PAPER FEED FOR 1A

This mechanism was designed to maintain registration and feed perforated page copy in a 1-A Page Printer. It was not satisfactory since it did not control the paper before and after passing over the platen.

YEARS PRODUCED & QUANTITY: 1918 Production

PRIMARY CUSTOMER(S): Western Electric, Western Union

CLASSIFICATION CODE:

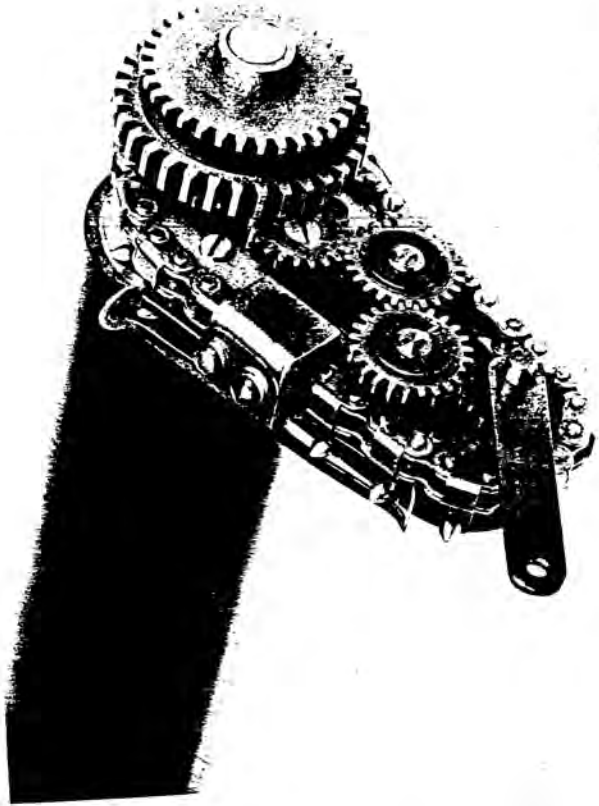
MUSEUM EQUIPMENT CODE: 9.8B-1

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 281205-10,12 631114-60

PATENT(S):

LIBRARY REFERENCE(S):



TAPE MOISTENER

This model is designed for table mounting. The gummed tape is rolled through the moistener by manually turning a crank. A tape cutter is provided as an integral part of the device.

YEARS PRODUCED & QUANTITY: Production

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

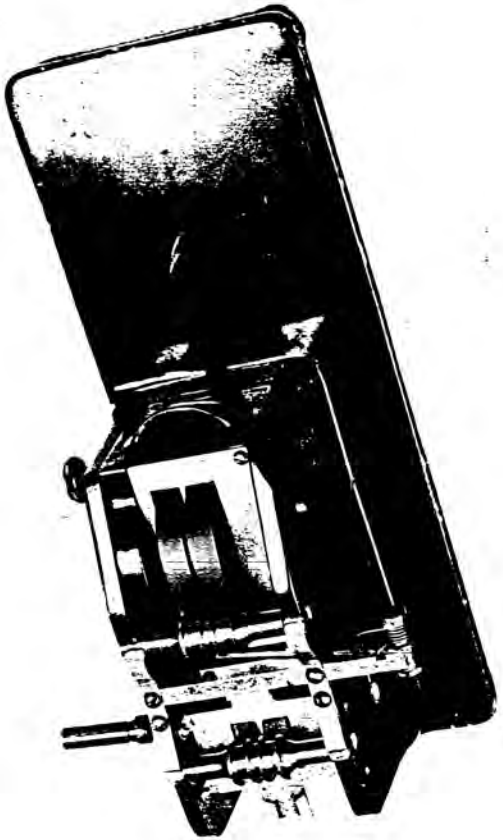
MUSEUM EQUIPMENT CODE: 9.8B-2

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 281203-3 631111-47,46

PATENT(S):

LIBRARY REFERENCE(S):



TAPE WINDER (DR1226-5A)

Tape Puller for 16 Type Printer - Motor Driven. This device was used when the printed record was to be projected upon a screen. It was desired to feed the tape at a constant speed. A spring type slip belt drive is used on the Winder Reel and felt clutch driven rollers are used to pull the tape by "wringer" action. A magnet (not on museum model) operated blocking pawl and ratchet arrangement is used to start and stop the pulling action. The motor runs continuously.

YEARS PRODUCED & QUANTITY: 1932 Prototype

PRIMARY CUSTOMER(S): Bell System

CLASSIFICATION CODE:

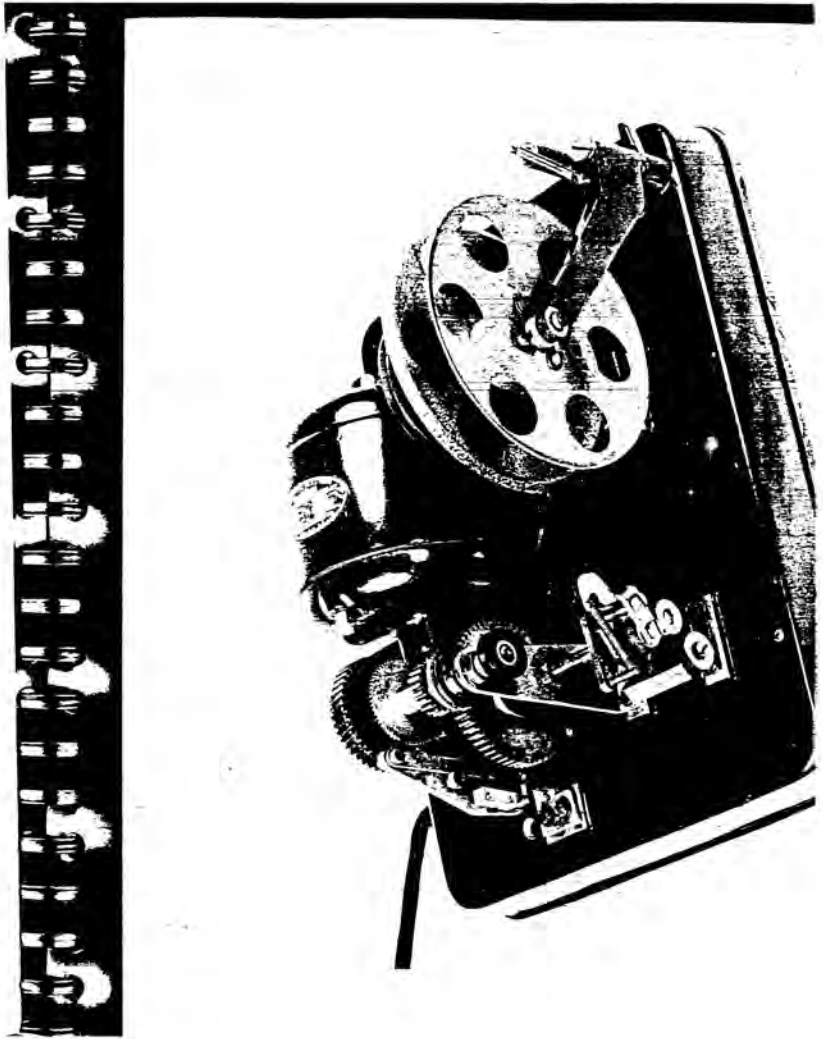
MUSEUM EQUIPMENT CODE: 9.8C-1

TECHNICAL BULLETINS & SPECS: Case 1226-5A 4-1 Engr.File No. 1-67AAA Engr.Ze

PHOTO NO(S): 320220-3 631111-41

PATENT(S): 1,973,839

LIBRARY REFERENCE(S):



MOTOR DRIVEN TAPE WINDER (TW-1)

Motor-driven tape winder designed for use with 20-type; never released. See detailed description by E. S. Larson, dated August 18, 1932. Model TW-1: The first of two engineering prototypes. Features friction clutch, mechanical tighttape stop, full-reel cutoff, and motor cutoff switch (operated by large handle). Ratchet arrangement allows tape to be withdrawn from reel (e.g. for backspacing). An improved version is coded TW-2.

YEARS PRODUCED & QUANTITY: 1932-33 Prototype

PRIMARY CUSTOMER(S): Bell and Teletypesetter

CLASSIFICATION CODE:

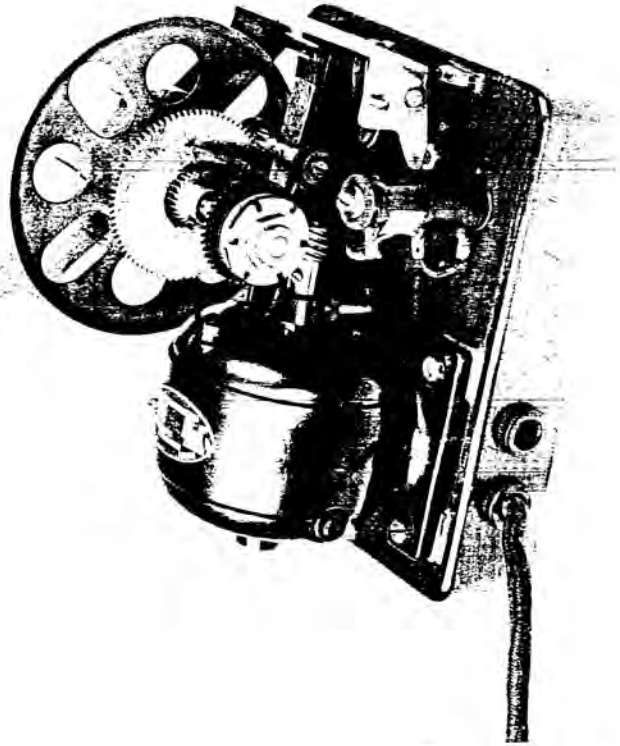
MUSEUM EQUIPMENT CODE: 9.8C-2

TECHNICAL BULLETINS & SPECS: Engr. File 6-45AAA Engr. Larson, Wahlstrand

PHOTO NO(S): 631111-42,43

PATENT(S):

LIBRARY REFERENCE(S):



MOTOR DRIVEN TAPE WINDER (TW-2)

Motor-driven tape winder designed for use with 20-type; never released. See detailed description by E. S. Larson, dated August 18, 1932. Model TW-2: The second of two engineering prototypes. Same as TW-1 (R&D Museum inventory code 9.8C-2) except that tight-tape stop and ratchet arrangement are removed. Instead, tension arm was redesigned to lift motor cutoff handle and clutch friction reduced to permit tape to be freely withdrawn from reel for backspacing, etc.

