

Direct effects of reconnaissance operations will be few, but are possible. They would include statements that the VC moved their positions, modified their tactics, or took special precautions as the result of having seen or having been spotted by our reconnaissance aircraft.

When the names of KIA are given, the G-tag G:NAME. will be included along with A:723.51Ø; the names of the dead do not need to be included, unless another rule requires their inclusion.

The Chiêu Hồi (Open Arms) program is a government program begun in mid 1963 that grants amnesty and provides training for Việt Cộng or North Vietnamese Army personnel who return to the GVN. A person who participates in the program is called a hồi chánh. The effects of this program on the VC will be indexed with the subject codes for effects, with G:CHIEUH. Propaganda against the program will be coded A:163312 with G:CHIEUH. Measures taken by the VC/NVA against the program will be indexed with A:135658 and A:75921Ø with G:CHIEUH. [25 October 1967]

A second program, National Reconciliation (Đoàn Kết) was begun in April 1967 to appeal to higher level personnel in the VC than could be attracted by the Chiêu Hồi program. When this program is mentioned, the same coding procedures will be used as for the Chiêu Hồi program, but with G:DOANKE. [25 October 1967]

The GVN is also operating two other interrelated programs, the Pacification program (Bình Định) and the Revolutionary Development program, sometimes called Rural Development. Although both are programs carried out by armed teams, the first is dedicated to restoration of low-level control of an area to the GVN, while the latter is devoted to improvement of the local political structure, economics and general welfare. Effects of these programs will also be indexed using the subject codes for effects, but with either G:PACIFI or G:REVDEL. Discussions of the programs themselves will be coded with A:7213ØØ, using either of the G-tags. [25 October 1967]

d. Military Training. Unspecified training will be indexed under 765.000. This includes basic recruit training and advanced training when no course of study is specified.

If the training is specialized it will be indexed under the 770 - 775 sections. General ground force training will be entered under 773.100.

Training manuals will be indexed under 769.100. For field manuals see 742.300.

Training facilities will be indexed under the 771 section. If the facilities are described enter modifier 025; if coordinates are given for the facilities enter modifier 025 and an L-tag. For specialized training facilities all the appropriate code from the 770 - 775 sections.

Political training of military personnel, when a part of general military training, will be indexed under 157.613, with modifier 135. Political training as an aspect of a general military curriculum (subject 765.000) will not be indexed.

Military security, intelligence and espionage, sabotage, and propaganda training will be indexed under 157.050, 159.400, 161.100 and 163.500 respectively, with modifier 135.

3. Infiltration

a. Infiltration Routes. The subject code for infiltration routes is 333.660. All countries involved are considered as primary areas and will be coded in B-tags. The codes AVNVNC and AVSVSS will always be used; if movement is through Laos or Cambodia ALA00S or ACB00S will also be entered. Always enter the province of North Việt Nam from which the infiltration route left, and the province of South Việt Nam where the infiltration terminated, if these are discernable. Do not

index place names along the route unless they refer to some significant occurrence in the journey.

Any discussion of specific modes of transportation during the journey will be indexed. Thus, if there is a description of the ferry used to cross the Sepone River, it will be indexed:

A 5 0 4 5 3 0 G F E R R Y . D S E P O N E

For infiltration by sea also include the area code for the South China Sea (B:BPCCH0), and the names of any ports or islands involved.

b. Infiltration Training. The subject code for infiltration training is 770.750. The area code, if the training is done in North Viet Nam, will be AVNVNC. If a description or the exact location of the training facilities is given, include the modifier 025; if a map of the facilities is also included, use modifier 220.

When the description of the subject matter goes beyond standard military and political training, also index the specific policies being taught. For example, the North Vietnamese policy on treatment on prisoners of war would be indexed as A:723600 and A:723620.

c. Infiltration Documentation. Enter descriptions or examples of identification cards used in infiltration training centers under A:157740 with G:ID. Enter infiltration passes under A:157750 with G:INFILT.

4. Relationships Between Units

a. Maintenance of Forces. [1 October 1967] Maintenance of forces will be indexed as A:702390, with G-tags to indicate the specific types of maintenance involved, using the following table of definitions:

G:REPLAC	Replacement. <i>Addition of personnel integrally to a unit. Replacement personnel may come from a different unit.</i>
G:REINFO	Reinforcement. <i>The reinforcement of a unit by another unit, where the units maintain their separate identities.</i>
G:INTEGR	Integration. <i>The merger of different types of units into a single unit.</i>
G:ROTATI	Rotation or return to North Việt Nam. <i>Include here the policy, eligibility, and statistics on the movement of troops back to the North. If the evacuation of wounded is involved, add G:WOUNDE. For the route used, add A:33386Ø and G:EXFILT.</i>

Replacement or reinforcement can occur between different types of units, and integration always involves different types of units. The following table summarizes the principal combinations of units that will be encountered:

NVA & VC	B:AVSVCC	B:AVSVNC	
Local & main force	B:AVSVCC	G:LF.	G:MF.
Local force & guerrillas	B:AVSVCC	G:LF.	A:7394ØØ
VC & Montagnard (VMC)	B:AVSVCC	A:7484ØØ	G:MONTAG
NVA & Montagnard (VMC)	B:AVSVNC	A:7484ØØ	G:MONTAG

b. Control of the War. [1 August 1967] Evidence of the control or direction of the war by North Việt Nam will be indexed using A:7Ø144Ø. The primary area will be North Việt Nam (B:AVNVNC) and the secondary area will be the Việt Cộng (R:AVSVCC).

c. Friction or Preferential Treatment. [1 August 1967] Indexing of indications of friction between different units, or the preferential treatment of one

unit over another, is very important. The following table summarizes the different relationships that may occur and the indexing rules for them:

Between similar military units	A:701420
Between military command echelons	A:701420
Between VC and NVA	A:701440 B:AVSVCC B:AVSVNC
Between military and political cadre	A:701410
Between political elements or levels <i>If specifically with COSVN add A:135281</i>	A:135663

d. Relations with the Local Population. [1 August 1967] Any information on the relations between the VC and the local inhabitants will be coded under A:701430. Included here are the reactions of villagers to the presence of VC units in the area. The primary area is B:AVSVCC; no secondary area is required, except when the public concerned is that of another country. For relations between the NVA and the local population, use B:AVSVNC.

G. MEDICAL INFORMATION

The medical history of a specific individual will be indexed as a biographic document using the subject 747.000. A biographic modifier will be added, and, if the names of relatives are given, the full biographic modifier M:701001. The name of the patient will be entered in a C-tag when required by the rules on page 3-26.

If the document describes the method of treatment, also include the appropriate code from the therapeutic section (355.800), for example:

Use of surgery

A	3	5	5	8	1	0
---	---	---	---	---	---	---

Use of prosthetic devices

A	3	5	5	8	1	2
---	---	---	---	---	---	---

G	(device)
---	----------

For diagnoses dealing with a specific disease or injury also include the code for the disease from the 355.600 section:

Tumor

A	3	5	5	6	5	5
---	---	---	---	---	---	---

G	T	U	M	O	R	.
---	---	---	---	---	---	---

Beri-Beri

A	3	5	5	6	6	0
---	---	---	---	---	---	---

G	B	E	R	I	B	E
---	---	---	---	---	---	---

Note that the 355.600 is to be used for description of diseases and specific treatment for them. Any discussion of disease incidence (percentage of the population or areas infected, etc.) will be indexed in the 271.070 section.

Discussion of the Việt Cộng capability to deal with specific fields of medicine, rather than with a specific disease, will be indexed under the 355.300 section.

The 271.150 section, disease control measures, is used for prophylactic measures taken to prevent a disease from occurring or spreading, such as mosquito control measures to decrease malaria.

Medical facilities, military and non-military, will be indexed in the 271.170 section. The location, if known, will be indexed in D-tags; both provincial and local

names will be included. If a specific coordinate position is given it will be included in an L-tag, along with modifier Ø25. This modifier will also be included if there is a description of the physical facilities.

The military medical organization (medical units, etc.) will be indexed under 735.35Ø. Military medical training will be entered under 77Ø.55Ø. For both of these codes a G-tag G:MEDICA is required.

The code 752.1ØØ, medical care, will be used only to index information on the medical services available to military personnel, as, for example, the services available to soldiers in Phú B³ôn province.

Drugs and pharmaceuticals will be indexed under the 619.2ØØ section, using the following modifiers:

Ø49	Production data	Ø55	Allocations
Ø53	Consumption	Ø56	Shortages
Ø54	Requirements	Ø57	Stockpiles and reserves

General discussions of the availability of drugs and pharmaceuticals will be entered under 271.23Ø; the availability of a specific drug will be entered under 619.2ØØ with the appropriate modifier.

The availability of medical equipment (not including drugs) will be indexed in the 645.ØØØ section, with appropriate modifiers. The availability of medical personnel (including shortages) will be indexed under 271.25Ø.

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H. VIỆT CỘNG FINANCIAL AND ECONOMIC SYSTEM

1. Revenues

a. Taxes. Many different types of taxes are collected by the Việt Cộng. Official directives setting up tax policies and procedures will be coded as 475.311; all other documents dealing with taxes will be entered under 475.310. The specific type of tax will be indicated by a G-tag taken from the following table:

TYPES OF TAXES	
<u>Type</u>	<u>G-Tag</u>
Rice	G:RICE.
Livestock and Poultry	G:LIVEST
Fish	G:FISH.
Forestry	G:FOREST
Transportation	G:TRANSP
Plantation	G:PLANTA
Business	G:BUSINE
Income	G:INCOME
Individual	G:INDIVI
Property	G:PROPER
<p><u>Enter Import-Export taxes under Duties, 485.311. If levied on material sent to or from Cambodia or Laos, enter R:ACB00\$ or R:ALA00\$.</u></p>	

b. Miscellaneous Revenues. Index miscellaneous sources of revenue according to the subject codes in the following table. G-tags will be entered when given.

MISCELLANEOUS REVENUES

<u>Source</u>	<u>ISC</u>	<u>G-Tag</u>
Counterfeiting <u>Area rule: Primary area is country counterfeiting; secondary area is country whose currency is being counterfeited.</u>	475.851	
Issuance of Currency	475.890	
Issuance of Bonds (Savings Bonds)	475.390	G:SAVING
Issuance of Postage Stamps	586.130	G:STAMPS
Issuance of Treasury Certificates	475.390	G:TREASU
Fund Drives	475.390	G:FUNDDR
Membership Fees	475.390	G:FEES.
Debt Collection	475.510	
Sale of Capture or Confiscated Equipment	475.390	G:SALEEQ
Operation of Businesses <u>Also index specific businesses in Chapter VI.</u>	401.600	
Production Units <u>(See paragraph 3.)</u>	735.455	
Foreign Aid (non-military) <u>Area rule: Primary area is country granting assistance; secondary area is AVSVCC.</u>	493.120 <u>sec</u>	
<u>For military aid see 717.000.</u>		

2. Credit Cooperatives

These organizations, when identified, will be entered under 475.714.

All names and places involved will be indexed.

