2A MULTIPLEX PAGE PRINTER
(POTTS PRINTER)

Typewheel moved across platen during printing. Inker roll, inked typewheel characters. Typewheel horizontal movement actuated by threaded shaft. Motor driven.

Known as the Potts printer. Was used by Western Union Telegraph Company.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 1A-3

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 650319-24 92947

PATENT(S):

LIBRARY REFERENCE(S):

92947

EARLY TYPEWHEEL PAGE PRINTER

Early model of a typewheel page printer. Appears to have used platen mechanism of Underwriter Typewriter.

YEARS PRODUCED & QUANTITY: (model)

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

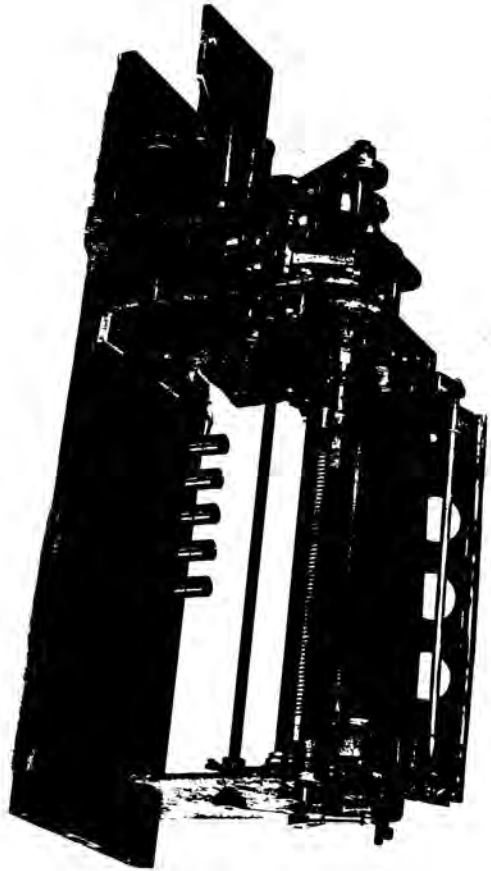
MUSEUM EQUIPMENT CODE: 1A-1

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 650319-27

PATENT(S):

LIBRARY REFERENCE(S):



Donated to Milwaukee Public Museum

TELECTOGRAPH PRINTER 4-K

Early model of a typewheel page printer. Appears to use the platen mechanism of the Underwood Typewriter.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE: 4-K

MUSEUM EQUIPMENT CODE: 1A-5

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): Polaroid TU110

PATENT(S):

LIBRARY REFERENCE(S):

MODEL 12 (TBP) TYPEBAR PAGE PRINTER

The printer was designed to provide page or tape copy from multiplex telegraph signals. Friction feed or sprocket feed models were available.

To a large extent standard L. C. Smith typewriter parts were used in its design. Motor driven, it printed at speeds up to 80 WPM. It was a very durable machine, featuring many castings including the operating portions as well as the framework.

This was the "bread and butter" printer until the 15 Printer went into production.

YEARS PRODUCED & QUANTITY: 1922 - 1930

PRIMARY CUSTOMER(S): General, W. U., Bell, Police

CLASSIFICATION CODE:

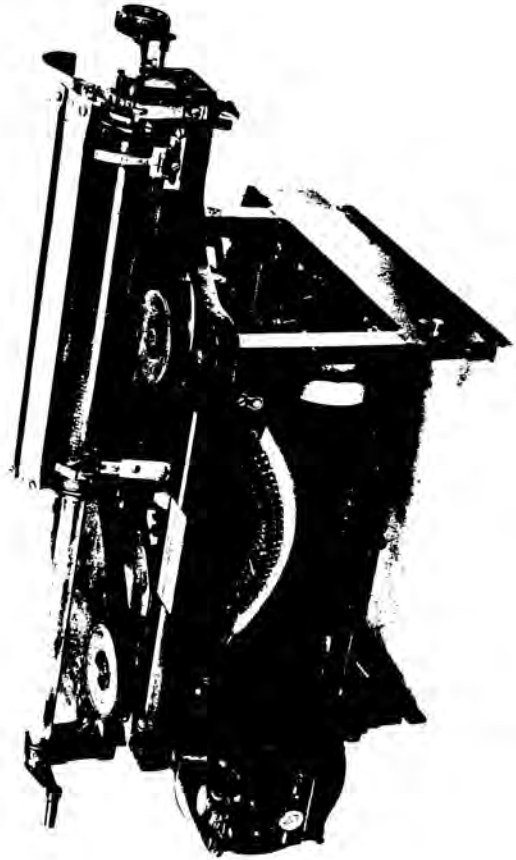
MUSEUM EQUIPMENT CODE: 1B-2

TECHNICAL BULLETINS & SPECS: No. 109

PHOTO NO(S): 650319 - 20, 21 540828-7

PATENT(S):

LIBRARY REFERENCE(S):



KLEINSCHMIDT (TYPE-SEGMENT) PAGE PRINTER

This is a type-segment page-printer with a movable platen. Its unique feature is its selector system. The character to be printed is selected by an impulse or impulses of predetermined duration varying according to the location of the character. All the type-characters, except those on the first horizontal row and the first vertical row, are selected by two movements of the type-segment which requires two impulses of the unit duration or longer. The first impulse operates the horizontal selector mechanism and the second of the longitudinal selector mech[illegible]

Later, with the adoption of the Baudot equal length code and start-stop, this approach to selection was abandoned.

YEARS PRODUCED & QUANTITY: 1916

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

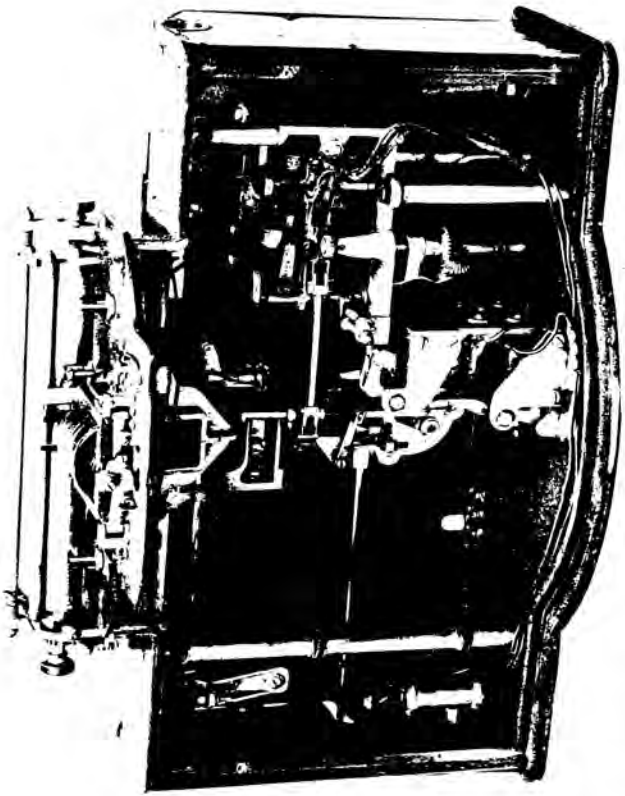
MUSEUM EQUIPMENT CODE: 1B-5

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 640115 - 98,99

PATENT(S): No. 1,258,019

LIBRARY REFERENCE(S):



3K TELEGRAPH PRINTER (KLEINSCHMIDT)

Typewheel page printer. Typewheel moves across platen during printing operation. Driven by screw threaded shaft. Pull-up type selector.

This model came to the Morkrum Company with the acquisition of the Kleinschmidt Electric Company in 1925.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

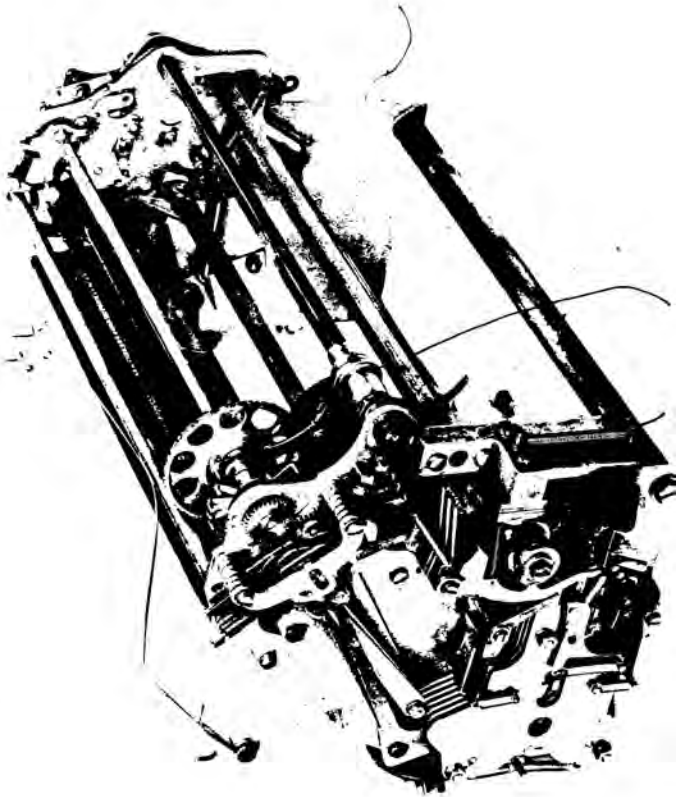
MUSEUM EQUIPMENT CODE: 1B-6

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 650319 - 25,26

PATENT(S):

LIBRARY REFERENCE(S):



3A MULTIPLEX TYPEBAR PAGE PRINTER (KLEINSCHMIDT)

Six wire, multiples electrical solenoid coil operated selecting and function mechanisms. Spacing mechanism, platen mechanism, platen shift mechanism and function bar mechanism are operated by solenoids. Code bar mechanism operated by magnet coil.

Five level with individual circuit input to each coil and code.

This model was acquired when the Werkrum Company purchased the Kleinschmidt Electric Company.

YEARS PRODUCED & QUANTITY: 1920

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

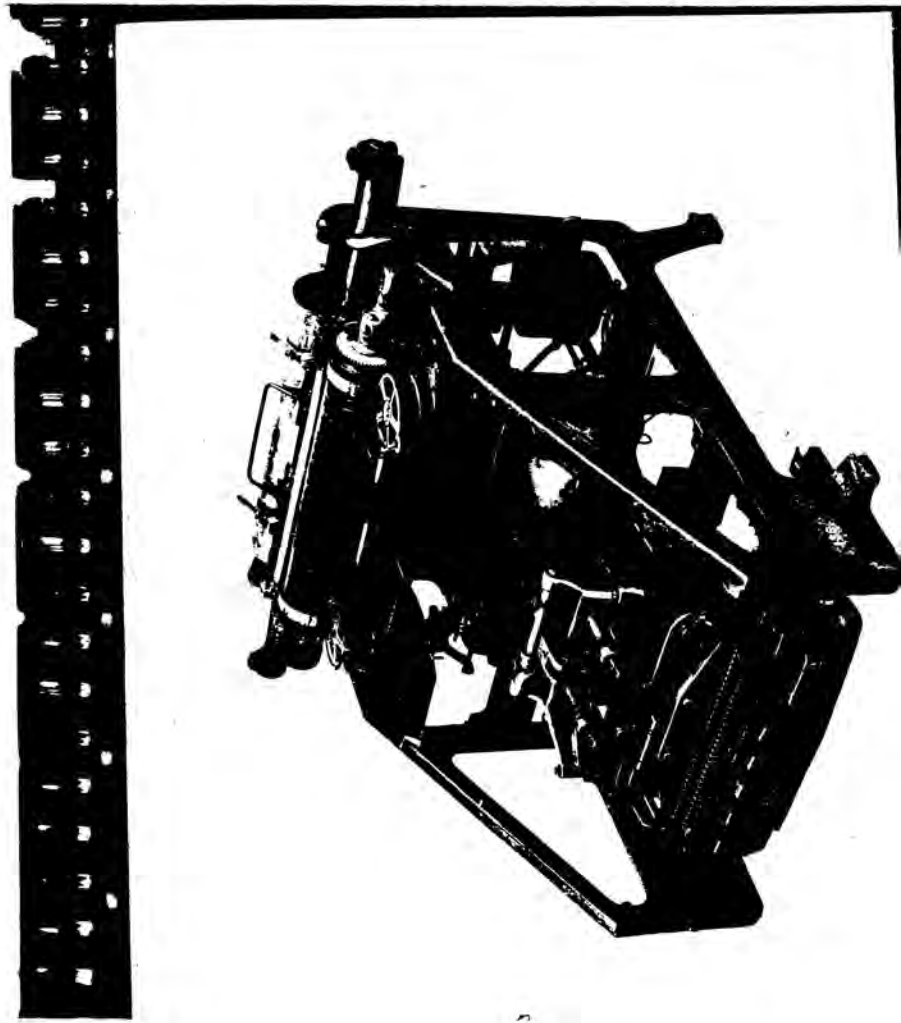
MUSEUM EQUIPMENT CODE: 1B-8

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 301011 - 4 650329 - 75

PATENT(S):

LIBRARY REFERENCE(S):

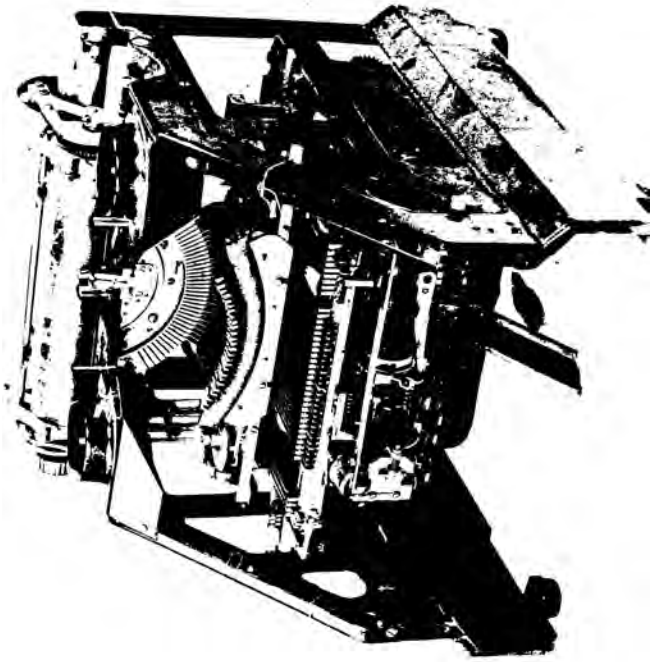


SIMPLEX 18 (SPP)

Arrangements were made so that Japan could use Morkrum-Kleinschmidt drawings for manufacture in Japan. This was a receiving only, or send-receive printer (and keyboard). It operated on a make and break (or start-stop) line signal. When the sending and receiving station were idle, the line was closed and the selecting magnets in both printers were energized. Upon depressing a key, a small pin barrel in the keyboard made one revolution and sent out a combination of line impulses which varied with different keylevers. At both the transmitting and receiving end this was picked up by the selecting magnets which transferred the selection to five selecting bars to determine the letter to be pointed.