YEARS PRODUCED & QUANTITY: 1932-33 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 9.8C-3

TECHNICAL BULLETINS & SPECS: Case 1411-1 Engr.File No. 6-45AAA Engr. Larsen, Wahlstrand

PHOTO NO(S): 631111-44,45

PATENT(S):

LIBRARY REFERENCE(S):

TAPE UNWINDER

The Tape Unwinder is a device for holding a roll of perforated message tape and permitting it to unwind freely for feeding into a tape reader or transmitter distributor. The tape feeds from the inside of the wound roll. Similar devices have been released as S.O.P. 91819, 103035, 114189, and 116 B6 (Teletypesetter).

YEARS PRODUCED & QUANTITY: Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

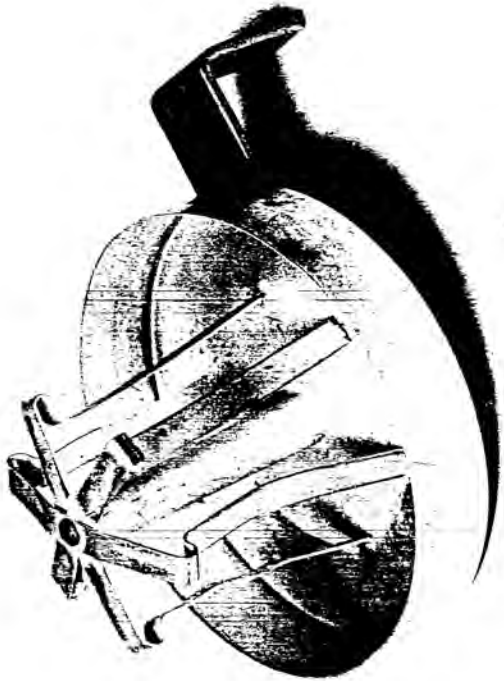
MUSEUM EQUIPMENT CODE: 9.8C-4

TECHNICAL BULLETINS & SPECS: Tech.Bull. 55735, 1075B Case 2260-1 Engr.File No. 2-AAA163

PHOTO NO(S): 411027-47 631111-52

PATENT(S):

LIBRARY REFERENCE(S):



PAGE WINDER (EXP69252)

A hand crank is provided to wind spring drive mechanism. A felt friction clutch transmits rotary motion to the paper reel. An "on-off" handle is provided. The unit can be mounted on the back of the 25 Type Page Printer. This unit was not released to production. The object was to develop an inexpensive paper winder.

YEARS PRODUCED & QUANTITY: 1939 Prototype

PRIMARY CUSTOMER(S): Bell System, Pennsylvania R. R.

CLASSIFICATION CODE:

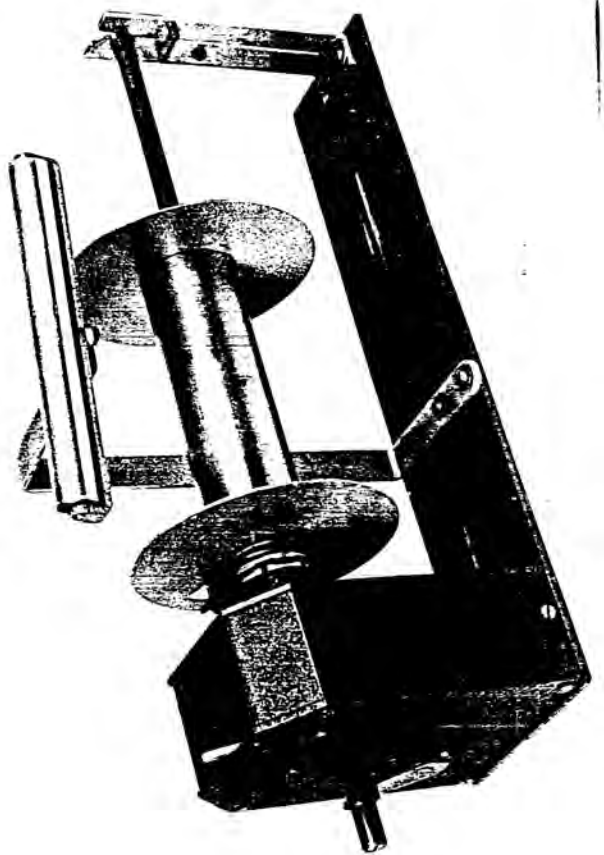
MUSEUM EQUIPMENT CODE: 9.80-5

TECHNICAL BULLETINS & SPECS: Engr. File No. 9-99AAA Case 1943-1 Engr. Burcky

PHOTO NO(S): 390712-81 390111-77 631111-51

PATENT(S):

LIBRARY REFERENCE(S):



CHADLESS TAPE SPLICER

Manually operated - for combining short strips of chadless tape into one long tape. Overlap three "Letters" characters. Released under Part No. 99214.

YEARS PRODUCED & QUANTITY:1940-41 Prototype

PRIMARY CUSTOMER(S): Bell System

CLASSIFICATION CODE:

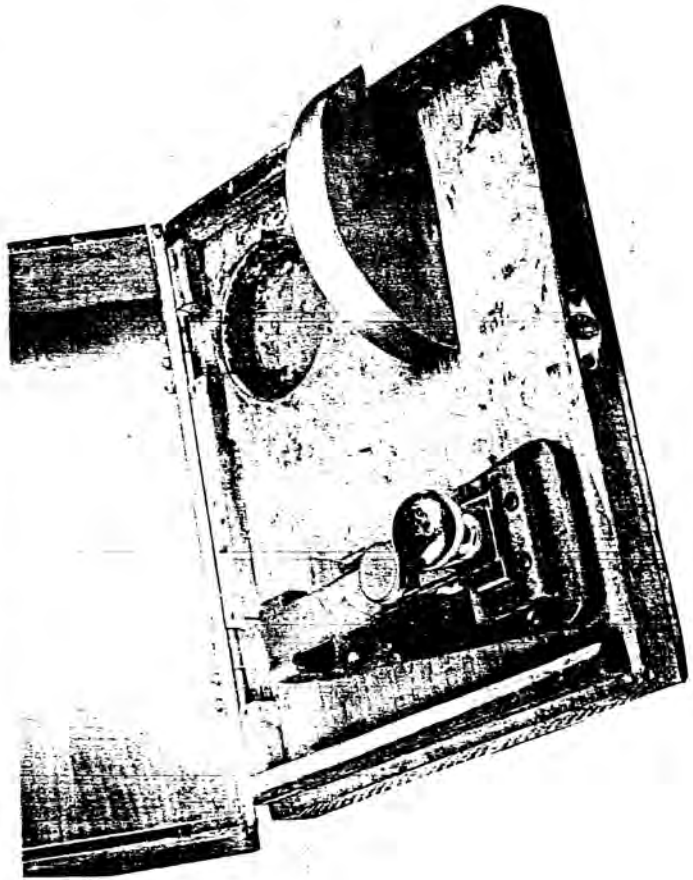
MUSEUM EQUIPMENT CODE: 9.8C-6

TECHNICAL BULLETINS & SPECS: 5547S Case 2109-1 Engr. File No. 1-AA129A
Engr. Skenpstrom, Larson

PHOTO NO(S): 400522-32 410430-95 450423-60 631111-48

PATENT(S):

LIBRARY REFERENCE(S):



PAPER TAPE FEED MECHANISM

High speed intermittent tape feed mechanism, using cam and toothed wheel for stepping tape at .1"/cycle --- continuously rotating cam is alternately engaged and disengaged by a pair of magnets. 200 ch/sec.