3. Production Units

Production units will be indexed as 735.455. The specific crops or goods produced will be indexed using codes from Chapter VI and the appropriate modifiers:

Ø35	Production difficulties
Ø4Ø	Product specifications and description
Ø49	Product data
Ø5Ø	Planned and estimated future production
Ø51	Production plan fulfillment
Ø52	Commodity capacity
Ø56	Shortages
Ø57	Stockpiles and reserves
Ø58	Storage facilities
Ø59	Prices
Ø6Ø	Transportation techniques
Ø61	Marketing difficulties

4. Bookkeeping

Account books and directives on financial accounting will be entered under 135.289; a G-tag G:ACCBOO will be entered for account books. However, account books of military units will be entered under 7Ø9.ØØØ with a G-tag G:ACCBOO.

5. Financial Relationships

Enter information on the financial relations between different levels of the party under 475.600. This includes the percentages of income that may be retained in a unit and the percentage that must be forwarded to higher headquarters.

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I. VIỆT CỘNG INTELLIGENCE REPORTS

All documents dealing with Việt Cộng knowledge of Free World Military Assistance Forces' installations or operations will be indexed as A:159300. Care must also be exercised to index all information on the Việt Cộng intelligence collection organization or procedures that might be contained in the document under the appropriate divisions of the 159 section.

The information covered in the report will be indexed in a separate phrase (separated by a Q-tag). Thus, a document discussing U.S. security precautions at Lai Khê Air Base would be indexed:

A	1	5	9	3	0	0	B	A	V	S	V	C	C	Q	A	7	9	1	0	6	0
B	H	U	S	0	0	X	D	L	A	I	K	H	E	M	7	0	0	0	2	7	

During retrieval it is then possible to retrieve Việt Cộng reports dealing with U.S. security measures, allied airfields, or any other specific subject of enemy intelligence reports, by setting the appropriate switches on the console to the factored position.

J. LETTER BOX NUMBERS

Letter box numbers are used for the routing of communications between VC/NVA units in the same way that the United States used APO numbers. These are usually identified in document translations by the abbreviation "LBN." These can be very significant for identification of units and political organizations, as well as for an understanding of organizational structure. These numbers are changed periodically. Each letter box number appearing in a document will be coded, whether or not the numbers are identified.

Letter box numbers are made up of combinations of letters and numbers, often interspersed with punctuation. The basic number is usually four or five numbers long, but this may vary; it is often suffixed with a letter. Subordinate units are frequently indicated by a prefix, separated from the basic number by a virgule (slant). For example, in the number 540/6,308C, "6308C" is the basic unit's number, the "540" identifies the rear services section. The medical section of the unit would be indicated by the number 545/6,308C.

In indexing, all letters and numbers will be entered as they appear, in an F-tag following the abbreviation "LB," but punctuation (including commas, periods, hyphens and virgules) will be dropped. For numbers that appear to have two parts, the primary four or five character number will also be entered in a second F-tag. Whenever there is doubt the second entry should be made.

15103X	F L B 1 5 1 Ø - 3 X .
540/6,308C	F L B 5 4 Ø 6 - 3 Ø 8 C . F L B 6 3 Ø 8 - C .
203	F L B 2 Ø 3 .
15-M.3705A	F L B 1 5 M 3 - 7 Ø 5 A . F L B 3 7 Ø 5 - A .

Letter box numbers are often prefixed with the letters HT. This is an abbreviation for Hòm Thờ (South Vietnamese) or Hòm Thư (North Vietnamese) which mean "letter box". These letters will not be included in the indexing. For example, LBN HT 3467A would be entered:

F	L	B	3	4	6	7	-	A
---	---	---	---	---	---	---	---	---

K. KEYWORD INDEXING—THE G-TAG

The ISC and many of its sections provide only broad categories that do not specifically define the subject of a document. In other cases documents cover special items that have been given proper names or code word designations, which, if not indexed, become very difficult to retrieve. These keywords are indexed in the G-tag.

Keyword entries permit the coder to specify exactly the special subject involved. The ISC requires a variety of different but related items to be coded under the same number, the specific item will be entered in a G-tag. For example, the ISC 504510 cover "bridges, viaducts, and culverts." A specific bridge would be coded:

A 5 0 4 5 1 0 G B R I D G E

Medical, dental and veterinary units (military) are all entered in 735.350; a specific medical unit would be entered:

A 7 3 5 3 5 0 G M E D I C A

For types of organizations, operations, or special programs that carry a specific name or designation, this designation will also be entered in a G-tag. For example, a sapper unit is indexed as 736.750 (reconnaissance units) with a G-tag G:SAPPER. Specifically named tactics will always have a G-tag for the type of tactics, as:

Mobile warfare A 7 4 4 1 8 0 G M O B I L E

Strategic comb tactics A 7 4 4 1 8 0 G C O M B .

Unless confusion is likely to result, G-tags will be cut off at the end of the first six characters. Continued descriptors will be used only if there are potential mix-ups between similar terms.

Specifically named programs are listed in the Indexing Guide, Appendix D to this Manual. Any entry not listed for which a keyword is required will be added to the appendix; new entries will be coordinated through the head of the Coding Section.

Names of organizations are always entered as keywords, using, however, the F-tag. These entries also appear in Appendix D, usually under both the English and Vietnamese forms. The F-tags will have been constructed based on the form in which the organization was listed in the first document indexed, which may either be the English or Vietnamese form of the name.

The names of magazines and newspapers will be entered in G-tags, spelled out for twelve characters (one continuation).

Documents containing serial numbers of weapons will be indexed under the appropriate code in Chapter VI of the ISC, with the modifier Ø44 and G:SERIAL. This same procedure will also be used for specific identifications of individual pieces of equipment by number, including the license numbers used for vehicles. For example, a list of lambrettas used by the VC, when they were identified either by serial number or license plate number, would be indexed:

A	6	5	4	1	1	2	G	L	A	M	B	R	E	G	S	E	R	I	A	L	M	6	Ø	Ø	Ø	4	4
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

L. MODIFIERS FOR SPECIAL TYPES OF DOCUMENTS

A series of modifiers has been established to indicate the presence of special types of documents or attachments. They have been approved for DOD use only, and are not listed in the ISC's. The following is a complete list:

201	Abstracts
202	Bibliography
203	Glossaries and dictionaries, including lists of abbreviations
204	Catalogs
205	List of members
206	Directories
207	Proceedings, including agenda
208	Yearbooks
209	Instruction manuals, not elsewhere classified
210	Personality photograph
211	Ground photograph
212	Aerial photograph
214	Unconventional imagery (including radar and infrared)
219	Motion pictures
220	Cartographic representation, including maps, nautical charts, and terrain sketches
230	Books, magazines, newspapers, commercial documents
233	Publications, studies not elsewhere classified
240	Materiel (hardware)
242	Engineering drawings, graphs, technical diagrams and sketches, line and block charts
244	Sound recordings (including tape and wire recordings) and video tapes

For example, modifier 210 would be used to indicate that a document contained a photograph of a person mentioned in the document. A description of a tunnel, with a map showing the location, a cross-section drawing of its layout, and a photograph of the entrance would be indexed:

A 7 8 8 6 5 0 G T U N N E L M 7 0 0 2 2 0 M 7 0 0 2 4 2
M 7 0 0 2 1 1 M 7 0 0 0 2 5

CHAPTER IV

INPUT

A. KEYPUNCHING INDEX CARDS

When ready for keypunching the documents will have been assembled by the indexers with the code sheet on front. The Indexing Section will arrange documents in order by CDEC log number or document number, and separate them in batches not exceeding fifty documents. A log will be maintained by the indexing section of all documents indexed, with the batch number and date when they were sent to the Machine Section (see VII-B-1).

As batches are received in the Machine Room they will be keypunched on the Flexowriter. The batches with the lowest batch numbers should be processed first, except for translation summaries of captured documents. These will be processed ahead of all other types of documents. Batches containing documents urgently needed by analysts may also be processed ahead of routine material.

The index sheet will be keypunched as it appears. The sheet is arranged so that each two lines of indexing constitute one card. At the end of each second line a stop code will be punched; the tape feed will then be depressed to advance to the next card.

The operator will assign an accession number to each document. These numbers will be made up of two parts, a number indicating the month and a serial number assigned within the month.

If an error is punched, a large "X" will be written over the card using a white or yellow pencil; the tape feed will then be depressed and the card repunched.

After all cards in a batch have been punched, the cards will be run back through the tape-read section of the Flexowriter, and the resulting printout compared against the code sheets. Cards in which errors are detected must be repunched. As the cards are being verified, the accession number of the document will be written on the cards. The first card will have the accession number written on it; succeeding cards for the same document will be assigned the same number followed by a card number, with the two parts separated by a virgule. For example, the three cards for document 9-435 would be numbered: 9435, 9435/2, 9435/3.

When paper tape is available, the original keypunching will be done using this medium. The procedures are the same, except that when the operator realizes that he has made an error, the tape may be backed up manually and the errors eliminated by punching "code delete." At the same time that the paper tape is verified the code cards will be generated.

The cards will be cut after they have been verified. Erroneous cards, marked with a large "X", will be discarded.

Detailed Flexowriter operating procedures are given in the FileSearch Flexowriter Instructions. However, the following points can not be stressed too carefully:

1. THE LAST PUNCH ON ANY CARD IS A STOP CODE.
2. An index card can contain up to 56 characters excluding the stop code (which can be the 57th).
3. The first character punched into the first index card of each document must be the arrow (→). When recorded on film and scanned by the Retrieval Unit during search, the arrow indicates that a new document is beginning. The arrow controls the reset of hits, page counts, etc., so that each document is independently searched and retrieved.
4. A tab or carriage return must be punched immediately following the last character of every index term. These are control characters which, when scanned from film, signal the end of a descriptor. They cause the Retrieval Unit to store any hits resulting from the descriptor and to get ready to compare a tag.
5. If more than one card is punched per document, the order of the cards must be preserved for the recording operation.
6. A phrase boundary is a Q-tag immediately followed by either a tab or carriage return

tab	Q	tab
CR	Q	tab
CR	Q	CR
tab	Q	CR

The use of the carriage return is preferred.