The transfer was accomplished by another barrel which also made one revolution per character and which was started by the first impulse received by the selector magnet. Synchronism between the transmitting and receiving pin barrels was important, although a pause at the end of each revolution meant that the speeds of the motors did not need to be absolutely the same.

YEARS PRODUCED & QUANTITY: 1926
PRIMARY CUSTOMER(S): Japan and some USA customers
CLASSIFICATION CODE:
MUSEUM EQUIPMENT CODE: 1B-10
TECHNICAL BULLETINS & SPECS: No. 123
PHOTO NO(S): 650322-53 350507-2
PATENT(S):
LIBRARY REFERENCE(S):



MODEL 15 TYPE BAR PAGE PRINTER
(MORKUM-KLEINSCHMIDT)

An early design transition model of composite design ideas of the 14 type tape printer and early types of page printer.

Pull up type selector, early design of orientation scale. Selector mounted on lower front of unit. Type bar segment stationary, platen spaces as on 12 type printers. One of the first "15 type" experimental models.

YEARS PRODUCED & QUANTITY: 1924

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

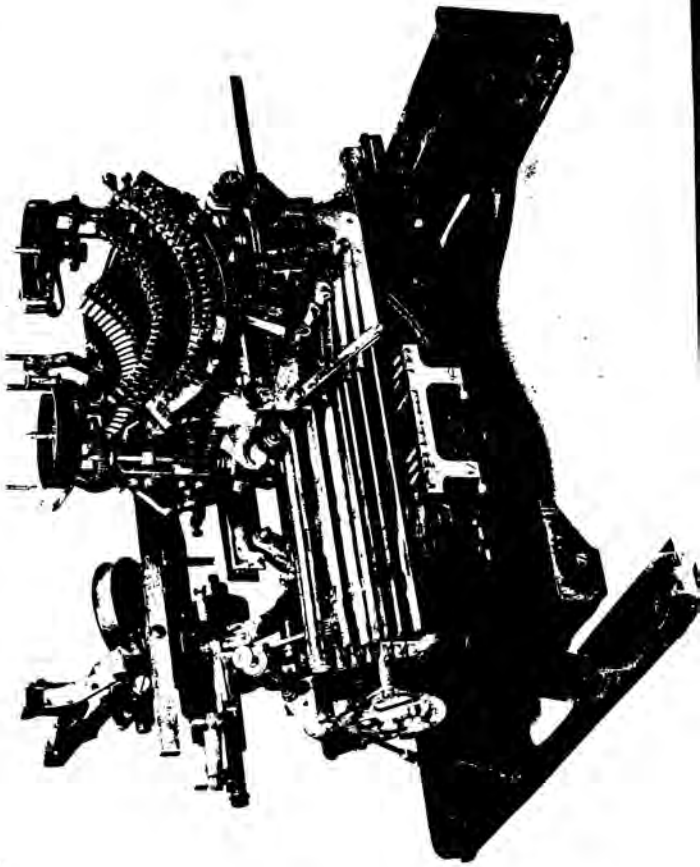
MUSEUM EQUIPMENT CODE: 18-11

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 301011-3 650319-11

PATENT(S):

LIBRARY REFERENCE(S):



MODEL 12 PAGE PRINTER

After the Morkrum Company first applied Howard Krum's improved method for operating start-stop permutation-code telegraph systems to the Green Code apparatus to control the selecting and printing operations of the Blickensderfer type-wheel typewriter, other companies began to produce similar machines using, instead, typebar printing like the more modern typewriters. Observing this situation, the Morkrum Company started intensive development work to produce the Model 12 typebar printer, using the typebars and operating mechanism of the L. C. Smith typewriter and platen of a Woodstock Typewriter.

YEARS PRODUCED & QUANTITY: 1922-1943; 11,899 units

PRIMARY CUSTOMER(S): Western Union; railroads; Chicago Police Dept.; Postal Telegraph; British Post Office; Australian Telegraph.

CLASSIFICATION CODE: Model 12

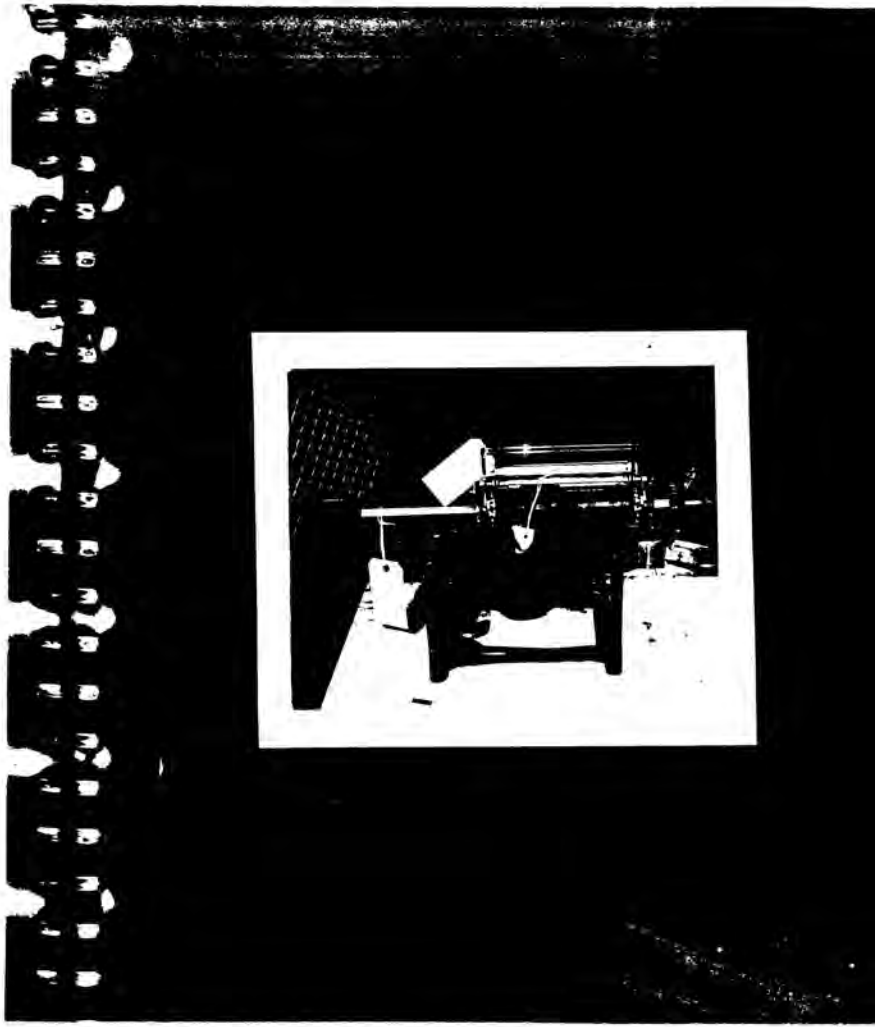
MUSEUM EQUIPMENT CODE: 1B-U

TECHNICAL BULLETINS & SPECS: BSP AB84.126

PHOTO NO(S): Polaroid 7070

PATENT(S):

LIBRARY REFERENCE(S): Kleinschmidt, E.E., Printing Telegraphy... A New Era Begins, 1965, pp. 25-26; McNicol, D. Printing Telegraph Systems, 1925, pp. 51-68.



Donated to Chicago Museum of
Scienc and Industry

MODEL 12 TBP (MOPKRUM)

An early model of the 12-type page printer, which used the typebars and operating mechanism of the L. C. Smith typewriter and platen of a Woodstock Typewriter.

YEARS PRODUCED & QUANTITY: C. 1920 (Early Model)

PRIMARY CUSTOMER(S): Western Union; railroads; Chicago Police Dept.; Postal Telegraph; etc.

CLASSIFICATION CODE: 12-Type (TBP)

MUSEUM EQUIPMENT CODE: 18-15

TECHNICAL BULLETINS & SPECS: NA

PHOTO NO(S): Polaroid TO50

PATENT(S):

LIBRARY REFERENCE(S):

SIMPLEX 18 (SPP)

This was the send-receive version of the 18-type printer. It operated on a start-stop line signal. Upon depressing a key, a small pin barrel in the keyboard made one revolution and sent out a combination of line impulses which varied with different keylevers. As both the transmitting and receiving end this was picked up by the selecting magnets which transferred the selection to five selecting bars to determine the letter to be printed.

The transfer was accomplished by another barrel which also made one revolution per character and which was started by the first impulse received by the selector magnet. Synchronism between the transmitting and receiving pin barrels was important, although a pause at the end of each revolution meant that the speeds of the motor did not need to be absolutely the same.

YEARS PRODUCED & QUANTITY: 1919-1924; 1927-1933, 231 units sold

PRIMARY CUSTOMER(S): For intercommunication systems

CLASSIFICATION CODE: 18-type

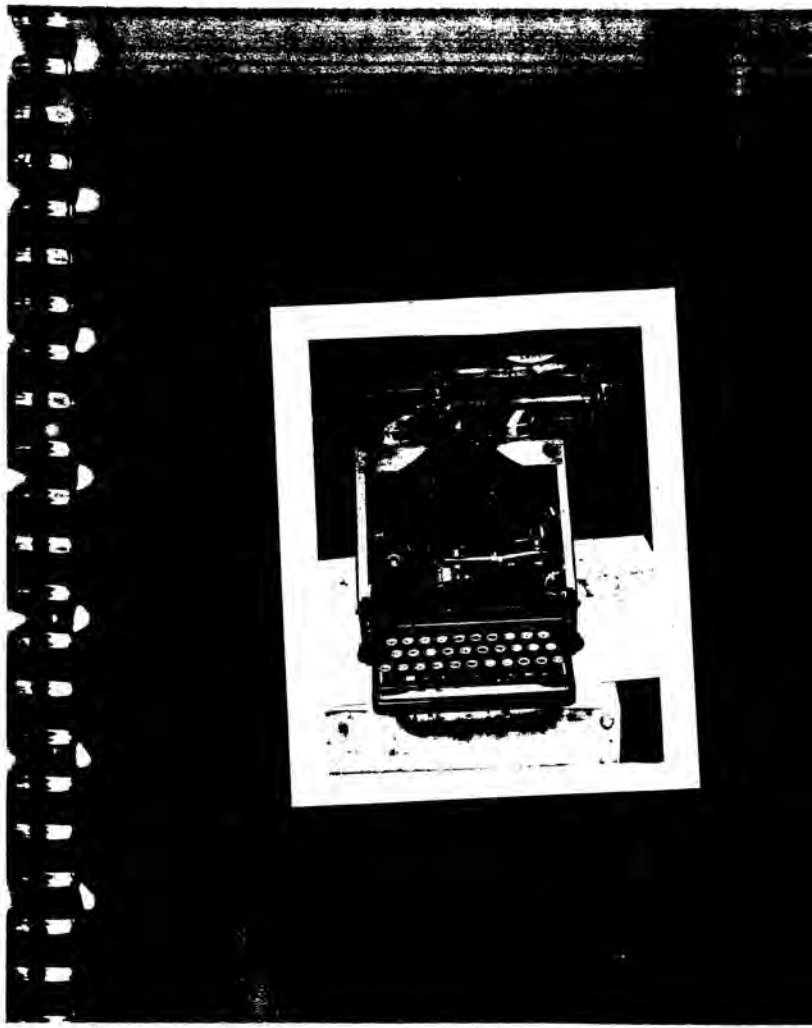
MUSEUM EQUIPMENT CODE: 18-16

TECHNICAL BULLETINS & SPECS: No. 124

PHOTO NO(S): Polaroid T099

PATENT(S):

LIBRARY REFERENCE(S): Kleinschmidt, E.E., Printing Telegraphy... A New Era Begins, 1965, pp. 15-16.



3A MULTIPLEX TYPEBAR PAGE PRINTER (K)

An early model of a 3A Multiplex Typebar Page Printer. Six wire, multiple electrical solenoid coil operated selecting and function mechanisms. Spacing mechanisms, platen mechanism, platen shift mechanism and function bar mechanism are operated by solenoids. Code bar mechanism operated by magnet coil.