YEARS PRODUCED & QUANTITY: 1955 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

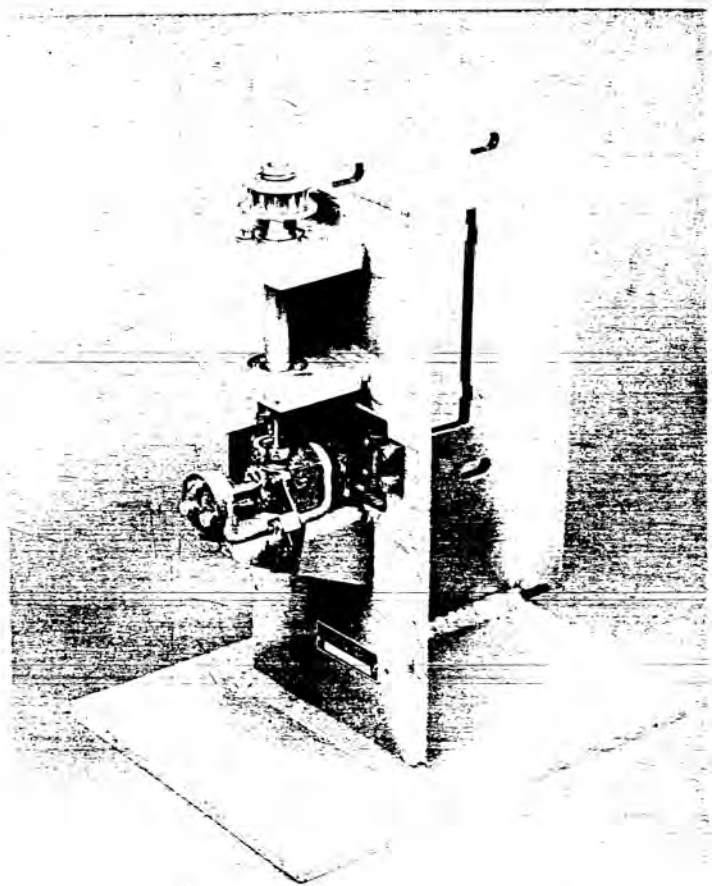
MUSEUM EQUIPMENT CODE: 9.8C-8

TECHNICAL BULLETINS & SPECS: Engr. Alonas

PHOTO NO(S): 64.0106-95

PATENT(S):

LIBRARY REFERENCE(S):



UNPERFORATED TAPE SPLICER

This device was designed to permit splicing of a new roll of tape to the end of a roll being exhasuted without interrupting the reperforator operation. The device contains a trimming knife, a scotch tape holder, and the tape clamps required for the splicing operation. This device was released to production as of 11/63.

YEARS PRODUCED & QUANTITY: 1958 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 9.8C-9

TECHNICAL BULLETINS & SPEC:

PHOTO NO(S): 581020-97 631111-50

PATENT(S):

LIBRARY REFERENCE(S):

TAPE WINDER (176 PROJECT)

A hand held tape winder designed specially for Project 176.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

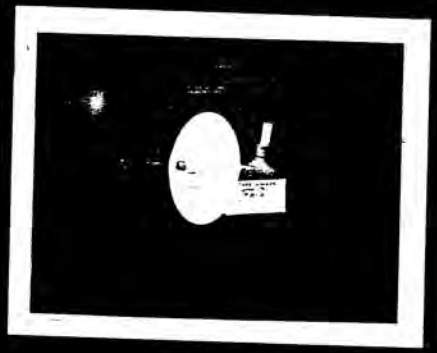
MUSEUM EQUIPMENT CODE: 9.8C-10

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): Polaroid 9c10-1

PATENT(S):

LIBRARY REFERENCE(S):



Donated to Chicago Museum of Science and Industry

AMPLIFIER RECTIFIER

This is the first model of a unit developed for the Navy to permit working 17-type printers on shipboard over radio circuits. The "production" model was developed in 1940. It provides reception of on-off keyed signals at a 1000 cps carrier frequency. Application: Navy wanted a minimum size and weight machine for R.O. shipboard applications in a broadcast-type service on radio circuits believed to be too poor to support start/stop operation. Navy resumed tests in 1946. Also, it appears that some units were developed for 6 VDC automotive operation for use in police cars.

YEARS PRODUCED & QUANTITY: 1940 Production

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 9.9C-1

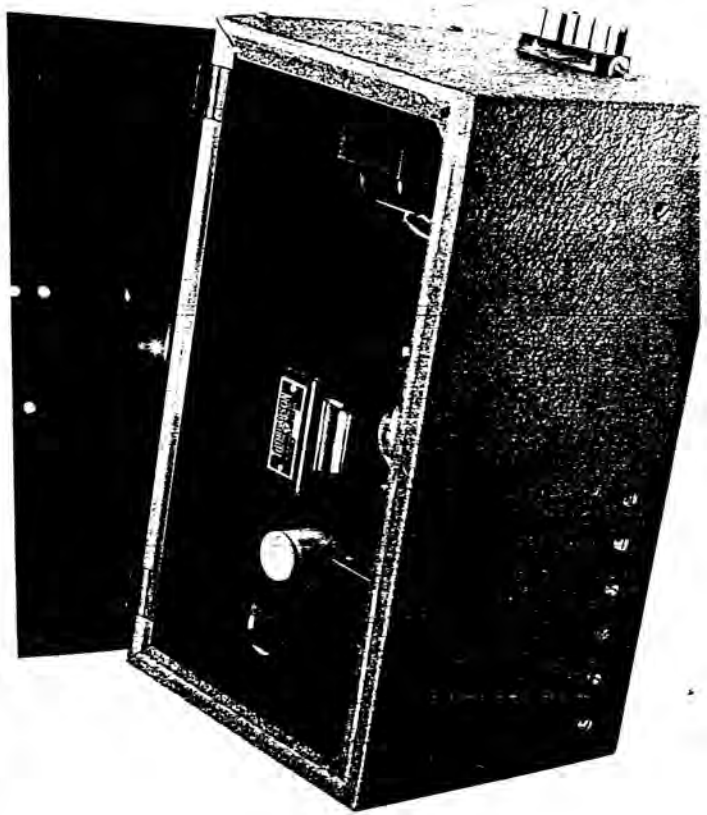
TECHNICAL BULLETINS & SPECS: Case 2139, 2224, 28-1 Engr.FileNo. 36-30.40. 830.40

PHOTO NO(S): 411027-44

PATENT(S):

LIBRARY REFERENCE(S):

12



START-STOP MULTIPLEX CONVERTER

First model of start-stop to multiplex converter which replaced AME Extension Arm Set. Worked at 60, 75, and 100 wpm. Large thyratron tubes (type 2050) replaced by miniatures (GL5663) in production models.

YEARS PRODUCED & QUANTITY: 1946 Prototype

PRIMARY CUSTOMER(S): U. S. Navy

CLASSIFICATION CODE:

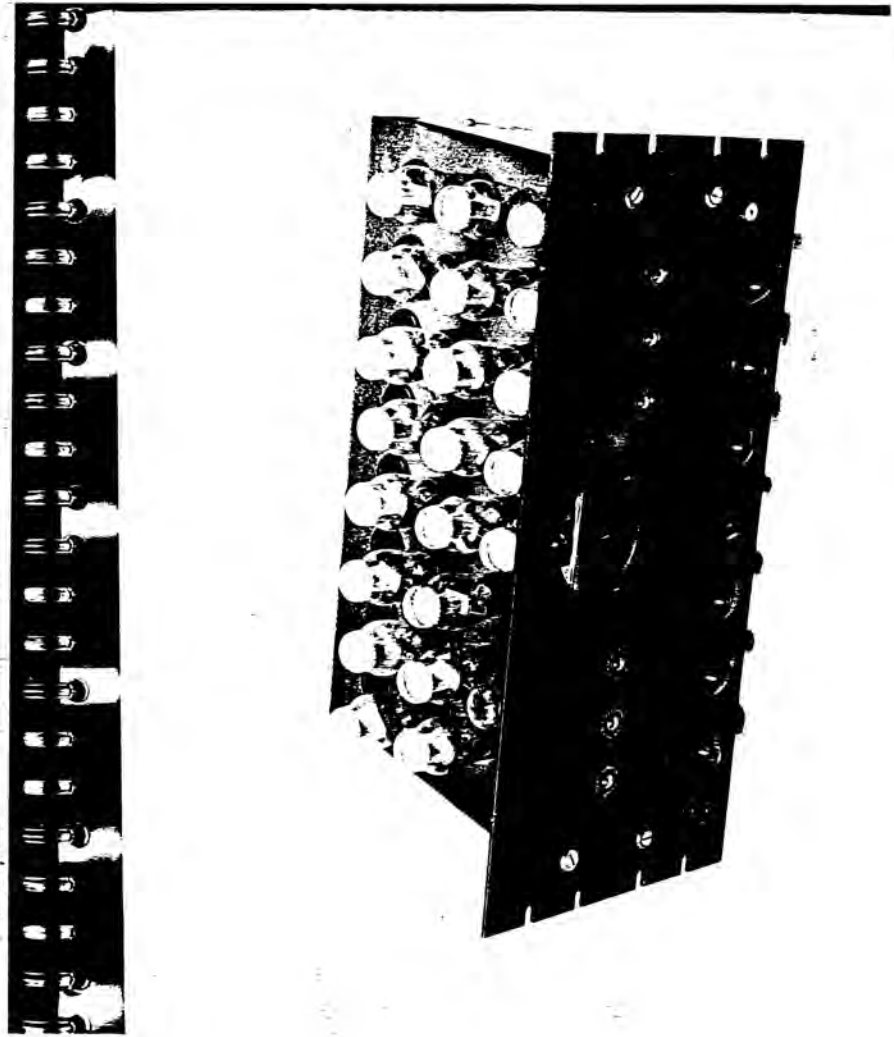
MUSEUM EQUIPMENT CODE: 9.9C-2

TECHNICAL BULLETINS & SPECS: Engr. Slayton

PHOTO NO(S): 640109-35

PATENT(S):

LIBRARY REFERENCE(S):



START-STOP MULTIPLEX CONVERTER

Start-stop multiplex converter accepting serial start-stop signals and converting them into parallel output signals for driving a multiplex converter. This is the preproduction model made in the R&D Lab. The input circuit contains a novel magnetic diode and coil arrangement which provides electrical isolation from the input signal line. Minor wiring modifications were made in 1950. The unit was modified to operate in conjunction with a single channel synchronous system called monoplex.