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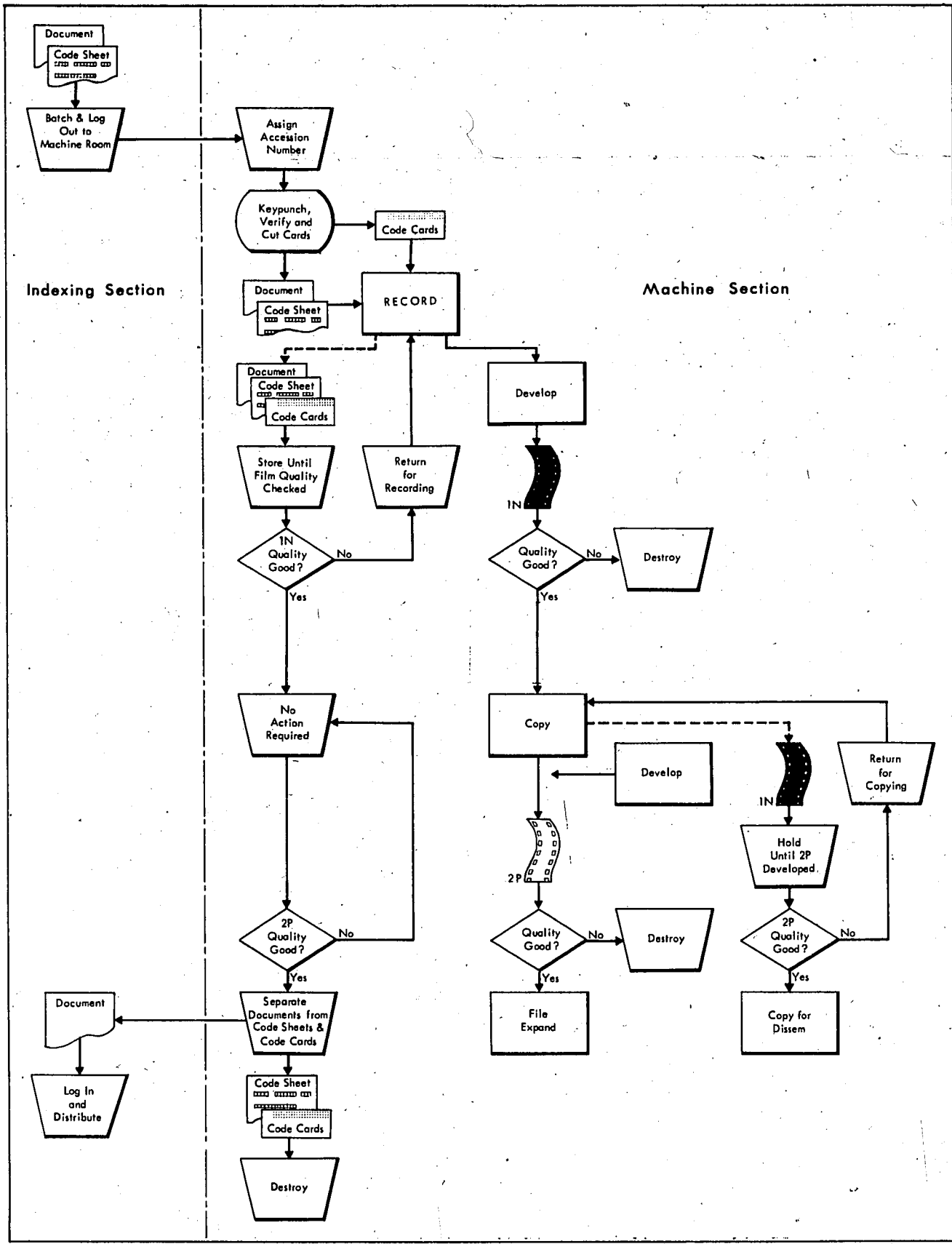


Figure 4-1. Machine Room Input Flow Chart

B. RECORDING

Recording consists of simultaneously photographing a document and its indexing code which has been punched into cards. The operating procedures for the Record Unit are given in the FileSearch Record Unit Instructions; these remarks supplement the procedures given in that manual.

Each batch of documents will be recorded as a unit. Special cover sheets will be photographed twice at the beginning and end of each batch to indicate the classification of the most highly classified document in the batch. For documents bearing only Vietnamese classifications of KÍN or MẬT, cover sheets with a large "X" and the classification will be used. For documents bearing U.S. classifications, standard Department of the Army cover sheets will be used. When documents with the caveat "No Foreign Dissemination" are recorded, a U.S. cover sheet will be used, with the word NOFORN written across the center of the sheet in large letters. Cover sheets will be photographed using a card with the start and stop codes.

The cover sheet will be followed by a batch sign indicating the batch number and the date on which it is photographed. This sheet will be photographed with a special card containing the batch number coded in a Z-tag. The year of the batch will be placed in the first two positions, right justified. The card must begin with a start code (→). For example, the card for batch 67-213 would be coded

→	Z	6	7	Ø	2	1	3
---	---	---	---	---	---	---	---

Documents over 50 pages in length will be broken into 50-page sections. Each section will be recorded with all code cards being reentered. In effect this makes the one document into a series of shorter ones.

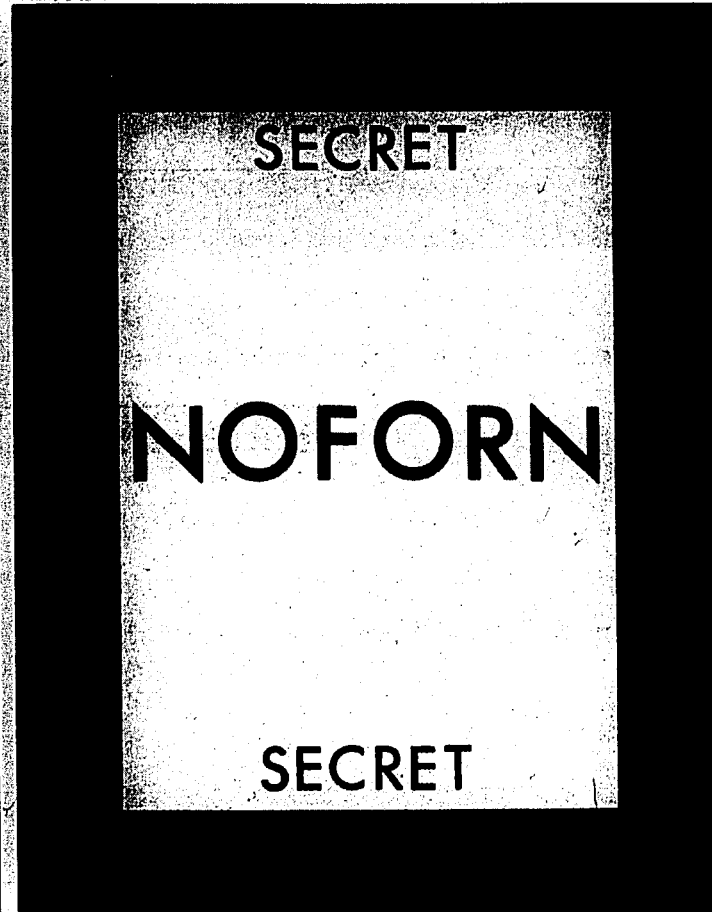
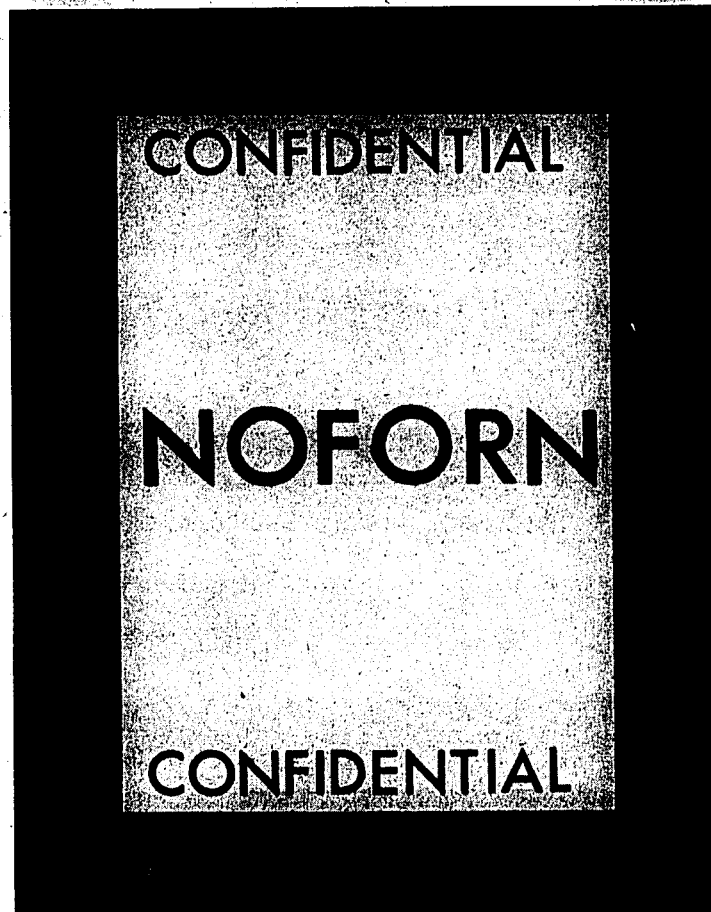
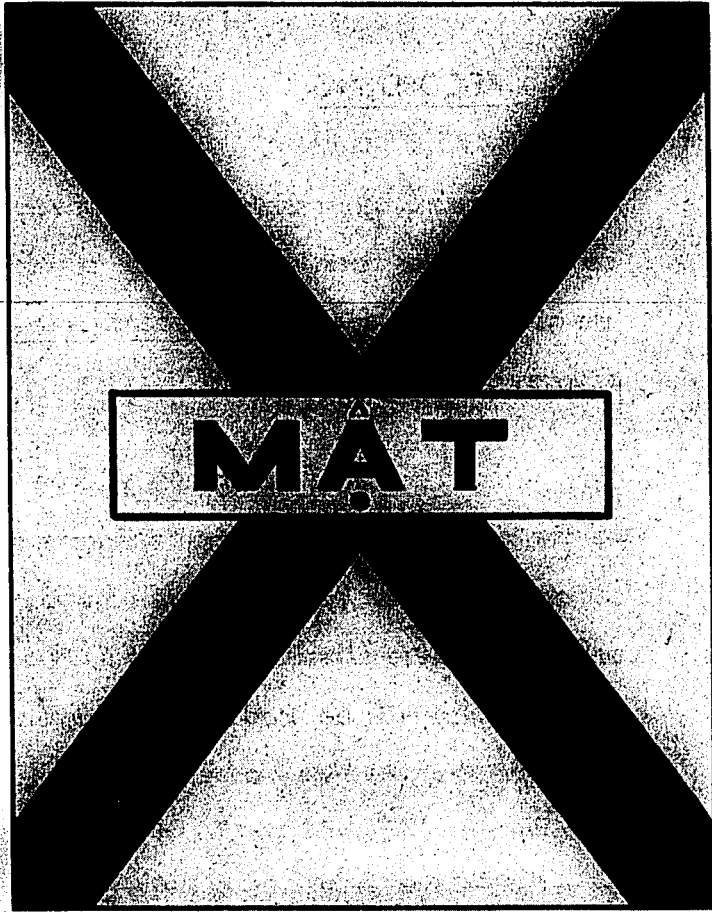
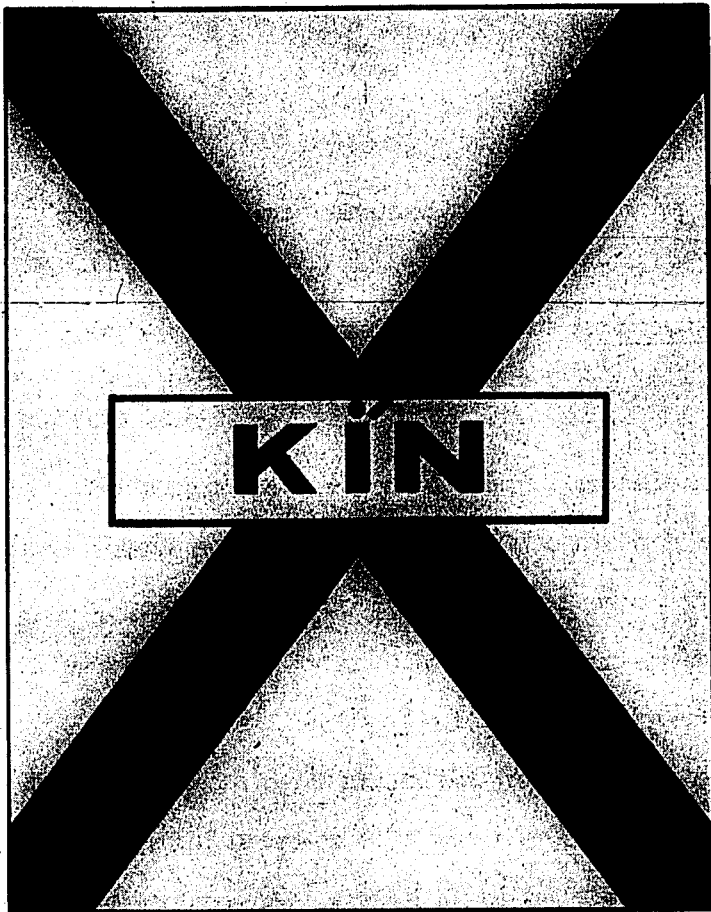


Figure 4-2. Security Cover Sheets

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B A T C H

68-276

Photographed

27 Jan '68

C. FILM DEVELOPING

1. Operation

a. To raise the TANK COVER, turn the MAIN WATER VALVE on UNIPRO OFF, release COVER LOCK, raise TANK COVER by opening "UP" VALVE slowly until the TANK COVER has reached the upward limit. Turn the "UP" VALVE OFF to relieve the pressure. The water trapped in the cylinder is sufficient to hold the TANK COVER in a raised position.

