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FIGURES

REGULATIONS FOR ARMY ORDNANCE SERVICES, PART 7, PAMPHLET No. 7

CHEMICAL WARFARE AMMUNITION

SECTION 1.—GENERAL

Responsibilities of C.W. Officers

1. C.W. technical officers of formations are responsible for sending samples of enemy chemical ammunition for examination :—

(*a*) In the United Kingdom—to the Chemical Defence Experimental Station, Porton, Wilts.

(*b*) Overseas—to the G.H.Q. Anti-Gas Laboratory if one exists : if not, to the Chemical Defence Experimental Station, Porton, Wilts., through G.H.Q. chahnels.

2. In the case of an exploded enemy shell when verified as such and suspected or known to be a gas shell, a test will be made by attaching a rope and subjecting it to rough treatment, *e.g.*, by towing behind a vehicle to find out if it is safe to move. If so, the shell will be sent for examination in accordance with para. 1.

3. In the case of unexploded enemy bombs which are suspected or known to be gas bombs, no action will be taken until a Bomb Disposal Officer, R.E., has certified them safe to move. When such a certificate is given the bombs will be sent for examination in accordance with **para. 1.**

4. The despatch of unexploded shells or bombs will be carried out by a C.W. technical officer in conjunction with an I.O.O.

5. On each occasion that samples of exploded and unexploded enemy chemical ammunition are despatched in accordance with **paras. 1** to 4, the C.W. officer will report his deductions to the formation commanders.

6. Results of examinations carried out by the Chemical Defence Experimental Station, Porton, will be sent to the War Office (M.O.2, M.I.10, Q (Ops) and S.W.V.2) and to the formation commander. Results of examinations carried out overseas will be sent to G.H.Q. and to the formation commander.

7. A C.W. officer placed in charge of a C.W. ammunition group in an ammunition depot has the same general responsibility to his commanding officer as an officer placed in charge of any other ammunition group. In addition, he is responsible for inspecting his stock daily to discover any leakers.

8. When leaking chemical ammunition is found, the C.W. Officer i/c will arrange for the repair of those items which can be repaired, and the disposal of those items which are unserviceable. If the method of disposal of unserviceable ammunition calls for demolition by explosives either of the charged weapon or a component, the operation will be carried out under arrangements made by an I.O.O.

closed at the top by a lid with attached baffle-plate, having a central hole carrying a cork washer through which an igniter cup is inserted, projecting into the filling. The igniter cup is filled with igniter composition, topped with a layer of priming composition with a head of match composition.

A striker stick is wrapped in paper and secured to the baffle-plate by adhesive tape. The generator is functioned by drawing the striker stick smartly across the match composition. Cases may be met with in which the match composition has softened, and attempts to use the striker result in the removal of the match head without causing its ignition: in such cases the generator may be ignited by a match fuzee.

Dimensions of the generator are—height 9·92 inches; diameter 4·45 inches and the filled weight is 5 lb. Period of emission of gas is from 4 to 5½ minutes.

89. The generator is painted grey and bears the appropriate classification supplementary bands to indicate the type of charging. *See* **Section 1.** The code name "G.2," is stencilled on the basic band in two places diametrically opposite. Below the supplementary band are stencilled in black the Lot number of the charging, initials of charging station and the date of charging (month and year).

90. Eight generators are packed in Box C.238. Dimensions of the box are 25 inches by 9 inches by 9 inches and the filled weight is 73 lb. The box is painted grey and the markings on the generator are repeated.

Generator, Chemical Smoke, No. 30

91. This generator is similar in size, weight and packing to the generator lachrymatory No. 2 Mark 5 already described, but the filling is G.6, and the exterior is painted grey together with the appropriate coloured bands. *See* **Section 1.** The effective period of emission is from 55 to 95 seconds.

Initiation is by means of a striker stick on the match-head; the striker stick being provided under the strip lid. The tear-off strip on the base must be removed before functioning.

The first 40,000 of these generators will be marked "Generator, Chemical Smoke No. 30, Mark 1," but all later issues will be marked "Generator, Chemical, No. 30, Mark 1."

Bottles, Stone, Screw-stoppered, Chemical, 1 pint
(Plates 3 and 12, Fig. 21)

92. This is a stone bottle containing liquid gas for use in training. The contents of the bottle will be a war gas and must not be confused with any artificial substitute: all concerned must know what is contained.

An ordinary stone bottle of the type used commercially for ginger beer is charged with about 550 ccs. of chemical and the screwed stopper is replaced on a rubber washer. The bottle is packed in a tinned-plate cylinder No. 322, surrounded with charcoal, this will absorb all the contents of the bottle in the event of a leakage. The lid of the cylinder is seamed with a soldered tear-off strip.

93. The cylinder and bottle are marked as shown in **Plate 12** and **Fig. 21** and the cylinder bears the following label :—

H/1345

Bottle, Stone, Screw-stoppered, Chemical, 1 pint.

Instructions for use.

1. Remove tear-off band and lid from cylinder.
2. Remove sufficient packing to uncover the stopper of bottle; the packing may be contaminated : care should, therefore, be exercised.
3. Loosen stopper slightly to release any pressure from the bottle.
4. When the pressure has been released, the bottle can be removed from the cylinder. Remove stopper from bottle and replace with adaptor supplied in box.
5. The liquid can now be poured out of the bottle through the adaptor, the small diameter tube being uppermost.

94. The box is painted grey and bears the appropriate coloured band (*see* Section I) to indicate the charging. The code name is stencilled on the band.

95. The weight of the filled bottle is 3¼ lb. : the weight of charcoal is 4¾ lb. The dimensions of the cylinder No. 322 are 10·2 inches by 6·35 inches and the filled weight is 11 lb.

Ten cylinders are packed in a wooden box with ten adaptors for pouring. The box dimensions are 43·12 inches by 13·8 inches by 14·93 inches and the filled weight is 150 lb.

Bottles, Steel, 1 Litre

96. This store replaces the "Bottle, Stone, 1 pint." It is a bomb, ground, 6 lb. without an ejection charge and is issued charged either Y or B. The first bottles were obtained by removing the ejection charges from certain Lots of bombs, ground, 6 lb. the Lots being 1–225 charged Y3 at Randle and some Lots charged Y5 at Valley.

FIG. 7.—BOMB, U, CHEMICAL, 5-IN., MK. I.

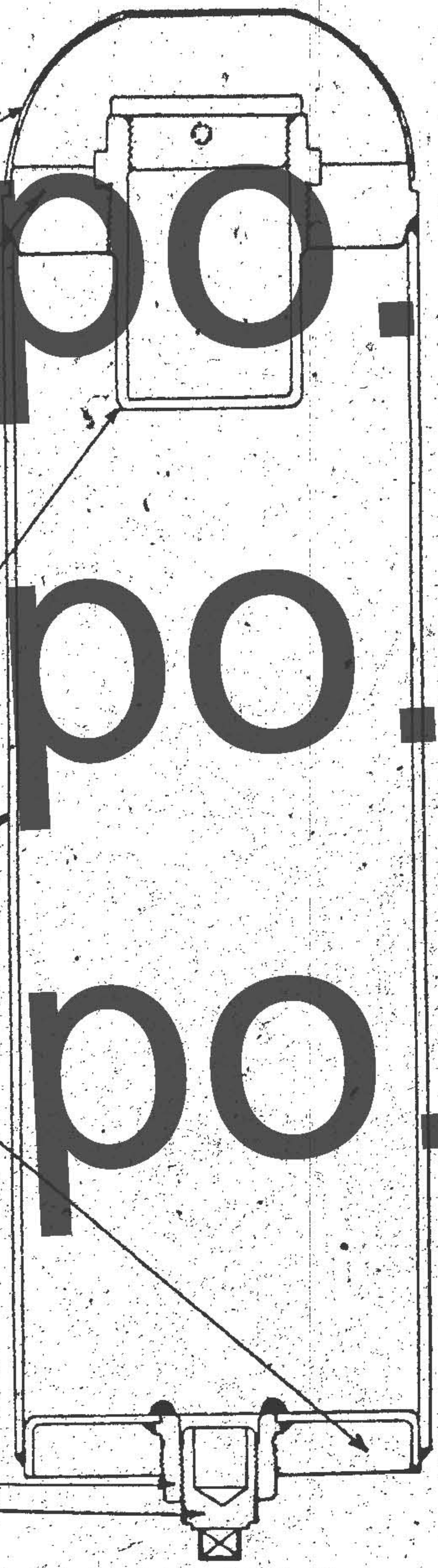


FIG. 8.—FUZE, PERCUSSION, D.A., No. 721, Mk. 3.

