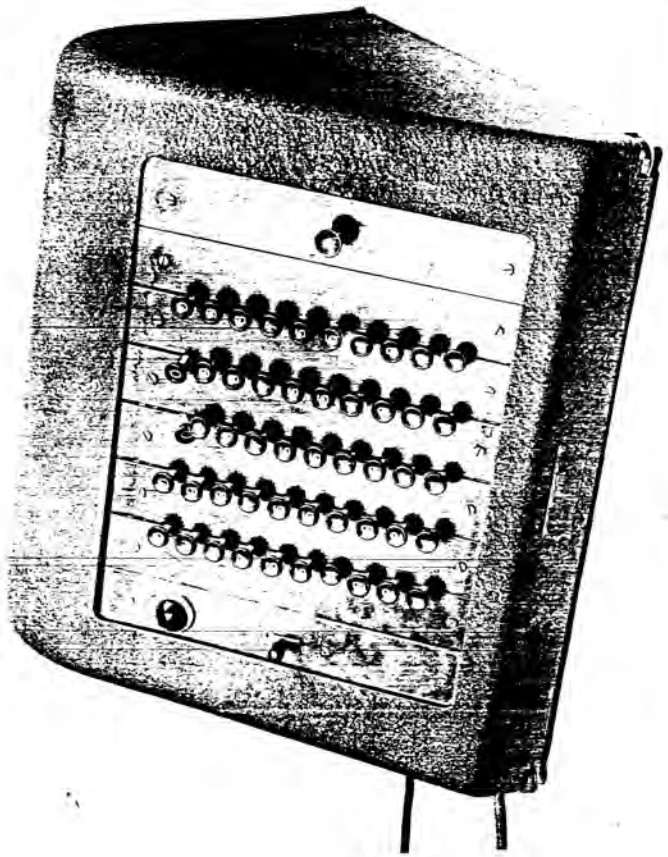
SYSTEM EQUIPMENT CODE: 9.3C-16

TECHNICAL BULLETINS & SPECS: S 522, 5823, 5542 Engr.FileNo. 18-30.743
Engr. Wack/Wenner

PHOTO NO(S): 381214-35 64C115-01,02

PATENT(S):

LIBRARY REFERENCE(S):



MODEL 30 KEYBOARD
(Plastic Cam)

Experimental keyboard for Model 30. NOTE: Plastic cam, tooth and ratchet clutch.

YEARS PRODUCED & QUANTITY: Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

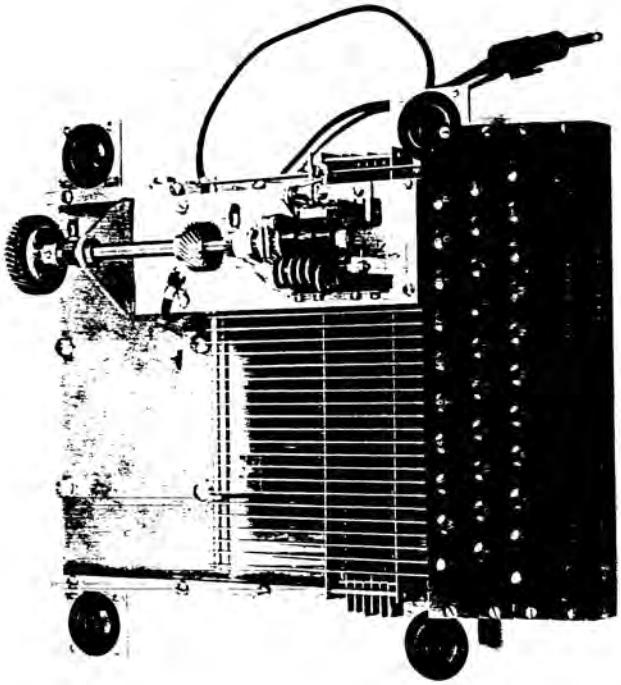
MUSEUM EQUIPMENT CODE: 9.3C-17

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 471019-55 631108-45

PATENT(S):

LIBRARY REFERENCE(S):



MODEL 15/20 EXPERIMENTAL KEYBOARD

Model 15/20 - Experimental keyboard six-level with perforator adjustment PEX type. Punch block is center feed/ 4-row keyboard. NOTE: Old style counter control mechanism on Perforator frame.

YEARS PRODUCED & QUANTITY: 1932 Prototype

SPECIAL INSTRUCTIONS:

CLASSIFICATION CODE:

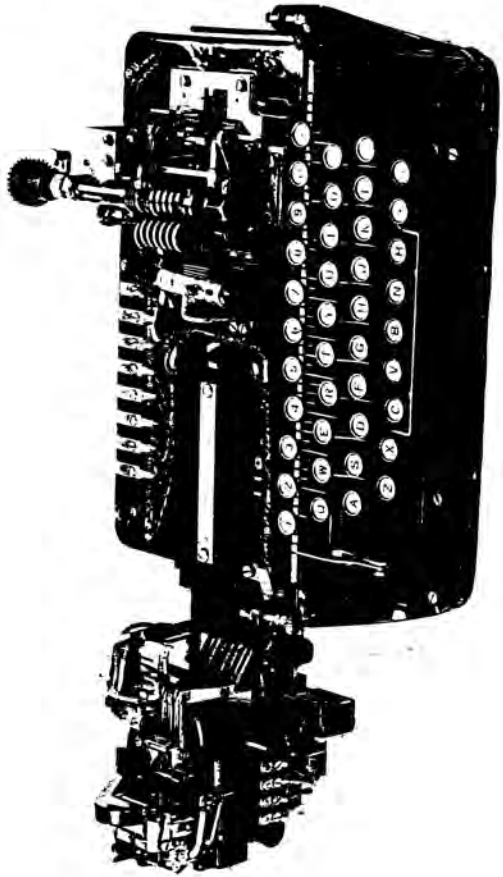
SYSTEM EQUIPMENT CODE: 9.3C-13

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 320813-1,5 631108-11,12

PATENT(S):

LIBRARY REFERENCE(S):



MODIFIED MODEL 14 KEYBOARD
(Single Contact Storage)

MODEL 14 standard keyboard modified to include single contact storage feature. NOTE: Y lever, T lever arrangement to the right of the transmitting cam sleeve.

YEARS PRODUCED & QUANTITY: 1936 Production

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

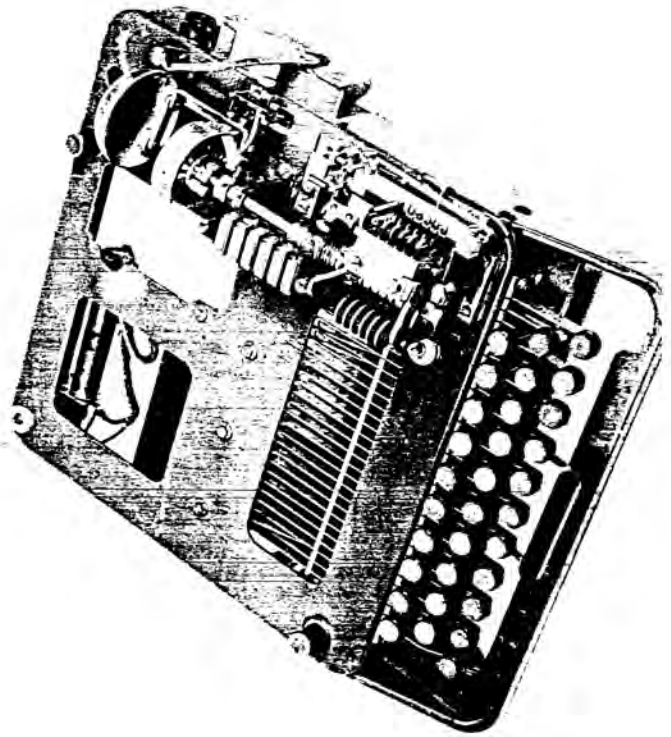
MINIMUM EQUIPMENT CODE: 9.3C-19

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 36C110-1 631212-62

PATENT(S):

LITERARY REFERENCE(S):



CLIMBING PUNCH AND READER KEYBOARD

This was an experimental Model of a climbing transmitter and climbing punch. The climbing transmitter feature subsequently was used in the FRXD. The climbing punch feature was never exploited.

YEARS PRODUCED & QUANTITY: 1938 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

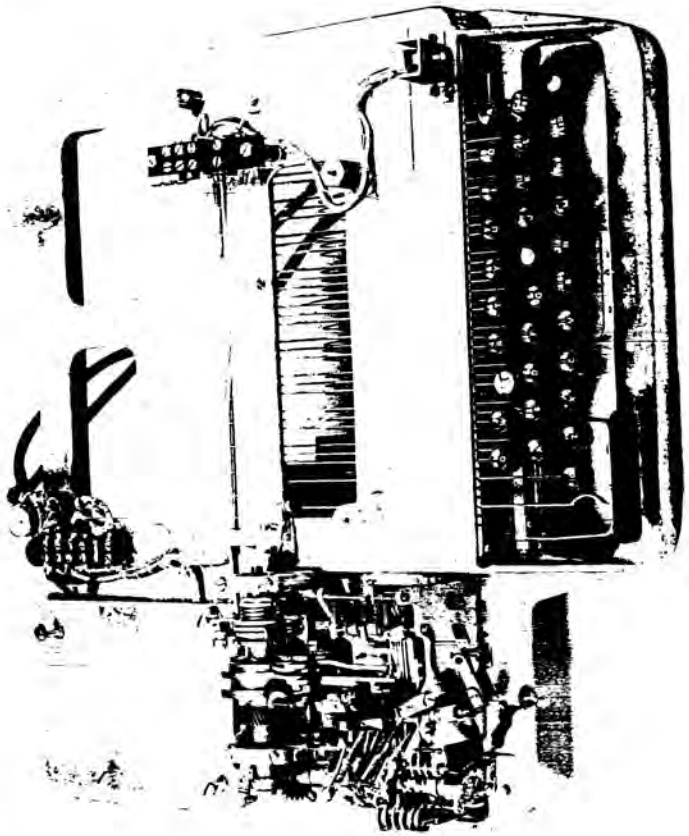
DESIGN EQUIPMENT CODE: 9.30-20

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 380915-29 631138-40,65,66

PATENT(S):

LIBRARY REFERENCE(S):



15-TYPE KEYBOARD
(Return to Letters)

15 Type Keyboard equipped with experimental mechanism for automatic return to letters position after depression of Fig. key.