Five level with individual circuit input to each coil and code. This model was acquired when the Morkrum Company purchased the Kleinschmidt Electric Company.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

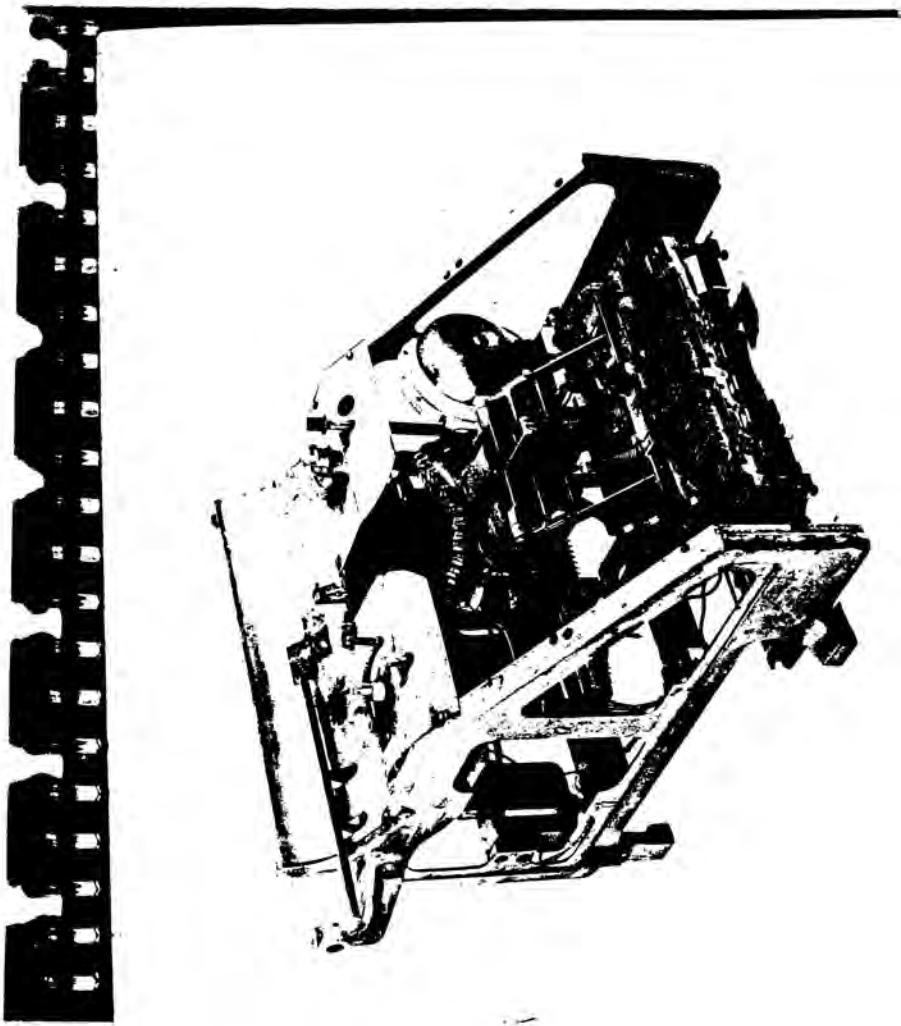
MUSEUM EQUIPMENT CODE: 1B-17

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 650319-01

PATENT(S):

LIBRARY REFERENCE(S):



MULTIPLEX PAGE PRINTER (hA)

A multiplex page printer made for the Western Union Telegraph Company.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

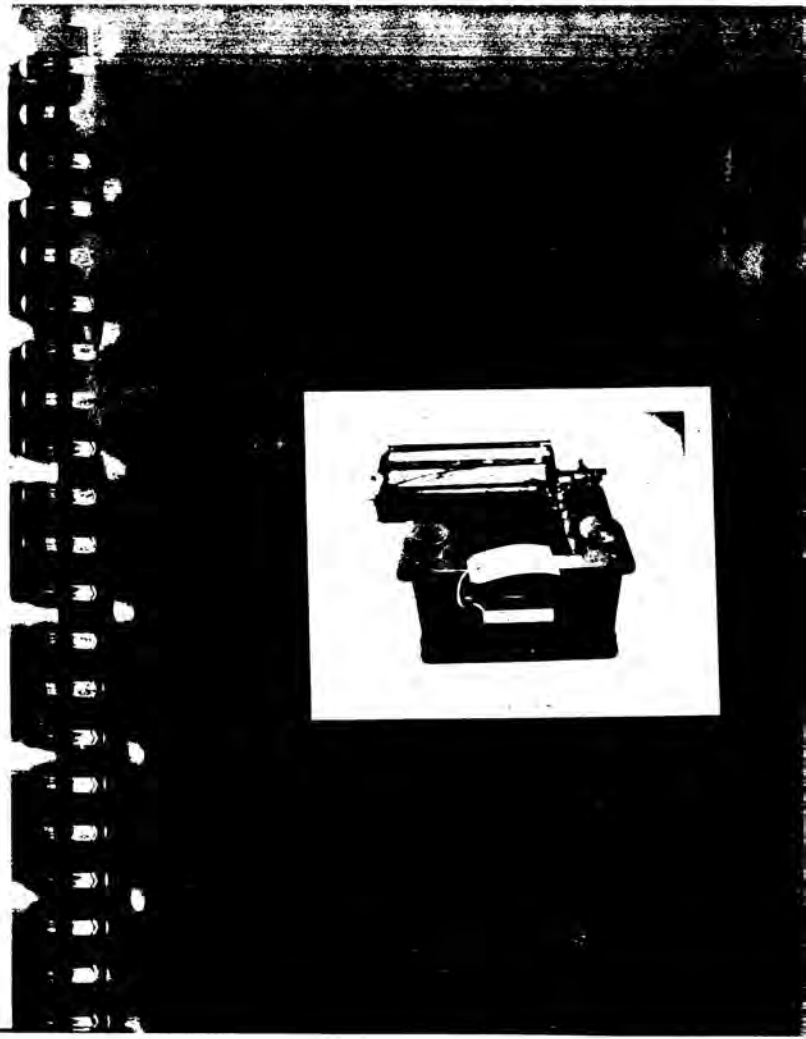
MUSEUM EQUIPMENT CODE: 1B-18

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): Polaroid TU116

PATENT(S):

LIBRARY REFERENCE(S):



15-TYPE PAGE PRINTER
([illegible])

A coil assembly consisting of 5 coils and armatures are connected to the printer code bars by levers. A signal received by a coil operates the coil armature which actuates the printer code bar. Parallel input to selector coils.

This model was to be used to transcribe perforated tape to page copy.

YEARS PRODUCED & QUANTITY: 1930

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: IC-1

TECHNICAL BULLETINS & SPECS: Engr. File No. 2-30A97A Case 2869-1

PHOTO NO(S): 520626-84

PATENT(S):

LIBRARY REFERENCE(S):

MODEL 15 PAGE PRINTER (PP)

For producing page printer copy "scrambled", from telegraph signals, pulsed prior to going "on line".

This was basically a 19 type printer equipped with a secret processing (externally pulsed) device which acted on the selector vanes to scramble normal messages.

None produced commercially.

YEARS PRODUCED & QUANTITY: 1943

PRIMARY CUSTOMER(S): Military

CLASSIFICATION CODE:

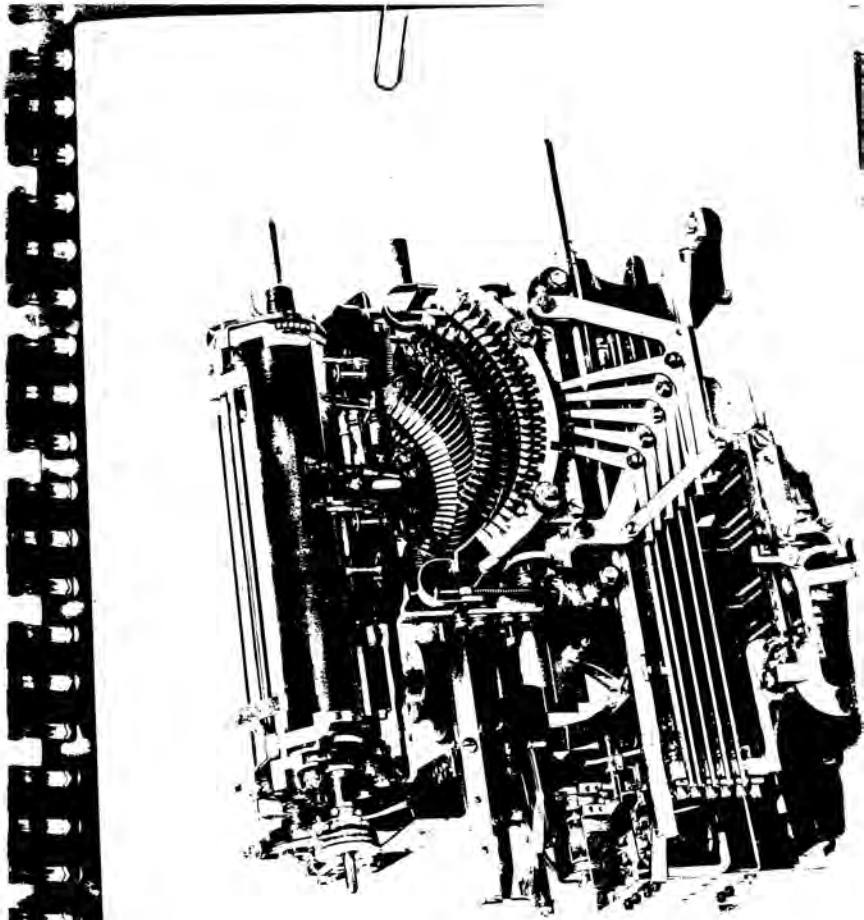
MUSEUM EQUIPMENT CODE: 1C-2

TECHNICAL BULLETINS & SPECS: Engr. C. W. Burcky

PHOTO NO(S): 430826-29 650319-14,15

PATENT(S):

LIBRARY REFERENCE(S):



Donated to Chicago Museum of
Science and Industry

TYPEWHEEL PAGE PRINTER
(PNEUMATIC ACTUATED)

Motor driven pump provides pressure to actuate mechanism. Typewheel positioning and height positioning governed by positioning of pneumatic actuator selector lever mechanism. Levers positioned by air pistons controlled by a valve for each lever.

6 inch platen. Platen moves for printing, typewheel stationary.

Experimental model for exploring some of the possibilities of pneumatic operation.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

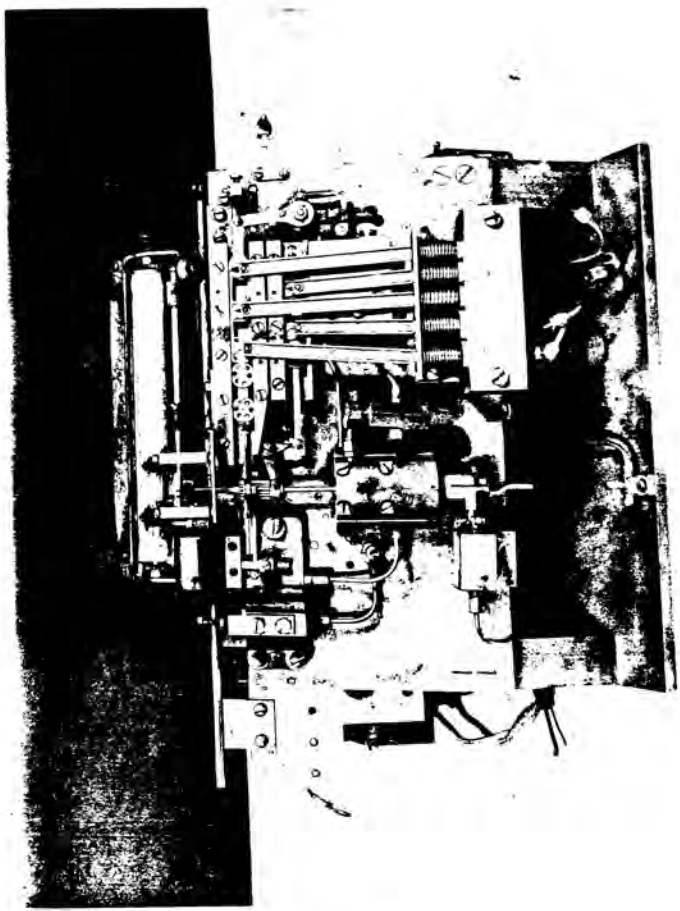
MUSEUM EQUIPMENT CODE: 1C-3

TECHNICAL BULLETINS & SPECS: Engr. Dotts

PHOTO NO(S): 380331-61

PATENT(S):

LIBRARY REFERENCE(S):



15 TYPE TYPEBAR PAGE PRINTER

This particular model represented a modern version of the 15-type printer. It utilized a holding magnet selector, a send-receive mechanism, and was keyboard controlled. It was known generally as the BP type.

YEARS PRODUCED & QUANTITY: 1950

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE: Bell System Code 15Y Serial 232420

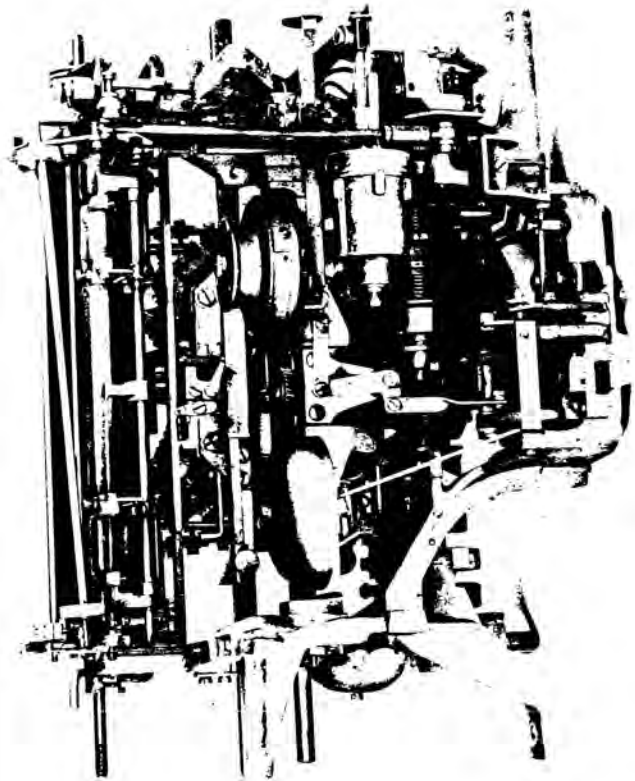
MUSEUM EQUIPMENT CODE: 1C-4

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 650319-22

PATENT(S):

LIBRARY REFERENCE(S):



Donated to Smithsonian Institution

28 TYPE AIRBORNE PRINTER

Shock mounted Model 28 Page Printer, with standard typing unit and modified keyboard, powered by 26V DC Motor. A special skin tight cover was used.

Only relatively few were required and manufactured.

YEARS PRODUCED & QUANTITY: 1953-54

PRIMARY CUSTOMER(S): BuAero (Navy)

CLASSIFICATION CODE:

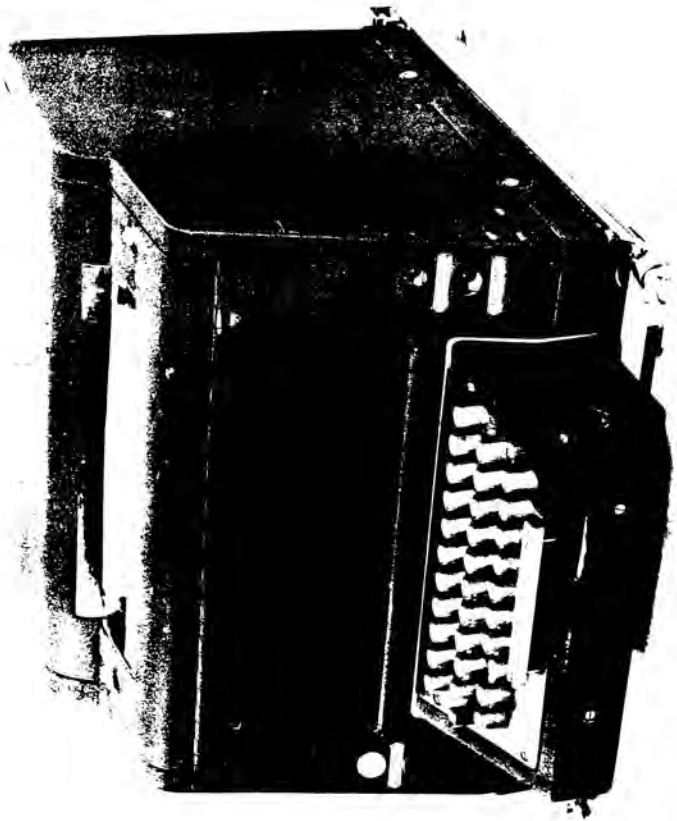
MUSEUM EQUIPMENT CODE: 1C-5

TECHNICAL BULLETINS & SPECS: Engr. H. Thornheim

PHOTO NO(S): 650319-18

PATENT(S):

LIBRARY REFERENCE(S):



MONOPULSE PAGE PRINTER

Typewheel page printer used when very slow printing speeds were acceptable. For "local" operation only.