YEARS PRODUCED & QUANTITY: 1948 Prototype

PRIMARY CUSTOMER(S): Navy

CLASSIFICATION CODE:

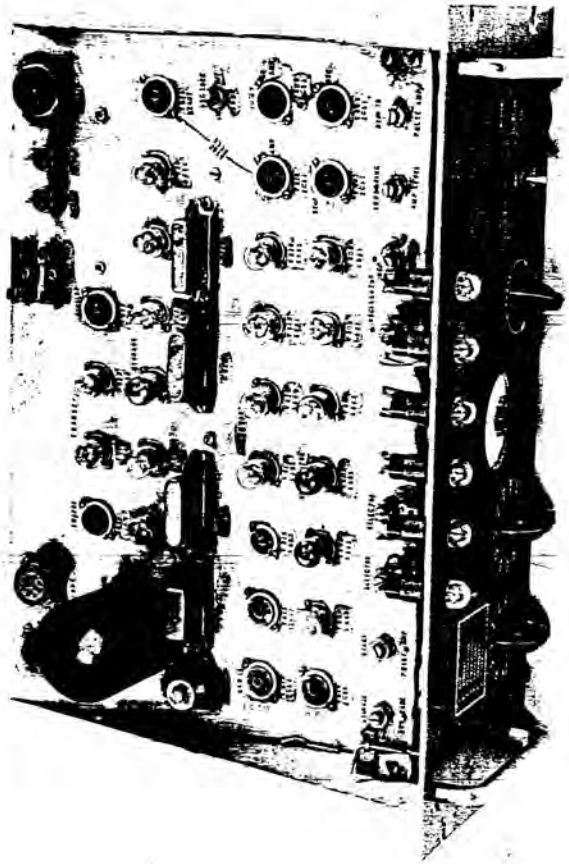
MUSEUM EQUIPMENT CODE: 9.9C-3

TECHNICAL BULLETINS & SPECS: Engr. File No. 1-A125AAA Engr. Slayton

PHOTO NO(S): 510803-80 650329-99,100

PATENT(S):

LIBRARY REFERENCE(S):



CRYSTAL OSCILLATOR MULTIPLEX CORRECTOR

This unit provides accurately timed drive pulses to the multiplex system which were derived from a 101.25 kilocycle crystal. The correction portion measured time arrival of multiplex signal transitions from a distant transmitter and modified crystal oscillator frequency slightly by means of a reactance tube so that the receiving crystal oscillator operated at exactly the same frequency as the distant transmitter. Previous to this time multiplex equipments used tuning forks as frequency standards.

NOTE: Part of same model made in 1948 in R&D Lab.

YEARS PRODUCED & QUANTITY: 1948 Prototype

PRIMARY CUSTOMER(S): Navy

CLASSIFICATION CODE:

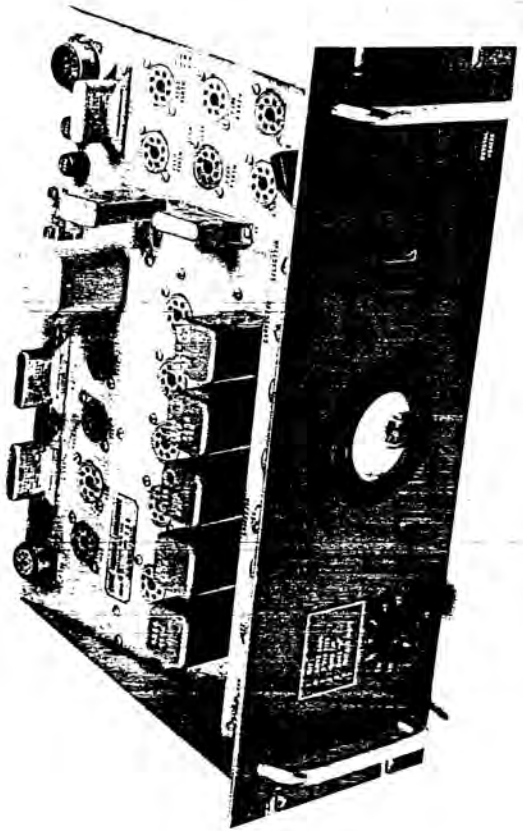
MUSEUM EQUIPMENT CODE: 9.9C-4

TECHNICAL BULLETINS & SPECS: Engr. File No. 1-A125AA

PHOTO NO(S): 640109-34

PATENT(S):

LIBRARY REFERENCE(S):



SELENIUM CONVERTER

Developed in a general study of 32:5 converters which included relay, point-contact diode, and germanium junction types. Tentative applications were some government projects and commercial punch card/Gaudot translators. For some reason nobody would allow electronic amplifiers or an output relay. Therefore, it was necessary to operate at 120 volts and at least 20 ma. Variations in work current and mark/space ratio were a continuing problem, as well as the problem of overloading the rectifiers. A number of different circuits were tried with the object of finding an optimum compromise among these factors. Apparently this problem was never solved.

YEARS PRODUCED & QUANTITY: 1951 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

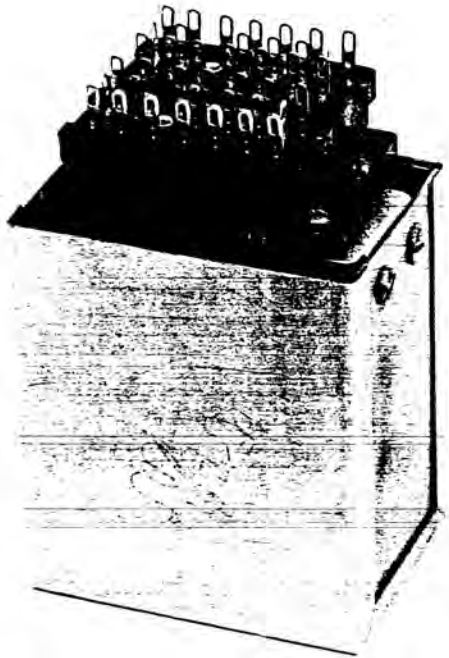
MUSEUM EQUIPMENT CODE: 9.9C-5

TECHNICAL BULLETINS & SPECS: Engr. File No. 15-8hAAA, 5h-33AAA

PHOTO NO(S): 520215-18 640109-42

PATENT(S):

LIBRARY REFERENCE(S):



START-STOP DISTRIBUTOR

Constructed as part of a general study of ways to miniaturize the MUX. This used an imported cold-cathode counting tube. It was later replaced by a Western Electric tube of the same general type. Work was abandoned when it was decided to go all transister.

YEARS PRODUCED & QUANTITY: 1952 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

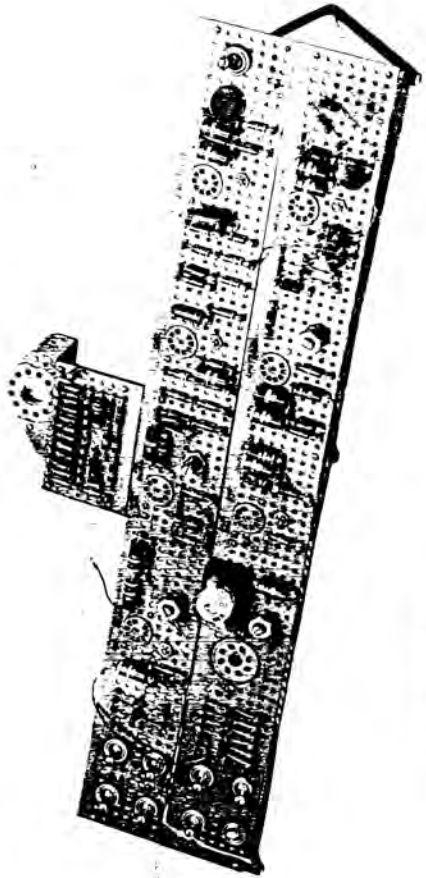
MUSEUM EQUIPMENT CODE: 9.9C-6

TECHNICAL BULLETINS & SPECS: Engr. File No. 14-11AAA Case 3239-1

PHOTO NO(S): 530605-46,47 6h0109-44,45

PATENT(S):

LIBRARY REFERENCE(S):



TORSION BAR - TYPEWHEEL
START-STOP OSCILLATOR

This device was intended for use as a bit timer for low speed start-stop machines in the 100-300 wpm range, as a low-cost replacement for electronic timing devices. Development plans abandoned because of acceptance of precision crystal oscillator and integrated circuit clock systems requiring no adjustments.