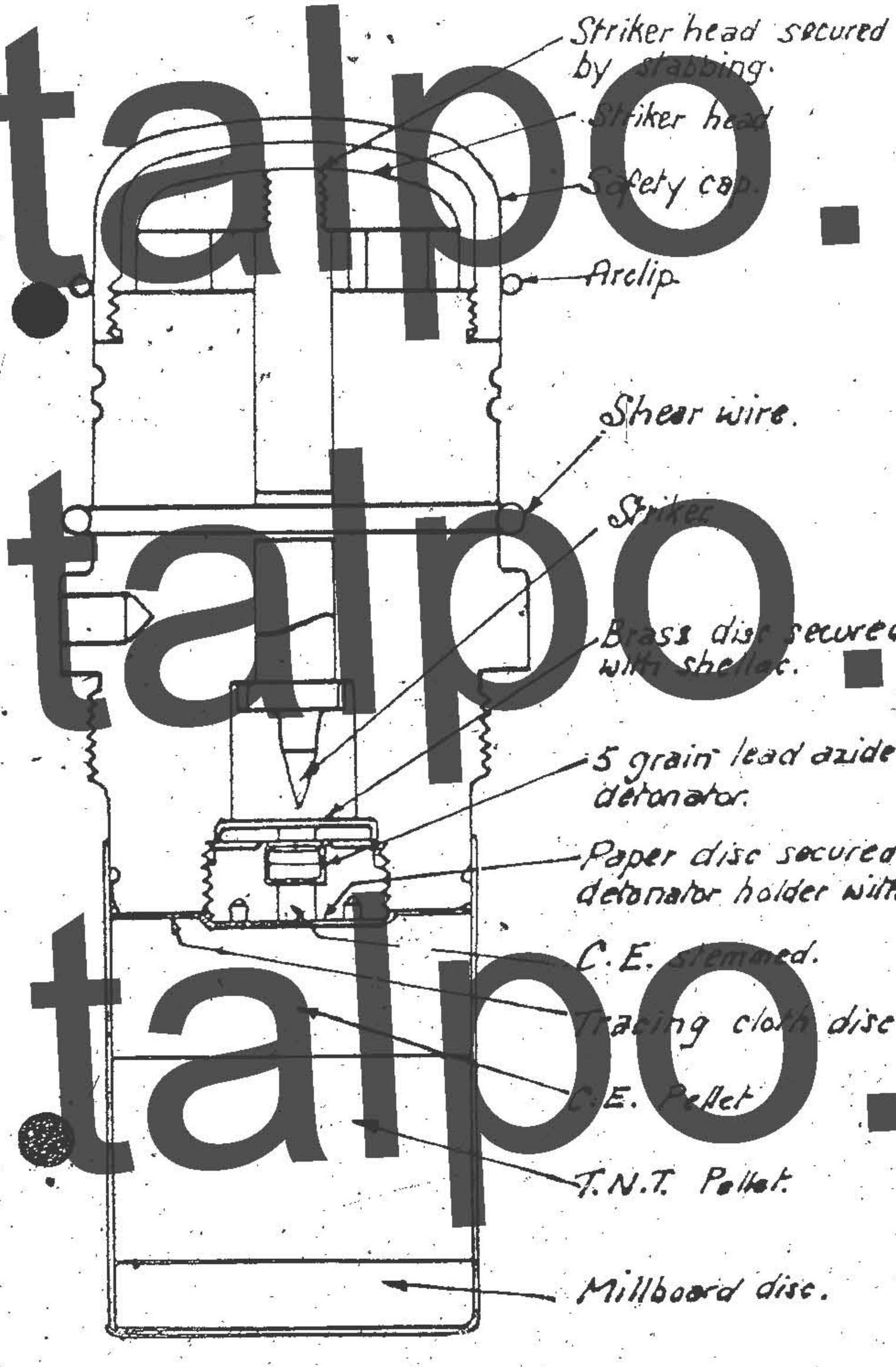


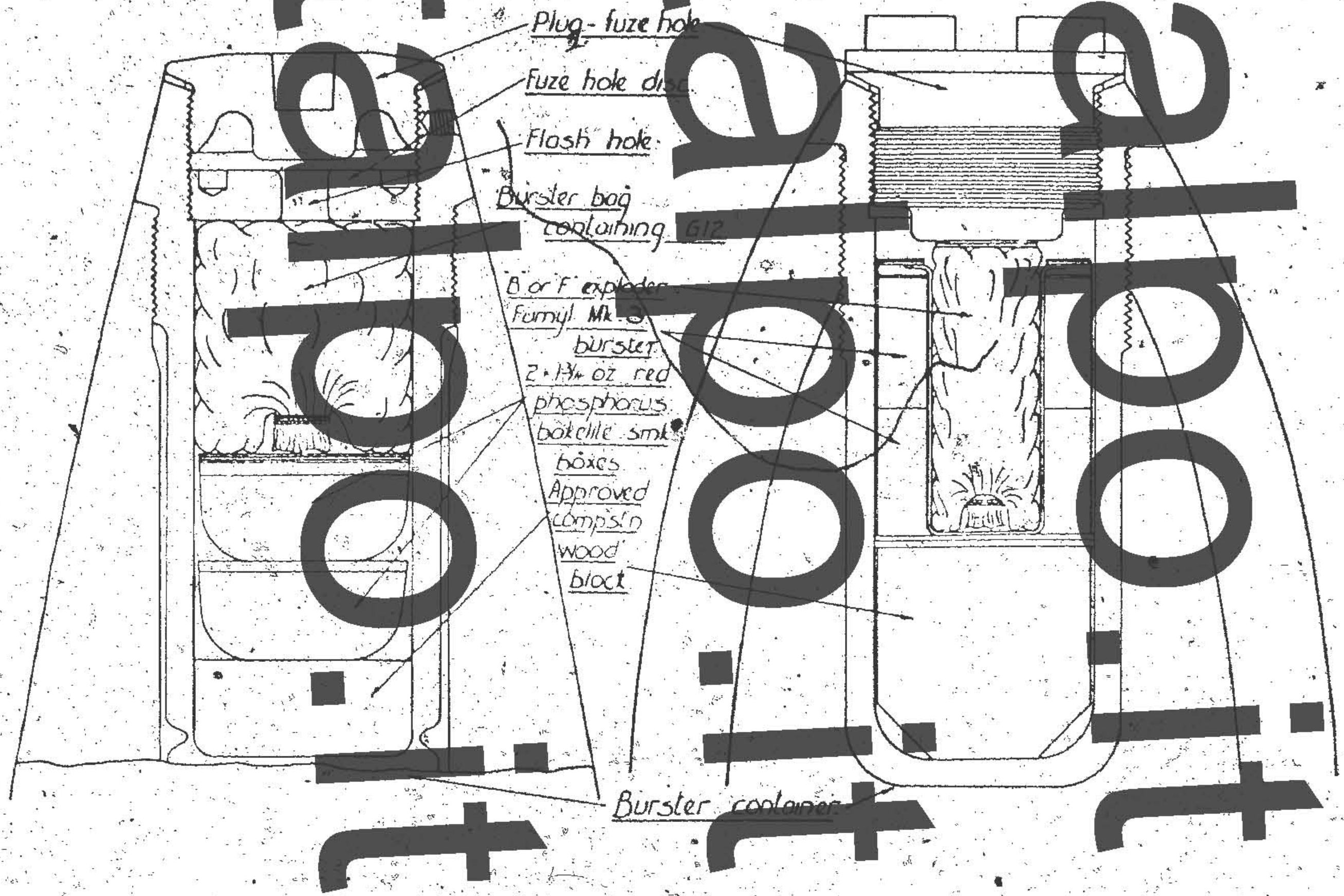
FIG. 9.—TAIL, PROPELLING, ROCKET "U" 5-IN.

FIG. 10.—SHELL, CHEMICAL, [illegible]

FIG. 11.—SHELL, CHEMICAL, [illegible]

FIG. 10.—SHELL, CHEMICAL, BASE EJECTION.

FIG. 11.—SHELL, CHEMICAL, BURSTING.