Monopulse, low speed operation. Typewheel and inker roll travels across stationary platen. Motor driven.

Only a few produced for exploratory field use.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

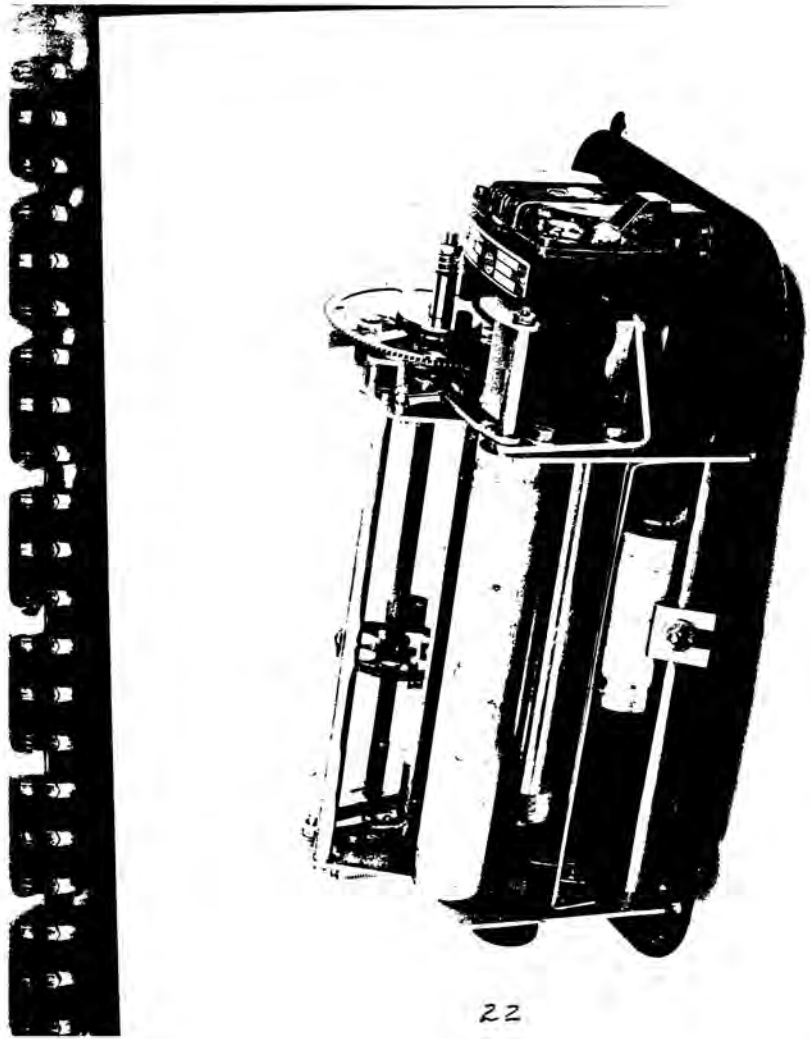
MUSEUM EQUIPMENT CODE: 1C-6

TECHNICAL BULLETINS & SPECS: Case # 24-1

PHOTO NO(S): 381214-40 650319-28,29

PATENT(S):

LIBRARY REFERENCES(S):



30 TYPE TYPEWHEEL PAGE PRINTER
(MODEL 2)

Typewheel page printer for low level duty cycle.

Pull-up type selector. Moving platen, typewheel stationary. 5-level, start-stop system. Newsprint.

This was an experimental model exploring the need for a low cost printer for customers requiring only intermittent and low duty cycle service. Ultimately the 32 and 33 type units produced to fill the need.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

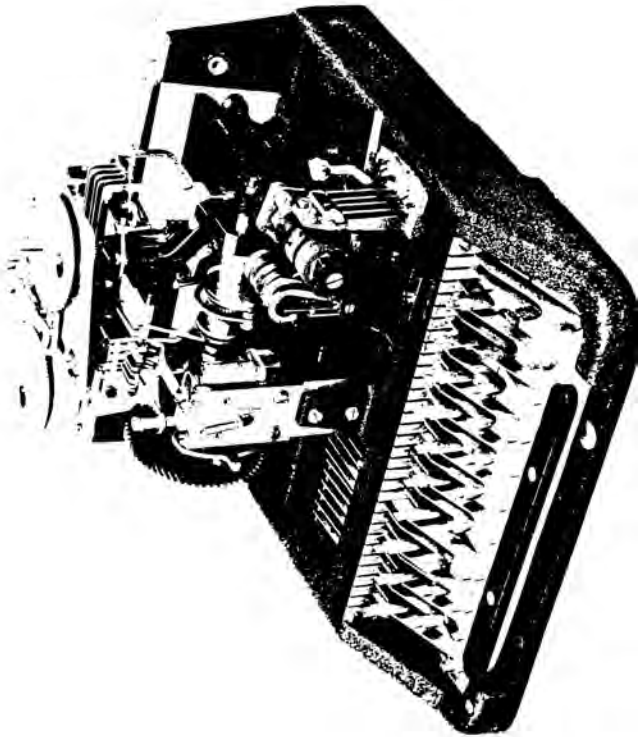
MUSEUM EQUIPMENT CODE: 1C-7

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 420212-94,98 650319-30 470106-13

PATENT(S):

LIBRARY REFERENCE(S):



15 TYPE PAGE PRINTER
(Modified to Print from Right to Left)

This was a standard 15 type page printer modified to print from right to left instead of left to right. Prints from right to left, in Hebrew. Several hundred were manufactured and sold to Israel.

YEARS PRODUCED & QUANTITY: 1948

PRIMARY CUSTOMER(S): Israel Government

CLASSIFICATION CODE:

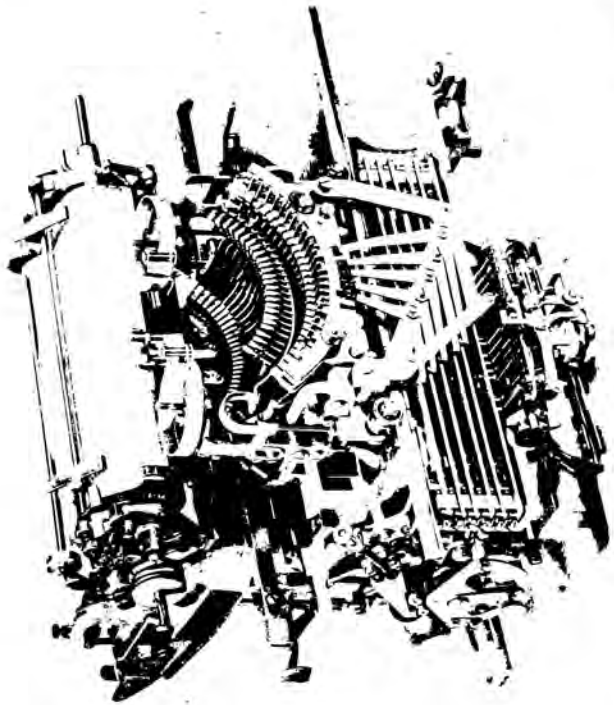
MUSEUM EQUIPMENT CODE: 1C-8

TECHNICAL BULLETINS & SPECS: Engr. Jack Rendall

PHOTO NO(S): 650624-27,28

PATENT(S):

LIBRARY REFERENCE(S):



650624-27

MODEL 28 PAGE PRINTER
MODEL "C"

The objective was to provide a higher speed, lighter weight, lower maintenance printer to largely be made up of punch press parts.

This was Model "C" in a series of experimental models. This model used steel tapes for carriage positioning and a typewheel sector rather than a type box as in later models. The model "C" keyboard used 15 printer transmitter parts.

YEARS PRODUCED & QUANTITY: 1948

PRIMARY CUSTOMER(S): None

CLASSIFICATION CODE:

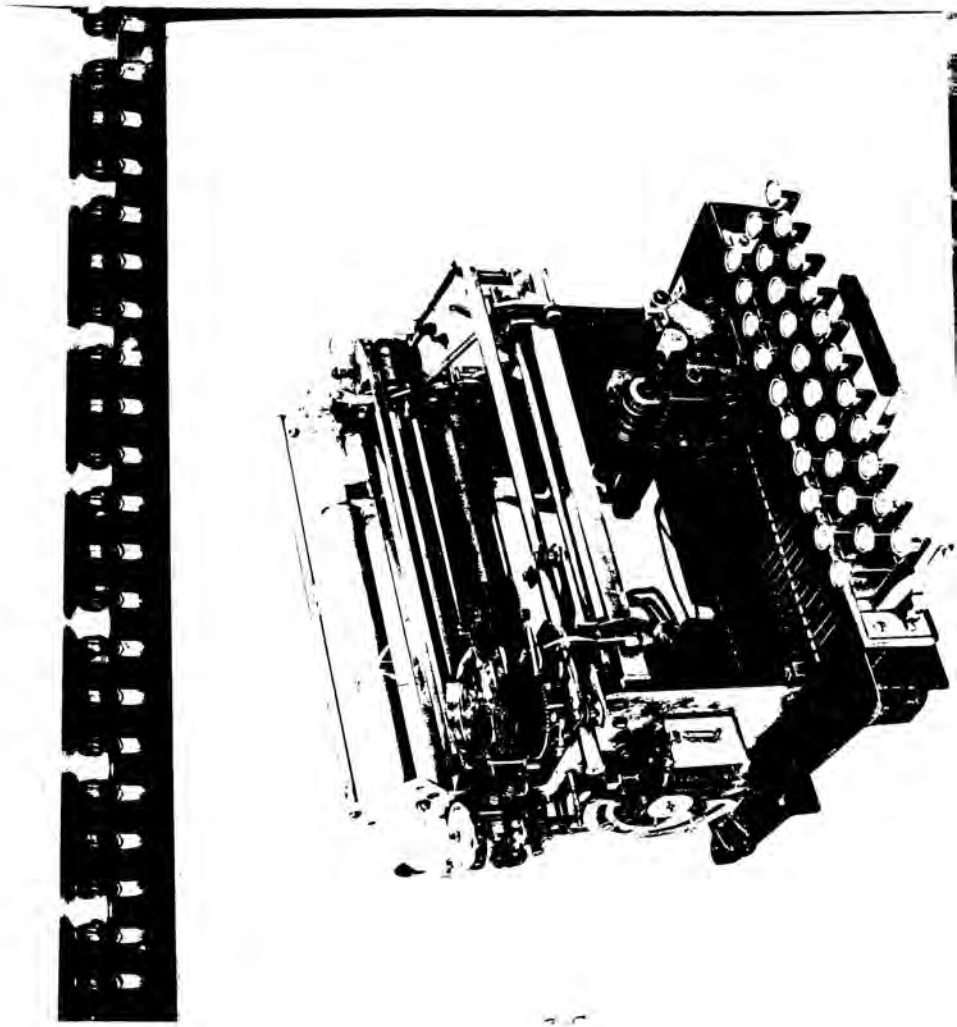
MUSEUM EQUIPMENT CODE: 10-9

TECHNICAL BULLETINS & SPECS: Engr. Zenner, Richardson

PHOTO NO(S): 491019-55 650328-46

PATENT(S):

LIBRARY REFERENCE(S):



IC-10

PHOTO #'s: 650320-51, 52

24

MODEL 28 PAGE PRINTER

The objective was to provide a higher speed, lighter weight, lower maintenance printer to largely be made up of punch press parts.

This was the model "F" in a series of pre-production models and the basic design was pretty well "filled" in model "F", leading to release to production of the LP (28 type) line of apparatus.

YEARS PRODUCED & QUANTITY: 1950

PRIMARY CUSTOMER(S): None

CLASSIFICATION CODE:

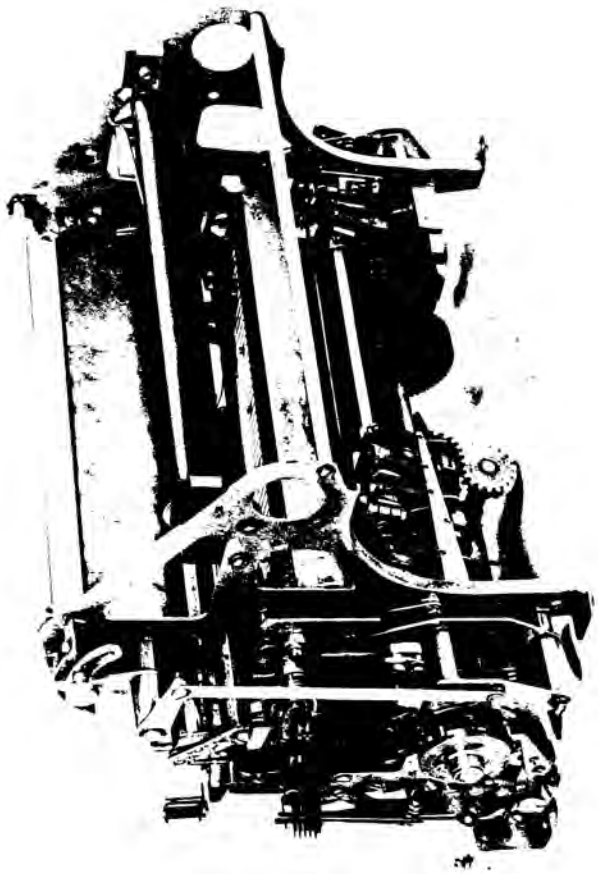
MUSEUM EQUIPMENT CODE: 1C-11

TECHNICAL BULLETINS & SPECS: Engr. Zenner, Richardson

PHOTO NO(S): 481-18-40,41,42,43,44,45 650326-47,48

PATENT(S):

LIBRARY REFERENCE(S):



LIGHTWEIGHT PAGE PRINTER
(TT-242 MODEL A)

The TT 242 Teletypewriter was developed under Signal Corps. Contract DA-36-039-SC-71185, for portable operation in rough terrain. It's weight of 20 pounds enabled it to be carried on a pack board by a soldier.