YEARS PRODUCED & QUANTITY: C. 1966

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

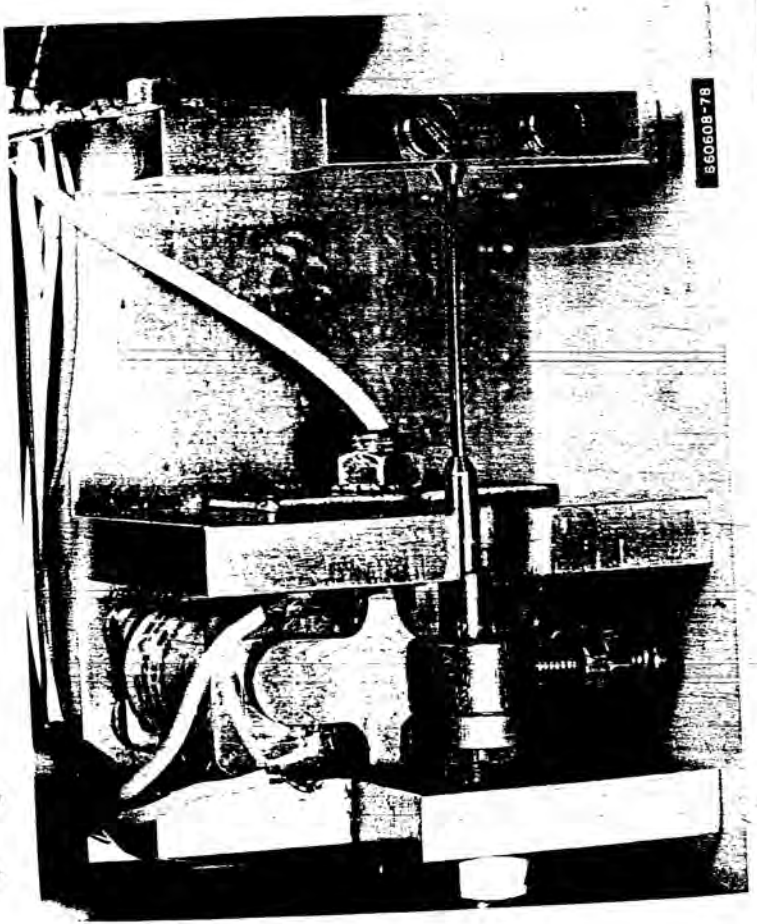
MUSEUM EQUIPMENT CODE: 9.9C-7

TECHNICAL BULLETINS & SPECS: File No. 2-103.144AA; Case #1639d

PHOTO NO(S): 660608-78, 79

PATENT(S):

LIBRARY REFERENCE(S):



DISTRIBUTOR SET

Distributor, Multiplex. Brush type distributor, 24 segment disc. Disc can be oriented. Start-stop coil and armature controls shaft and brush rotation. Friction clutch on shaft. Two contacts operated by cams on transmitting shaft for pulsing and control. D.C. Motor. Centrifugal governor driven by pinion and gear to rotate governor flyweights. Adjustment for flyweights control spring and governor contacts. Standard apparatus used in 2 channel multiplex and other multiplex line service. Now out of service.

YEARS PRODUCED & QUANTITY: 1922 Production

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

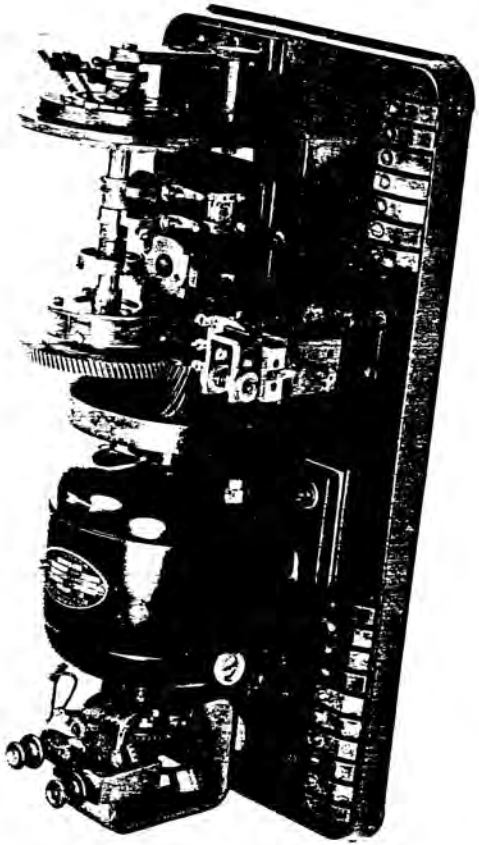
MUSEUM EQUIPMENT CODE: 9.10B-1

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 300102-2 631129-85

PATENT(S):

LIBRARY REFERENCE(S):



MERCURY CONTROL DISTRIBUTOR

This central unit consists of a solenoid operated ratchet which winds up two independent spring driven commutator assemblies. Each of the commutator assemblies energizes two 8 contact brush assemblies each time the commutator assembly rotates. The commutator rotates one cycle when released by a pawl. Apparently it was used with multiplex equipment.

YEARS PRODUCED & QUANTITY: 1928 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

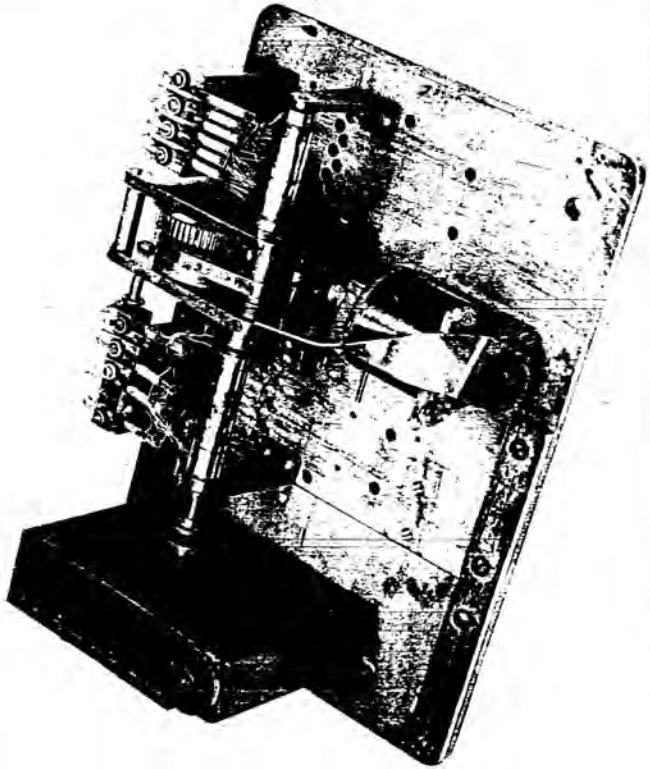
MUSEUM EQUIPMENT CODE: 9.100-1

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 280501-36 281206-28 631212-69

PATENT(S):

LIBRARY REFERENCE(S):



TRANSLATOR UNIT (TTU-2)

Set of parts to convert 14 type sending-receiving keyboard into a unit to provide multiplex to start-stop service. The unit is designed to receive and store multiplex signals in a mechanism associated with the keyboard transmitting assembly. The stored signals are then translated into simplex start-stop signals.

YEARS PRODUCED & QUANTITY: 1932 Prototype

PRIMARY CUSTOMER(S): Postal Telegraph Co.

CLASSIFICATION CODE:

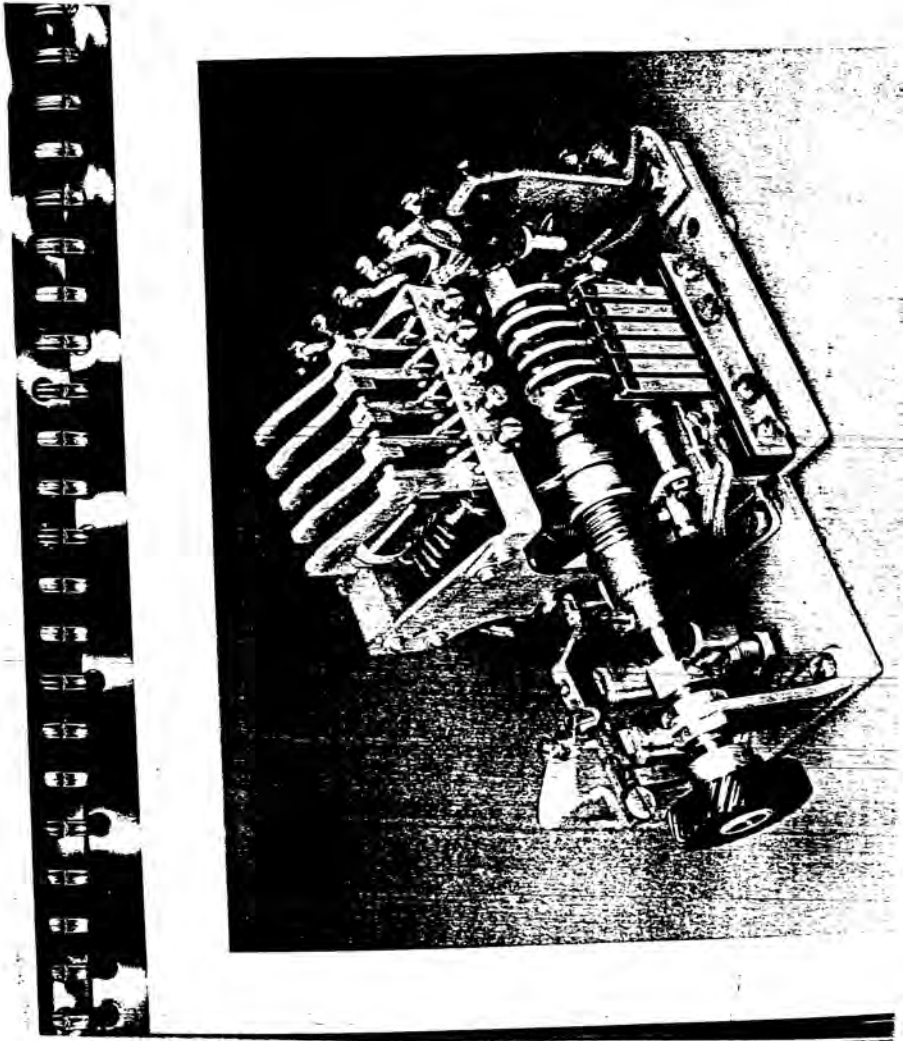
MUSEUM EQUIPMENT CODE: 9.10C-3

TECHNICAL BULLETINS & SPECS: Engr. File No. 1-8LAAA Engr. Goetz

PHOTO NO(S): 400430-85 631212-71,72

PATENT(S):

LIBRARY REFERENCE(S):



EXTENSION UNIT

Consists of six Model 12 magnet and armatures assemblies, associated contact pileups, and a Model 14 keyboard distributor assembly. Inputs are received from multiplex commutator segments which, for marks, energize the magnet assemblies which are electrically locked. At the completion of the multiplex character cycle, the signal is read out at start-stop signalling speeds. Experimental model, none produced.