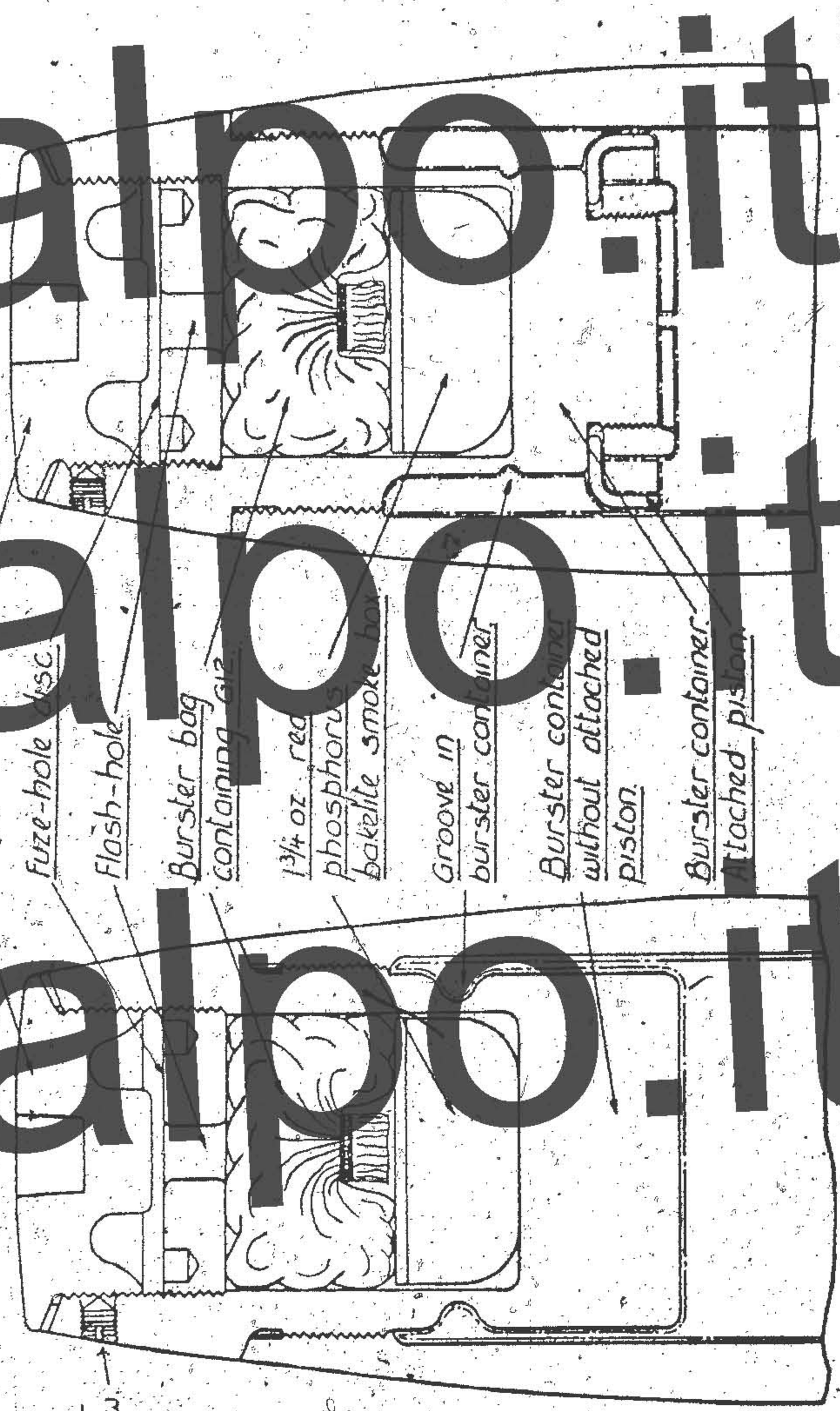


FIG. 12.—SHELL, Q.F., CHEMICAL, B.E., 25 Pdr. Mk. 7.

FIG. 13.—SHELL, Q.F., CHEMICAL, B.E., 25 Pdr. Mks. 1 to 6.

TABLE 9.—SUMMARY OF RISKS. EXPLOSIVES CONTAMINATED

Type of Gas	Code Name	Picric Acid R.D.X. R.D.X./T.N.T. Guncotton Neonite N.C. Powders Plastic Explosive R.D.X./B.W.X. T.N.T. Fumyl Mk. 2	Pentolite P.E.T.N. Nobels 851 Nobels 852	Ballistite Blasting Gelatine Cordite Dynamite Gelignite Nobels 808 Nobels 822	Amatol Burrowite Picric pow Baratol Ammoniu Nitrate Gunpowd
Persistent gases	Y3 to Y6, Y13 to Y30	C	B	B	C
	Y31	C	C	B	B†
	Y7 to Y10	C	B	B*	A
	B3, B4	C	C	C	C
Non-persistent gases	G1	C	C	A	A
	G10	C	C	C	C

NOTES.—A is likely to be dangerous quickly.
B no immediate danger.
C no appreciable danger under service storage conditions.
In hot climates all reactions are accelerated.

* Ballistite will be treate
† Ammonium Nitrate wi
‡ Pyrotechnics, Smoke a
"A" risks.

F RISKS. EXPLOSIVES CONTAMINATED WITH GAS.

.T.	(Pentolite P.E.T.N. Nobels 851 Nobels 852	Ballistite Blasting Gelatine Cordite Dynamite Gelignite Nobels 808 Nobels 822	Amatol Burrowite Picric powder Tonatol Ammonium Nitrate Gunpowder	Ammonal Minol Torpex Nobels 7048 All pyrotechnics All Smoke Group XI All Incendiary Fuze, Mk.	C
rs					
.X.					
2					
	B	B	C	A	C
	C	B	B†	B	C
	B	B*	A	A	C
	C	C	C	A	C
	C	A	A	A	C
	C	C	C	B	B

* Ballistite will be treated as an " A " risk.
† Ammonium Nitrate will be treated as an " A " risk.
‡ Pyrotechnics, Smoke and Incendiary will be treated as " A " risks.

torage conditions.
ted.

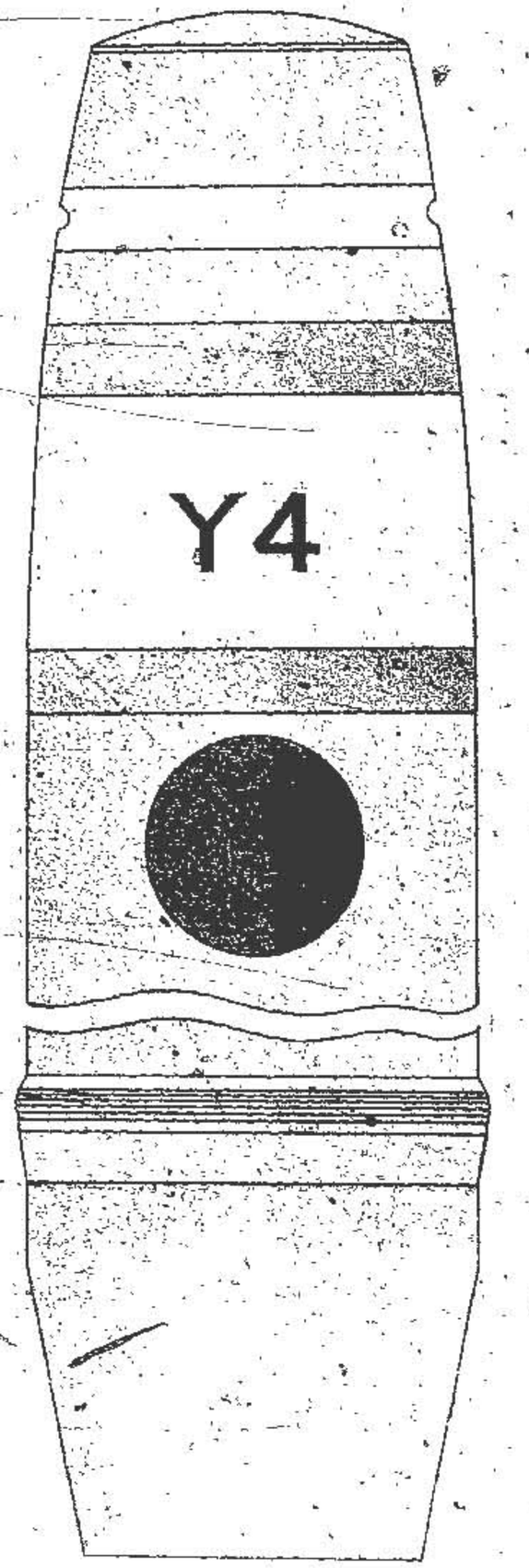
Plate 1.