YEARS PRODUCED & QUANTITY: 1939 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

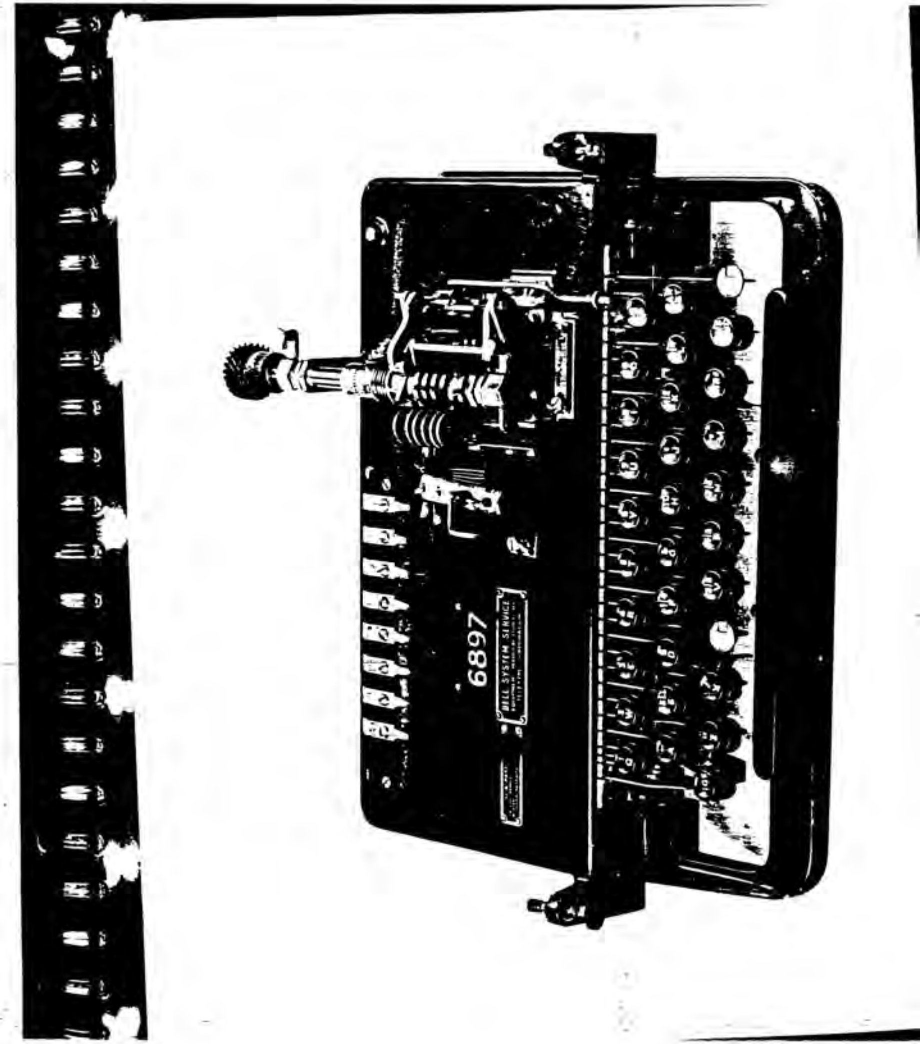
MUSEUM EQUIPMENT CODE: 7.30-21

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 390 05-33 331130-20,21

PATENT(S):

LIBRARY REFERENCE(S):



EARLY 19 TYPE KEYBOARD
(Transmitter & Perforator)

This was an experimental Model Keyboard Perforator. The transmitter design is based on Model 15 keyboard with perforator mechanism added and with experimental end-of-line indicator. Also positioned to the left of the punch unit is a parallel contact reading head. The contact output is routed to the transmitting cam for serial transmission. NOTE: TPE type clutch on main shaft. Base casting accommodates 15 Typing unit. Unit of this nature was never in production. Rough mechanical equivalent of 19 Type Set of Model 28 ASR. This is the first time a keyboard transmitter and perforator were combined into one unit - the beginnings of the 19 Type Set.

YEARS PRODUCED & QUANTITY: Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

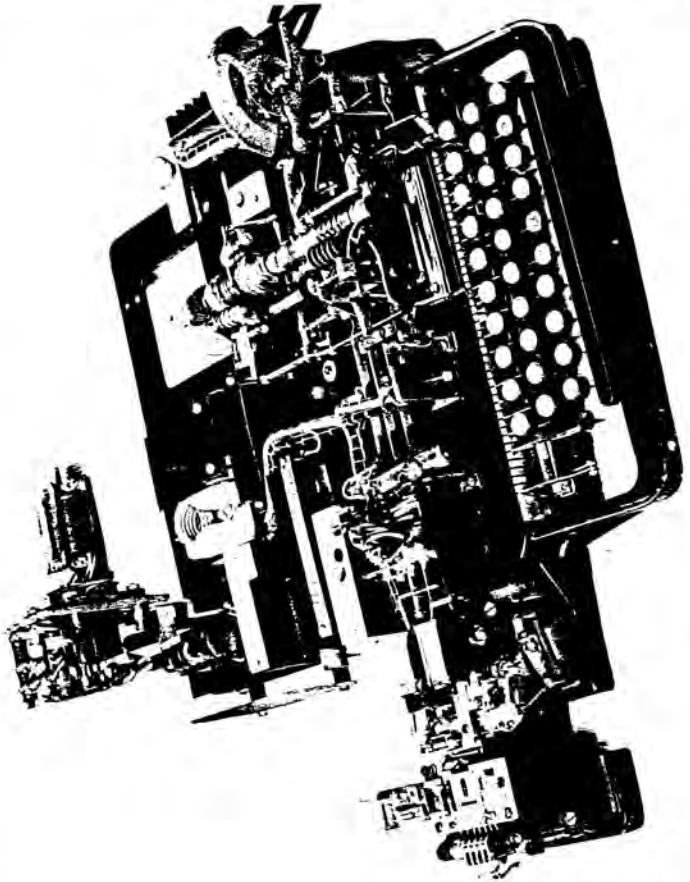
MUSEUM EQUIPMENT CODE: 9.3C-22

TECHNICAL BULLETINS & SPECS: Engr. Survey

PHOTO NO(S): 331212-M 431138-73,74

PATENT(S):

LIBRARY REFERENCE(S):



MODEL 36 (MONOPULSE) KEYBOARD

Part of Teletype Model 36 (Monopulse) Tape Printer Set. Intended for leave word service. This slow speed transmitter (approximately 20 wpm) transmitted on open line signal depending upon its position in the alphabet. For instance, a short open line pulse for "A", which started the printer wheel revolving followed by the line close printing, then back to a home position. The next character, "B", would have a slightly longer open line pulse which allowed the printer wheel to revolve a little further to the "B" position before printing, etc.

YEARS PRODUCED & QUANTITY: 1940 Production

PRIMARY CUSTOMER(S): Bell

CLASSIFICATION CODE:

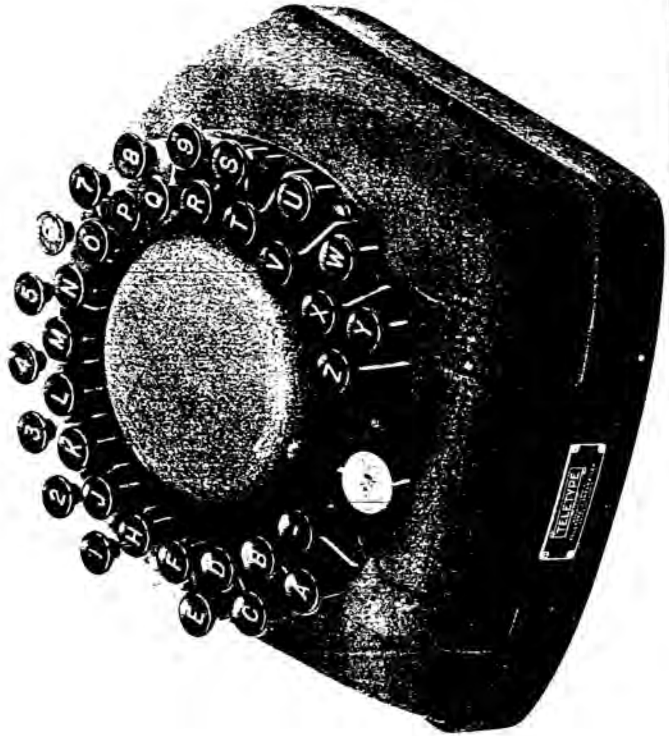
MODERN EQUIPMENT CODE: 9.30-29

TECHNICAL BULLETINS & PRICES: Engr. File No. [illegible] 15.31-1 S-5351
Engr. Zenner, Atty

PHOTO NO(S): 650322-[illegible]

PATENT(S):

LIBRARY REFERENCE(S):



MODEL 15/20 KEYBOARD

Model 15/20 - 6 Unit (PEX) equipped with later design counter control mechanism. Contacts on top of keyboard casting. NOTE: Punch control, double contact arrangement above transmitting cam sleeve.

YEARS PRODUCED & QUANTITY: 1942

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

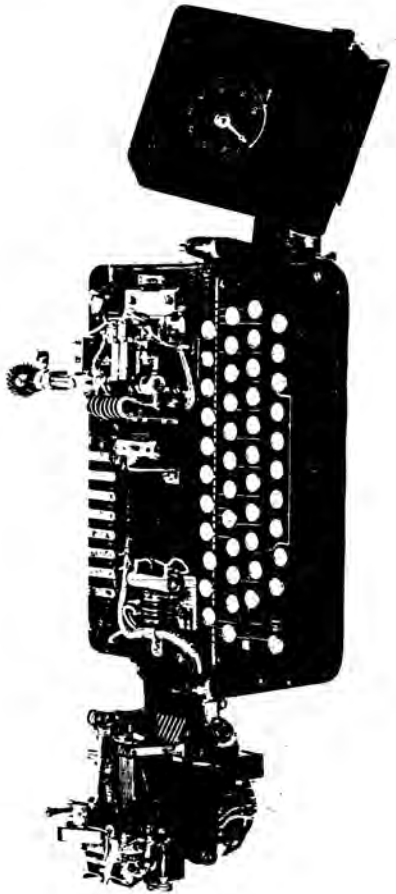
MISSION EQUIPMENT CODE: P.30-24

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 420725-62 631108-14,15

PATENT(S):

LIBRARY REFERENCE(S):



EXPERIMENTAL KEYBOARD
(Used with M-18)

Experimental 4-row Keyboard based on Model 15 design with character counter, and used with Model 18 equipment.