YEARS PRODUCED & QUANTITY: 1932 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

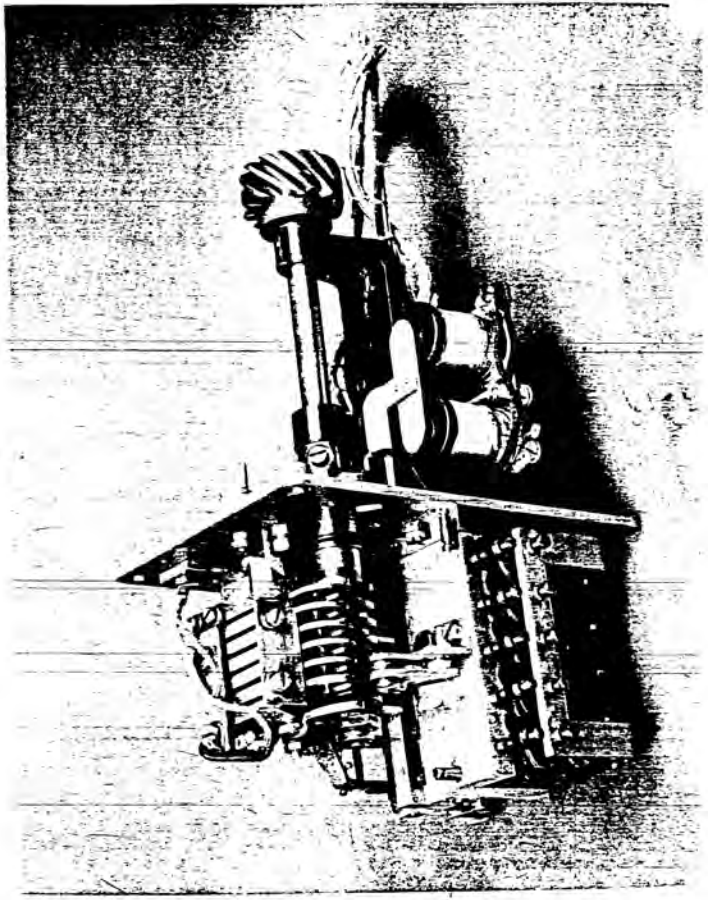
MUSEUM EQUIPMENT CODE: 9.10C-4

TECHNICAL BULLETINS & SPECS: Engr. File No. N-123 Engr. Goetz

PHOTO NO(S): 370625-48,49 631212-67, 68

PATENT(S):

LIBRARY REFERENCE(S):



2 PHASE EXTENSION COMMUTATOR

This unit consists of a large multiple track commutator drum. Each track of the drum operates a contact assembly. These units were designed to replace disc type commutators. Information is received in each contact assembly and is clocked out at the multiplex rate. Multiplex distributors replaced disc type commutators. Information received on parallel wires from SS/ Multiplex converters, and clocked out at multiplex rate.

YEARS PRODUCED & QUANTITY: 1935 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

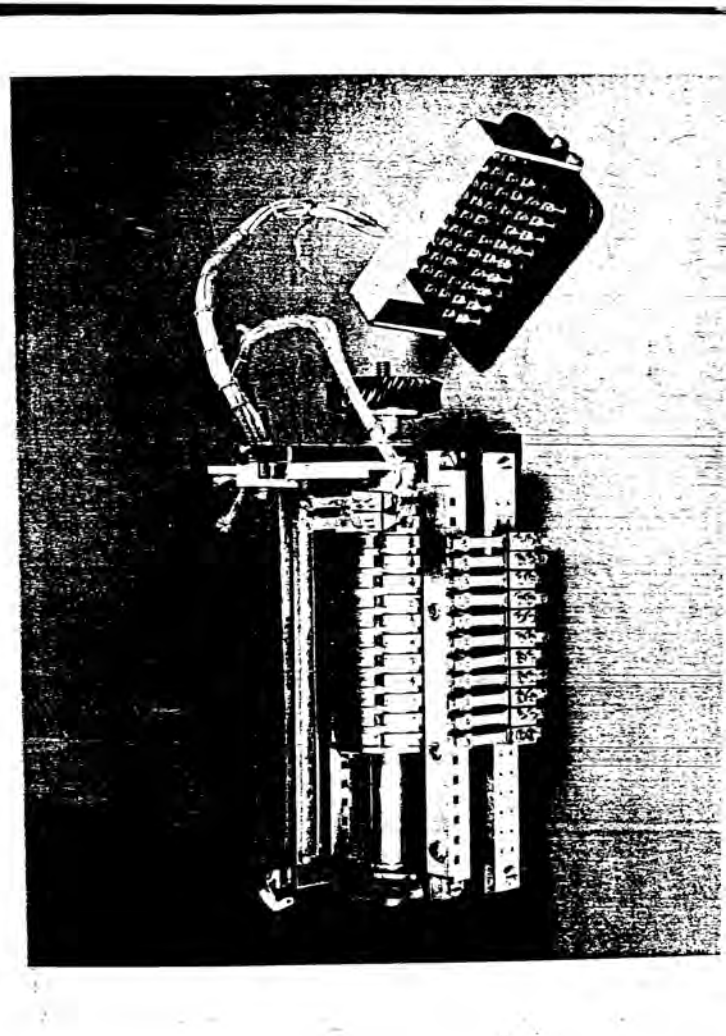
MUSEUM EQUIPMENT CODE: 9.10C-5

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 370114-1,2 631212-66

PATENT(S):

LIBRARY REFERENCE(S):



2 PHASE EXTENSION COMMUTATOR

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YEARS PRODUCED & QUANTITY: 1935 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

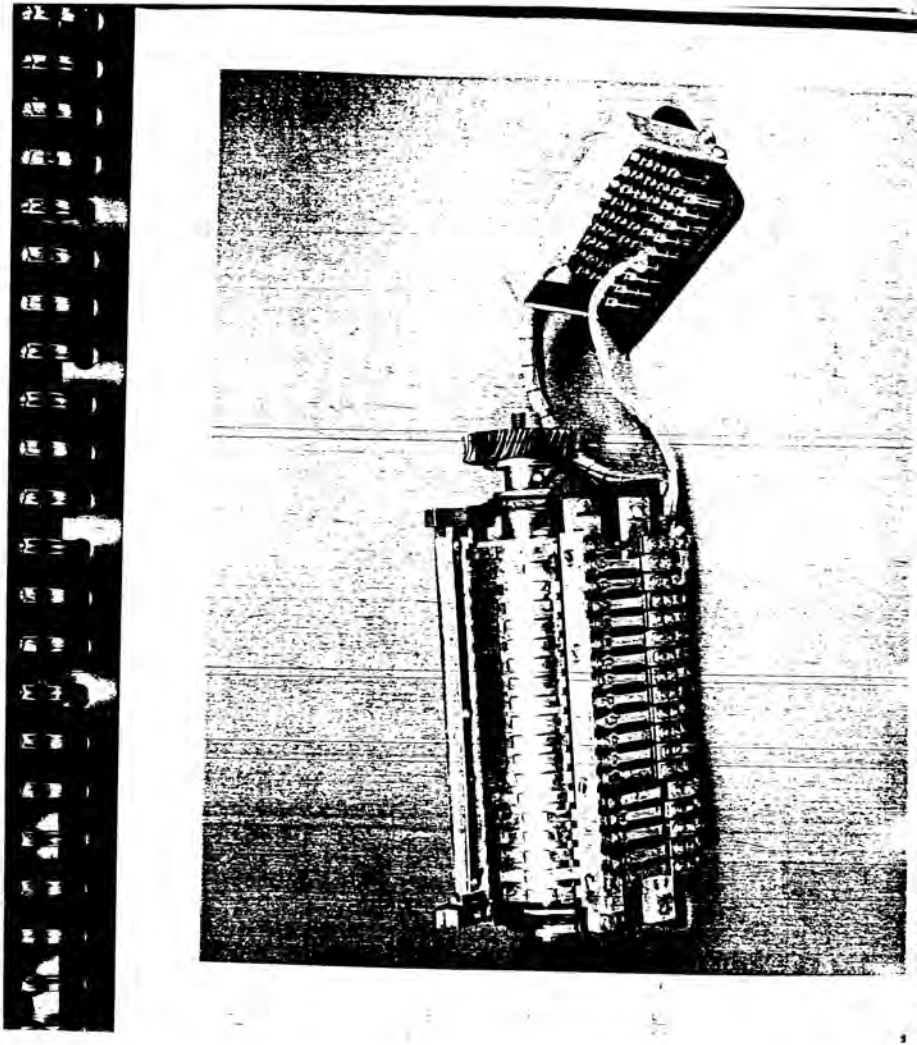
MUSEUM EQUIPMENT CODE: 9.10C-6

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 631212-70

PATENT(S):

LIBRARY REFERENCE(S):



START-STOP EXTENSION MULTIPLEX CHANNELS

A start-stop to multiplex converter and a multiplex to start-stop converter are mounted on a single shaft. This unit is similar to those produced. The Model 15 selector converts start-stop signals to parallel wire outputs on contact assemblies. These signals are wiped off by a multiplex commutator. The received multiplex signals are introduced to the multiplex to start-stop converter via magnet assemblies, which operate contacts. This signal is transmitted at the start-stop rate by the Model 14 keyboard distributor.