TYPICAL MARKINGS FOR C.W. WEAPONS

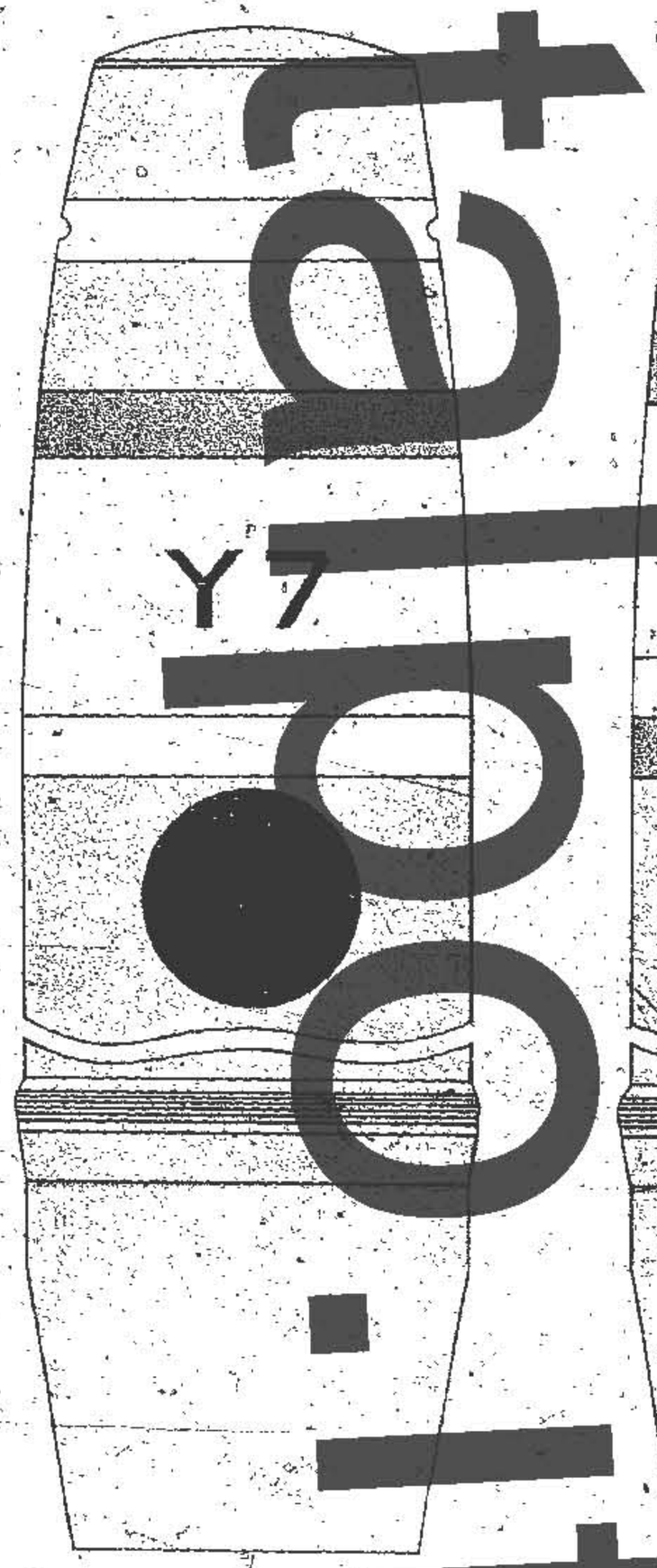
Facing Page 100

SHELL Q.F. 25 PR.

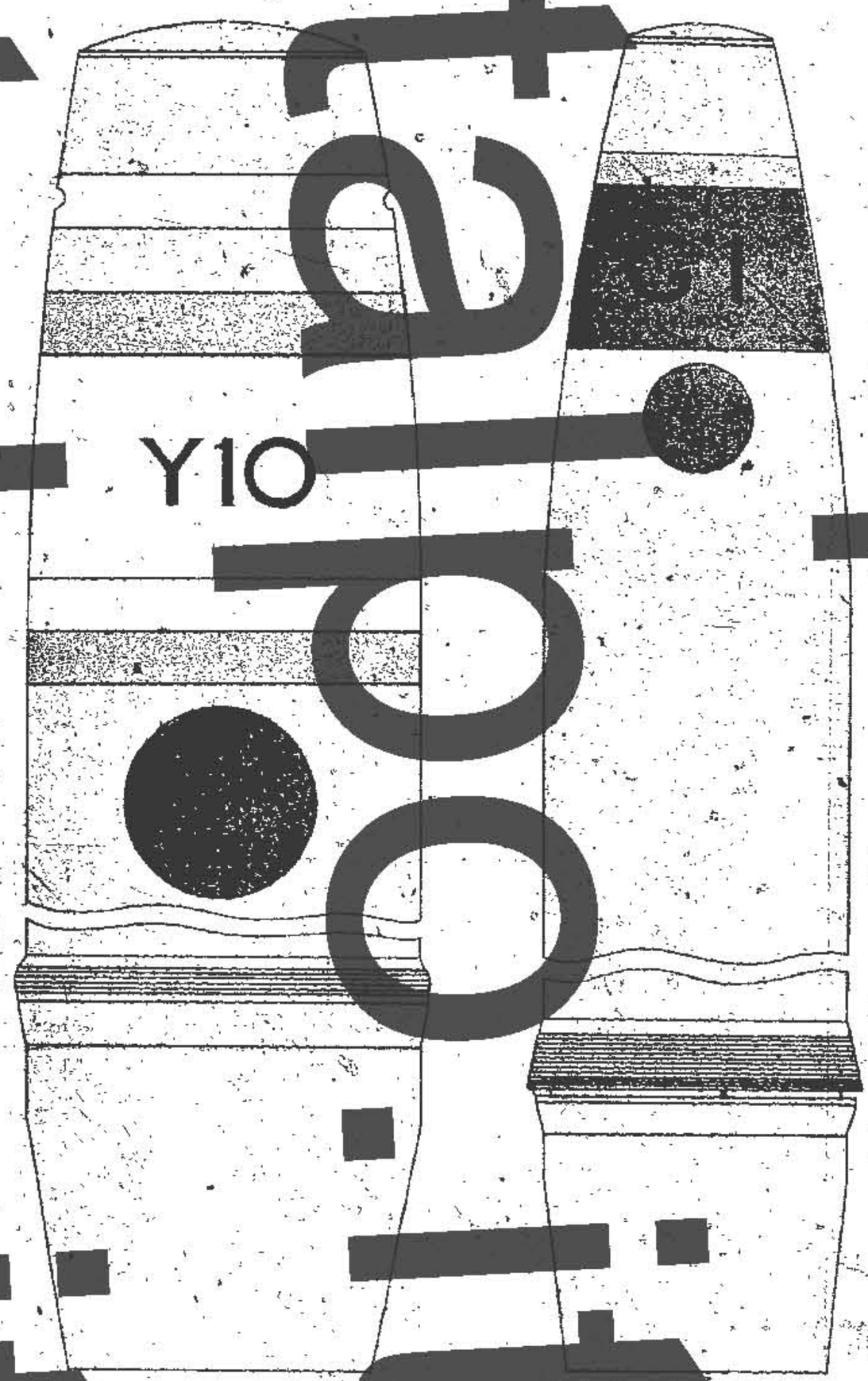
SHELL B.L. 6" OR 5·5"



Typical for
Y4, Y4A, Y4B, Y4C, Y6
Y6D, Y14, Y14A, Y14C, Y14D,
Y18, Y22, Y26, Y28, Y30.



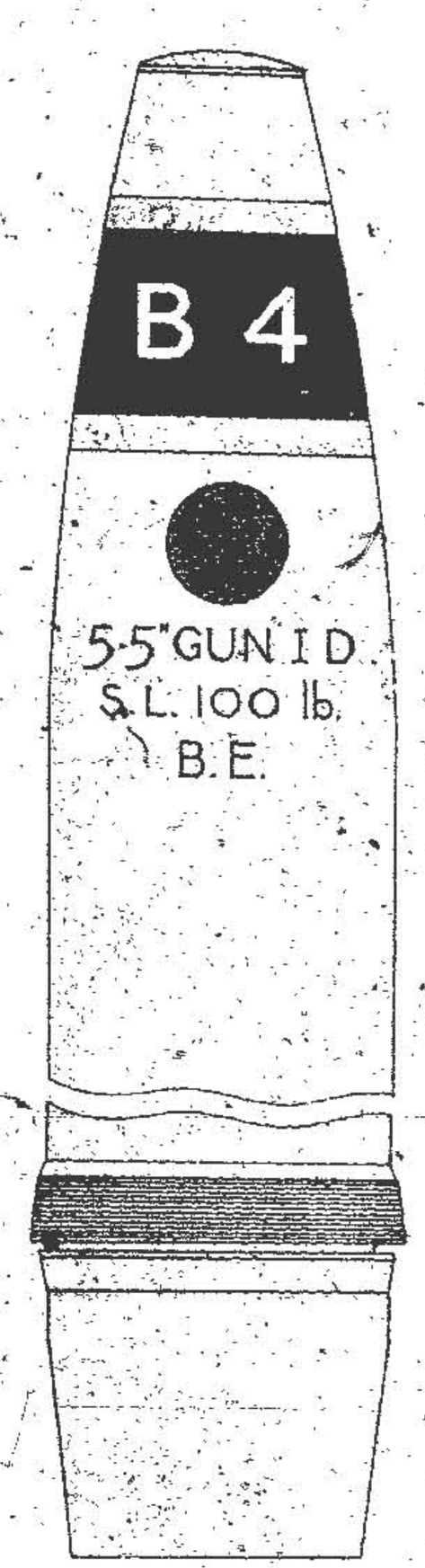
Typical for
Y7, Y9.