YEARS PRODUCED & QUANTITY: Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

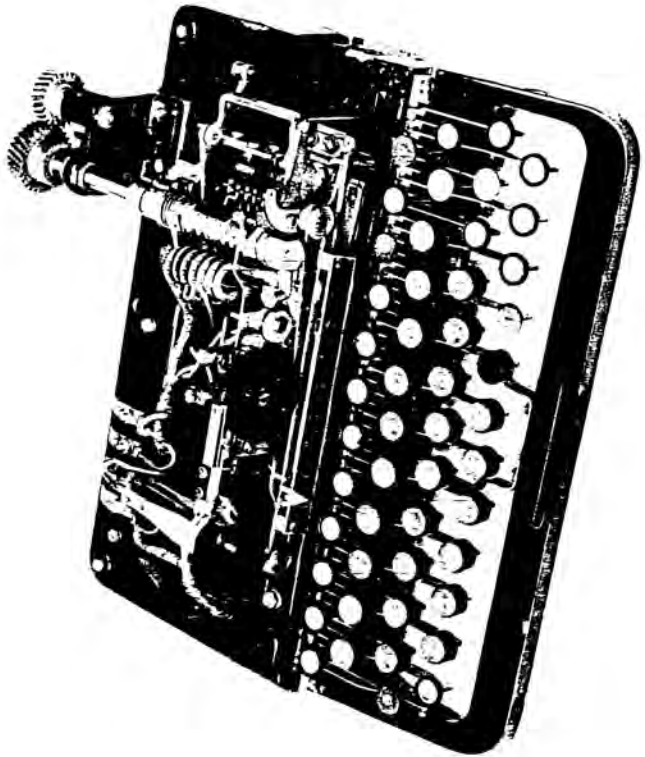
MUSEUM EXHIBIT CODE: 9.30-25

PERIPHERAL BULLETINS & SPECS:

PHOTO NO(S): 370330-12 631108-19,50

PATENT(S):

LIBRARY REFERENCE(S):



SIGNAL GENERATOR FOR 28 TYPE KEYBOARD

Early Model 28 Type Signal Generator. NOTE: Single contact mechanism in lower right hand corner.

YEARS PRODUCED & QUANTITY: Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

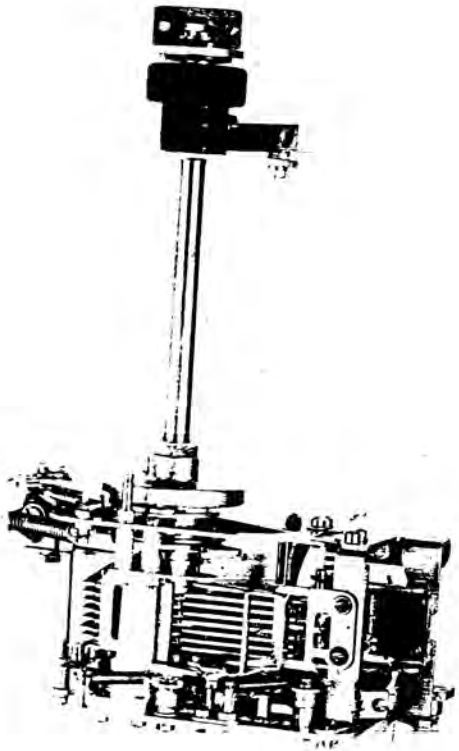
MUSEUM EQUIPMENT CODE: 9.3C-26

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 513402-13 631108-54,55,56

PATENT(S):

LIBRARY REFERENCE(S):



28 TYPE (D) KEYBOARD

This was an early Model 28 (D) Keyboard using castings for main frame and for signal generator frame. Subsequently replaced by sheet metal. This was a heavy production unit. (Later design)

YEARS PRODUCED & QUANTITY: 1948 Production

SERVICE OPTIONS(S):

CLASSIFICATION CODE:

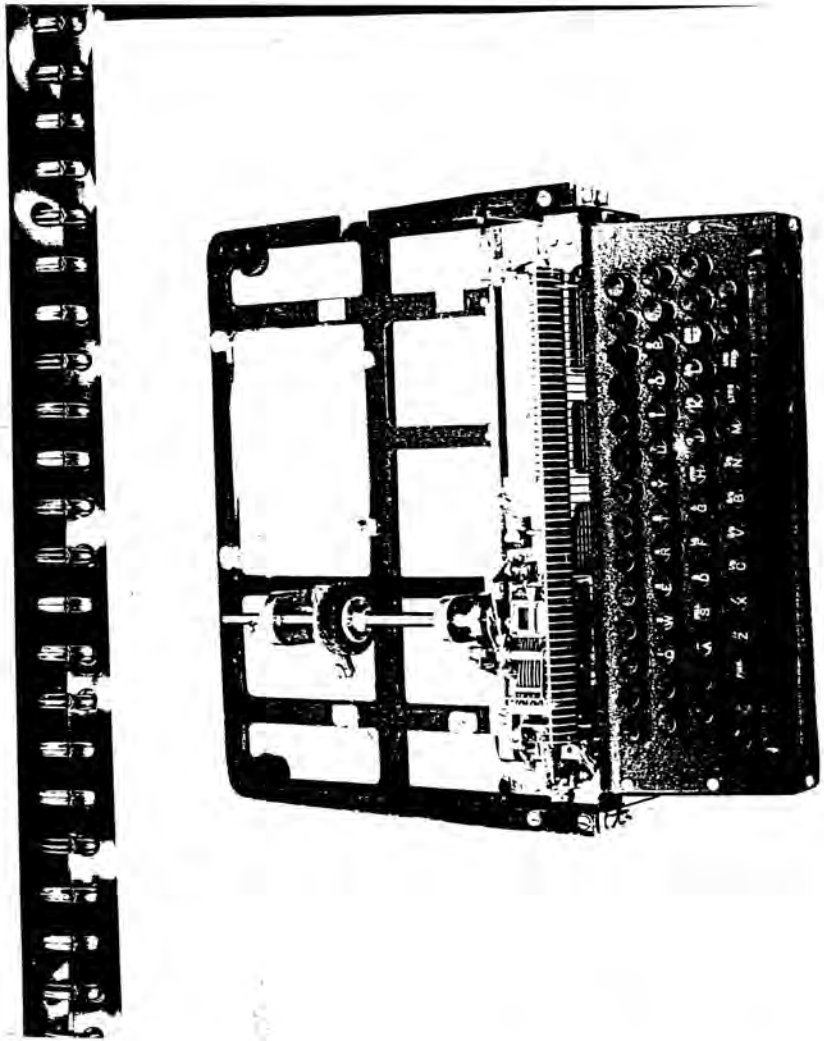
MUSEUM EQUIPMENT CODE: 9.3C-27

TECHNICAL BULLETINS & SPECS: Engr. File No. 1-13.65A1 Case 37

PARTS NO(S): L70317-35 631108-63

PATENT(S):

LIBRARY REFERENCE(S):



28 TYPE (E) KEYBOARD

Experimental Early Model 28 Keyboard (Model E).

YEARS PRODUCED & QUANTITY: 1948 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

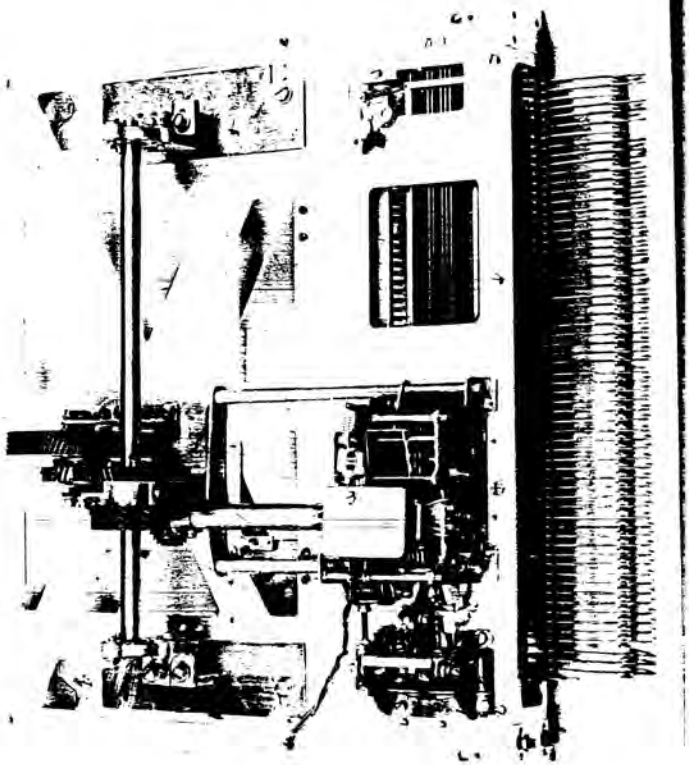
[illegible] EQUIPMENT CODE: 9.30-28

TECHNICAL BULLETINS & SPECS: Engr. File No. 1-19.65\1 Case 37

PHOTO NO(S): 491018-46 431108-58

PATENT(S):

LIBRARY REFERENCE(S):



MODEL 28 KEYBOARD

Model 28 MARK III Keyboard Model H. Forerunner of LK 6 (Model J)

YEARS PRODUCED & QUANTITY: Production

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

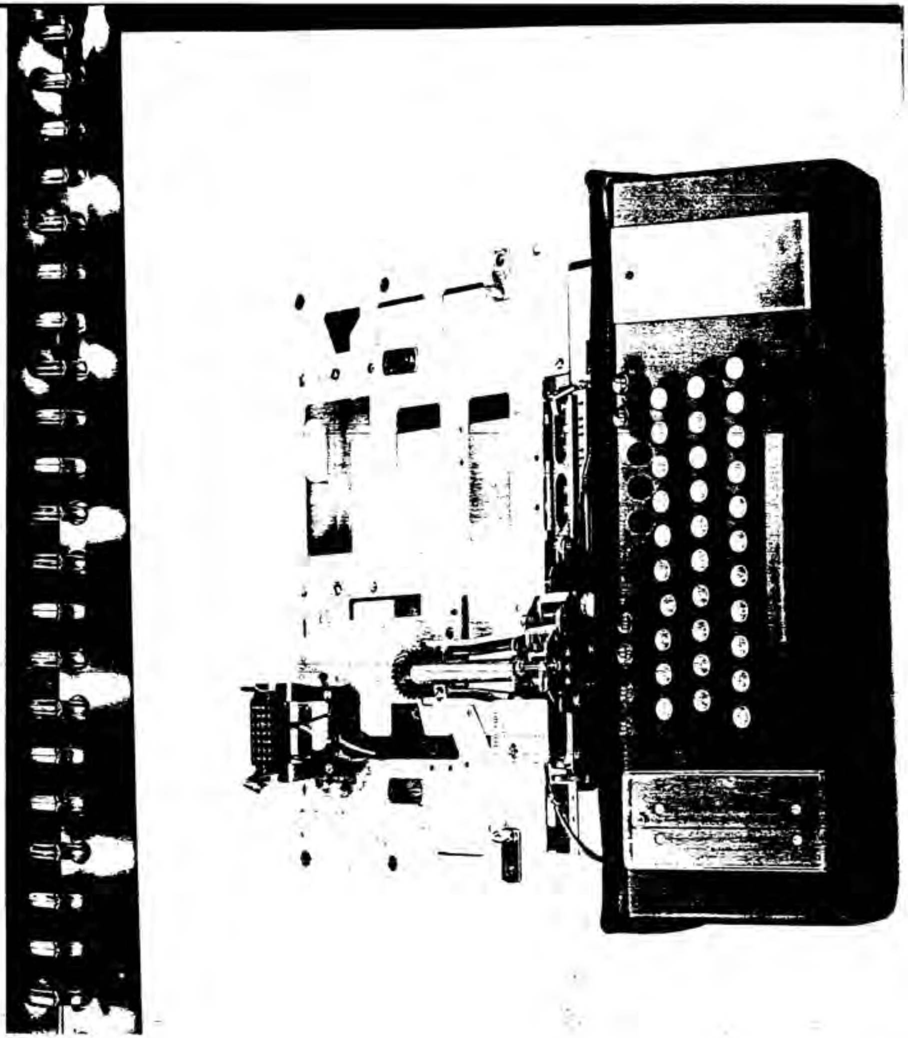
MUSEUM EQUIPMENT CODE: 9.3C-SP

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 580708-61 531107-59

PATENT(S):

LIBRARY REFERENCE(S):



EXPERIMENT .15-TYPE KEYBOARD

Experimental Model 15 type keyboard - 4 row with parallel code bar selection mechanism. NOTE: Locking bar arrangement for Figs. row.