It is capable of speeds up to 100 WPM.

This development of this unit was initially twofold, first, of course, to provide a lightweight printer for the military and secondly as a low cost commercial unit for general use while simplicity was the keynote to both goals, it was found that in the end the design was a compromise. Therefore, the work was split up into two separate development projects.

YEARS PRODUCED & QUANTITY: 1957

PRIMARY CUSTOMER(S): Signal Corps

CLASSIFICATION CODE:

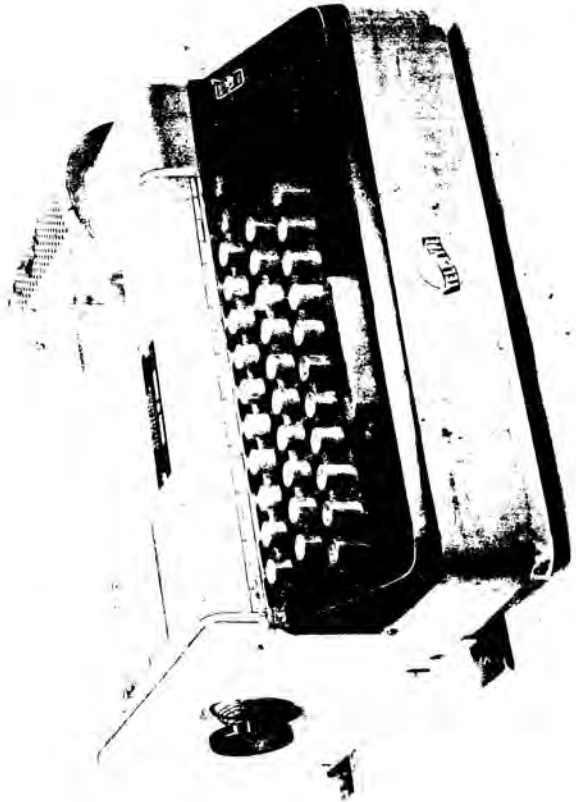
MUSEUM EQUIPMENT CODE: 10-12

TECHNICAL BULLETINS & SPECS: Engr. C. Swanson and F. Moebius

PHOTO NO(S): 650624-25,26

PATENT(S):

LIBRARY REFERENCE(S):



650624-26

MODEL 24 TYPEWHEEL PAGE PRINTER

Printing telegraph machine for page copy. Had a metal typewheel assembly with replaceable pallets. Used 5 unit "start-stop" signals. Platen moves, similar to 12 type rather than the typing carriage moving as in the 15 type. Used "holding" type selector. Lower cost than 15 Printer. Last printed character could not be read until after C.R.-L.F.

The Model 24 was produced in limited quantity, but was rejected by users because of the stored character characteristic. The Model 24 was superseded by the Model 26 which eliminated the stored character problem.

YEARS PRODUCED & QUANTITY: 1935-36

PRIMARY CUSTOMER(S): Bell System

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 1C-13

TECHNICAL BULLETINS & SPECS: Bulletin No. 157

PHOTO NO(S): 650322-64,65

PATENT(S):

LIBRARY REFERENCE(S):

TYPE BAR PAGE PRINTER
(Pneumatic Actuated)

Type bar page printer.

Motor driven pump provides pressure to actuate code bar mechanism which is selected through rods and valves. Page printer version of typewheel page printer, pneumatic actuated.

Purely experimental to explore some of the possibilities of pneumatic printer operation.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

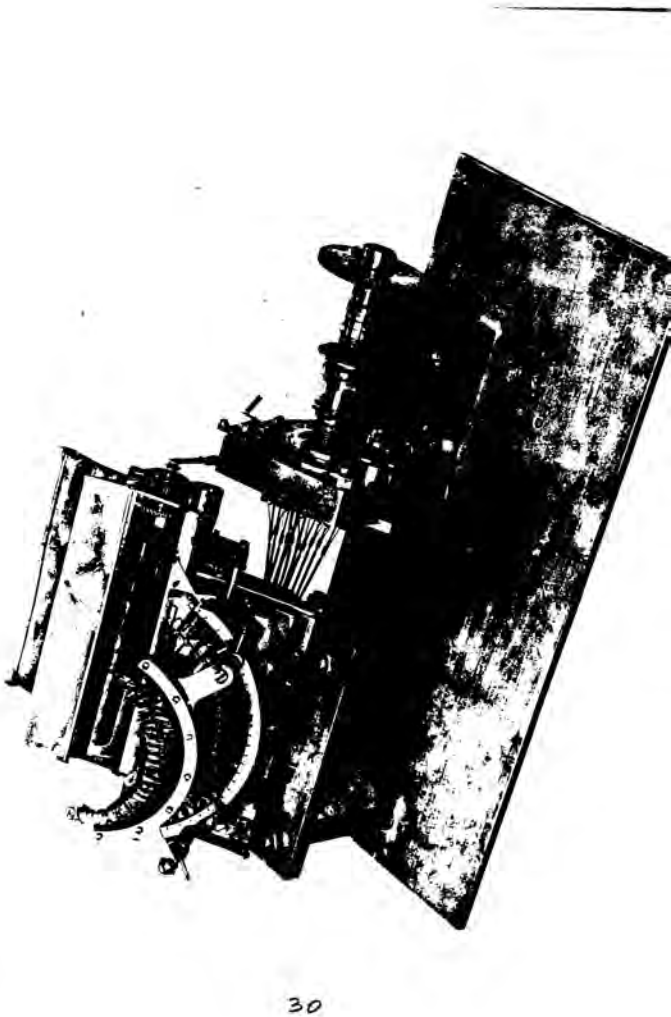
MUSEUM EQUIPMENT CODE: 1C-15

TECHNICAL BULLETINS & SPECS: Engr. Potts

PHOTO NO(S): 341109-1, 650318-36,37

PATENT(S):

LIBRARY REFERENCE(S):



PORTABLE PAGE PRINTER

Page printer and keyboard set for portable use.

Housed in a hinged over-all cover with carrying handle. Front of cover unlatches to expose keyboard. Cover has rubber feet for table mounting. Metal typewheel is split into segments for each character. Type hammer strikes front of segment, flexing segment to impress character against platen. Typewheel is mounted in a vertical position at the front of the platen. Holding magnet selector, start-stop system, 5 level, 368 wpm.

Experimental.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

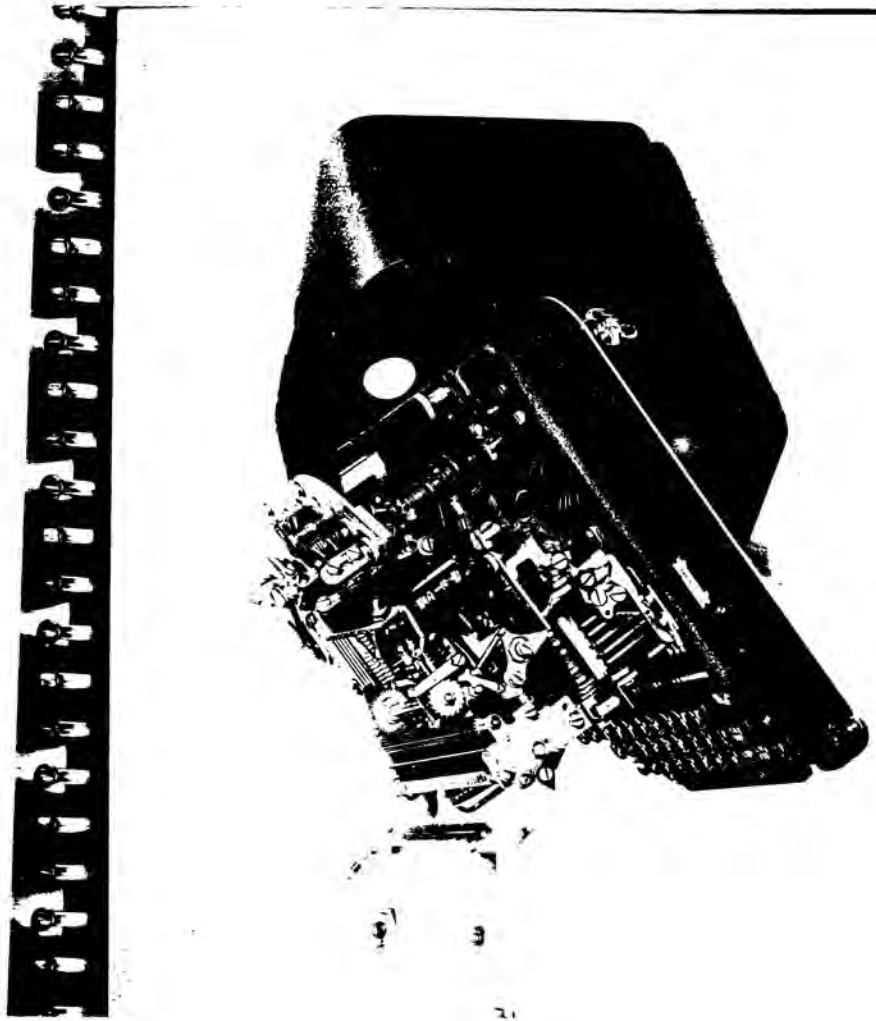
MUSEUM EQUIPMENT CODE: IC-16

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 370629-63 650319-31,32,33

PATENT(S):

LIBRARY REFERENCE(S):



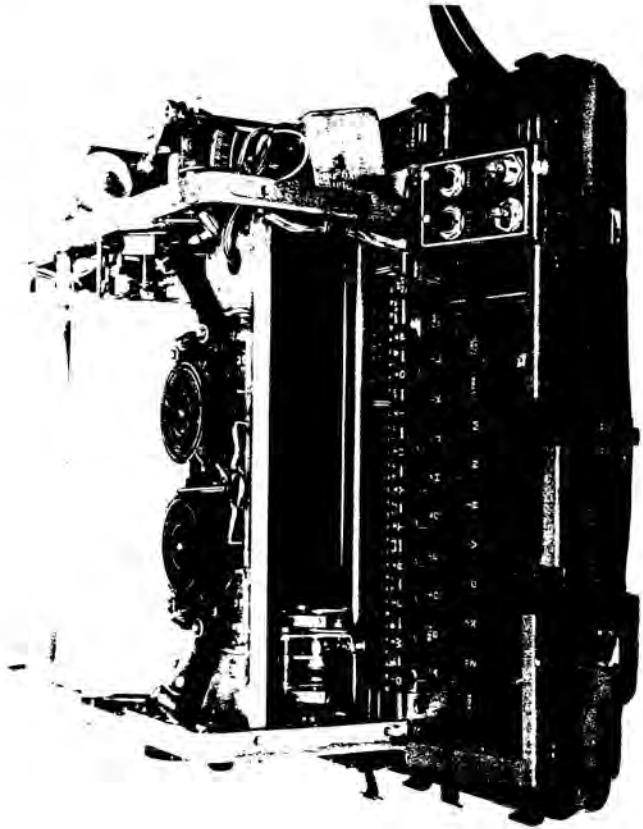
TACTICAL PAGE PRINTER (TT-190/TGC)

Designed for tactical and mobile military applications. Weighs approximately 75% less, is a little over half the size of commercial table model Teletypewriters. Principally constructed of aluminum, steel and nylon.... it is not only lightweight, but will provide for continuous operation with an absolute minimum of preventive maintenance attention. Protected by a durable sound and radio interference reducing enclosure. Designed to meet the military test of: relative humidity, temperature, altitude, salt sea atmosphere, dust and sand, insects and fungi, immersion, bounce, vibration and radiation. Entire unit provided with a specially constructed lightweight carrying case...float as well as immersion tested.

Receiving Margins

	60 MA.	20 MA.
Range	82	70
Bias	40%	36%
End Distortion	43%	39%
Internal Bias	1%	3%

YEARS PRODUCED & QUANTITY:
PRIMARY CUSTOMER(S):
CLASSIFICATION CODE:
MUSEUM EQUIPMENT CODE: 1C-17
TECHNICAL BULLETINS & SPECS:
PHOTO NO(S): 690505-09
PATENT(S):
LIBRARY REFERENCE(S):



MODEL 15 PAGE PRINTER

While the Bell System used the Model 12, they indicated a desire for additional features that would be an advantage in private wire service. The Model 15, placed in volume production in 1930, incorporated these features and many others. This became the standard Teletype page printer that was to see service all over the world. Quieter in operation than the Model 12, the Model 15 was also less bulky. Of major importance was the fact that the paper platen-which on the Model 12 moved as the message was typed-remained stationary while the type basket moved across the paper, eliminating paper feeding problem. The machine also offered a broader scope for extra features, such as control of associated equipment, tabulating mechanisms, and handling of business forms.

YEARS PRODUCED & QUANTITY: 1930-

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE: M-15

MUSEUM EQUIPMENT CODE: 1C-23

TECHNICAL BULLETINS & SPECS: No. 144

PHOTO NO(S): Polaroid T069

PATENT(S):

LIBRARY REFERENCE(S): Kleinschmidt, E.E., Printing Telegraphy... A New Era Begins, 1965, pp. 34-35; Benjamin, A.S., "Teletype Printing Telegraph Systems", R&D Monograph 1001, 6 pages, and R&D Monograph 1001, 7 pages.

Donated to Smithsonian Institution

MODEL 28 (PRODUCTION)

After a succession of models, laboratory tests, and extensive field trials, the first lot of the new Model 28 page printers was ready late in 1950. Urgent needs of the Armed Forces in the Korean crisis were given priority, and it was not until 1953 that the machine was available to the general public.

In looking at the new printer, perhaps the most striking feature was the replacement of the usual bulky type-basket with a miniature carriage consisting of a 1"x3" type-box and a tiny print hammer. Internally, there were other innovations. The machine had no structual casting; side frames and base plates were resilient sheet metal. Speed and quiet operation were built in, not only with light-weight parts but with the principle of harmonic motions - so that the machine ran more smoothly and easily at 100 words per minute than conventional designs at slower speeds. Clutches were all metal and called for oiling once or twice a year, in contrast to two weeks for felt clutches.