CAUTION: Do NOT leave the "UP" VALVE open with the TANK COVER locked down or with the TANK COVER to its up limit.

b. F107.3 FILM-A-RECORD DEVELOPER/REPLENISHER

TO PREPARE AS DEVELOPER: Pour contents of small bottle (activator) into large bottle. Replace cap and agitate until solution is uniform.

TO USE AS DEVELOPER: Fill Developer Tank 1/3 full with water. Pour contents of large bottle into tank. Fill tank to level mark with water.

TO PREPARE AS REPLENISHER: Pour contents of small bottle (activator) into large bottle. Replace cap and agitate until solution is uniform.

FOR USE AS REPLENISHER: Dilute 1 part concentrate to 2 parts of water to make working solution. Store in refrigerator until ready for use.

Recommended Replenisher Rates:

6 fl. ozs. of working solution per 100' - 16mm

12 fl. ozs. of working solution per 100' - 35mm

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c. F108.3 FILM-A-RECORD MICROFILM FIXER

FOR USE: Fill Tank 1/3 full with water. Pour contents of large bottle into fixer tank. Fill tank to level mark with water. Stir thoroughly with stirring rod. Clean stirring rod after each use.

SOLUTION LIFE OF FIXER:

Negative Film: 16mm x 100' - 40 rolls Limit per
35mm x 100' - 20 rolls filling for

Positive Film: Number of rolls varies with type and make of film.

NOTE: F108.3 is a highly concentrated fixer solution designed specifically for use in the Unipro Microfilm Processor.

d. Place short piece of leader between ALARM ROLLER and HOLD-BACK ROLLER. Close MAGAZINE DOOR.

e. Turn on DEVELOPER PUMP SWITCH.

NOTE: Never turn on DEVELOPER PUMP until Developer Tank is filled.

f. Check developer temperature (recommended level 82°F) on THERMOMETER after heater PILOT LIGHT has gone on and off. PILOT LIGHT on indicates DEVELOPER HEATERS are on.

g. Temperature may be adjusted by turning THERMOSWITCH screw counterclockwise to raise and turning THERMOSWITCH screw clockwise to lower.

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NOTE: 1/8 turn of adjusting screw will change THERMOSWITCH setting 5°F.

h. Threading of processor will be facilitated by using 16mm leader not containing any staples. With MAGAZINE DOOR open, raise ALARM ROLLER, LOWER BRAKE RELEASE ARM to locked position, and thread leader through LOADING MAGAZINE and into FILM SLOT per threading Diagram.

i. Lower ALARM ROLLER, close and lock MAGAZINE DOOR.

j. Thread leader into plastic reel (square hole out), place reel on TAKE-UP SPINDLE and engage reel with adjustable FILM SPACER PIN.

k. Slowly lower TANK COVER to lowest position until COVER LOCK engages by slowly activating the "Down Valve", which drains the water that had been trapped in the cylinder into the Rinse Tank.

CAUTION: In lowering the TANK COVER, carefully watch the Elevator to make sure the Elevator Guides are centered with the tracks of the pre-rinse tank. Close the "Down Valve" as soon as the Cover Lock engages.

NOTE: When threading processor with leader, lower Tank Cover and assist hydraulic piston by applying mechanical pressure at center of Tank Cover.

l. Release LOADING ELEVATOR LATCH and slowly lower LOADING ELEVATOR to lowest position.

m. Set PRE-RINSE SHUTOFF VALVE to closed position.

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- n. Open WATER VALVE to PRESSURE GAGE reading of 8 lbs. for 16 or 35mm film. For archival film, water temperature must be 75 - 80°F.
- o. Turn on Drive Motor switch and Dryer switch. Set dial indicator on Dryer Thermostat to maintain a Drying temperature range of 100°F to 125°F.
- p. When buzzer signals end of leader held in FILM BRAKE, unlock MAGAZINE DOOR, raise ALARM ROLLER, swing out LOADING SPINDLE, remove empty spool, replace with full spool, push into position and splice film to end of leader. Elevator allows 3/4 min. for splicing.

NOTE: Use leader for initial training run.

- q. Lower Alarm Roller, close and lock Magazine Door, lower Brake Release arm to locked position, release Loading Elevator Latch, and lower Loading Elevator to Bottom position.
- r. Check SQUEEGEE rollers with film (or leader) moving through SQUEEGEE. Set ADJUSTING NUT for minimum roller pressure at which no moisture drops or streaks appear on film.
- s. When SPLICE ALARM buzzer signals full roll at TAKE-UP REEL, cut film after splice and remove full reel.

NOTE: SPLICE ALARM is adjusted by means of screw at end of SWITCH CONTACT ARM shaft located in DRIVE UNIT.

- t. Insert film slot on empty reel with square hole out. Wind up excess film, slip reel on TAKE-UP SPINDLE and engage with adjustable FILM SPACER PIN.

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- u. Repeat steps 19, 20, 23 and 24 for every roll of film.
- v. When end of last film is wound on TAKE-UP REEL, turn off all SWITCHES and shut WATER VALVE.
- w. Raise TANK COVER. Push LOADING ELEVATOR. Lock SQUEEGEE in open position. Remove, clean and store SPONGES.
- x. When exhausted (see Section 1) or after no more than one week, drain solutions; open TANK DRAIN VALVES, permit to drain, flush TANKS. Close VALVES before refilling.

CAUTION: Drop of liquid level below thermoswitch will result in serious overheating.

- y. If the water pressure drops below 5 psi, clean the water filter. This should restore normal pressure.

2. Maintenance

KEEP THE MACHINE CLEAN.

DO NOT TOLERATE ACCUMULATION OF DRIED CHEMICALS.

Sponge outside of processor daily, at end of run. Use water only on finish and sponge dry.

Stainless steel must be kept clean to prevent corrosion. Sponge and dry daily. Fine scouring power such as BON AMI may be used, and for exceptional cases, stainless steel wool. Under no circumstances use ordinary steel wool, metallic "sponges", polishes, "liquid cleaners", coarse grit cleaners, acids, or anything which roughens the surface.

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Solution tanks may be cleaned by filling with 20% solution of OAKITE #33 manufactured by Oakite Products Inc., 19 Rector Street, New York 6, N.Y. To obtain 20% solution add to 1 part of OAKITE #33 (as supplied by manufacturer) 4 parts of water. Allow to soak for one hour, drain, scrub clean, and flush tanks thoroughly with clean water.

Check all rollers daily for free turning. Use water to keep all surfaces clean. Disassemble and clean bearing surfaces if required. Unipro Cleaner may be used to assist in cleaning rubber surfaces of roller.

Check spray nozzles daily. If plugged, run fine wire through opening and recheck. If necessary, remove nozzle and blow or flush through threaded end.

NOTE: To take out PRE-RINSE NOZZLES,
remove HEADER BOX.

Check aerators daily. If not aerating, remove, disassemble, clean and replace.

Replace sponges on first sign of wear or disintegration. Effective dyeback removal depends on full, firm sponges of correct size.

Clean both squeegee rollers daily to prevent glazing. Use Unipro Cleaner per ROLLERS section above. Keep roller bushings clean and lubricated.

Replace cloth polishing strips when soiled. Press tapered end into roller slot, using tool provided. Rewind by turning roller in normal direction of rotation and secure outer end with small amount of Carter's Paper (rubber) Cement or equivalent.

Replace or wash clean the air filter pads with soap and water when dirty.

Remove DRIVE UNIT COVER and apply one or two drops of light machine oil in (2) oil holes of drive motor, monthly.

Remove screw marked "OIL", top of DRIVE MOTOR GEAR HOUSING; fill with 1 tablespoon "3-in-1" oil or equivalent, every 2 months. Lightly lubricate drive chain and gears with light machine oil, every 2 months.

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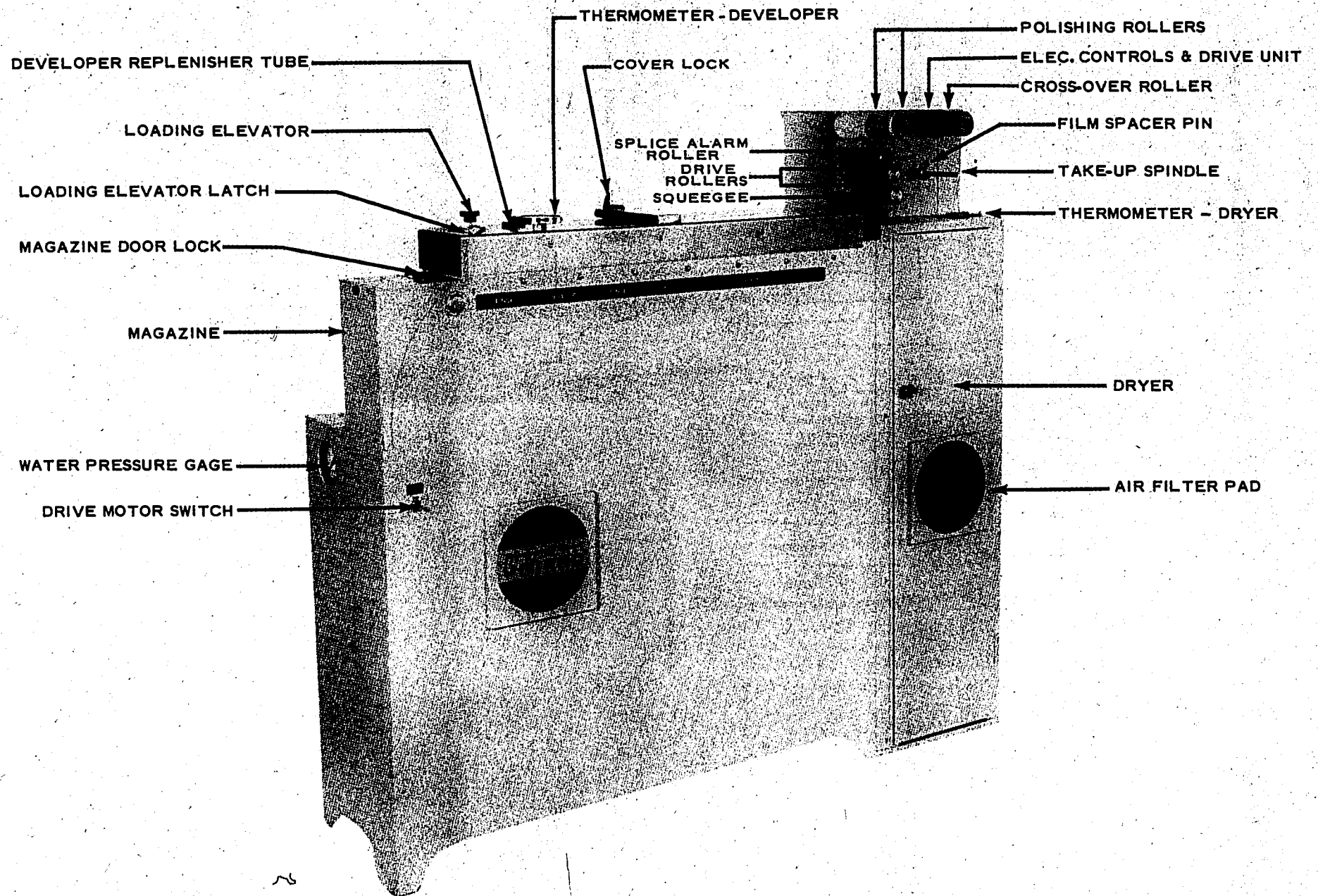