YEARS PRODUCED & QUANTITY: 1935

PRIMARY CUSTOMER(S): Postal Telegraph and Railroads

CLASSIFICATION CODE:

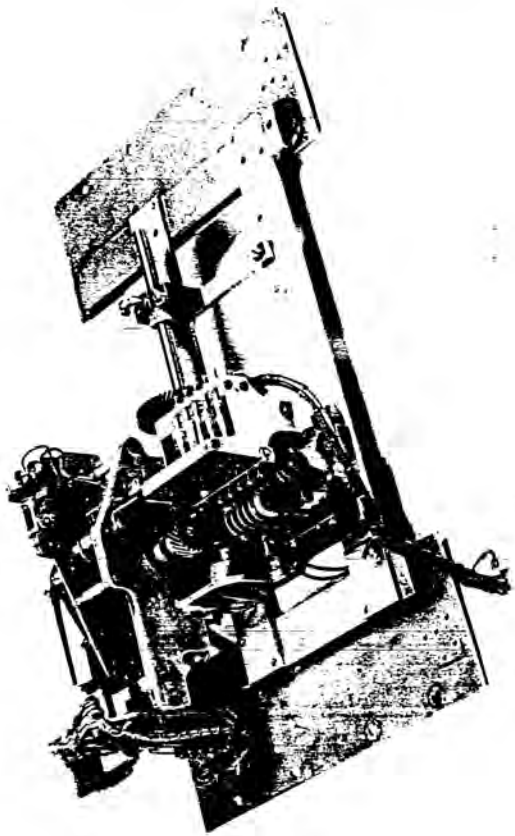
MUSEUM EQUIPMENT CODE: 9.10C-7

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 390414-40 631218-92

PATENT(S):

LIBRARY REFERENCE(S):



MULTIPLEX START-STOP EXTENSOR

Around 1940 time division multiplex equipment was still employed because of the effective use of long expensive lines. However a need developed to extend one or more channels from the central office location of the equipment to the subscriber directly and automatically rather than by the relay method formerly used.

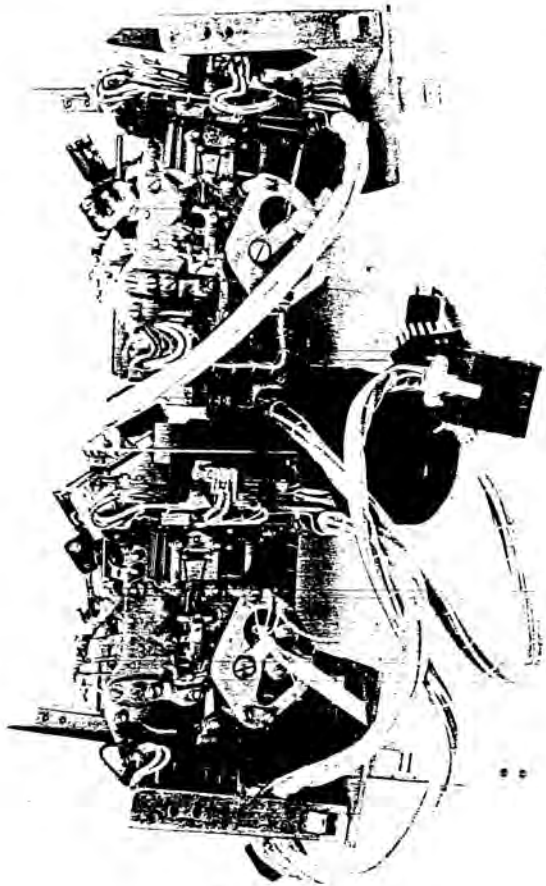
The Automatic Multiplex Extensor (AMS) was developed essentially from standard Teletype parts and assemblies to fill this need. It is a combination unit employing the 12 type multiple magnet assembly which accepted the multi wire signals from the multiplex receiving distributor and controlled a goose neck contact arrangement similar to that used on 14 and 15 type keyboards to put out start-stop signals to the subscriber.

Start-stop signals from the subscriber operated a 14 type holding magnet selector which was arranged to control contacts to feed into the multiplex sending distributor. Two complete units were arranged on a single panel for rack mounting consistent with central office equipment.

The AME unit also made it possible to use modern start-stop page printers with multiplex terminals. This was important because multiplex page printers such as the 12 type were discontinued.

In 1946 to 1949 the mechanical time division multiplex was supplanted by the electronic equivalent and at this time an electronic equivalent of the AME unit was developed. The electronic multiplex is now primarily used to increase the effectiveness of radio channels which are scarce.

YEARS PRODUCED & QUANTITY:
PRIMARY CUSTOMER(S):
CLASSIFICATION CODE:
MUSEUM EQUIPMENT CODE: 9.10C-8
TECHNICAL BULLETINS & SPECS:
PHOTO NO(S): 690505-14
PATENT(S):



MULTIPLEX TRANSLATOR

A production model of a multiplex, start-stop translator.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

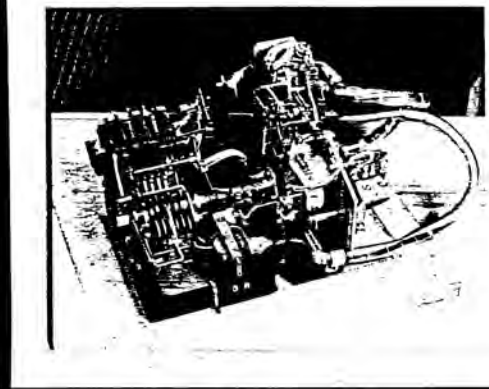
MUSEUM EQUIPMENT CODE: 9.10C-9

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): Polaroid T019

PATENT(S):

LIBRARY REFERENCE(S):



MULTIPLEX TRANSLATOR

A production model of a multiplex start-stop translator.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

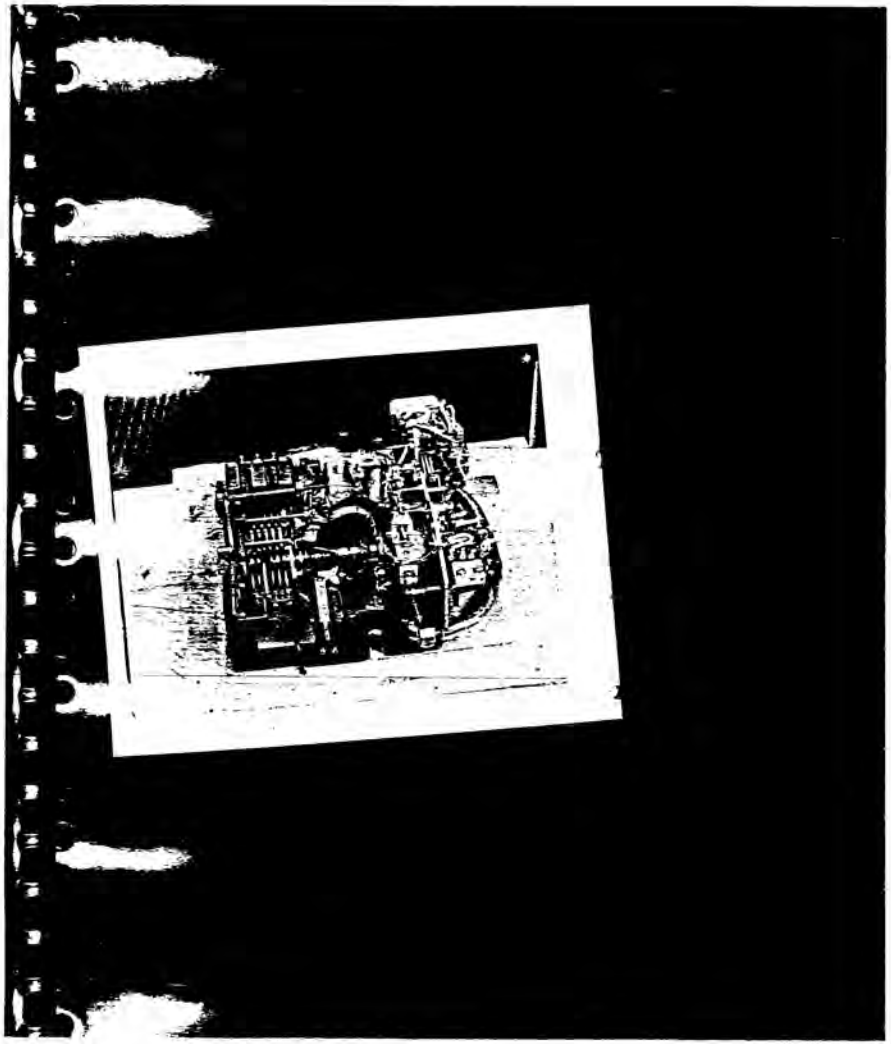
MUSEUM EQUIPMENT CODE: 9.100-10

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): Polaroid T039

PATENT(S):

LIBRARY REFERENCE(S):



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MECHANICAL IFF (IDENTIFY FRIEND OR FOE)

Airborne IFF - local interrogation unit to permit generating interrogating signals by manual operation of three buttons accessible thru three holes in the cover. Mechanism generally the same as that described in 9.11C-2. Developed for RCA.