Typical for
Y8, Y10.

Typical for
G1.

Typical for
G 10.



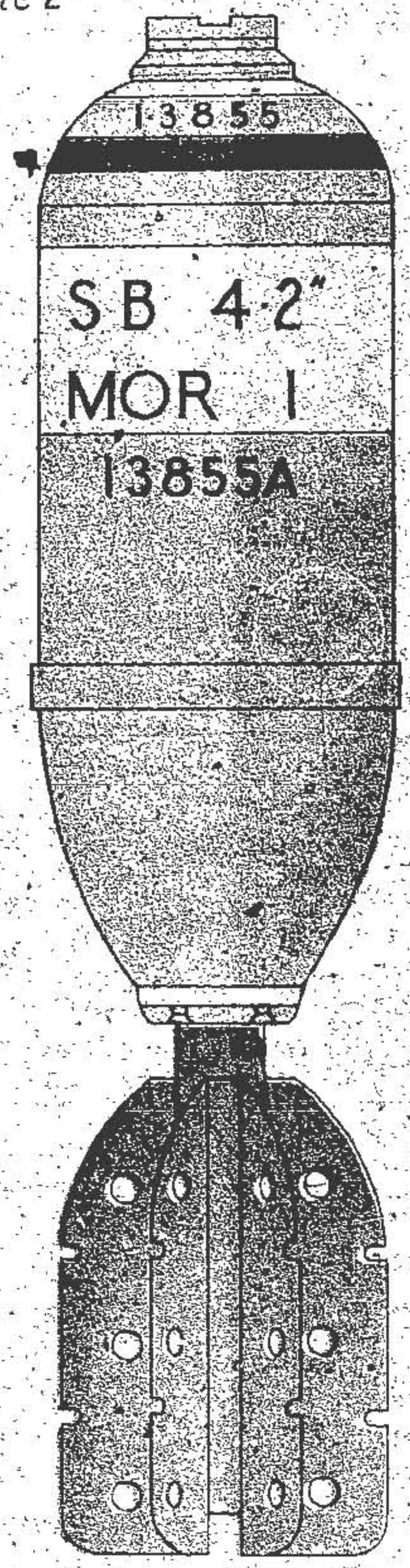
Typical for
B.4.

L 2828 33206 8/38a 35/103 2,45

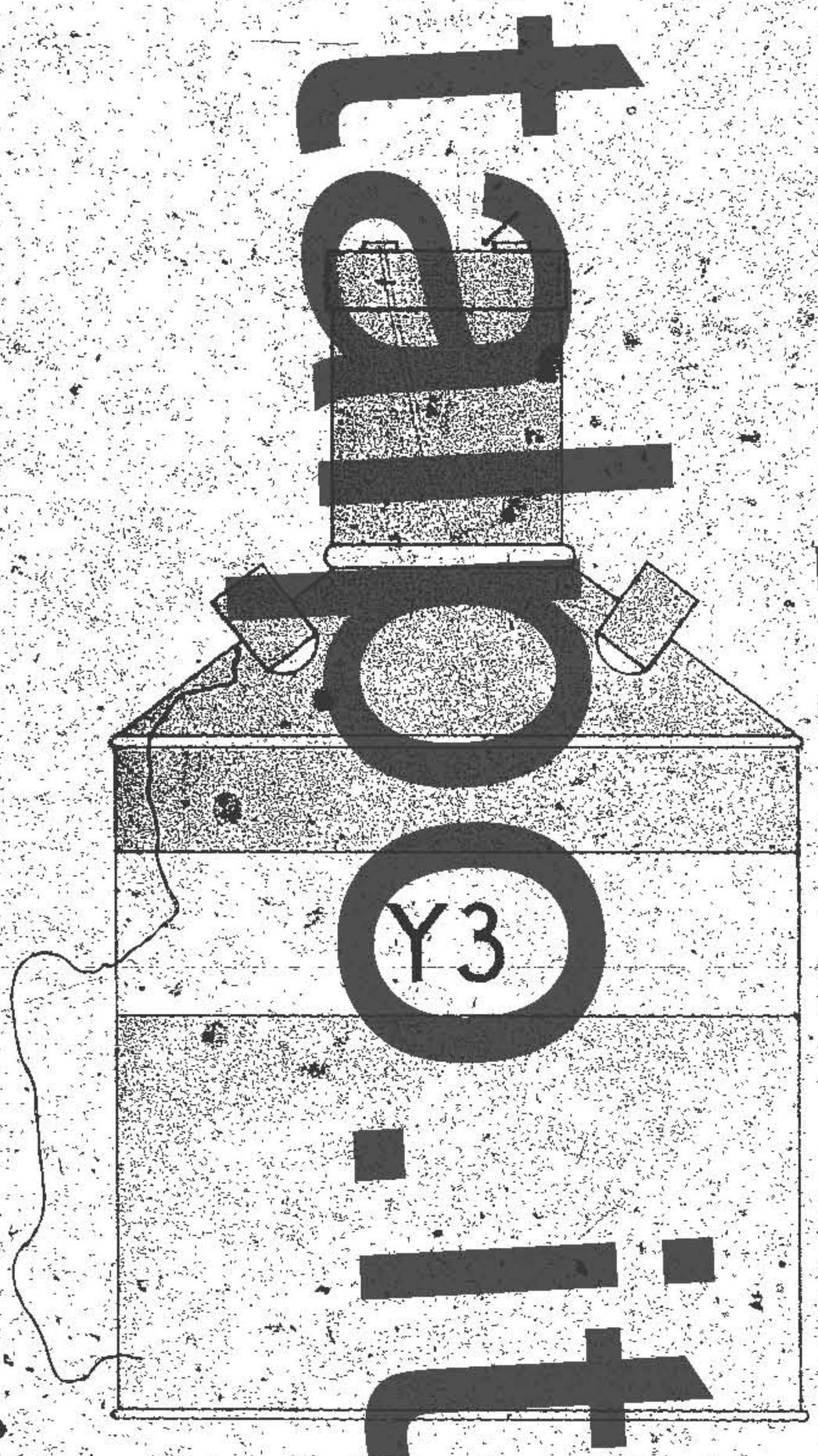
Malby & Sons, Lith.