FIG. 1
FRONT VIEW - CLOSED

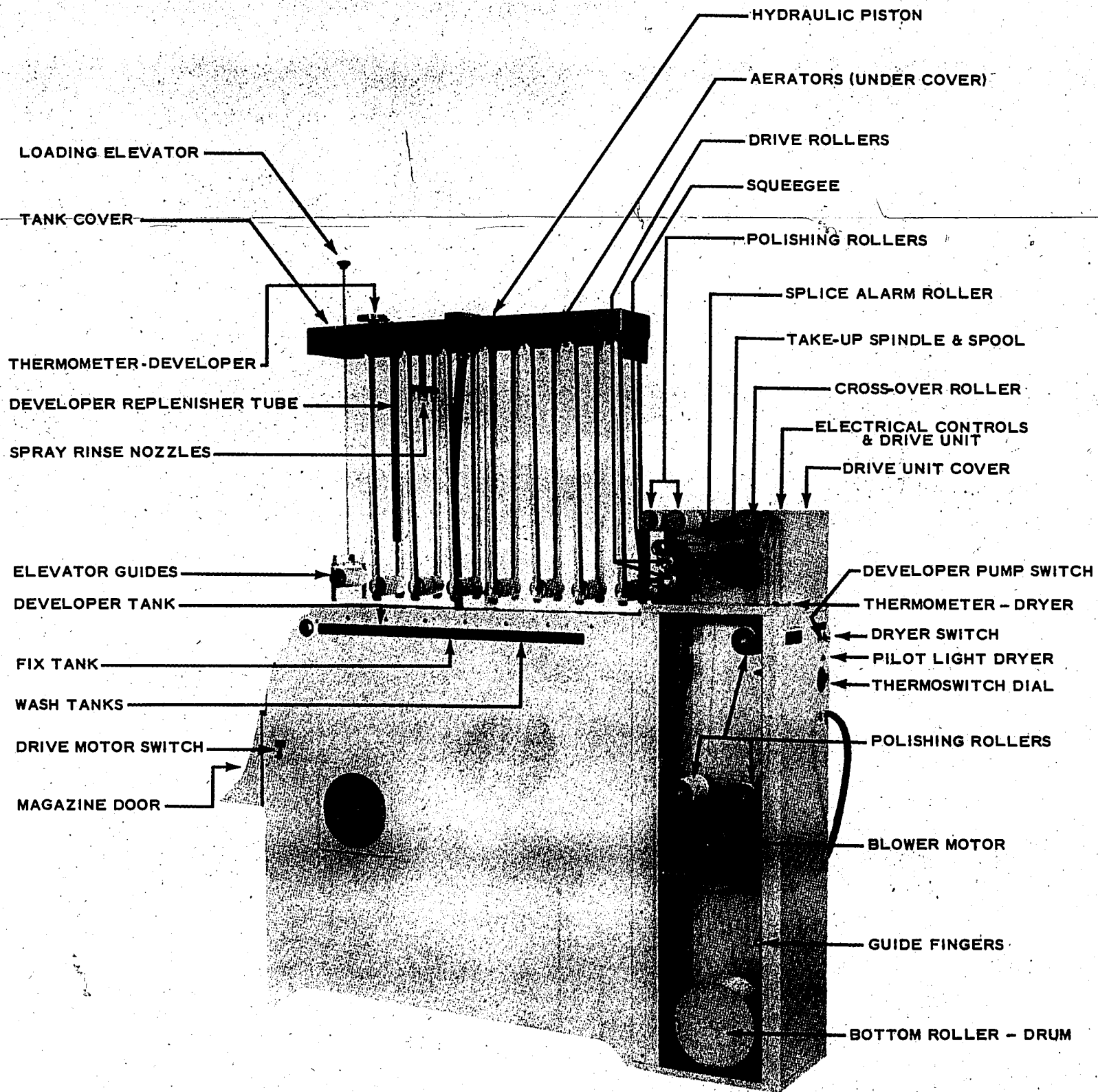


FIG. 2
FRONT VIEW - OPEN

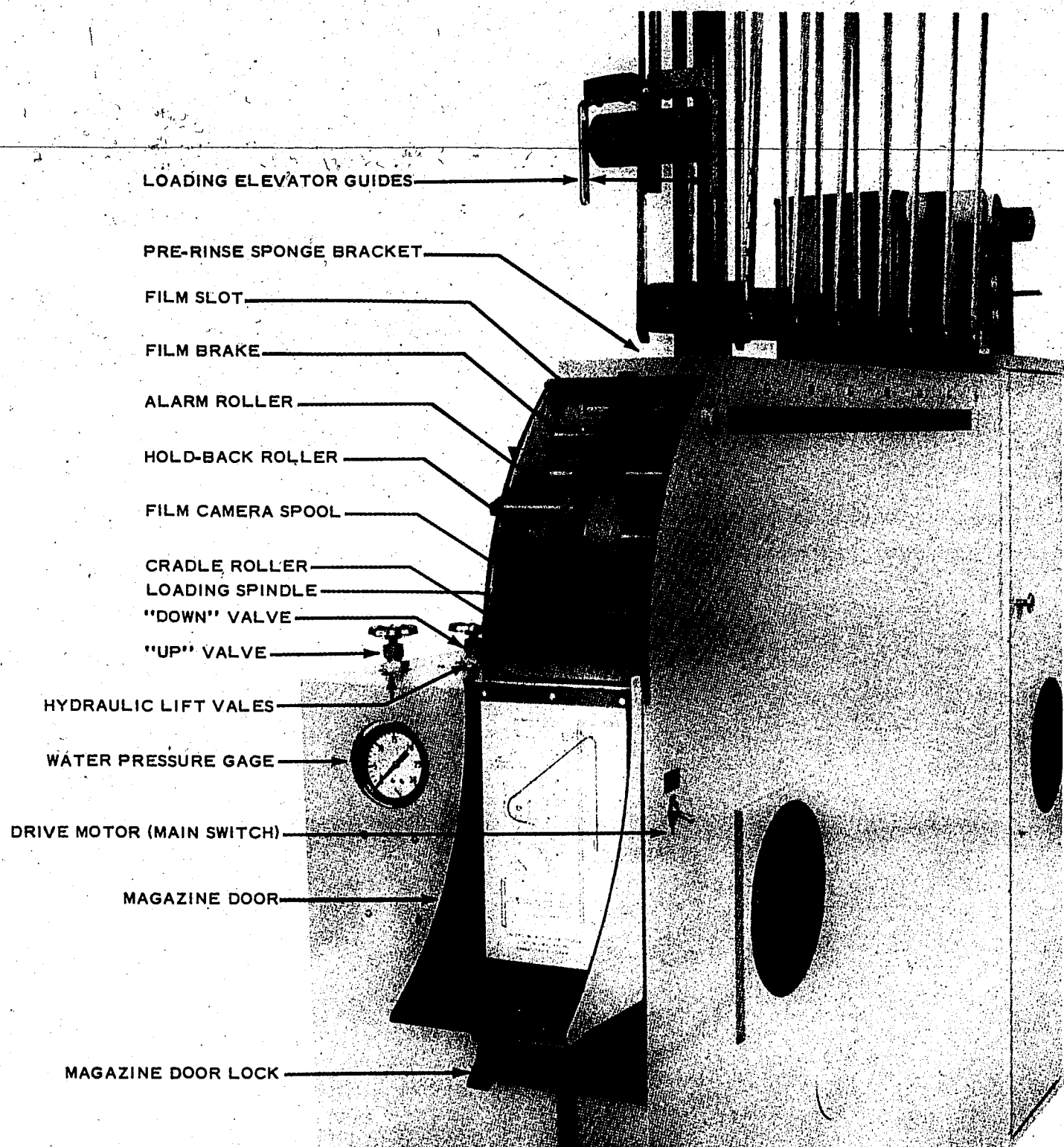


FIG. 3
MAGAZINE