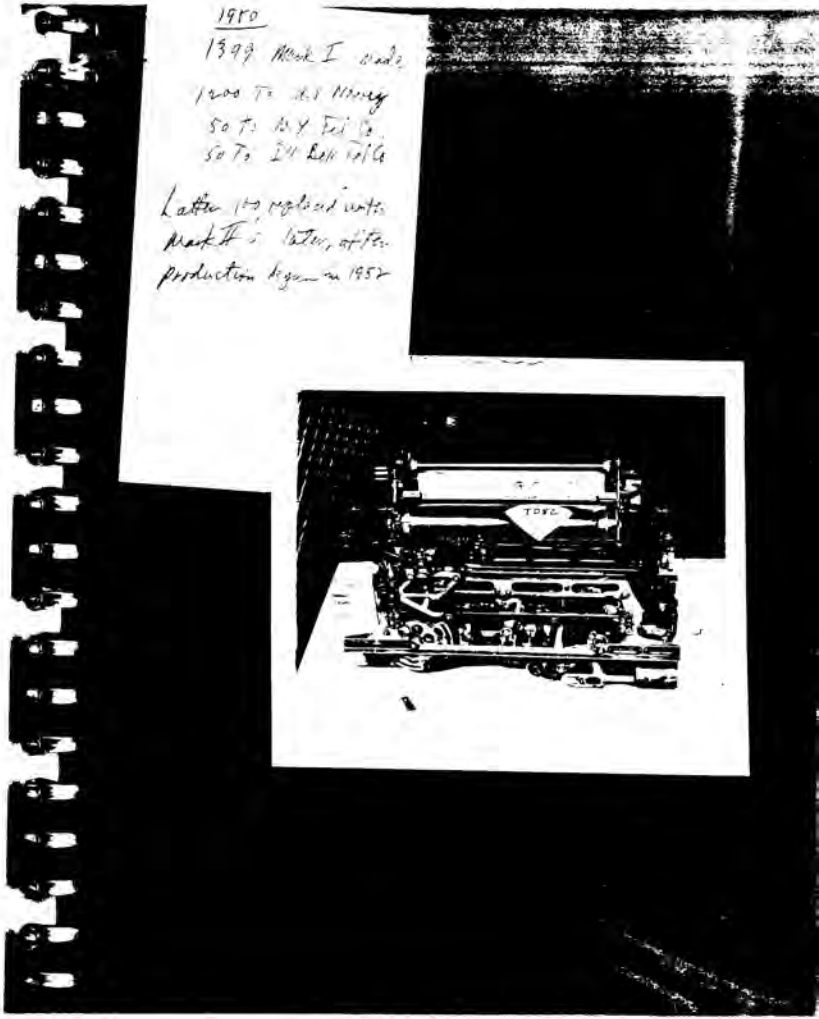
Of exceptional interest is the provision for extra features and remote controls. This is handled through a mechanism called the "stunt Box" ("stunt" being an old printing telegraph designation for nontyping functions). In effect a built-in sequential selector, this 9 3/4" x 4 1/2" x 2 3/4" unit has slots which can be equipped with trains of miniature parts or switches to perform an almost unlimited array of tasks. Basically, the stunt box will perform the following operations:

1. Mechanically initiate internal functions within the typing unit of the page printer set.
2. Electrically control functions within the page printer set.
3. Electrically control external equipment.

The Model 28 was designed on the "building block" principle which can best be illustrated in the Model 28-ASR, introduced in 1957. Innumerable variations are possible in the basic combination of send-receive page printer, tape printer, tape punch, and tape reader to fit the requirements of the individual user.

YEARS PRODUCED & QUANTITY: 1950-
PRIMARY USER(S): Bell System, Government, General Public
CLASSIFICATION CODE: M28 (LP)
MUSEUM EQUIPMENT CODE: 10-24
TECHNICAL BULLETINS & BROCS:
PHOTO #(S): Polaroid TOR2
PATENT(S):
LITERATURE REFERENCE(S):

3A



Donated to Smithsonian Institution

MODEL 15

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YEARS PRODUCED & QUANTITY: 1930-

PRESENT CUSTOMER(S):

CLASSIFICATION CODE: M-15

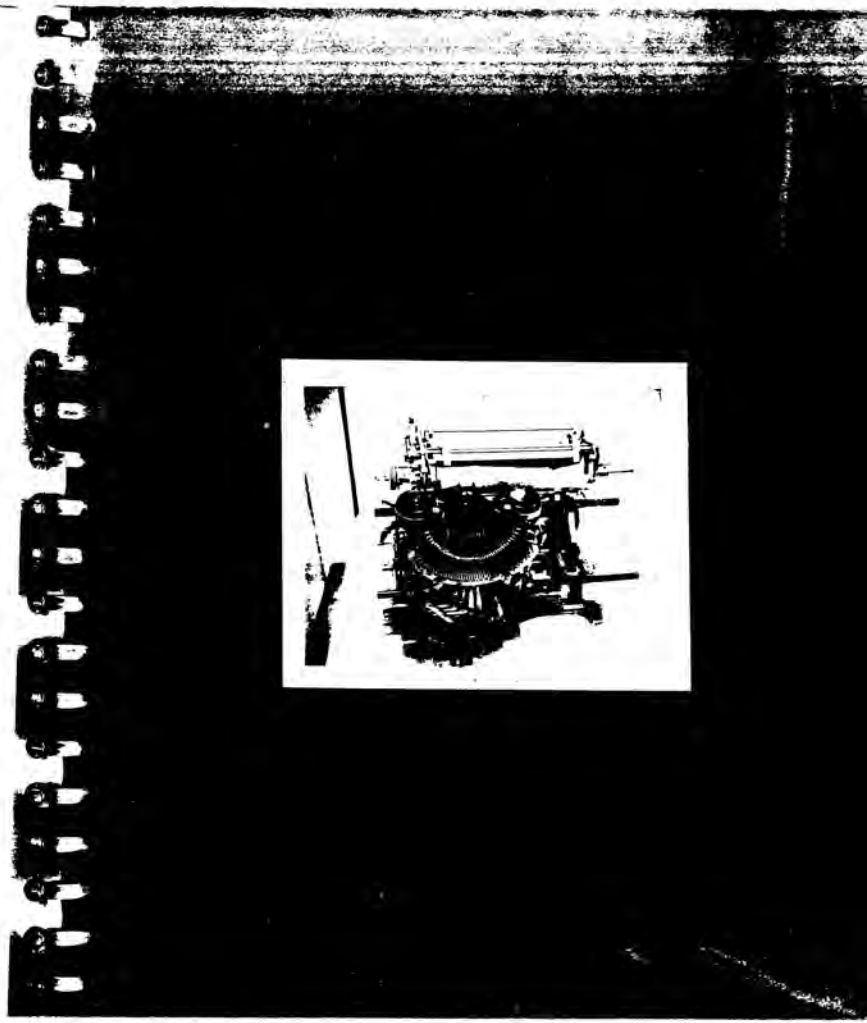
MUSEUM EQUIPMENT CODE: 10-25

TECHNICAL BULLETINS & SPECS: No. 144

PHOTO NO(S): Polaroid TU135

PATENT(S):

LIBRARY REFERENCE(S): Kleinschmidt, E. E., Printing Telegraphy... A New Era Begins, 1965, pp. 34-35; Benjamin, A.S., "Teletype Printing Telegraph Systems", R&D Monograph 1601, 4 pages, and R&D Monograph 1604, 7 pages.



MODEL 26 PAGE PRINTER

The Model 26 teletypewriter was a motor-driven, single magnet, moving paper carriage, typewheel page printer. It operated on the five-unit selecting code, used the start-stop method of synchronizing and was used on the same circuits as the Model 15 at a machine speed of 368 operations per minute. The machine consisted of three major units, a typing unit, a base and cover.

The type pallets of the Model 26 were guided in grooves in the typewheel so that the selected type pallet might be moved mechanically toward the platen. The type pallet to be selected was determined by the setting of five code discs, which were actuated by line signals through the medium of the selector mechanism. The code discs were so arranged that notches on their outer edges would be lined up permitting a selected stop pin to move into the path of the stop arm located in the type wheel shaft. Then, the typewheel was stopped so that the selected type pallet would be positioned opposite the printing hammer which moved the pallet toward the platen.

YEARS PRODUCED & QUANTITY: 1937-1949 7,623(24-26 types) sold

PRIMARY CUSTOMER(S): Bell System (5,628) Other (1,995)

CLASSIFICATION CODE: M-26

MUSEUM EQUIPMENT CODE: IC-26

TECHNICAL BULLETINS & SPECS: Bulleting No. 158 (GP); BSP-A984.136

PHOTO NO(S): Polaroid T998 021

PATENT(S): No. 1,258,809 L. M. Potts, Transmitting Apparatus for Electric Telegraph and The Like, filed 10/18/13 and granted 3/12/18; No. 1,299,606, L.M. Potts, Selective Signaling Apparatus, filed 10/11/13 and granted 4/8/19; No. 1,632,297, E.E.Kleinschmidt, Printing Telegraph, files 10/3/21 and granted 6/14/27; No. 1,637,129; No. 2,140,360, W. L. Krum, Printing Telegraph Apparatus, filed 5/4/36 and granted 11/21/39; No. 2,277,715, A.H. Reiber, Combined Keyboard Tape Transmitter, filed 11/9/39 and granted 3/31/42; and No. 2,277,706, H. A. Lake, Combined Keyboard Tape Transmitter, filed 11/9/39, and granted 3/31/42.

LIBRARY REFERENCE(S): None Available

MODEL 26

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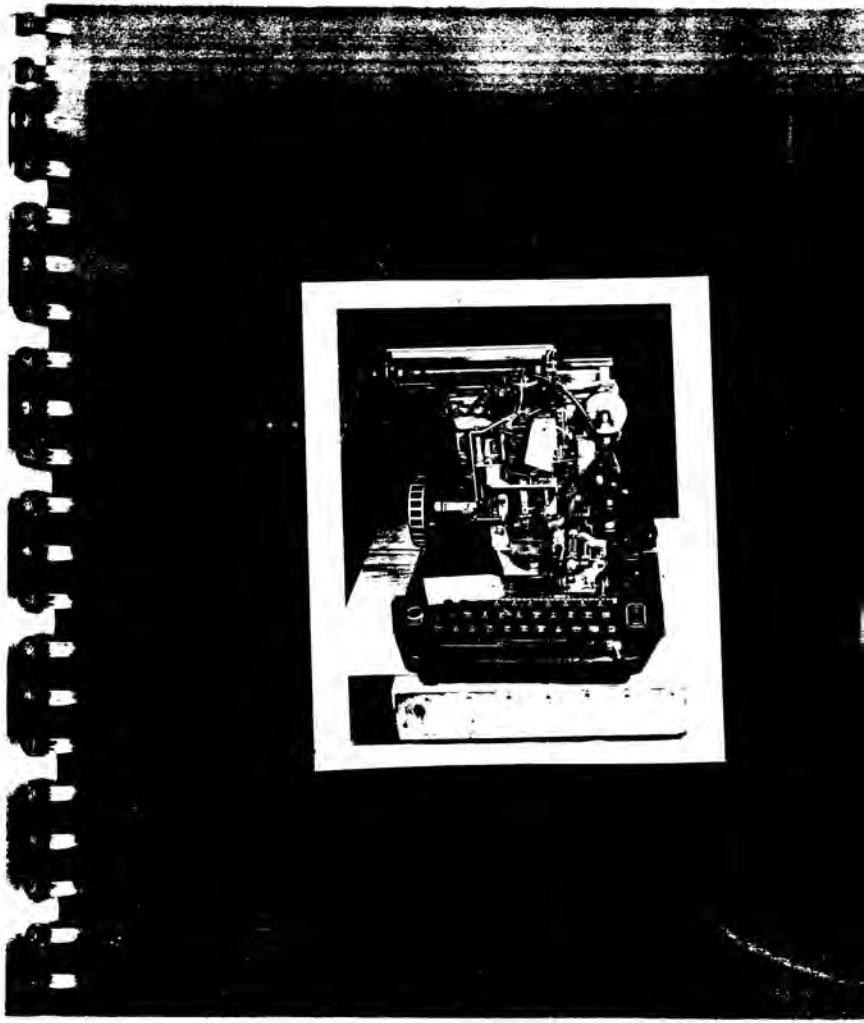
YEARS PRODUCED & QUANTITY: 1937-1949 7,623 (2L+26 types) sold
PRIMARY CUSTOMER(S): Bell System (5,628) Other (1,995)
CLASS OPERATION CODE: M-26
SYSTEM EQUIPMENT CODE: 1C-27
TECHNICAL BULLETINS & SPECS: Bulleting No. 158 (GR); BSP-ABBN.136
PHOTO NO(S): 7072
PATENT(S): No. 1,258,809 L. M. Potts, Transmitting Apparatus for Electric Telegraph and The Like, filed 10/18/13 and granted 3/12/18; No. 1,299,608, L. M. Potts, Selective Signaling Apparatus, filed 10/11/13 and granted 4/8/19; No. 1,632,297, E. E. Kleinschmidt, Printing Telegraph, files 10/3/21 and granted 6/14/27; No. 1,637,129; No. 2,180,360, H. L. Krum, Printing Telegraph Apparatus, filed 5/4/36 and granted 11/21/39; No. 2,277,715, A. H. Reiber, Combined Keyboard Tape Transmitter, filed 11/9/39 and granted 3/31/42; and No. 2,277,706, R. A. Lake, Combined Keyboard Tape Transmitter, filed 11/9/39, and granted 3/31/42.
LIBRARY REFERENCE(S): None Available



MODEL 27

This was basically a 28-type unit repackaged for the Signal Corps. Only 10 units were produced.

YEARS PRODUCED & QUANTITY: 10 units

PRIMARY CUSTOMER(S): Signal Corps

CLASSIFICATION CODE: TTY ( )/TG(XCZ)

ITEM/UM EQUIPMENT CODE: IC-31

TECHNICAL BULLETINS & SPECS:

ACCESSORY(S): Polaroid T139

PATENT(S):

LITERARY REFERENCE(S): NA

EARLY MODEL 24

This is a very early model of the 24-type. The 24 Printer was later produced in limited quantity but was rejected by users because of a stored ~~character~~ characteristic. When a keylever was depressed its associated printed character would not appear until the next key was depressed. Carriage return function, for instance, was not actuated until a subsequent key was depressed. This characteristic caused a violent user reaction.