YEARS PRODUCED & QUANTITY: 1949 Prototype

SECURITY CUSTOMER(S):

CLASSIFICATION CODE:

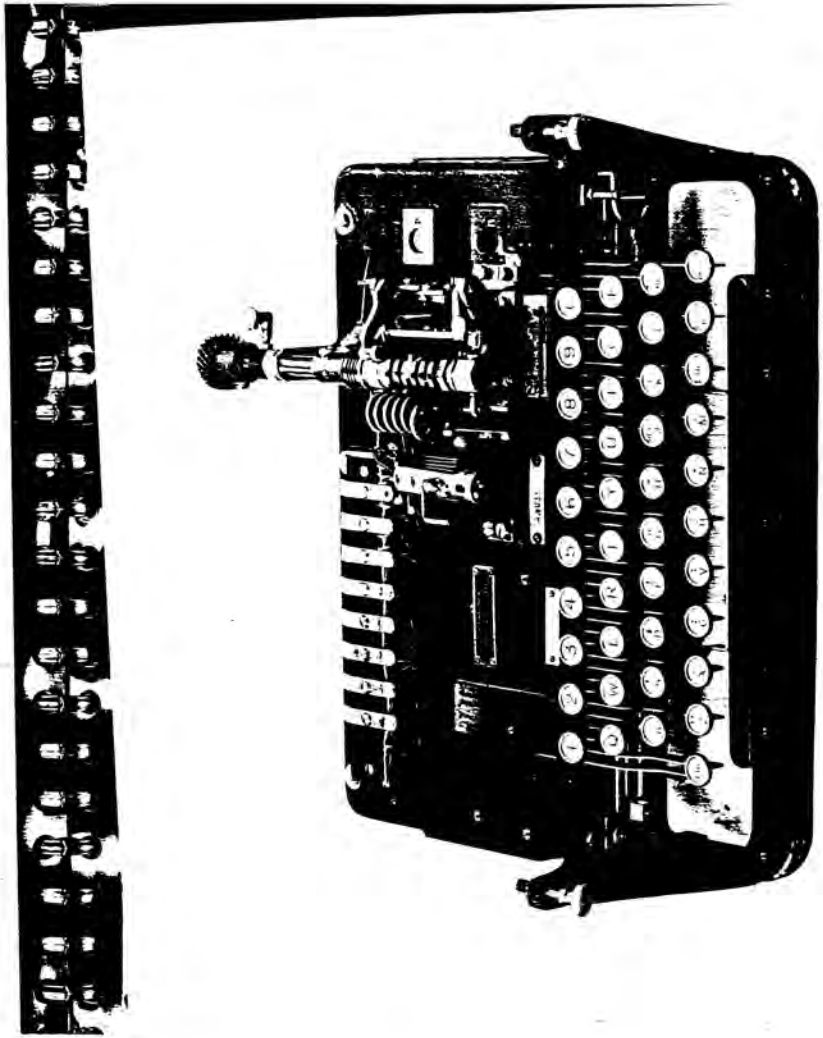
WESTERN EQUIPMENT CODE: 9.30-30

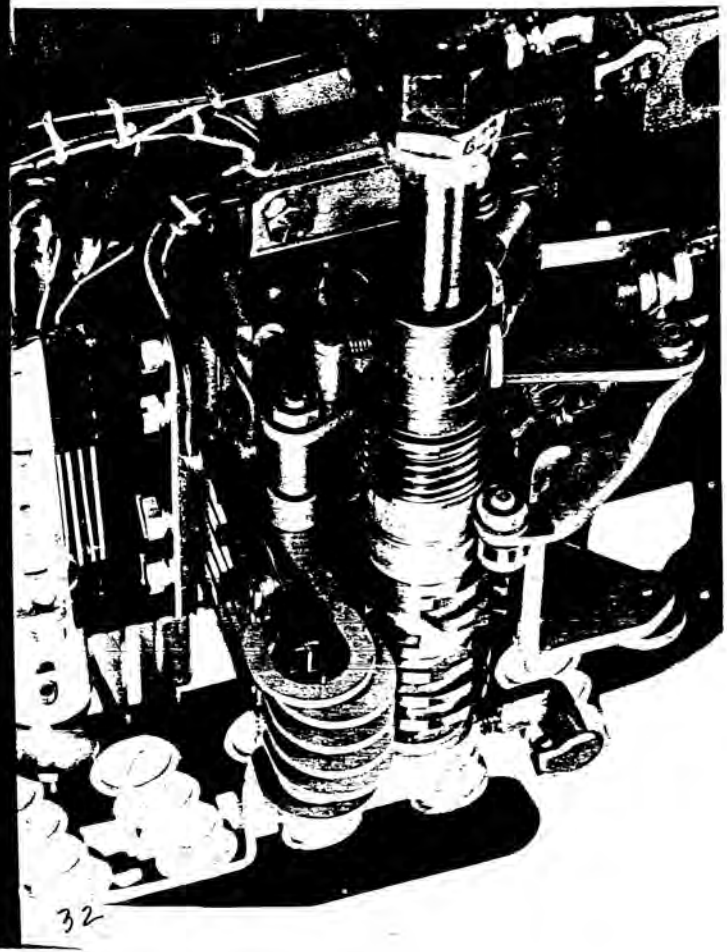
TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 490125-82 531108-18,19

PATENT(S):

LIBRARY REFERENCES(S):





15 TYPE KEYBOARD
(Answer-Back)

Model 15 Keyboard with later Model Answer-Back mechanism. See 9-EK-17.

YEARS PRODUCED & QUANTITY: Prototype

SPECIAL CUSTOMER(S):

CLASSIFICATION CODE:

MISC. EQUIPMENT CODE: 9.3C-31

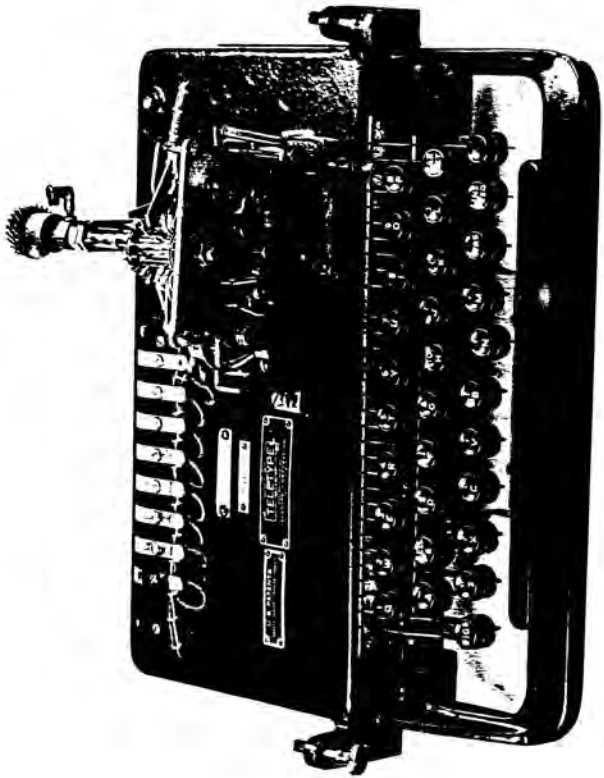
TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 490316-89 531108-25,26,27,28

PATENT(S):

LIBRARY REFERENCE(S):

33



EXPERIMENTAL 15 TYPE KEYBOARD

Experimental Model 15 Keyboard PEX type arranged for 4-row operation to satisfy foreign application. NOTE: Keyboard locking mechanism for fourth row (No's.)

YEARS PRODUCED & QUANTITY: 1949 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

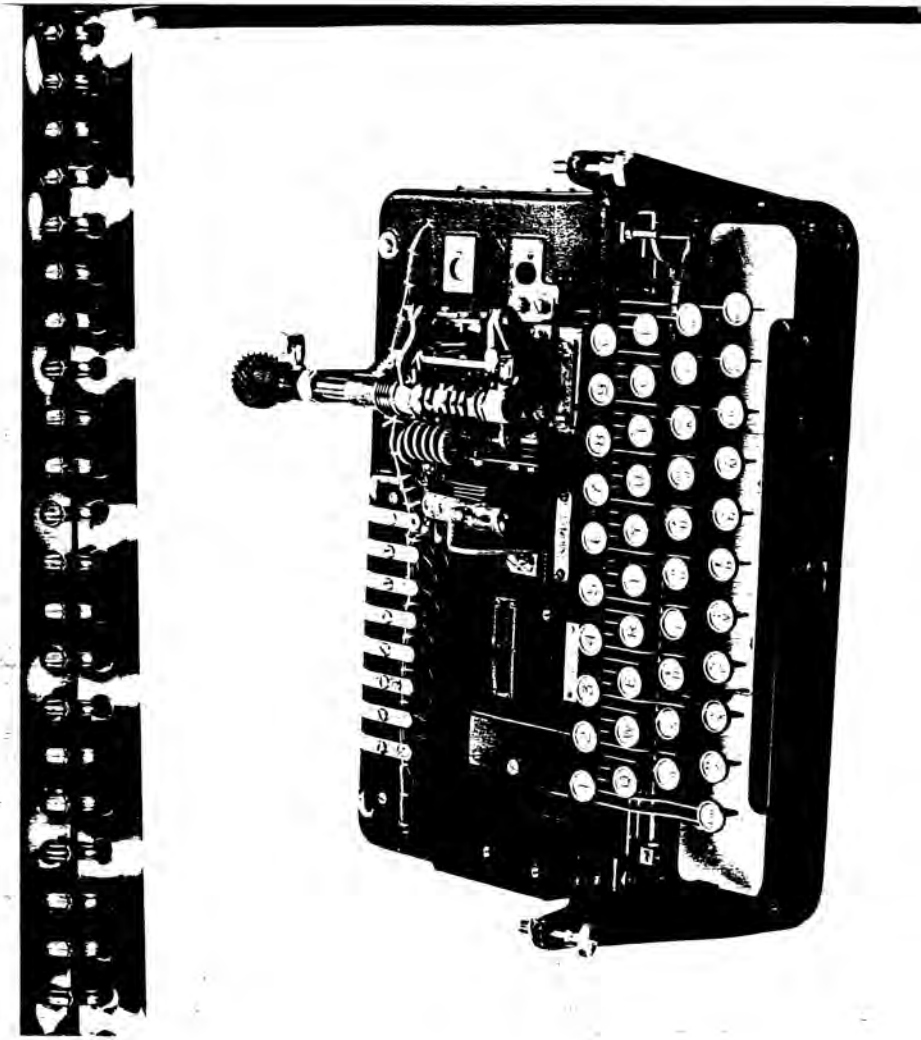
MUSEUM EQUIPMENT CODE: 9.30-32

TECHNICAL BULLETINS & SPECS: Engr. File No. 5-18AAA 82913 Case No. 9537-1

PHOTO NO(S): 490125-52 631128-29

PATENT(S):

LIBRARY REFERENCE(S):



15-TYPE KEYBOARD
(Answer-Back)

Model 15 Keyboard with early model of Answer-back mechanism. Features rotating code drum with removable blades.