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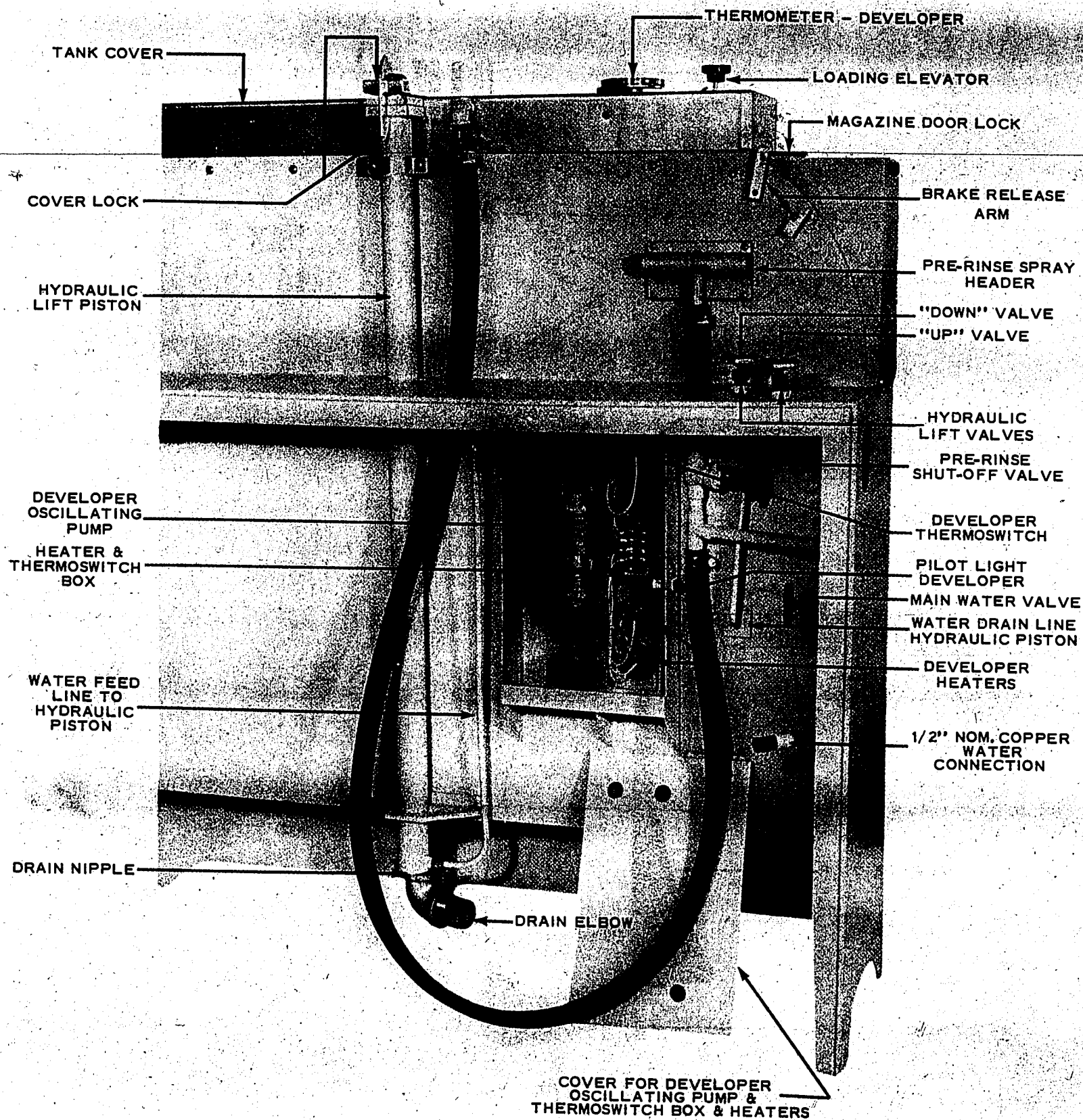
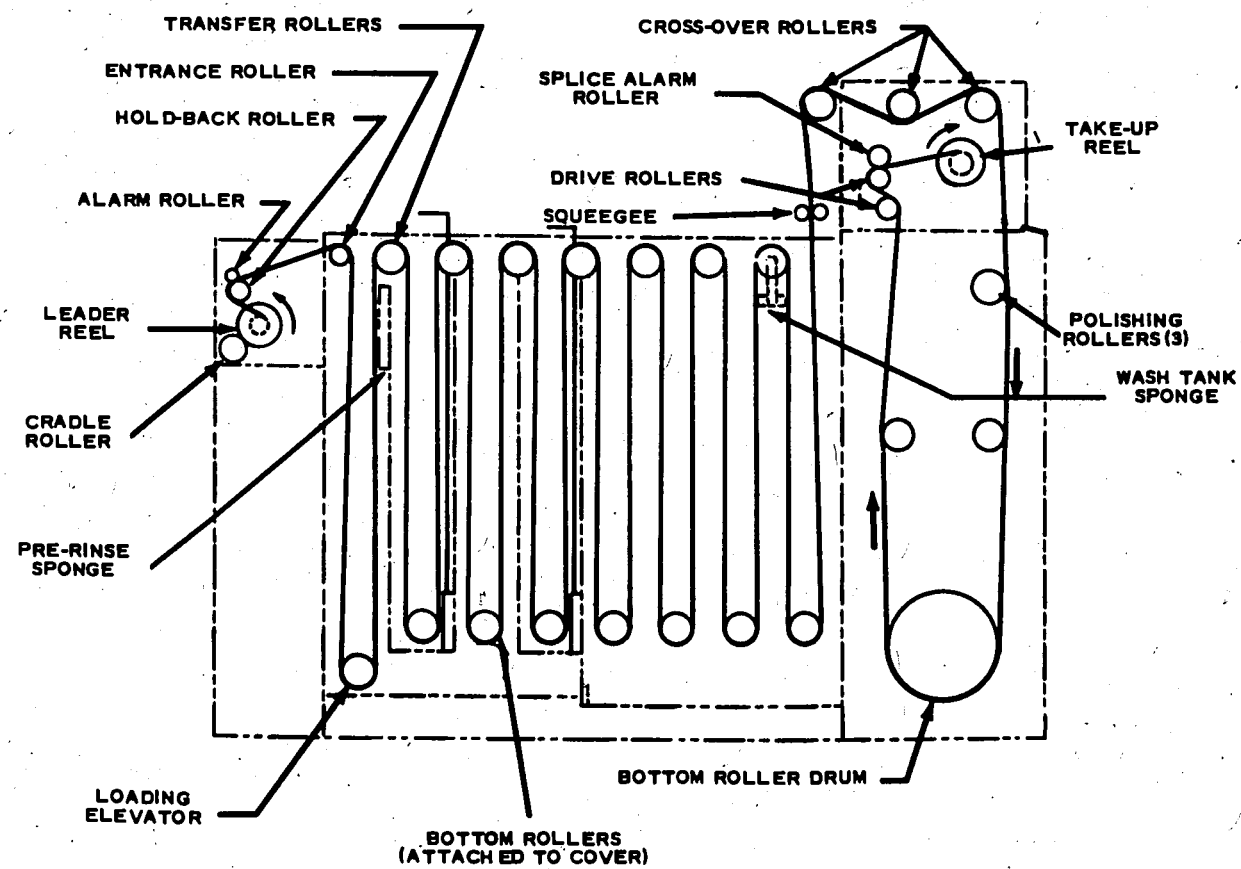
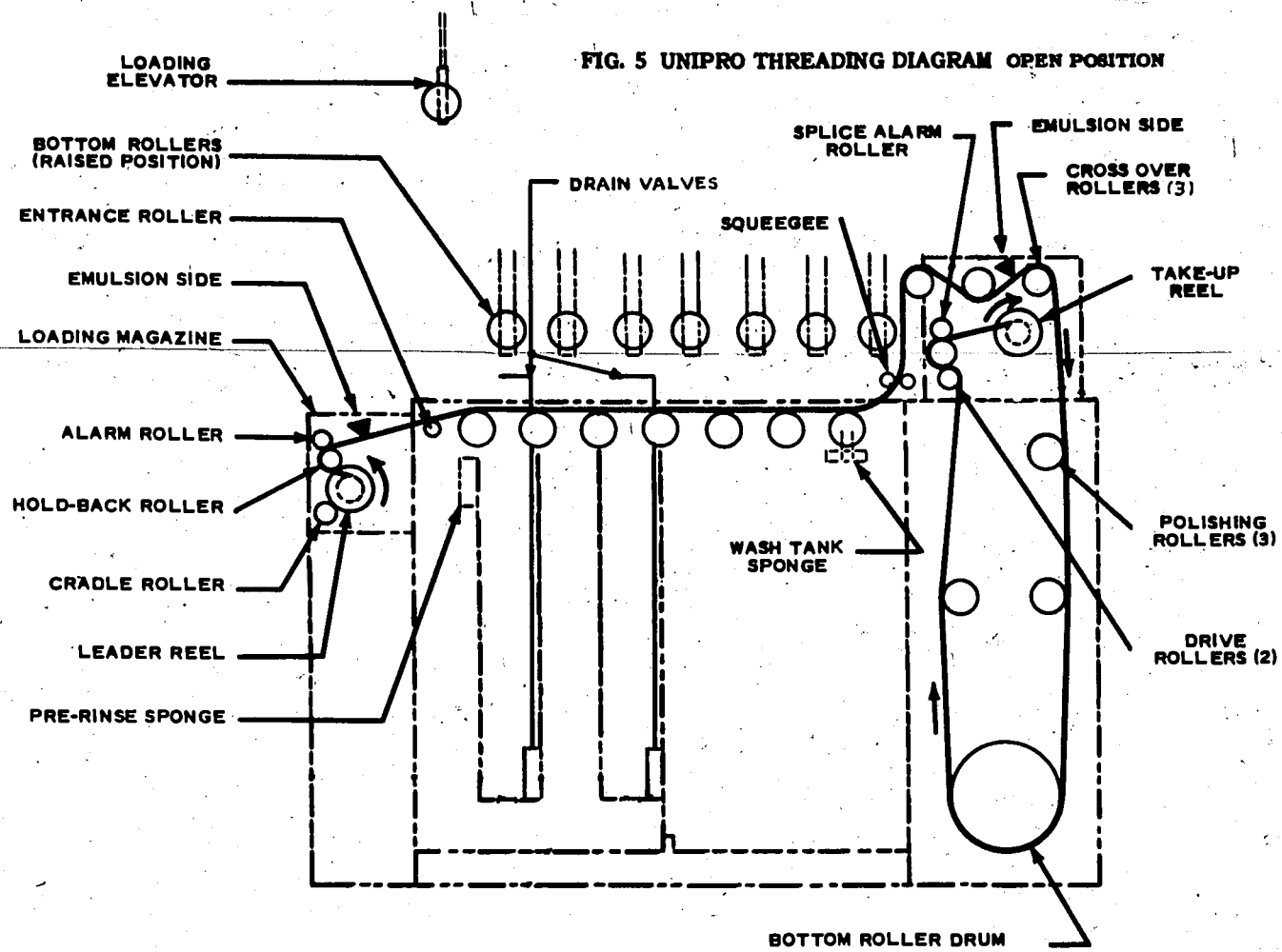