YEARS PRODUCED & QUANTITY: Early - Mid 1930's

PRIMARY CUSTOMER(S): Bell System and General Public

CLASSIFICATION CODE: None (Early Model 24)

MUSEUM EQUIPMENT CODE: IC-32

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): Polaroid TC90

PATENT(S):

LIBRARY REFERENCE(S):

2A - TYPE

An early Model 2A. It was later produced in limited quantity but was rejected by users because of a stored character characteristic. When a keylever was depressed its associated printed character would not appear until the next key was depressed. Carriage return function, for instance, was not actuated until a subsequent key was depressed. This characteristic caused a violent user reaction. This machine featured a bar barrel type selecting mechanism.

DATE PRODUCED & QUANTITY: C. 1938 (prototype)

PRIMARY USER(S): Bell System & General Public

CLASSIFICATION CODE: 2A-Type

MUSEUM EQUIPMENT CODE: EC-33

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): Polaroid P-129, 090505-20

PATENT(S):

LIBRARY REFERENCE(S):

24 - TYPE

An early model of the 24 type case printer that was produced in limited quantity but was rejected by users because of a stored character characteristic. When a keylever was depressed its associated printed character would not appear until the next key was depressed. Carriage return function, for instance, was not actuated until a subsequent key was depressed. This characteristic caused a violent user reaction. This machine featured a coin barrel type selecting mechanism.

YEARS PRODUCED & QUANTITY: 0. 193?

PRIMARY CUSTOMER(S): Bell System and General Public

CLASSIFICATION CODE: 24-Type

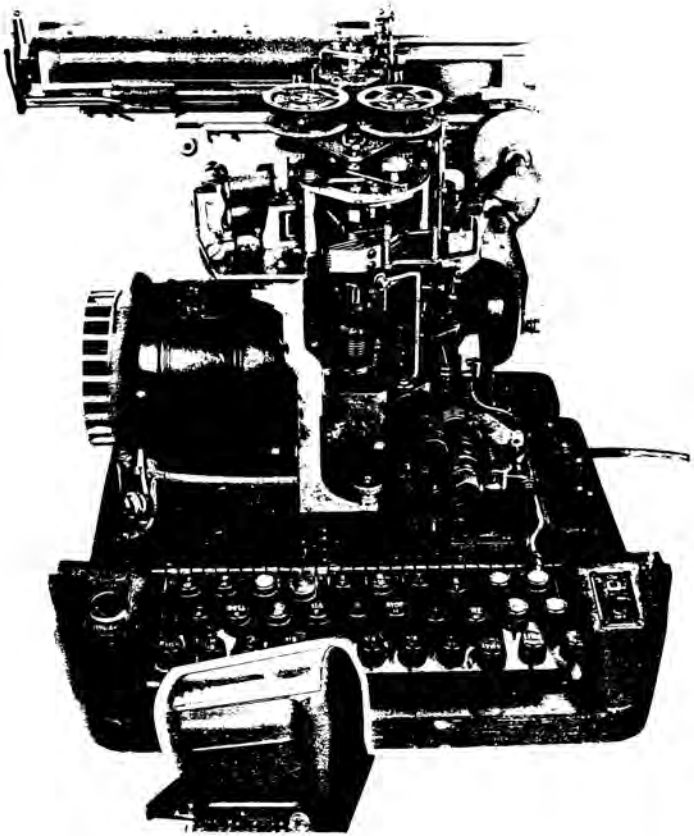
MUSEUM EQUIPMENT CODE: 1C-3;

TECHNICAL BULLETINS & SPECS:

PHOTO(S): Polaroid 7?130, [illegible]-1

PATENT(S):

LITERATURE REFERENCE(S):



[illegible]

A model of the [illegible]-type that was produced in limited quantity but was rejected by [illegible] because of a [illegible] character characteristic. When a keylever was depressed its associated printed character would not appear until the next key was depressed. This characteristic caused a violent user reaction. This machine featured a big barrel type selecting mechanism.

[illegible]: [illegible]

[illegible]): Bell [illegible]

[illegible]: [illegible]

[illegible]: [illegible]

[illegible]:

[illegible](S): Polaroid [illegible]

[illegible](S):

[illegible](S):

MODEL 30 TYPEWHEEL PAGE PRINTER

Type wheel printer and keyboard [illegible] for low-level duty cycle. Moving platen, typewheel stationary. 5 level, start-stop system. Keyboard has molded transmitting cam. Type hammer at rear of unit, operated by lever and cam. Typewheel uses standard typewriter ribbon for inking. Small compact set for table use or portable use. Experimental model of an early "30" type (low cost). Ultimately the 32 and 33 types became the "low cost" line - loosely called "30" type although ten years or more separated them.

YEARS PRODUCED & QUANTITY: Model (Not [illegible])

PRIMARY CUSTOMER(S): None

CLASSIFICATION CODE: Model 30

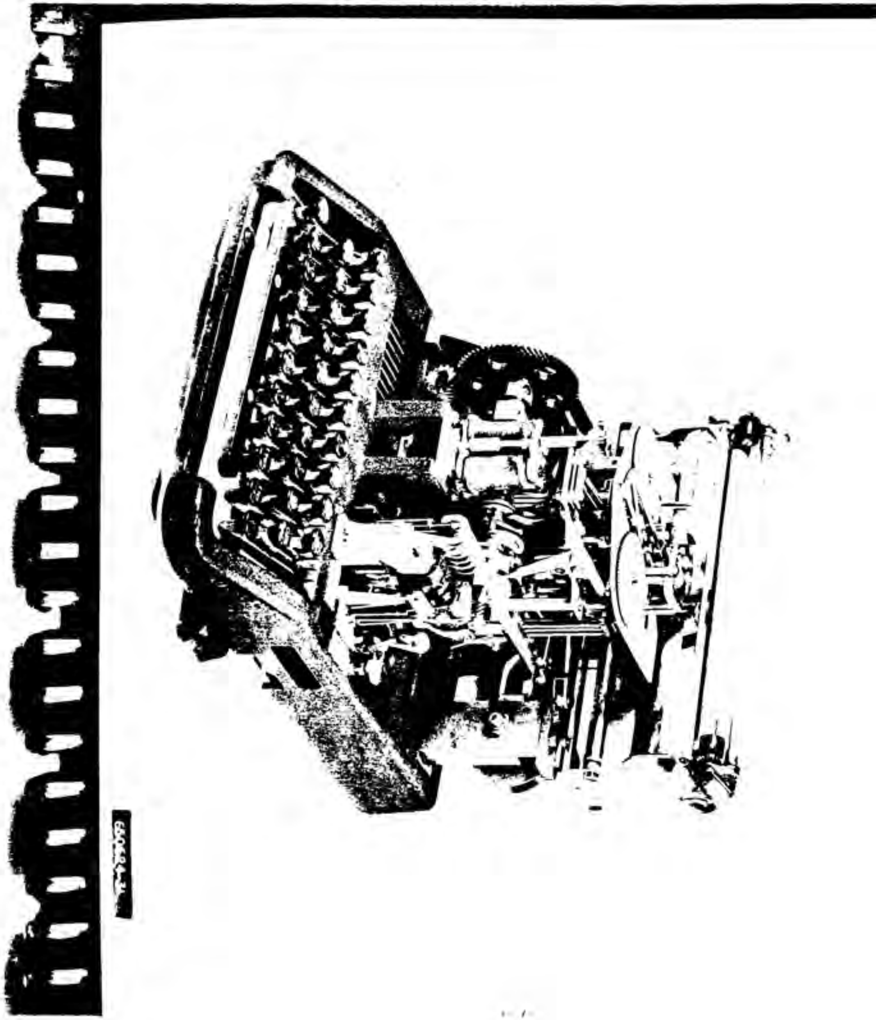
[illegible] DATE: 19[illegible]

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 59824-31, 32

PATENT(S):

[illegible](S):



TACTICAL PAGE PRINTER (TT-242/UG)

A later model of the TT242 Teletypewriter developed under the Signal Corps, contract DA-36-039-SC-71185, for portable operation in rough terrain. Its weight of 20 pounds enabled it to be carried on a pack board by a soldier. It was capable of 100 WPM.

YEARS PRODUCED & QUANTITY: C. 1957 (model)

PRIMARY CUSTOMER(S): Signal Corps

CLASSIFICATION CODE: TT-242/UG

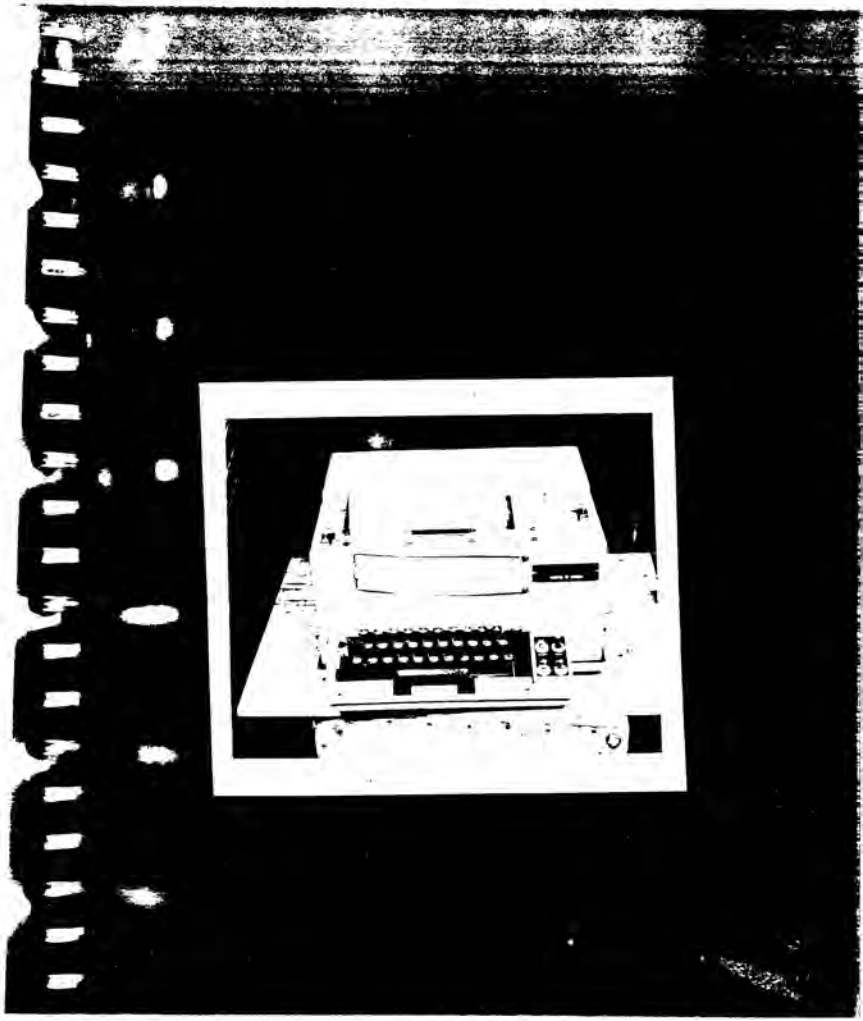
MUSEUM EQUIPMENT CODE: 1C-37

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): Polaroid T083

PATENT(S):

LIBRARY REFERENCE(S):



30-TYPE PRINTER (MODEL D)

A prototype model of the 30-type printer.

YEARS PRODUCED & QUANTITY: C. 1960

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE: 30-Type

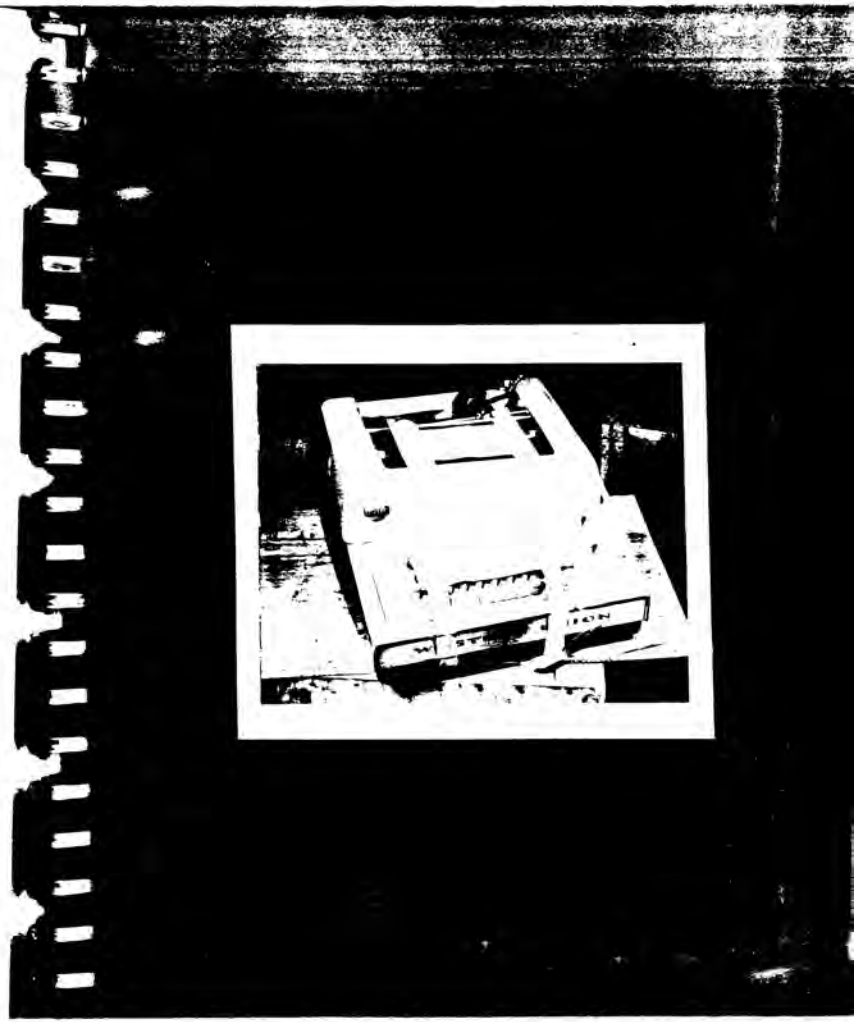
MUSEUM EQUIPMENT CODE: 1C-38

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): Polaroid T123

PATENT(S):

LIBRARY REFERENCE(S):



MODEL 15

This Model 15 teleprinter was used extensively by the military during the World War II.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S): Military

CLASSIFICATION CODE: M15

MUSEUM EQUIPMENT CODE: 10-39

TECHNICAL BULLETINS & SPECS: No. 144

PHOTO NO(S): Polaroid T135

PATENT(S):

LIBRARY REFERENCE(S):

MODEL 28 (MILITARY PORTABLE)

An experimental model for government evaluation. It was intended to be a portable set. Used magnesium case. It never reached production.