Plate 2

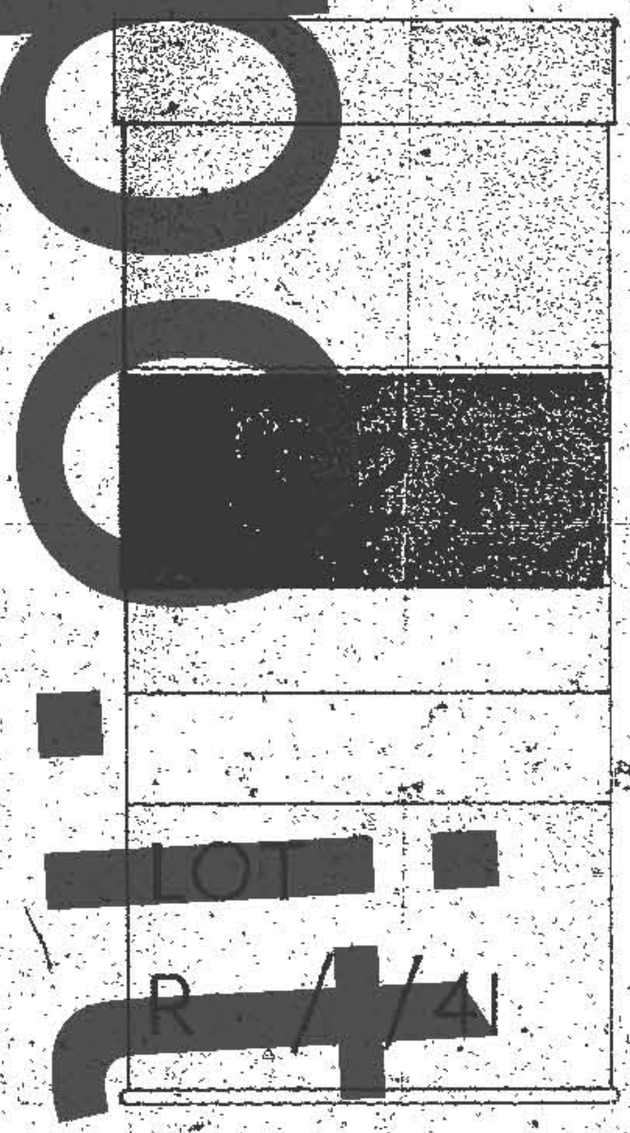
TYPICAL MARKINGS FOR C.W. WEAPONS



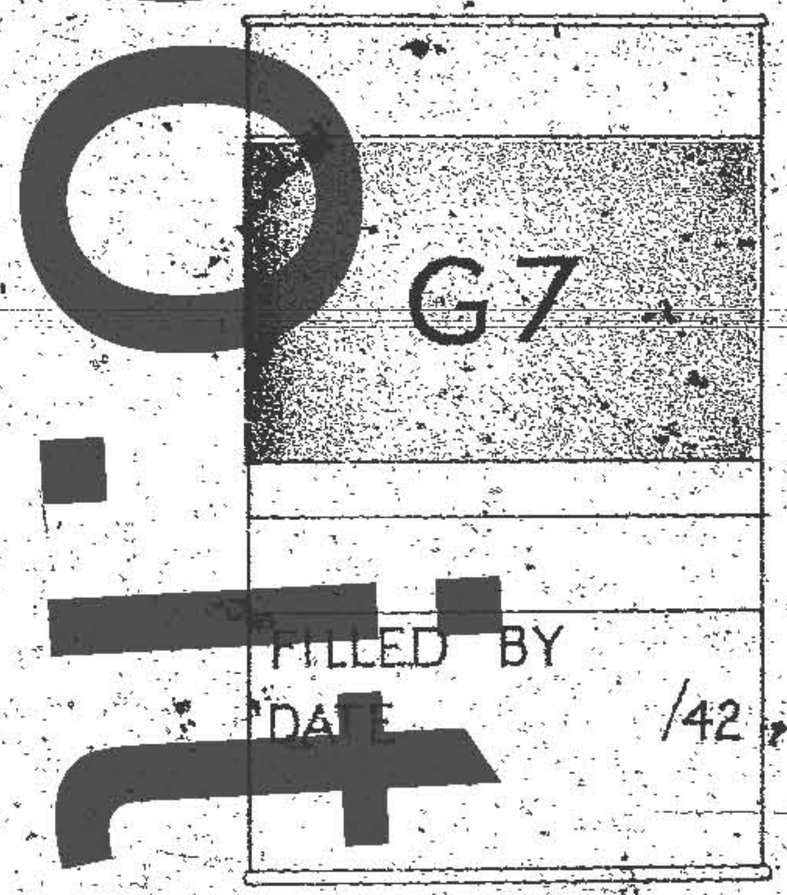
Typical for Y chargings
Bomb M.L. 4·2" mortar
Y3, Y5, Y13, Y25, Y27, Y29.



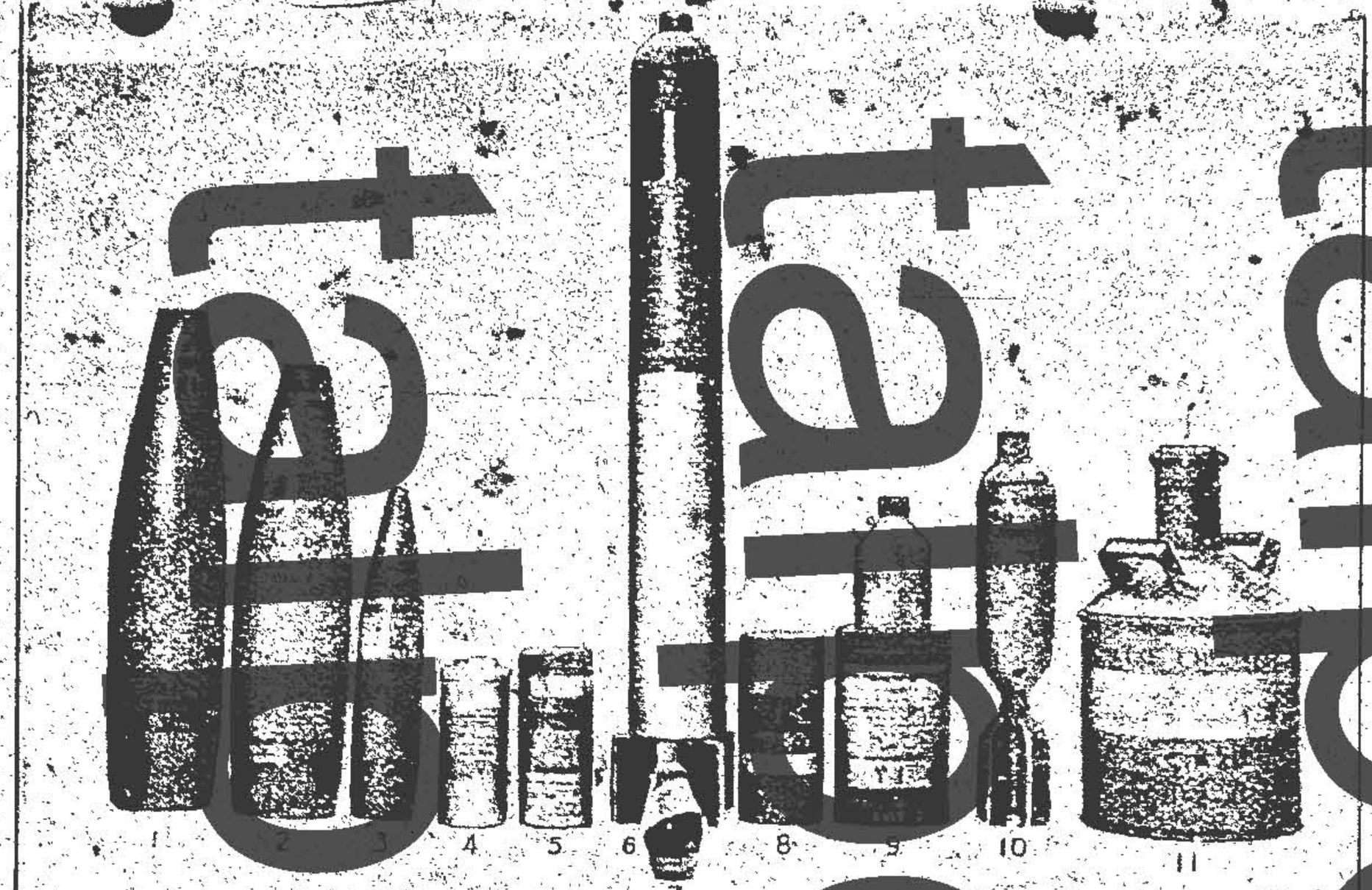
Mine chemical
Typical for Y3, Y5, Y13, Y29.



Generator chemical
N° 20, Mk. 1.



Generator chemical
N° 23, Mk. 1.



1. Shell, B.L. 5·5-in., B.E.
2. Shell, B.L. 6-in. How. Bursting Type.
3. Shell, Q.F. 25-pr. B.E.
4. Bomb, Ground Training.
5. Bomb, Ground, 6 lb..
6. Rocket, "U" Chemical, 5-in. (assembled).
7. Grenade, Lachrymatory, No. 67.
8. Generator, Chemical, Smoke, No. 20.
9. Bottle, Stone, Screw Stoppered, Chemical, 1 pint.
10. Bomb, S.B. M.L. Chemical, 4·2-in. Mortar.
11. Mine, Chemical, No. 1.

PLATE 4

Bomb, Ground, 6 lb., Mark 1, B.V.