FIG. 4
FRONT VIEW



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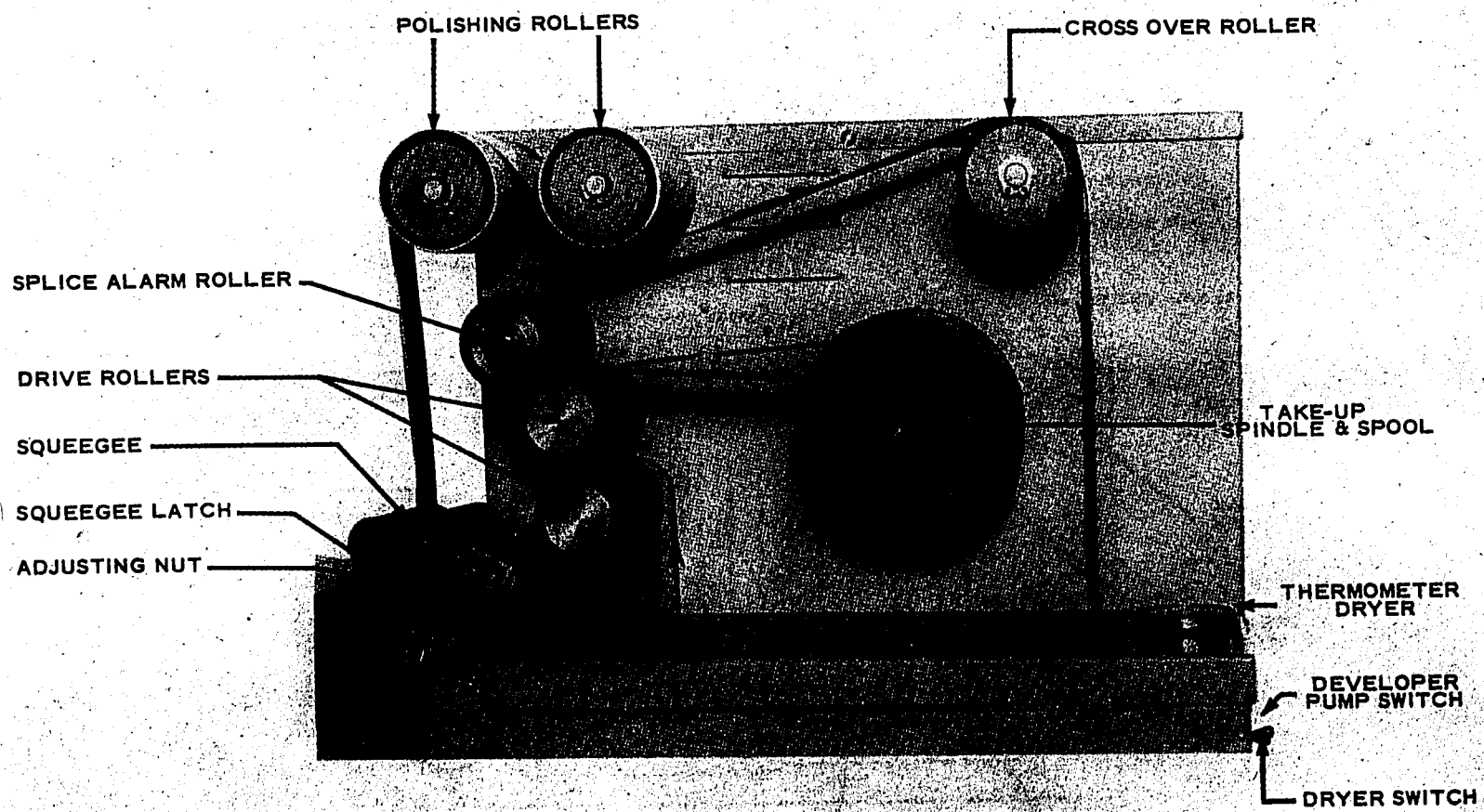
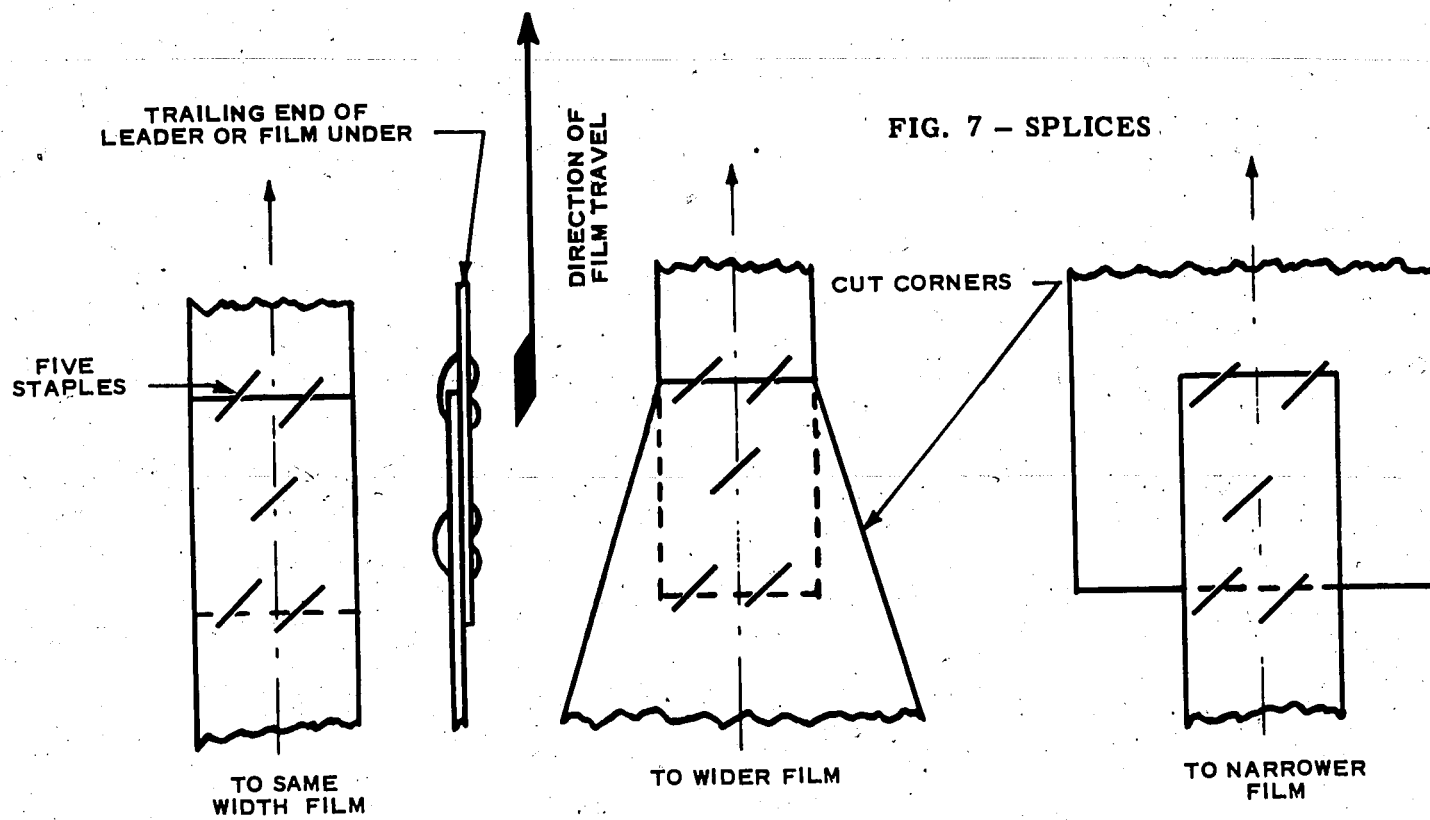
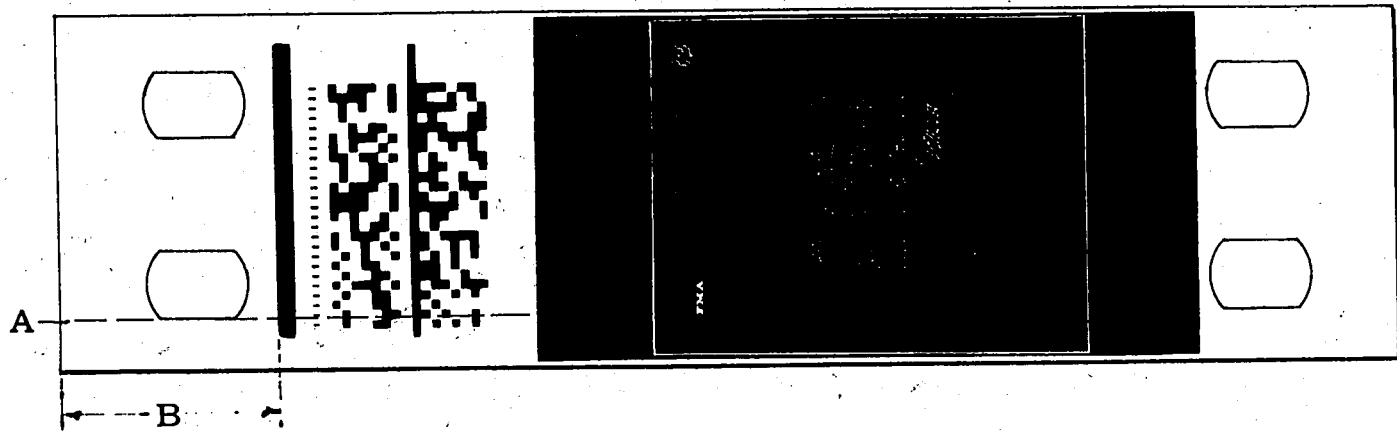


FIG. 8
SQUEEGEE

D. CHECKING FILM QUALITY

After a reel of film has been developed it will be spliced between two leaders with end of film marker and be immediately checked for quality. Photographic quality will be checked by examining documents at random throughout the reel, and by examining the resolution charts. Four point type should be legible on the 1N. Particular attention should be paid to the sprocket-hole-to-code-block alignment. The trailing edge of the first line of data should line up with the leading edge of the sprocket hole. This alignment is shown in the illustration below by the letter "A".



The distance between the edge of the frame marker and the edge of the film must also be carefully checked; this distance is shown in the illustration above, marked with the letter "B". This distance should be equal to $25\frac{1}{2}$ data bits. These measurements can best be made by inserting the film in the gate of the Retrieval Unit, with the code block and appropriate edge of the film visible on the browsing screen, and making a print of this area of the film. Both measurements can then be checked on the print. Any deviation in these measurements should be reported to the Product Support Engineer.

Indexing and keypunching quality will be checked by running the following two queries on the Retrieval Unit in the Check Mode.

REGISTER	ASSOCIATION	DESCRIPTOR							FUNCTION	SWITCH	
		TAG								PHRASED	FACTORED
A	X	V	2	*	*	*	*	*	L		✓
B	AND	X	*	*	*	*	*	*	N		✓
C	AND	J	*	*	*	*	*	*	N		✓
D	AND	W	*	*	*	*	*	*	N		✓
E	AND	A	*	*	*	*	*	*	N		✓
F	AND	B	*	*	*	*	*	*	N		✓

Note that all of the registers are to be set for factored descriptors. This query will cause the Retrieval Unit to stop and display any document coded as Top Secret, or any document in which the V-, X-, W-, A-, or B-tags are missing.

REGISTER	ASSOCIATION	DESCRIPTOR							FUNCTION	SWITCH	
		TAG								PHRASED	FACTORED
A	X	A	*	*	*	*	*	*	N	✓	
B	AND	B	*	*	*	*	*	*	N	✓	
C	NOT	W	*	*	9	*	*	*	N	✓	

This query will cause the retrieval unit to stop and display any document in which both an A-tag and a B-tag do not appear in the same indexing phrase (between two Q-tags). Notice that the switches must now be set to the phrased position.

After film quality has been checked and found acceptable, the original documents will be separated from the code sheets. The document will be returned to the Indexing Section, who will log them as returned, and then return them to the organization from which they were received. The code sheets and code cards will be destroyed.

Should the film quality as a whole be acceptable, but errors found in individual documents, the erroneous documents will be rephotographed, grouped into a special batch. The incorrectly recorded documents will be bleached off the master negative using Clorox. Note that the entire documents, with their code blocks, will be bleached off, not just bad frames. If the resulting blank space on the film exceeds one foot in length, the blank area should be spliced out of the film.

CHAPTER V

FILE MAINTENANCE

A. REEL IDENTIFICATION SYSTEM

1. Reel Numbering

To identify the contents of a film reel, individual numbers will be assigned to each reel that will permit sight recognition of the polarity (positive or negative) and generation of the film, and the file to which the reel belongs. As polarity and generation in this installation go hand in hand, with odd generations always being negative (1N, 3N), and even ones, positive (2P), these characteristics can be indicated by a single character. A "1" will be used for master negatives, and a "2" for positive films. As the 2P files will have been file expanded into different files, each of these will be identified by a letter; in each case this letter will be the tag which was the basis for creation of the file. For example, the subject file is created by querying by the ISC (A-tag); all reels in the file will be identified by an "A." Within each file the individual reels will be serially numbered; this number will be separated from the file designator by a hyphen. The following are sample reel numbers:

- | | |
|--------|--|
| 1 - 3 | The third reel of the master negative (1N) file. |
| 2 - 12 | The twelfth reel of the positive (2P) files. |
| A - 1 | The first reel of the subject file (generated from the A-tag). |

Each reel will be labeled as on the example below. The date will just use the month and year when the reel was started, and, when full, the month and year when ended.