YEARS PRODUCED & QUANTITY: 1950-1955

PRIMARY CUSTOMER(S): Military

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 1C-40

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): Polaroid T140

PATENT(S):

LIBRARY REFERENCE(S):

MODEL 15 PAGE PRINTER

A Model 15 Page Printer modified for form feeding. The portion to the left of the platen controls counting while that to the right is the drive mechanism.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 1C-41

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): Polaroid T074

PATENT(S):

LIBRARY REFERENCE(S):

MODEL 28 PAGE PRINTER (MODEL E)

A later model of the 28-type Page Printer.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 1C-42

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): Polaroid T079

PATENT(S):

LIBRARY REFERENCE(S):

Donated to Smithsonian Institution

INKTRONIC PRINTER (IN ROSEWOOD CABINET)

An early model of the Inktronic printer. Early attempts at electronstatic printing involved such methods as stripping liquid or produced ink off type faces electrically or magnetically, transferring them to the paper in the desired configurations. But that wasn't entirely successful. Condensing clouds of magnetically or el ctrically charges ink particles into paper behind which type faces were mounted, worked after a fashion. However, the air drag on the particles was so great that the technique was rated much too slow.

While investigation continued on the possibilities of highly-charged particles of ink, a technique was developed for extracting successions of droplets from a capillary tube and magnetically attracting them to a paper-covered electrode plate. Further examination resulted in an electrode with a hole in it, through which the droplets passed on their way to the paper, now mounted on the other side.

The new method of writing characters and numerals by using a stream of charged droplets was achieved by locating horisontal and vertical deflecting electrodes on either side of the stream. The structure was much like that of a cathode-ray tube, minus the tube itself, where drops of ink were moved rather than electrons, and then th particles were deposited on paper rather than having them impinge on a phosphor.

This particular model consisted of many tubes which were later replaced with discrete components mounted on circuit cards.

YEARS PRODUCED & QUANTITY: Model only; Production started in about 1966

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE: Inktronic

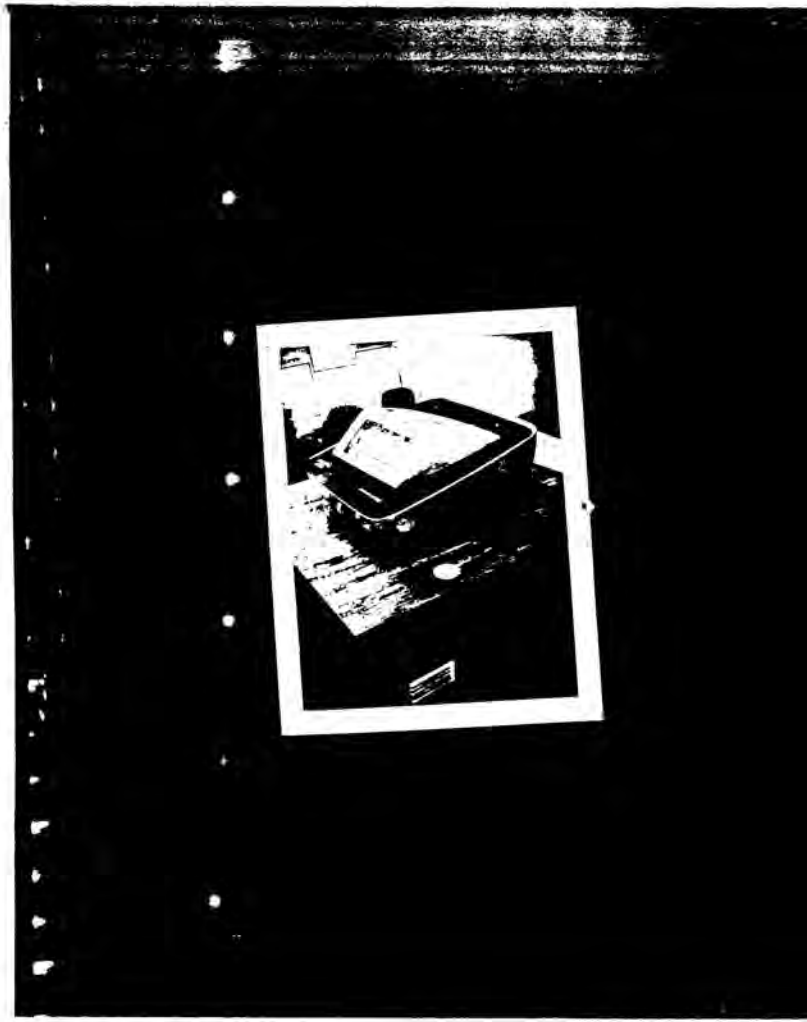
MUSEUM EQUIPMENT CODE: 1C-43

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): Polaroid TU200

PATENT(S):

LIBRARY REFERENCE(S): "Stream f Metered Dr plets Can Print Without Type", Product Engineering, Octob r 10, 1966, pp. 54-56, 58.



PAGE PRINTER

Crypto device.

YEARS PRODUCED & QUANTITY: 1935 Production

PRIMARY CUSTOMER(S): U. S. Government

CLASSIFICATION CODE: 50-type

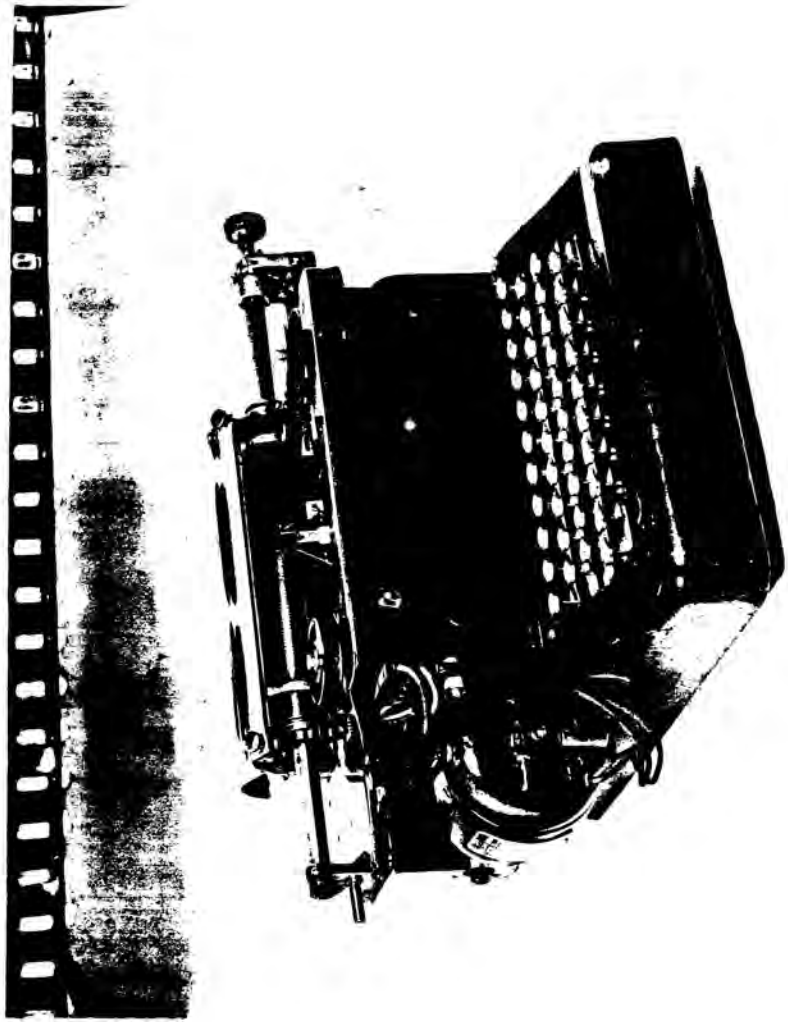
MUSEUM EQUIPMENT CODE: 1C-45

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 710817-27, -28

PATENT(S):

LIBRARY REFERENCE(S):



RESEARCH MODEL OF BELT PRINTER

YEAR PRODUCED: 1966-1970

PRIMARY CUSTOMER: None

CLASSIFICATION CODE: None

MUSEUM EQUIPMENT CODE: 1C-46

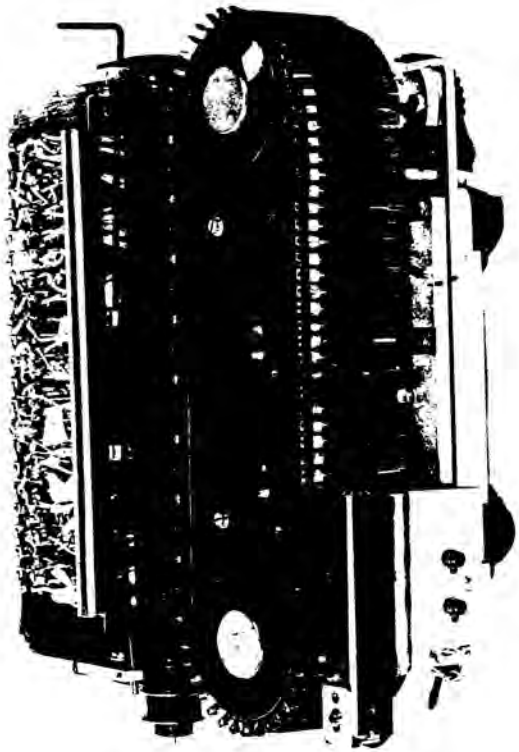
TECHNICAL INFORMATION:

Engineer/Designers - Richard Scott, Pete McLean and Greg Mathiesen

Basic Purpose and Function is for a 80 column Line-at-a-time Printer with a speed of 4 lines per second (3100 WPM).

Use of "G" Shaped core and armature that pivots about its center of percussion. Use of steel belt-use of air bearings with high energy magnet drivers to cause printing.

PHOTO NO: 730329-63



PRE-PROTOTYPE MODEL 40 PRINTER

MEDIUM SPEED IMPACT

YEAR PRODUCED: 1970-71

PRIMARY CUMSTOMER: None

CLASSIFICATION CODE: None

MUSEUM EQUIPMENT CODE: 1C-47

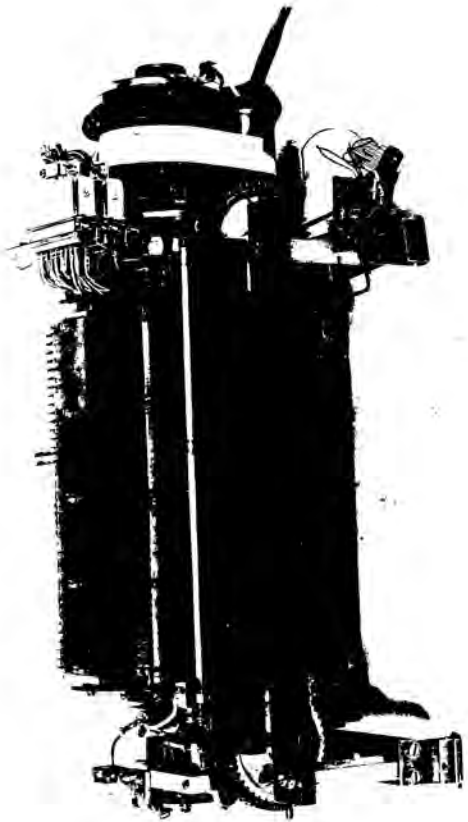
TECHNICAL INFORMATION:

Engineers/Designers - James F. Kearney and E. S. Babler

Basic purpose and function is for 80 column Line-at-a-time Printer with speed of 4 lines per second. (3100 WPM)

Use of low level magnetic actuators to initiate mechanical action in the print hammer mechanism - use of endless, flexible type carrier.

PHOTO NO: 730329-65



DEMONSTRATION OF MODEL OF MODEL 40 COMPACT PRINTER
(MOBILE)

YEAR PRODUCED: 1971

PRIMARY CUSTOMER: None

CLASSIFICATION CODE: 40 TYPE PROTOTYPE

MUSEUM EQUIPMENT CODE: 1C-48

TECHNICAL INFORMATION:

Engineers - Babler and Jim Kearney

Demonstration of Mobile Printer to determine marketability of Mobile Printers.

4 Lines per second - 40 column printer.

PHOTO NO:

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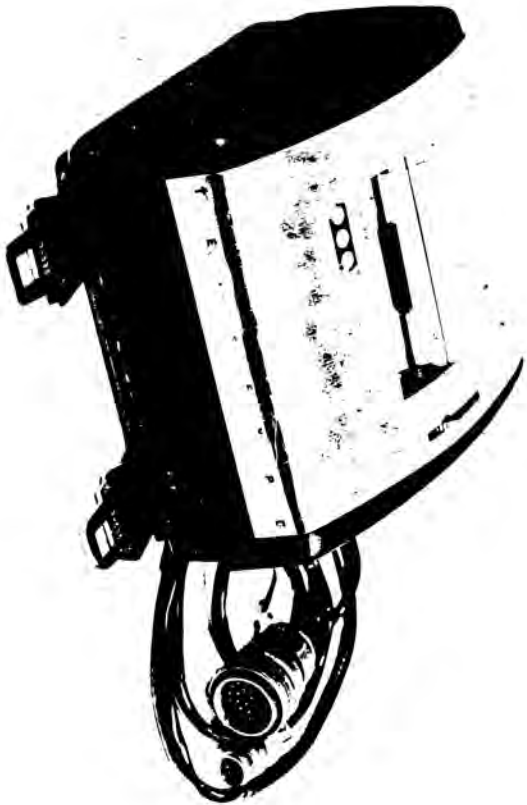
820421 55



Photograph No. 700520-83

This photo shows a working model of a QUIET M-28 RO proposed for Dow Jones news service. Styling by Dan Genaro of Dreyfus Associates.

Note clip board at right-hand side for news items of special interest. The black oblong button at top of front panel is a knife device to cut news and special items out of the printed copy. The square button to the right of the paper exit was a lamp to signal low paper supply.

R.R. Smessaert
R. R. Smessaert - 9151
3-8-78

RRS:hr

Associated Photos
700520-84,85,86

File: 16-55.65AA