Bomb, Ground Training Mark 1

PLATE 5.—MINE, CHEMICAL, No. 1, MARK 1

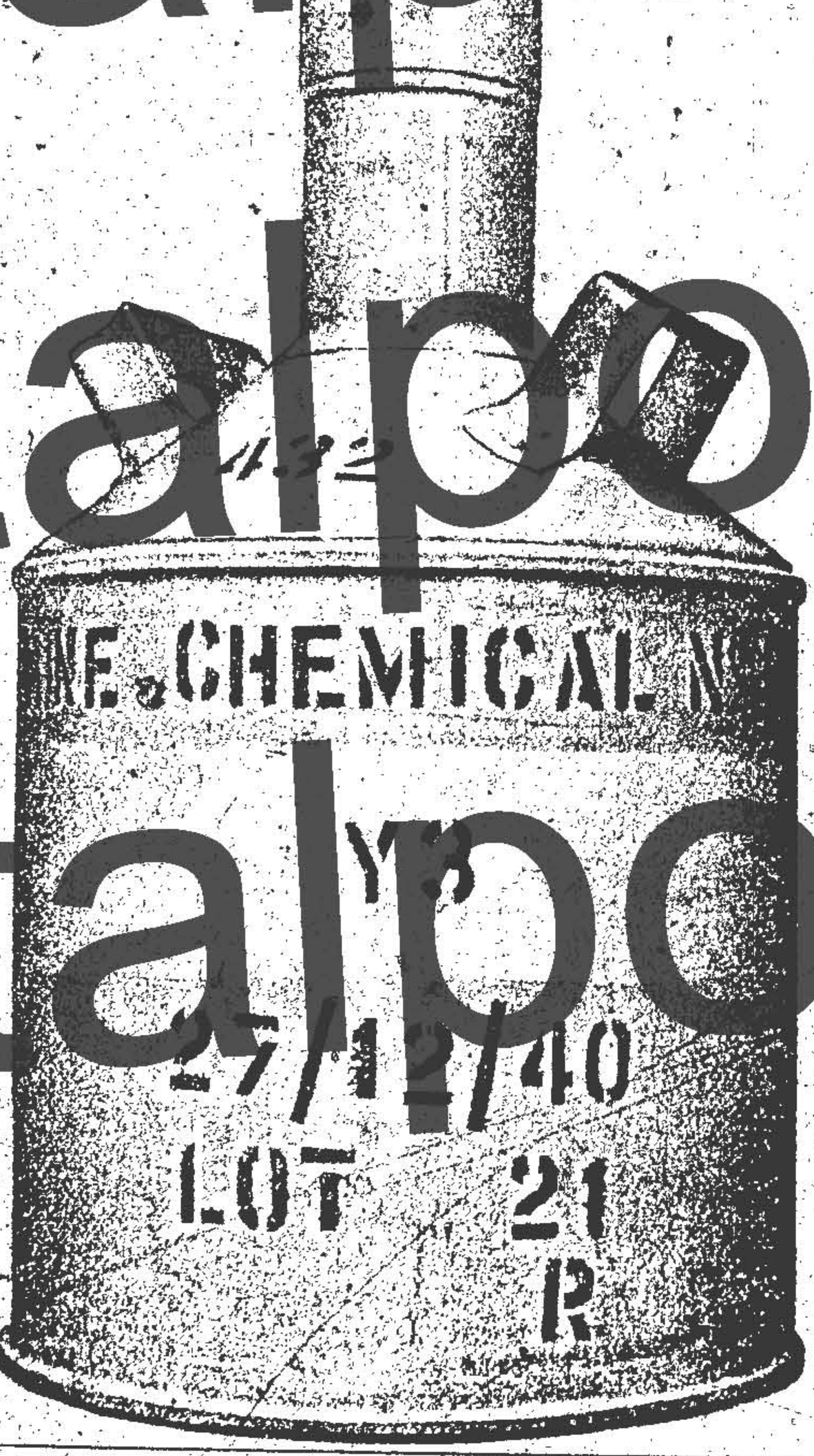
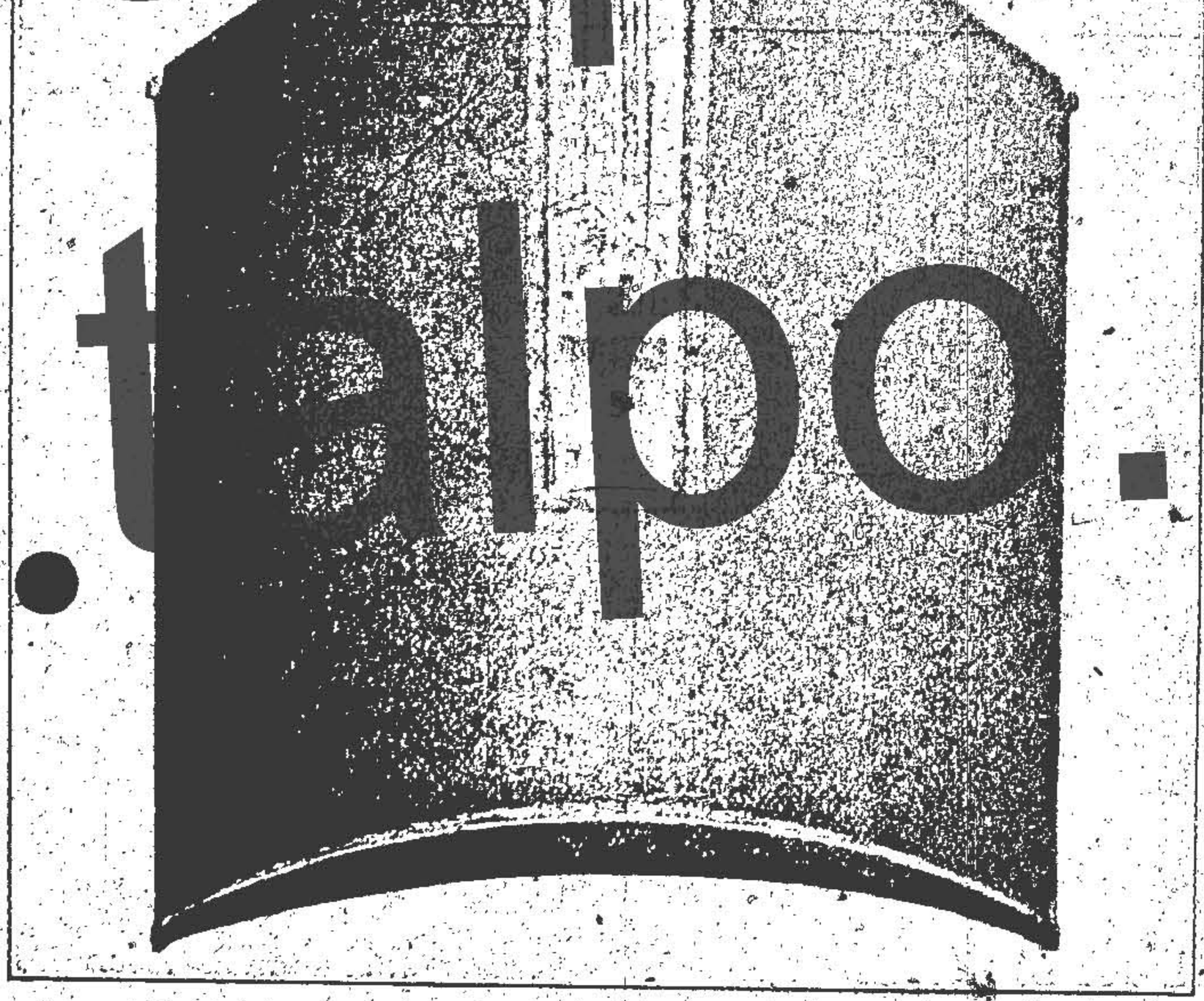


PLATE. 6.—

PLATE 6.—MINE, CHEMICAL, No. 1, MARK 1
(SECTIONED)



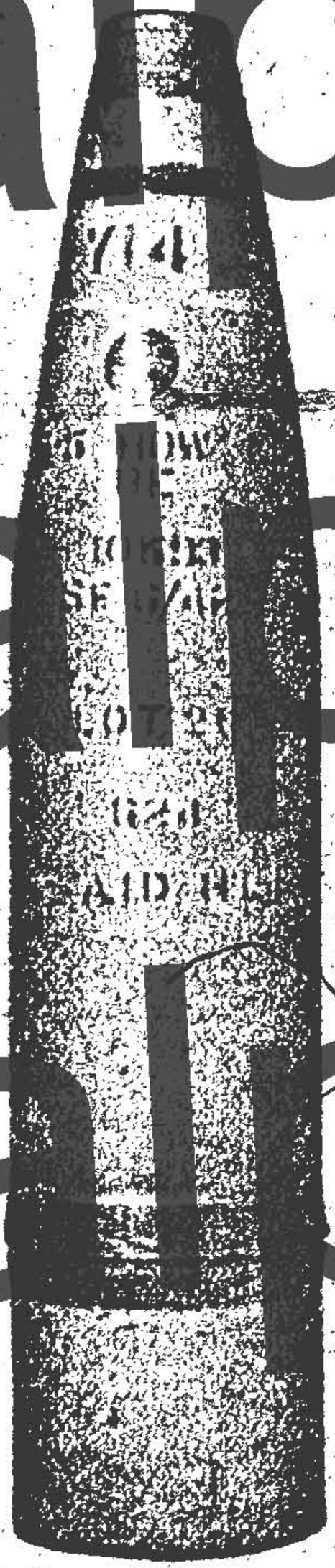
PATTERN MOUNTED ON 15-CWT. MORRIS TRUCK C.S.8

PLATE 8

Rocket, "U" Chemical, 5-in. Complete, Round Fuzed

Shell, B.L. 6-in. How. Chemical, Mark 1D S.L., 100 lb. B.E.