FMA	DATE: <u>Jan 66 - Dec 66</u>
REEL NO: <u>B-1</u>	
SUBJECT: <u>NORTH VIET NAM</u>	

2. Reel Colors

Different colored reels will be used for different files to facilitate sight recognition. The following table will be used:

Color	File
Charcoal	Master negative file
White	Positive file
Red	Subject, unit, and special country files
Light Blue	Working reels

B. DUPLICATING THE MASTER FILM

After new film has been checked for quality and cleaned, it will be copied, using the copy mode on the Retrieval Unit. This mode is semi-automatic in that the operator must start and stop the copy operation at the proper frame. The resulting film is a second generation positive (2P) film. After developing, it will be checked for quality using the same procedures described in IV-D above for checking quality of the master negative.

C. FILE EXPANSION

1. The Expanded Files

File expansion is used to structure the film files so as to reduce access time to requested documents. The Retrieval Unit does this by examining randomly-stored material, selecting all documents about a given subject, and recording them on a new roll of film.

Three basic sets of files will be built using file expansion:

- A subject file (A-tag)
- A special country file (B-tag)
- An organizational designation file (F-tag)

Figure 5-1 lists the file expansion categories that have been established initially. As the files grow in size the categories may need to be revised or expanded. In establishing new categories the following concepts should be kept in mind:

- For fewer categories, more time is spent in processing requests and less time is spent file expanding.
- Conversely, the use of more categories reduces request processing time and increases file expansion time.
- For any installation, there is an optimum number of categories which minimizes the total Retrieval Unit time.

Figure 5-2 illustrates the optimum number of categories as a function of file-expansion time and request processing time.

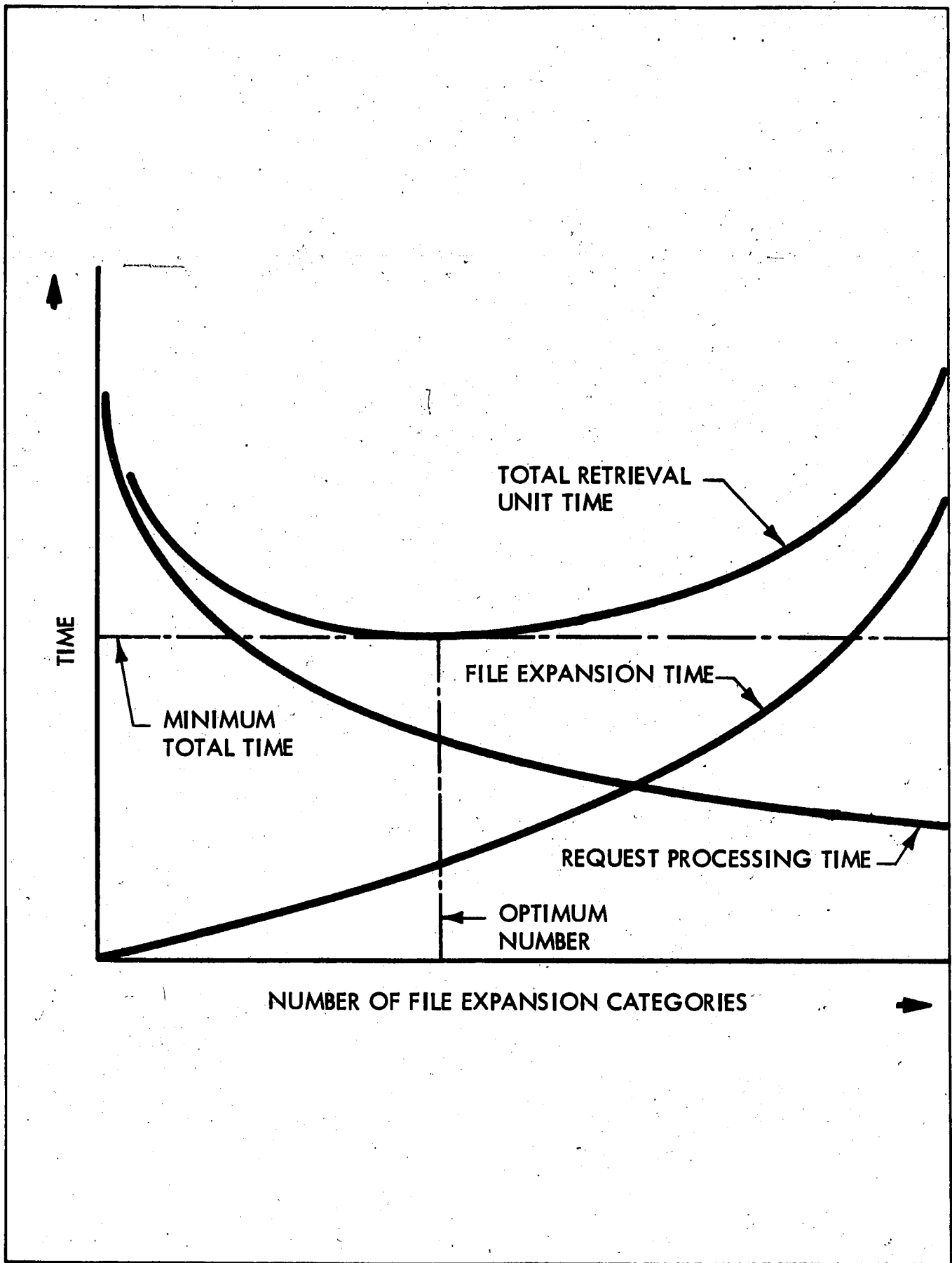


Figure 5-2. Retrieval Time vs. Categories

The following table gives suggestions for the number of categories, based on the daily volume of searches and positive film acquisitions (which are used for file expansion, not back-up). The relationships, shown as linear in the table, are an approximation only.

Searches Per Day	File Growth Per Day	Suggested Number of Categories
25 to 50	100 feet	25 to 50
50 to 100	50 feet	25 to 50
50 to 100	100 feet	50 to 100

During the periods of increased tension in a specific area, or activation of a special project, it might save considerable retrieval time to prepare an ad hoc file-expanded reel on the specific area or subject involved. They might be based on several parameters (or tags) rather than on just one, as is the base in regular file expansion categories. This would substantially reduce the query time, as the file would be smaller, and at the same time allow greater complexity of searches by freeing one or more registers through the elimination of request terms used in generating the film. After the project is over, and with it the requirement for a separate reel, the film would be destroyed.

2. Expansion Procedures

The new 1N film, after quality checking, will be spliced onto a special light-blue "Expand" reel. Special file-expand leaders and trailers will be spliced onto the reel which will place identifying frames on the file-expanded film strips. Each frame on the leader is made up of the film reel number in the document image area, and a code representing the file expansion parameters. A sample leader is shown in Figure 5-3. On the resulting film each strip will be identified by the film reel number in large, easily read figures. The film strip will then be cut from the new film roll and spliced onto the subject reels.

IMAGE	INDEX CODE	FILE EXPANSION REQUEST
A-1	➔ A100000	® A10****N A134****L
A-2	➔ A135000 D100000.	& A135****N D1*****N
A-3	➔ A135000 D200000.	& A135****N D2*****N
⇩		
B-1	➔ BAVNVNC	BAVNVNCN
B-2	➔ BALA00S	® BALA00SN ® RALA00SN ® BACB00SN ® RACB00SN ® BATH00SN ® RATH00SN

Figure 5-3. Indexing of a File Expansion Leader

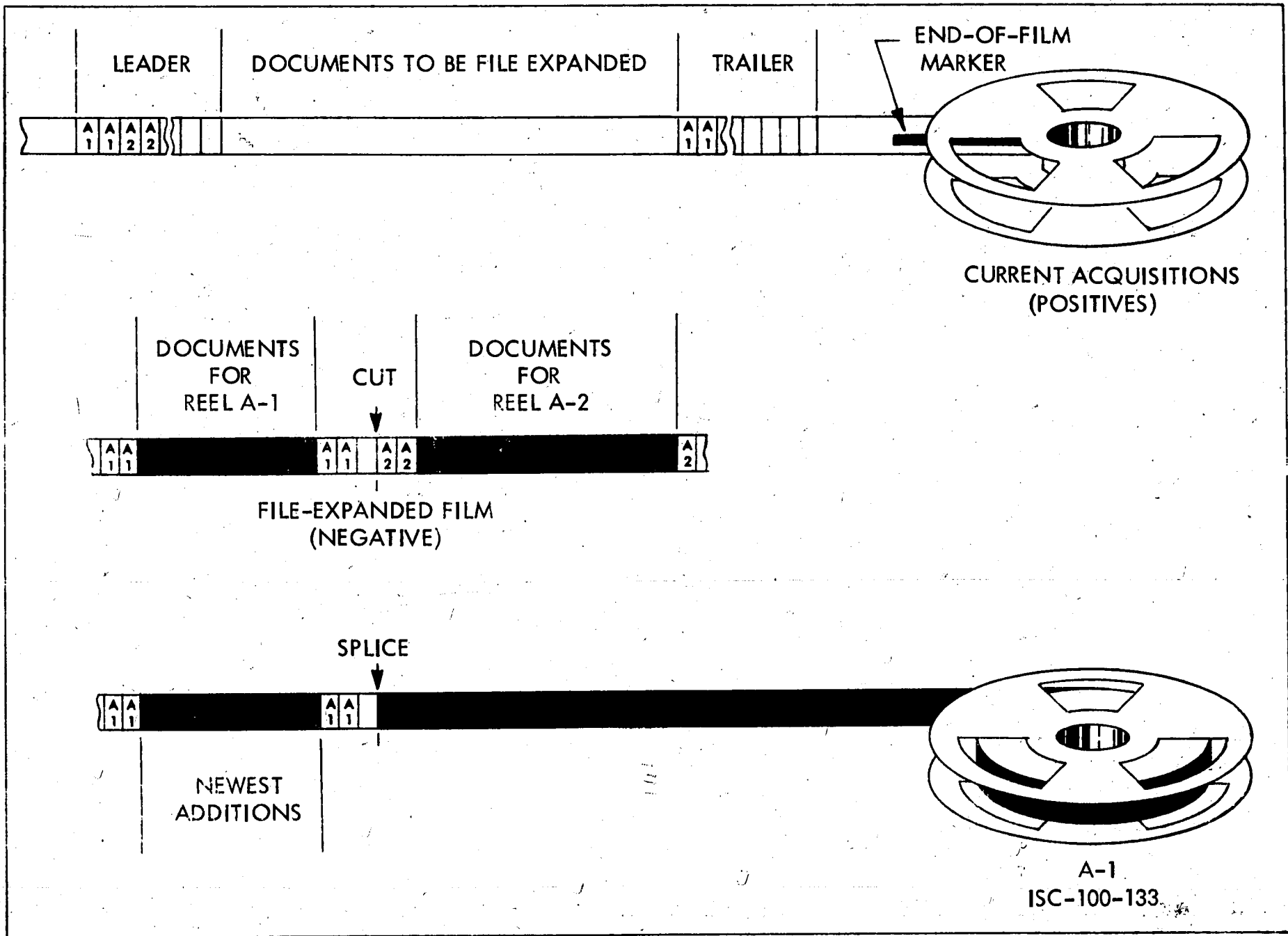


Figure 5-4. Identified Film Strips

D. FILM DISSEMINATION

Copies of the complete data base will be sent to CINCPAC and DIA to serve as a back-up in case of destruction of the local files. It will be generated in the same way that the positive files are prepared and checked for quality.

On special request the complete data base or selected portions of it can be furnished to other intelligence commands. If only selected parts are required on a continuing basis, a special query for the material will be prepared, and the film generated using the expand mode of the Retrieval Unit. However, film prepared for dissemination will always be made from the master negative (1N).