YEARS PRODUCED & QUANTITY: 1941 Prototype

PRIMARY CUSTOMER(S): RCA

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 9.11C-1

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 411119-67,71 631120-47,48

PATENT(S):

LIBRARY REFERENCE(S):

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Science and Industry

MECHANICAL IFF (IDENTIFY FRIEND OR FOE)

The selector would operate push levers which would then be sensed by function bails equipped with tines readily changeable for the code of the day. Function bails (3) would operate contacts which in turn would trigger off the local transmitter to send out the code reply of the day, changed by a plug-in arrangement. Developed for RCA for airborne use.

YEARS PRODUCED & QUANTITY: 1942 Prototypes

PRIMARY CUSTOMER(S): RCA

CLASSIFICATION CODE:

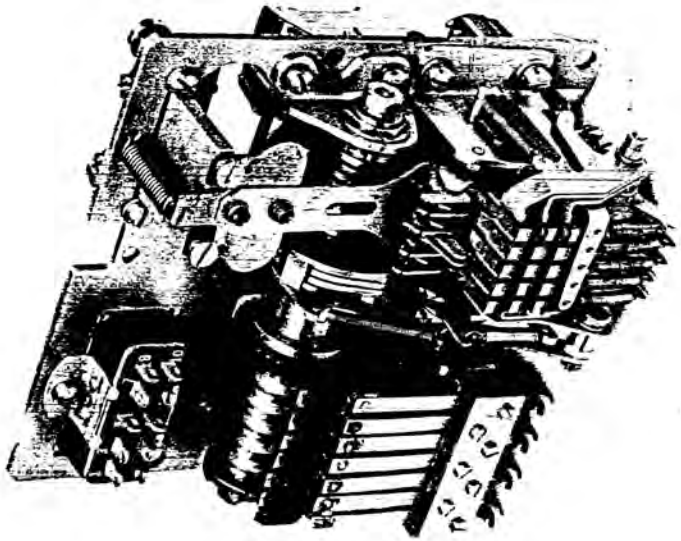
MUSEUM EQUIPMENT CODE: 9,11C-2

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 410921-94,98 631120-45,46 411119-67,68,69,70,71

PATENT(S):

LIBRARY REFERENCE(S):



Donated to Smithsonian Institution

MECHANICAL BINARY COMBINER

This is a breadboard arrangement of a mechanical binary combiner.

YEARS PRODUCED & QUANTITY: 1962 Prototype

PRIMARY CUSTOMER(S):

CLASSIFICATION CODE:

MUSEUM EQUIPMENT CODE: 9.110-3

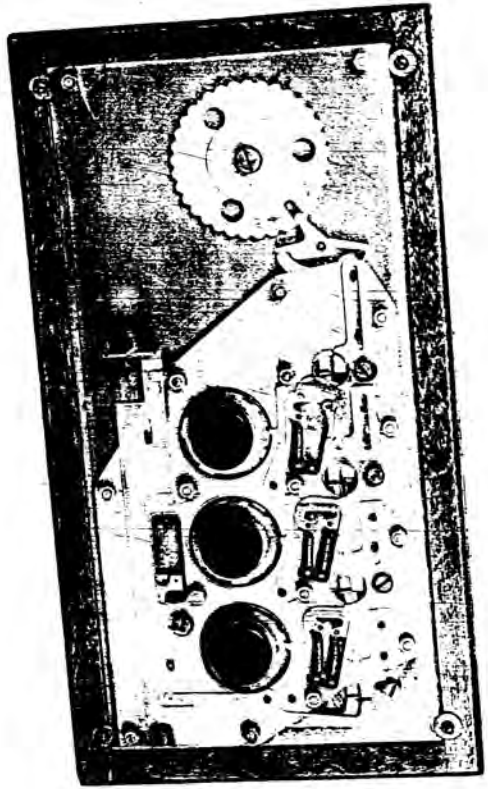
TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 430311-33 631120-62

PATENT(S):

LIBRARY REFERENCE(S):

31



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TAPE TRANSMITTER (3 HEAD-MODEL 14 XD)

This unit was developed from the Model 14 Transmitter Distributor for Western Union's Telecon System which was used by the government during World War II. Both uncoded and coded (scrambled) messages could be transmitted. Three sets of sensing pins were used. One set (the first) was used for sensing tape and generating the signals for uncoded messages. If the message was to be coded, the two rear sets of sensing pins operating with "key taped" would operate in parallel with the first to produce a confined output which was then distributed by XD disc mounted vertically at the rear.

YEARS PRODUCED & QUANTITY: 1942-44 Prototype

PRIMARY CUSTOMER(S): U.S. Government

CLASSIFICATION CODE:

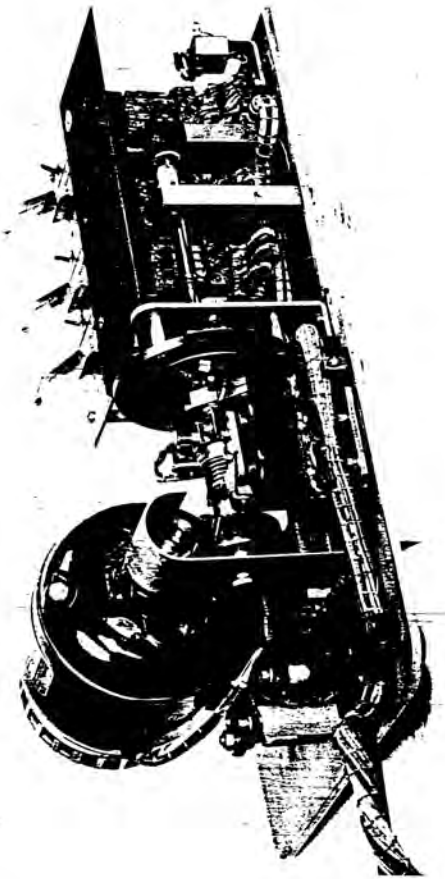
MUSEUM EQUIPMENT CODE: 9.11C-4

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 631120-40,41

PATENT(S):

LIBRARY REFERENCE(S):



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Science and Industry

CODING UNIT

Crypto d vice.

YEARS PRODUCED & QUANTITY:

PRIMARY CUSTOMER(S): U. S. Government

CLASSIFICATION CODE: 50-type

MUSEUM EQUIPMENT CODE: 9.11C-5

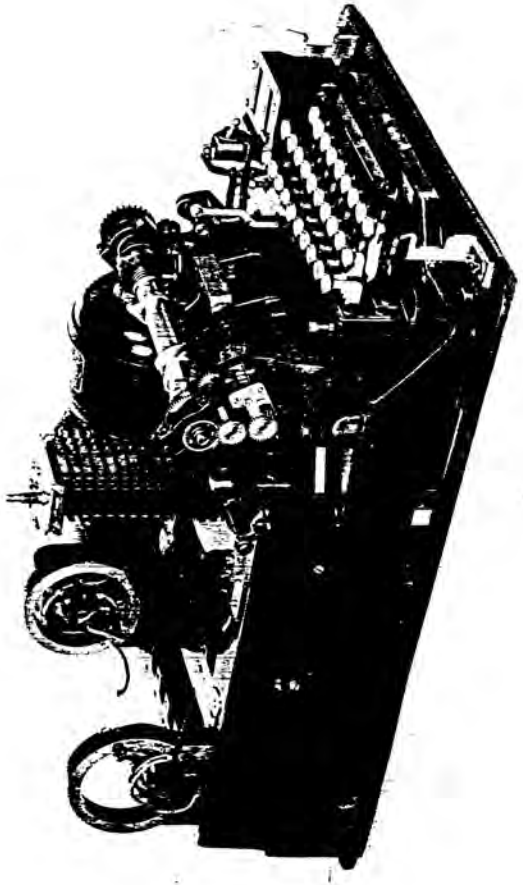
TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 710817-21,-22,-23,-44

PATENT(S):

LIBRARY REFERENCE(S):

33



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CODING UNIT

Crypto devic .

YEARS PRODUCED & QUANTITY: Experimental

PRIMARY CUSTOMER(S): U. S. Government

CLASSIFICATION CODE: 61-type

MUSEUM EQUIPMENT CODE: 9.11C-6

TECHNICAL BULLETINS & SPECS:

PHOTO NO(S): 710817-15, -16, -17

PATENT(S):

LIBRARY REFERENCE(S):

34