YEARS PRODUCED & QUANTITY: 1949 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

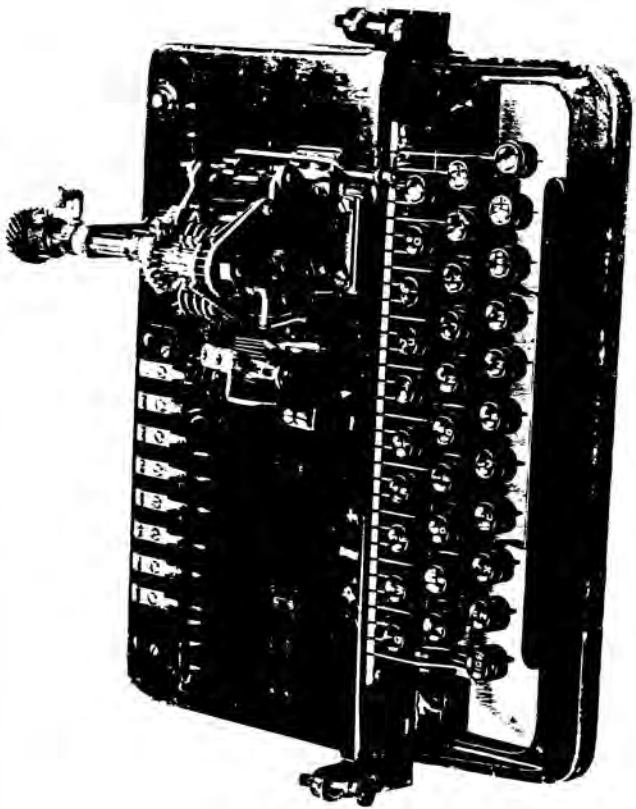
MUSIUM EQUIPMENT CODE: 9.3C-33

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 490-46-59 631108-22,23,24

PATENT(S):

LIBRARY REFERENCE(S):



EXPERIMENTAL 28-TYPE KEYBOARD

Experimental Model 28 Keyboard developed for use with proposed set for U.S. Air Force. NOTE: Polar contact arrangement, press-to-talk contact arrangement and facility for changing gears and keytops for rapid rearrangement of speed and keytop arrangement.

YEARS PRODUCED & QUANTITY: 1952 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

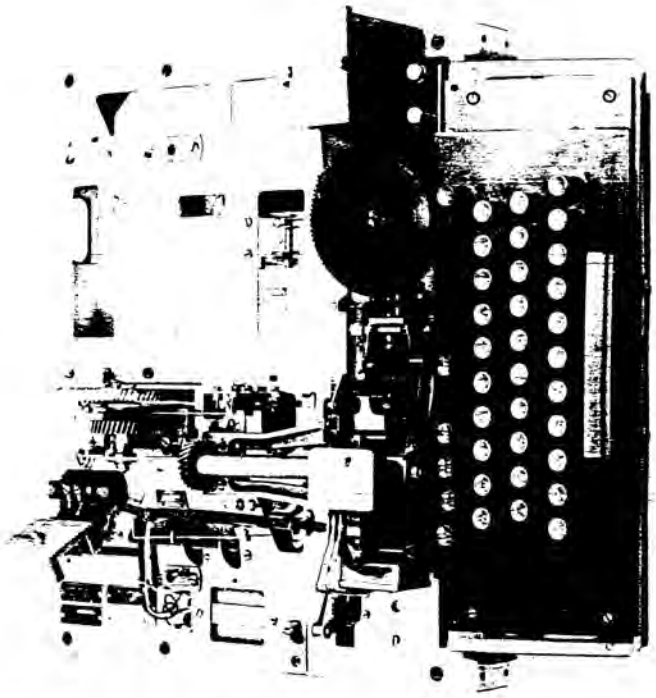
MISSION EQUIPMENT CODE: 9.30-34

TECHNICIAL BULLETINS & SPECS: Engr. No. 21-30.65AA

PHOTO NO(S): 520520-62 531OH-57

PATENT(S):

LIBRARY REFERENCE(S):



DIAL TRANSMITTER

Transmits timed electrical pulses similar to a telephone dial. Return movement of operating levers actuates cams and a shaft that opens and closes a contact to interrupt the line. Experimental model.

YEARS PRODUCED & QUANTITY: Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: #.3C-35

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 370233-2 631212-78

PATENT(S):

LIBRARY REFERENCE(S):

PHOTOELECTRIC KEYBOARD

This keyboard transmitter is similar to mechanical keyboard transmitters except that the "distributor" is a slotted rotating cylinder, which scans illuminated apertures set up from the keyboard. A single photocell and D.C. amplifier generates the start-stop signal. Signal bit duration is determined by slot dimensions and cylinder speed, instead of cam mechanisms and contacts as in the 15 type. Code bars cannot be reset until the distributor reaches the stop position. "Overlap" is provided. NOTE: This device should have merit as a "quiet" signal generator in classified projects.

YEARS PRODUCED & QUANTITY: 1938 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

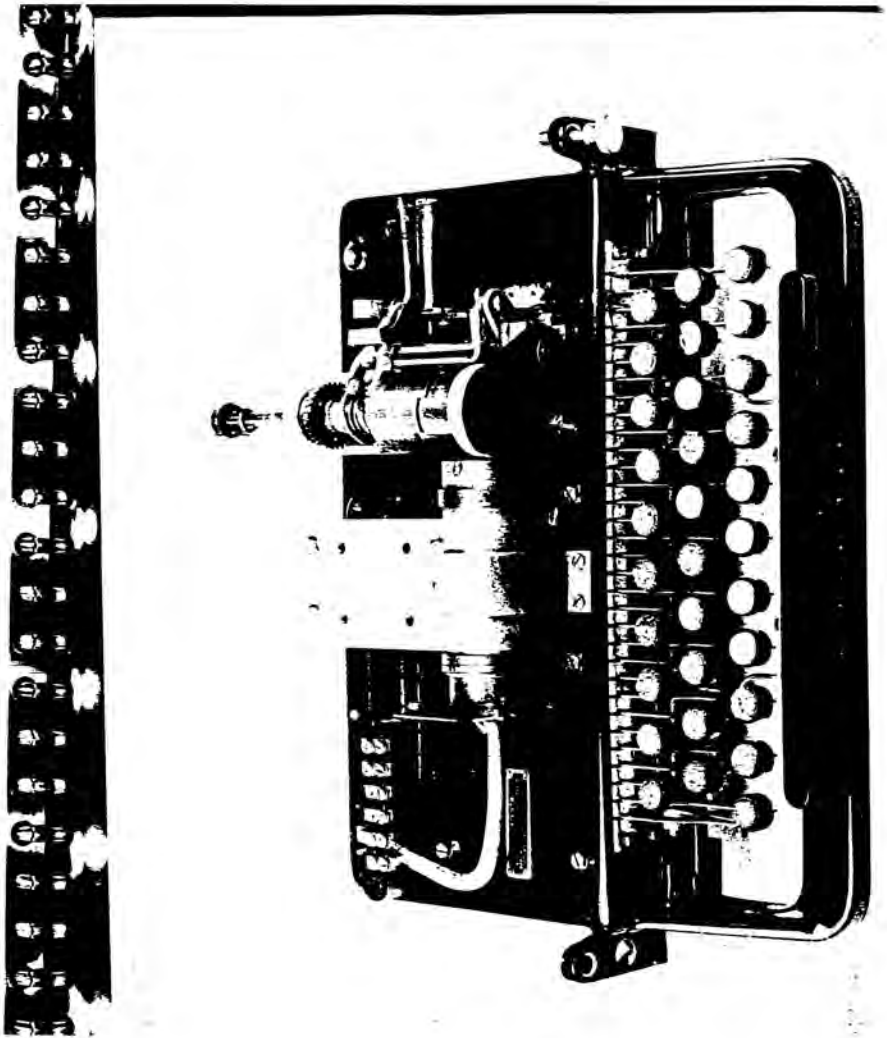
MUSEUM EQUIPMENT CODE: 9.30-36

TECHNICAL BULLETINS & SPECS: Engr. Potts

PHOTO NO(S): 340387-1,2,3,4 631111-59

PATENT(S): No. 2,234,832

LIBRARY REFERENCE(S):



PHOTOELECTRIC FACSIMILE KEYBOARD

Controls photoelectrically the transmission of facsimile code signals. Translates permutation code signals into facsimile signals. Keyboard generation of facsimile signals to be received by 17 type receiver.

YEARS PRODUCED & QUANTITY: C. 1939

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

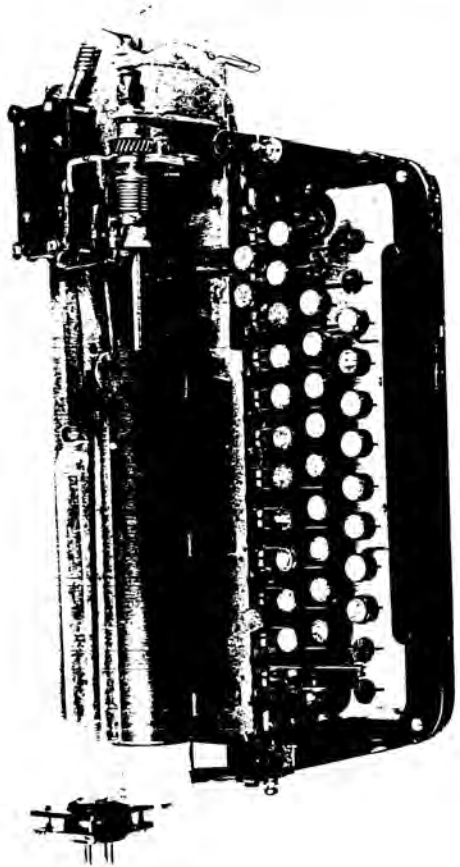
MUSEUM EQUIPMENT CODE: 9.30-37

TECHNICAL BULLETINS & SPECS: Engr. Notes

PHOTO NO(S): 34126-1 631111-67

PATENT(S): No. 2,263,592

LIBRARY REFERENCES(S):



EARLY MONOPULSE KEYBOARD

Early model of monopulse keyboard, later to be coded MK. The monopulse unit as a whole was designed to supplement conventional Teletype apparatus in local circuit applications where printed message service is desired but where the traffic is not sufficient to justify the installation of standard Teletype equipment. Maximum speed of 20 words per minute.

YEARS PRODUCED & QUANTITY: Early model

PRIMARY CUSTOMER(S): Bell System and General Public

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 9.30-38

TECHNICAL BULLETINS & SPECS: 14, D1-1

PHOTO NO(S): Polaroid TCC2

PATENT(S):

LITERARY REFERENCE(S):

KEYCARD USED WITH MODEL 19 SET

A keycard used with the Model 19 Set which consisted of a Model 15 Printer with a perforator transmitter and character counter.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 9.30-39

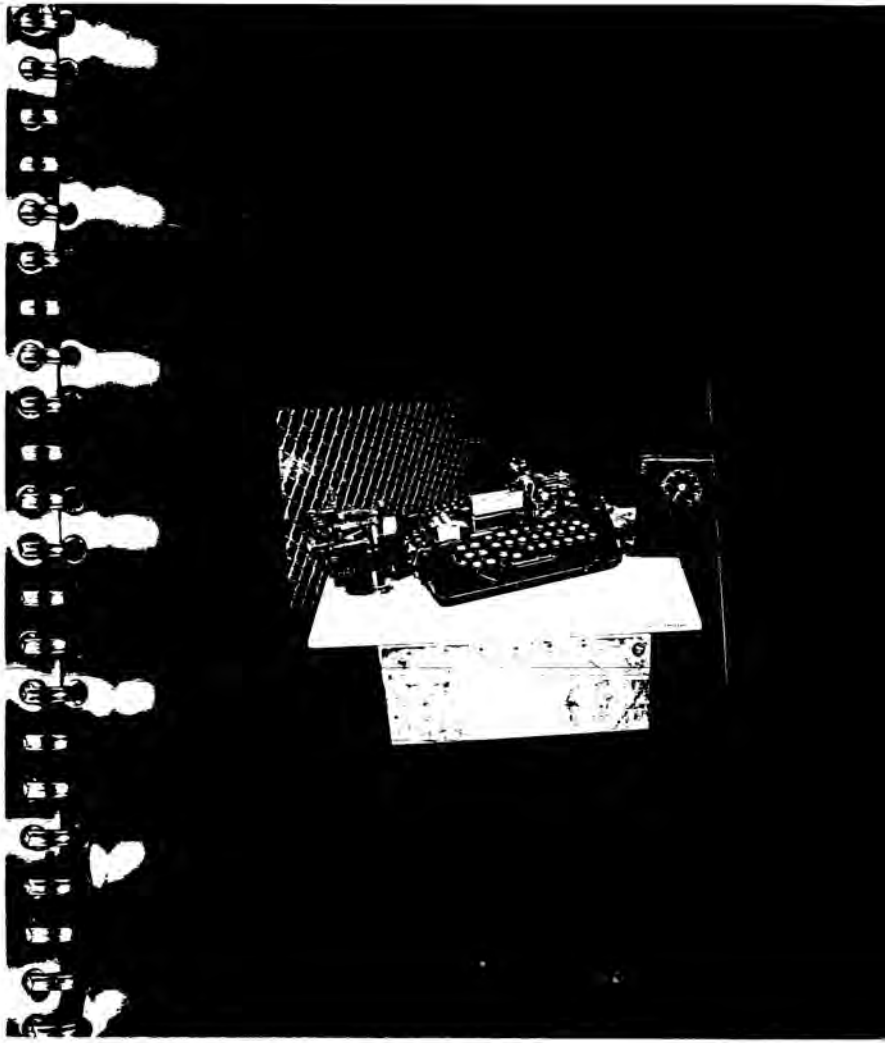
TECHNICAL BULLETINS & SPECS:

PHOTO TC(S): Polaroid T037

PATENT(S):

LIBRARY REFERENCE(S):

A1



14 TYPE KEYBOARD FOR TPR

A keyboard used with the Model 14 Typing Reperforator (TPR).

YEARS PRODUCED & QUANTITY: C. 1941-1950

PRIMARY CUSTOMER(S): Signal Corp; Navy; WPCC; F.T.

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 9.3C-4C

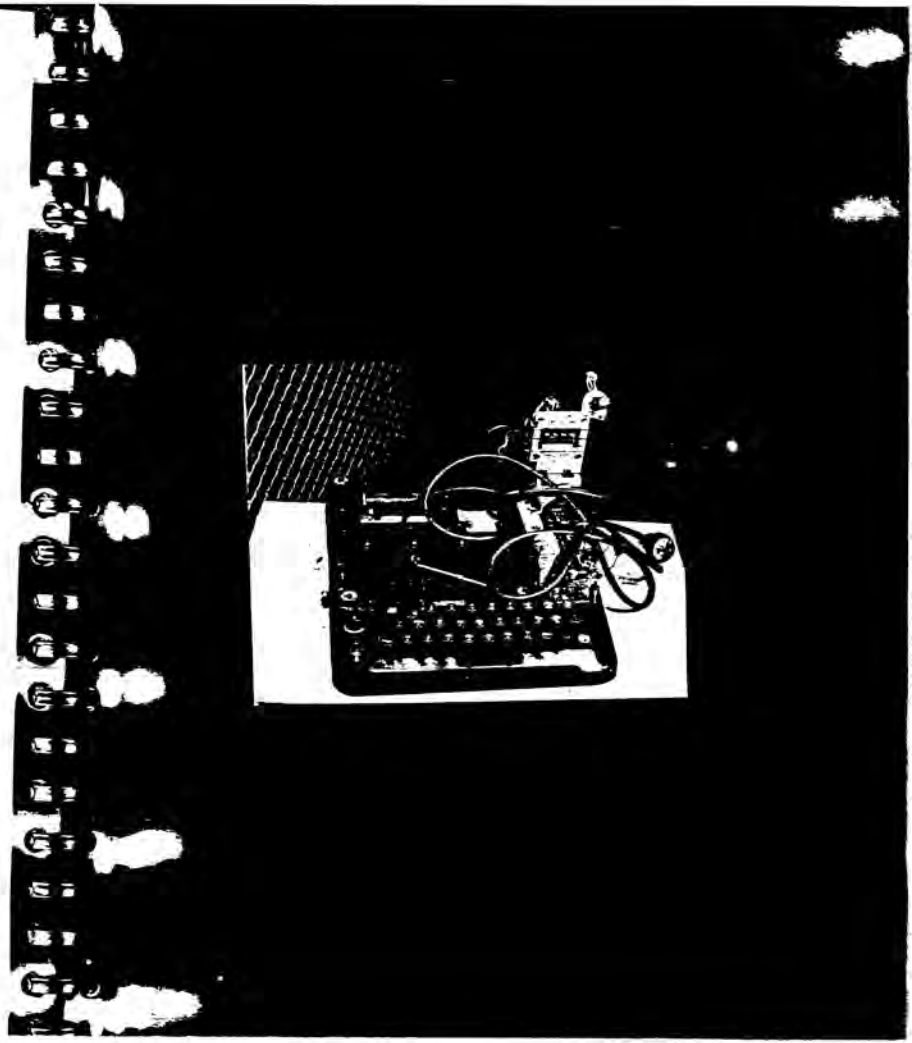
TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): Polaroid TC41

PATENT(S):

LIBRARY REFERENCE(S):

A2



14 TYPE KEYBOARD FOR TP

A keyboard used with the Model 14 Tape Printer (TP).

YEARS PRODUCED & QUANTITY: C. 1925-1960

PRIMARY CUSTOMER(S): WSCO: W.U.

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 9.3C-41

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): Polaroid T064

PATENT(S):

LIBRARY REFERENCE(S):

MODEL 19 KEYBOARD/PERF. (PEX)

Production model of the Modal 19 Keyboard Perforator (PEX).

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE: PEX

MUSEUM EQUIPMENT CODE: 9.3C-42

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): Polaroid TC21

PATENT(S):

LIBRARY REFERENCE(S):

TELETYPESETTER KEYBOARD

An early model of a six-level keyboard used with Teletypesetter equipment.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

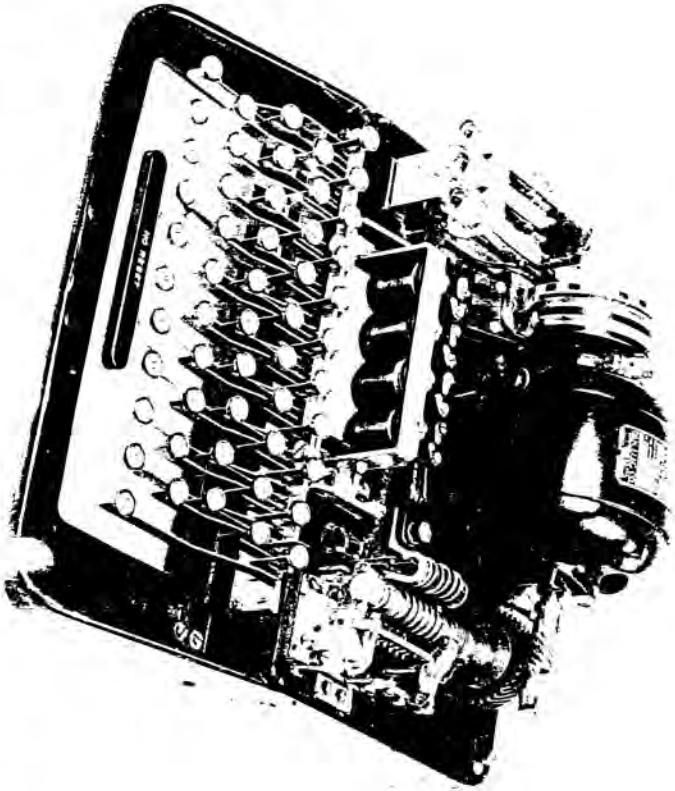
MUSEUM EQUIPMENT CODE: 9.3C-43

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 640115-96

PATENT(S):

LIBRARY REFERENCE(S):



WESTERN UNION 4-A KEYBOARD

Western Union Telegraph 4-A Keyboard with character counter used in early telegraph service. Transmitting unit is similar to Teletype Model 14 Keyboard except that cam arrangement is parallel instead of sequential.

NOTE: Character counter control mounted above transmitting cam sleeve. Means for imparting motion to counter main gear; thin disk at rear end of cam sleeve functions as worm gear to achieve one tooth advance of counter gear per character. Output of counter is electrical contact to light lamp. Mechanism is reset by depressing UNISON keylever ("CR").

YEARS PRODUCED & QUANTITY: 1928 Production

PRIMARY CONTRACTOR(S): Western Union

CLASSIFICATION CODE:

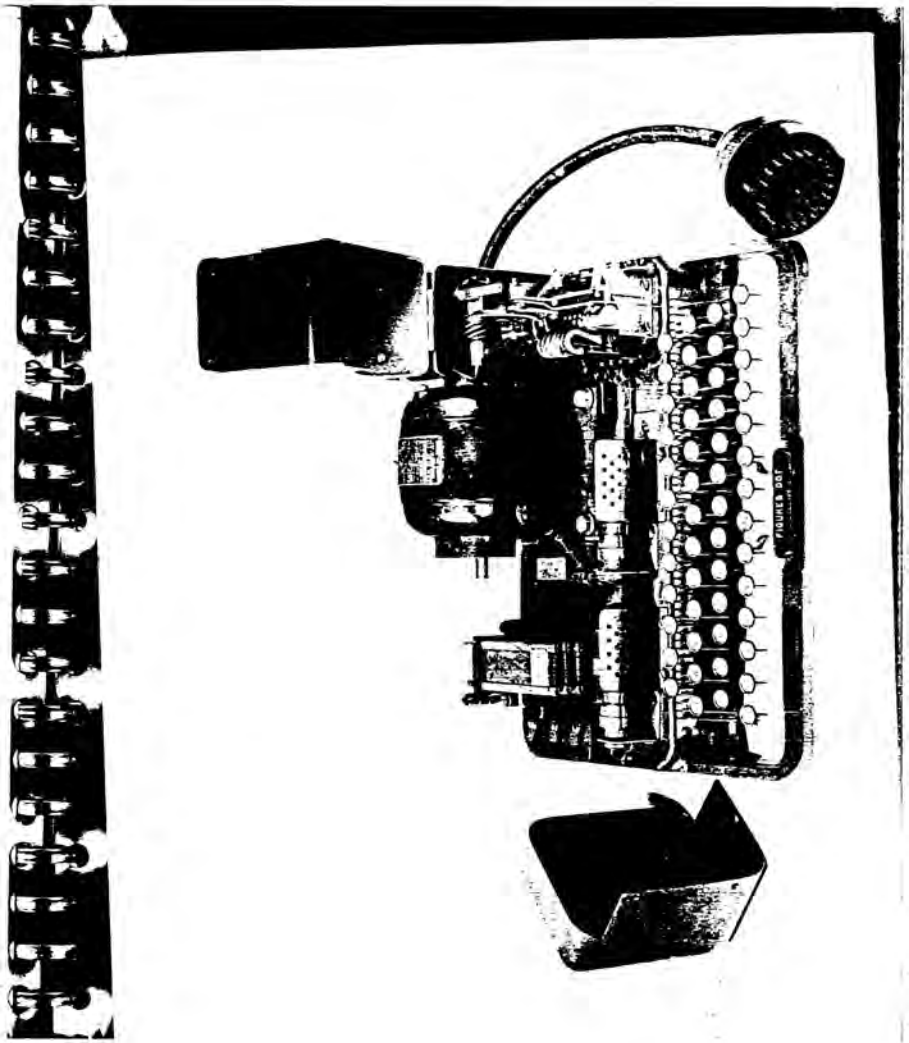
HISTORIC EQUIPMENT CODE: 9.30-1

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 231008-2 231108-77,78

PATENT(S):

LIBRARY REFERENCE(S):



POSITIVE TYPEWHEEL CLUTCH

This clutch was designed to replace the friction typewheel clutch in 26 printer. It consists of a power driven ratchet, stationary ratchet, double pawl, detent arrangement for the pawl, clock spring, and drum. The driven member flies forward under action of the wound up clock spring. This action flips the detent mechanism which pulls the double pawl out of engagement with the stationary ratchet and into engagement with the driving ratchet. The throw-ahead feature reduces impact between the pawl and driving ratchet. The clutch is driven until the driven member hits a solid stop at which time the action flips the detent mechanism to engage the stationary and disengage the driving ratchets. This clutch was never used due to "critical adjustments".

USING PRODUCED & QUANTITY: 1937 Prototype

DEVELOPED BY CUSTOMER(S):

CLASSIFICATION CODE:

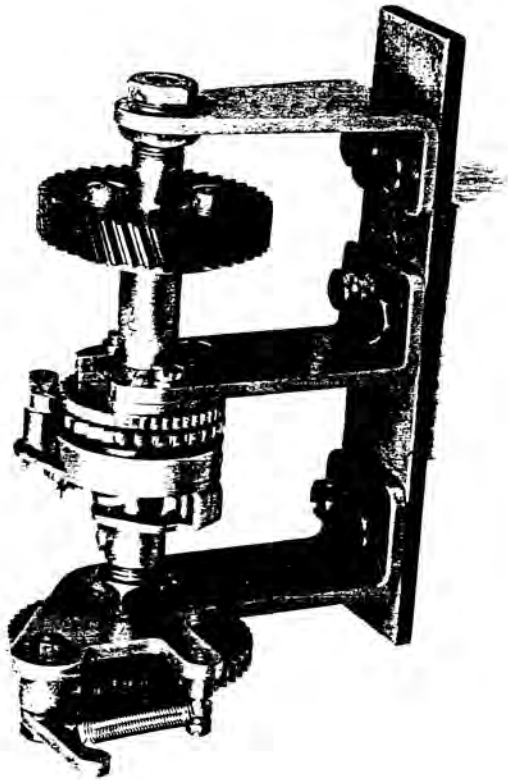
NUMERICAL EQUIPMENT CODE: 6.40-1

TECHNICAL BULLETINS & SOURCE: Sher. Zenner

PHOTO NO(S): 370806-14 631114-69

PATENT(S):

LIBRARY REFERENCE(S):



POSITIVE DRIVE WHEEL CLUTCH

Typewheel clutch in message ticketer. When tripped, a pin is pulled out of engagement with an arm of the clutch. The arm moves in a radial direction, engaging a tooth in the ratchet. The ratchet drives the arm (and typewheel) until another pin gets in the way. When striking a pin a cam surface on the arm disengages the arm from the ratchet. Inertia carries the arm onwards to detent position which locks the typewheel in place.

YEARS PRODUCED & QUANTITY: 1941 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

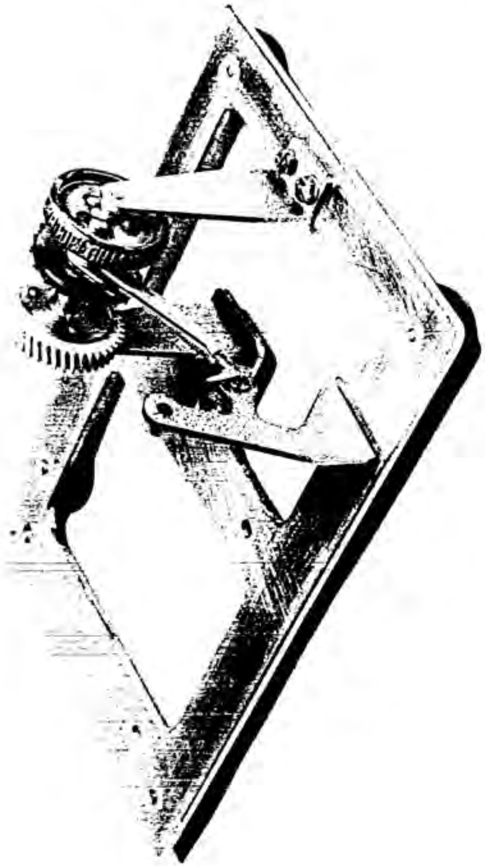
MUSEUM EQUIPMENT CODE: 9.4C-2

TECHNICAL BULLETINS & SPECS: Engr. Zenner Case 2089-1

PHOTO NO(S): 41-0219-61 63114-64

PATENT(S):

LIBRARY REFERENCE(S):



ELECTROSTATIC CLUTCH

The clutch consists of a gear driven shaft to which is fastened a plastic disc which is backed up by a metal disc. Next to this disc is a metallic disc, and pushing against the whole is another plastic disc, this one keyed against rotation. In operation, a ground potential is applied to the rotating plastic's backing plate, and a high positive voltage to the stationary plastic's backing plate. If a positive voltage is applied to the metal disc, the disc will be attracted to the rotating plastic, repulsed from the stationary, and movement will occur. If ground potential is applied to the metal disc, the disc will be attracted to the stationary plastic, repulsed from the rotating stopping motion.

TRAPS PRODUCED & QUANTITY: 1944 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

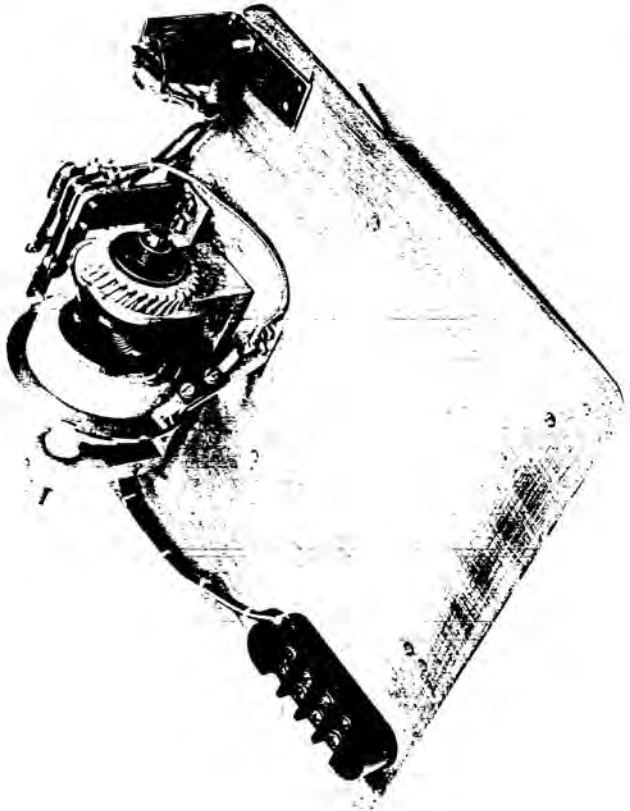
MUSEUM EQUIPMENT CODE: 4.AC-3

TECHNICAL BULLETINS & SPECS:

PROTO NO(S): 270624-47 631114-62

PATENT(S):

LIBRARY REFERENCE(S):



MULTIPLE DISC FRICTION CLUTCH

The unit consists of multiple discs rather than the conventional single felt wafer used between two metal plates.

YEARS PRODUCED & QUANTITY: 1944 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 9.4C-4

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 440323-73 631120-[illegible]

PATENT(S):

LIBRARY REFERENCE(S):

FLUID COUPLING CLUTCH

This model features an electro magnet fluid clutch. The driver consists of a stainless steel non-magnetic shaft with two Norway iron washers fastened to it while the driven member consists of a brass tube with a Norway iron washer that is straddled by the two driving washers. Around this assembly is a toroidal elector-magnet coil that is surrounded by iron with the exception of the inner diameter. At this point the magnet flux produced passes through the driver and driven members which are sealed in an iron powder and oil mixture. This mixture tends to solidify which locks the driver and driven members. This model has approximately 3 oz. viscous drag when running in an unoperated manner and approximately 3 inch lb. torque with .150 amps in the coil.

YEARS PRODUCED & QUANTITY: 1946 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

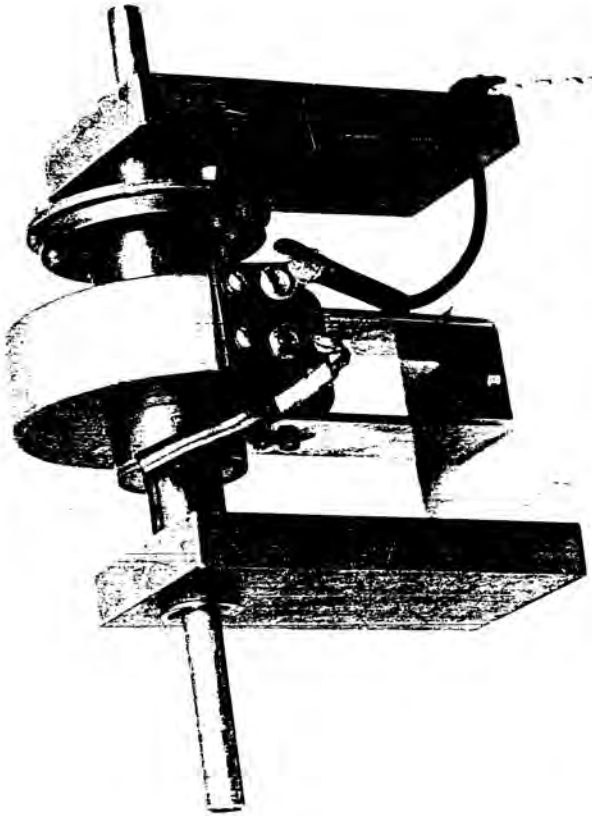
MISCELLANEOUS INVENTORY CODE: 9.06-5

TECHNICAL BULLETIN & ERROR: Engr. File No. 13-146 Mass Engr. DeBoo

PHOTO NO(S): 43609-75 63120-97

PATENT(S):

LIBRARY REFERENCE(S):



POSITIVE DRIVE GEAR CLUTCH

Two gears mounted at proper operating distance, but one has teeth missing in one area (stop position). When tripped, an arm cams the gear ahead so that the first tooth engages with the main gear. The gears then rotate until the last tooth cams out of engagement. The same arm then cams the gear into its proper stop position so there is no tooth contact. The arm cams the gear against the load (if any).

YEARS RECORDED & QUANTITY: 1947 Prototype

SECURITY CLASSIFICATION(S):

CLASSIFICATION CODE:

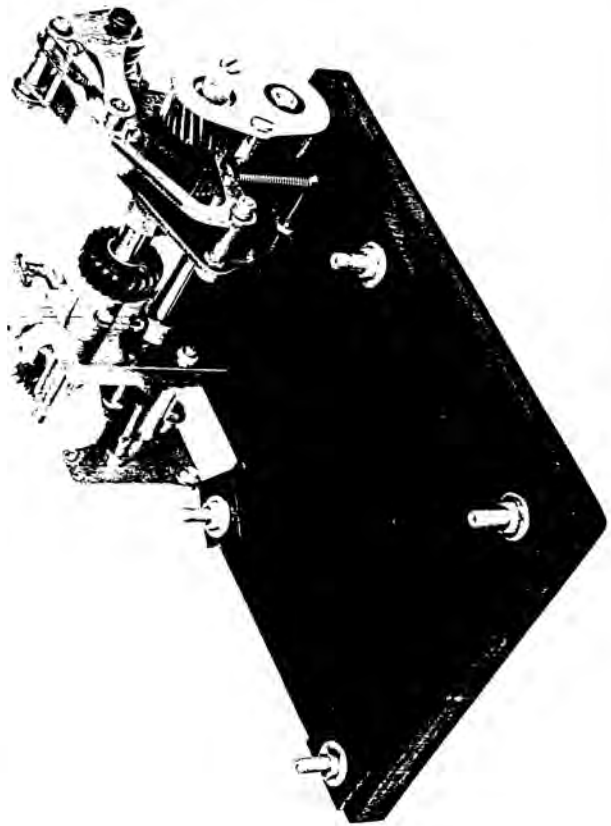
MUSEUM EQUIPMENT CODE: 9.4C-6

TECHNICAL BULLETINS & SPECS: Engr. Swan Case 2971-1

PHOTO NO(S): 47-1027-99 631114-46

PATENT(S):

LIBRARY REFERENCE(S):



RATCHET TYPE CLUTCH

This is a positive engagement ratchet type clutch (2 stop, 1 pawl). The feature here is two arms riding a cam surface. When the pawl is disengaged, the arms are in position to cam the follower (against the load, if any) into a stop position. Upon trip, these arms force the pawls ahead, so that the initial impact of ratchet meeting pawl is not so severe.

YEARS PRODUCED & QUANTITY: 1947 Prototype -

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

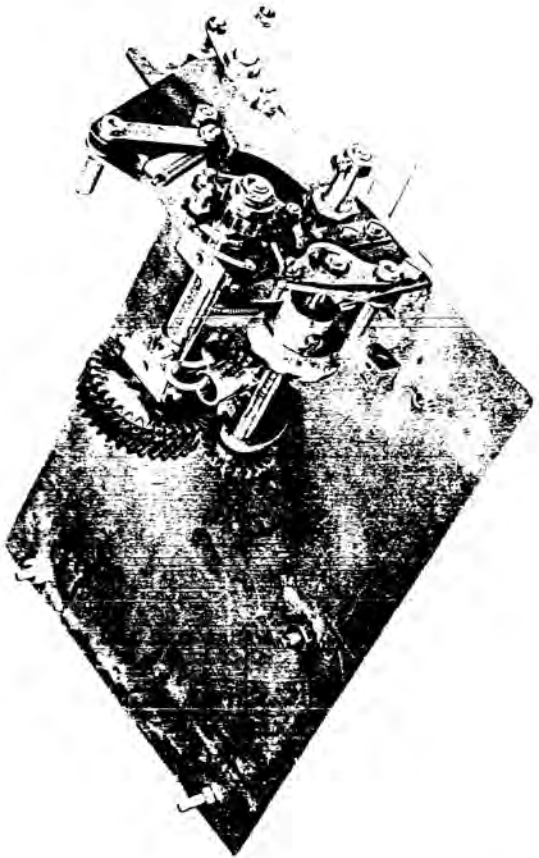
NOSRAN EQUIPMENT CODE: 9.4G-7

TECHNICAL BULLETINS & SPECS: Engr. Swan

PMCC NO(S): 47-1027-100 631114-65

PATENT(S):

[illegible]: 3771-1



28 TYPE CLUTCH

This clutch was driven by means of rollers instead of shoes. It was developed to overcome clutch slippage problems that were inherent in the early 28 design. This approach was discarded however when improvements were made in the shoe type clutch.

YEARS PRODUCED & QUANTITY: 1950 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

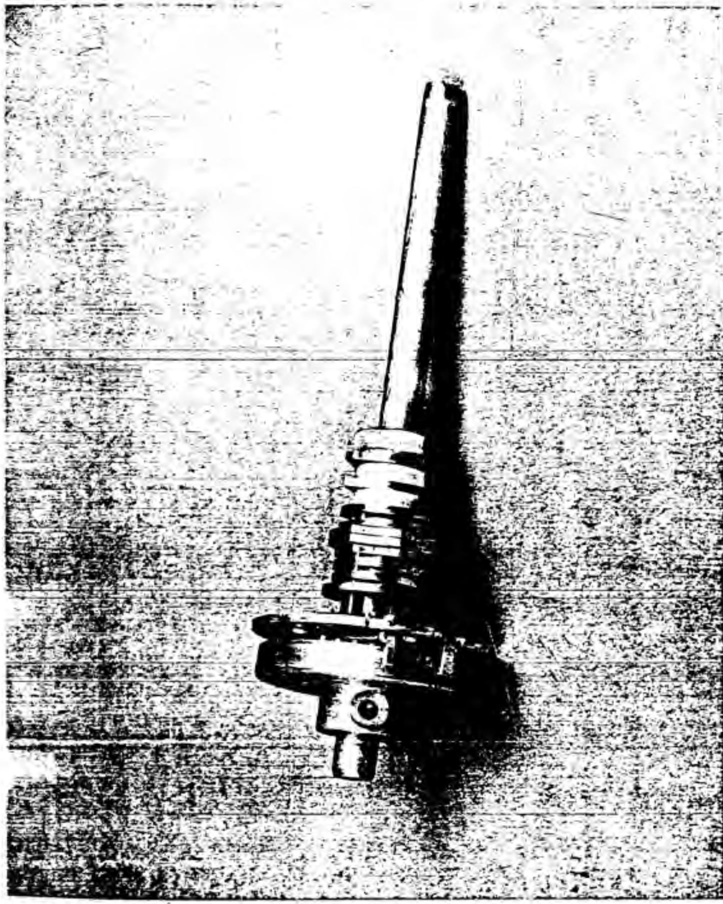
ARMY EQUIPMENT CODE: [illegible]

TECHNICAL BULLETINS & SPECS: Engr. Martendale

PHOTO NO(S): 500906-87,88 631129-64,65

PATENT(S):

LIBRARY REFERENCE(S):



28 TYPE SPACING CLUTCH

This is training aid to show the operation of 28 type spacing clutch.

YEARS PRODUCED & QUANTITY: 1950 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

MISTON EQUIPMENT CODE: 9.AC-9

TECHNICAL BULLETINS & SPECS: Engr. Richardson

DWTO NO(S): 621114-58

PATENT(S):

LIBRARY REFERENCE(S):

55

GENEVA WHEEL MECHANISM CLUTCH

This model represents the application of a Geneva wheel mechanism as a clutch. The Geneva drive is engaged or disengaged through the use of a magnet armature. When it is in the disengaged position the output shaft is locked. When the magnet is pulsed the input drive makes one revolution and causes the output to make ¼ of a turn.

YEARS PRODUCED & QUANTITY: 1955 Prototype.

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 9.40-10

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 550618-55 631114-51

PATENT(S):

LITERARY REFERENCE(S):

56