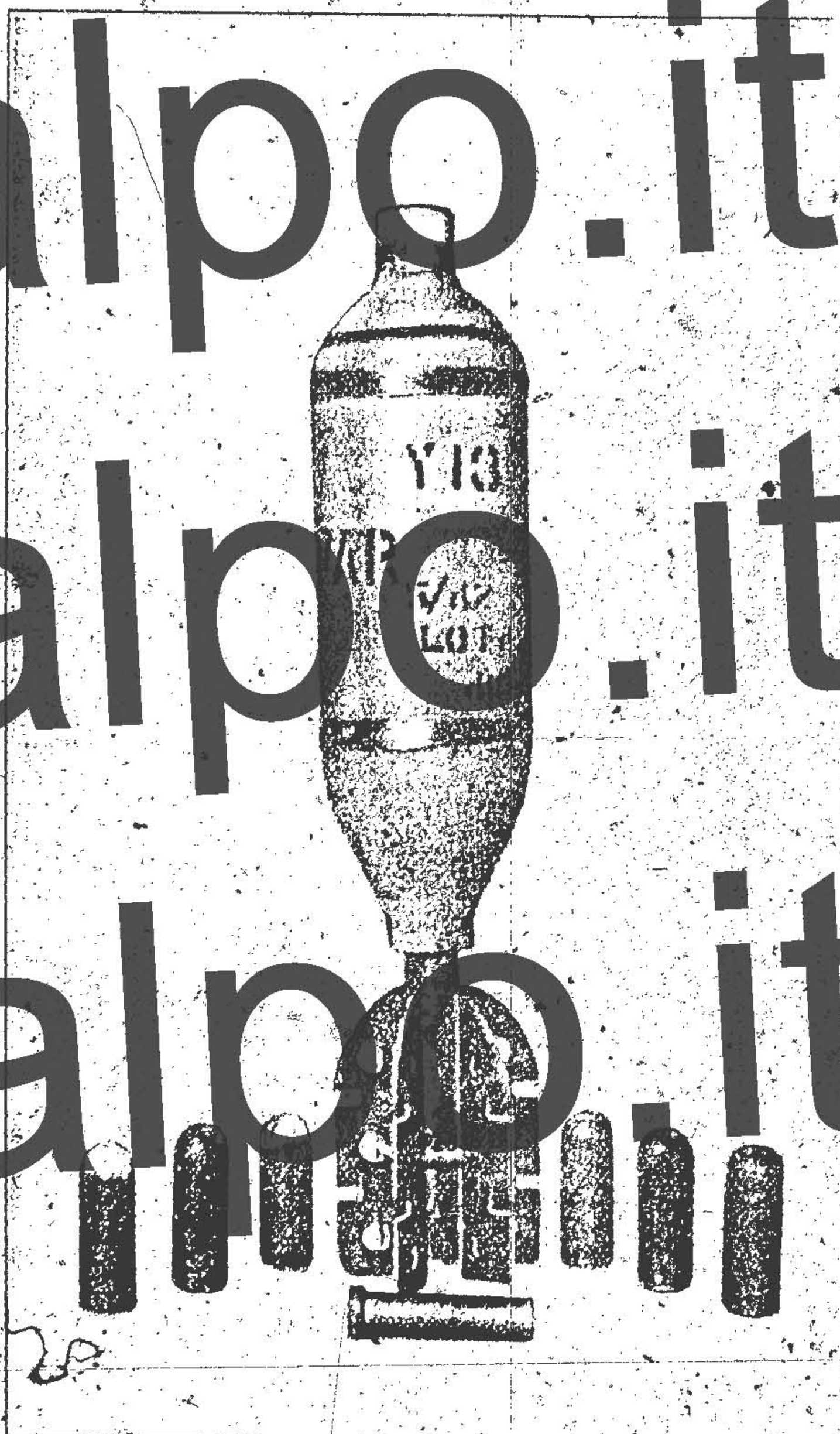
PLATE 9



Shell, B.L. 5·5-in. How.
Chemical, Mark 2 B.E.

Shell, Q.F., 25-pr.
Chemical, B.E.

[PLATE 10.—BOMB, S.B., M.L. CHEMICAL, 4·2-in. MORTAR



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Regulations for Army Ordnance Services

Part 7

PAMPHLET No. 7

CHEMICAL WARFARE AMMUNITION

By Command of the Army Council

THE WAR OFFICE,
14th January, 1946.
(22876).

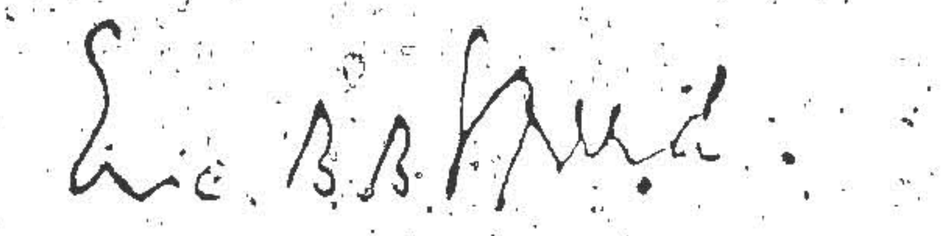
Regulations for Army Ordnance Services

Part 7

PAMPHLET No. 7

CHEMICAL WARFARE AMMUNITION

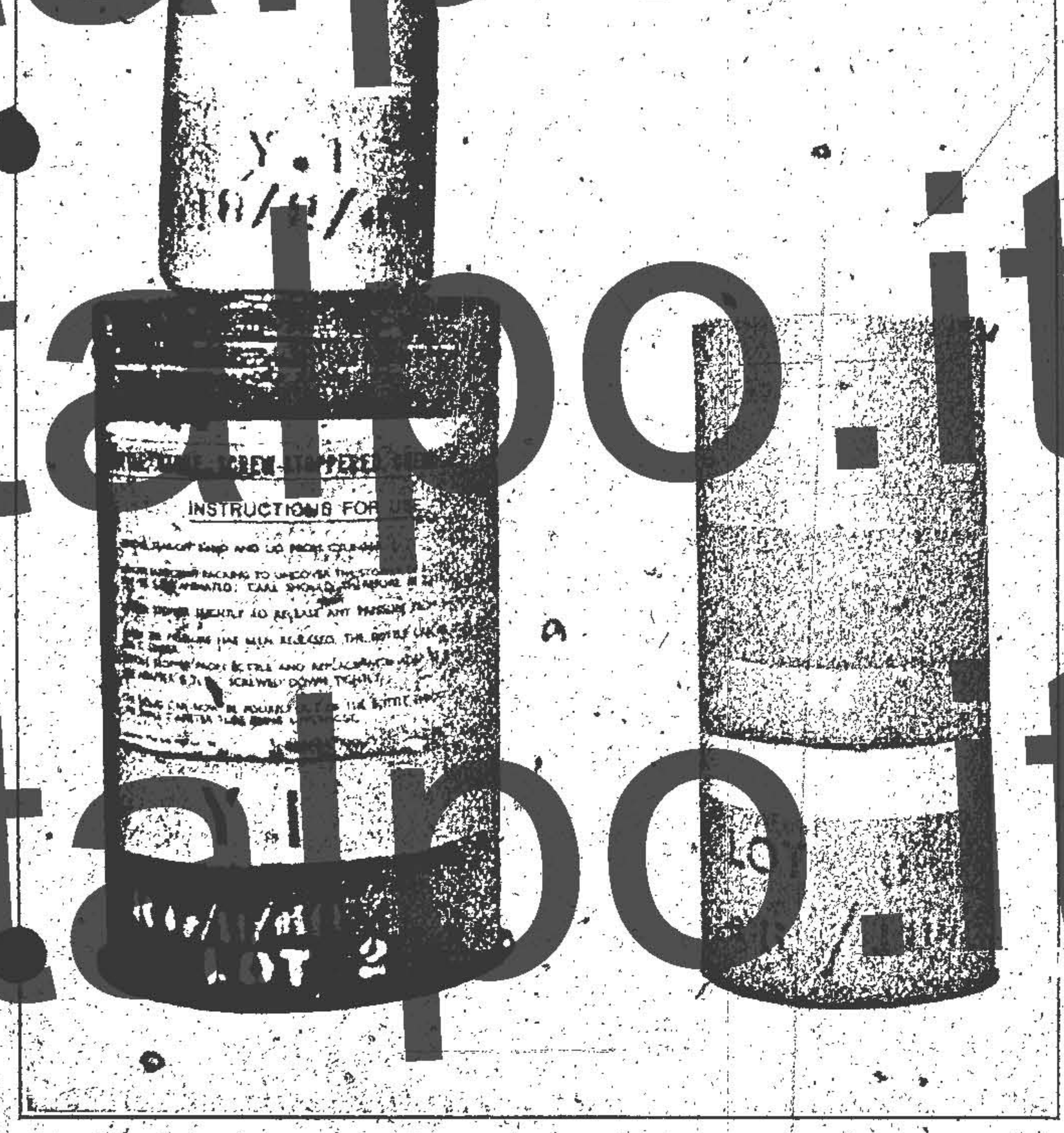
By Command of the Army Council,



THE WAR OFFICE,
14th January, 1946.
(22876).

PLATE 11.—GRENADE, LACHRYMATORY, No. 67

PLATE 12



Bottle, Stone, Screw-Stoppered, Chemical, 1 pint

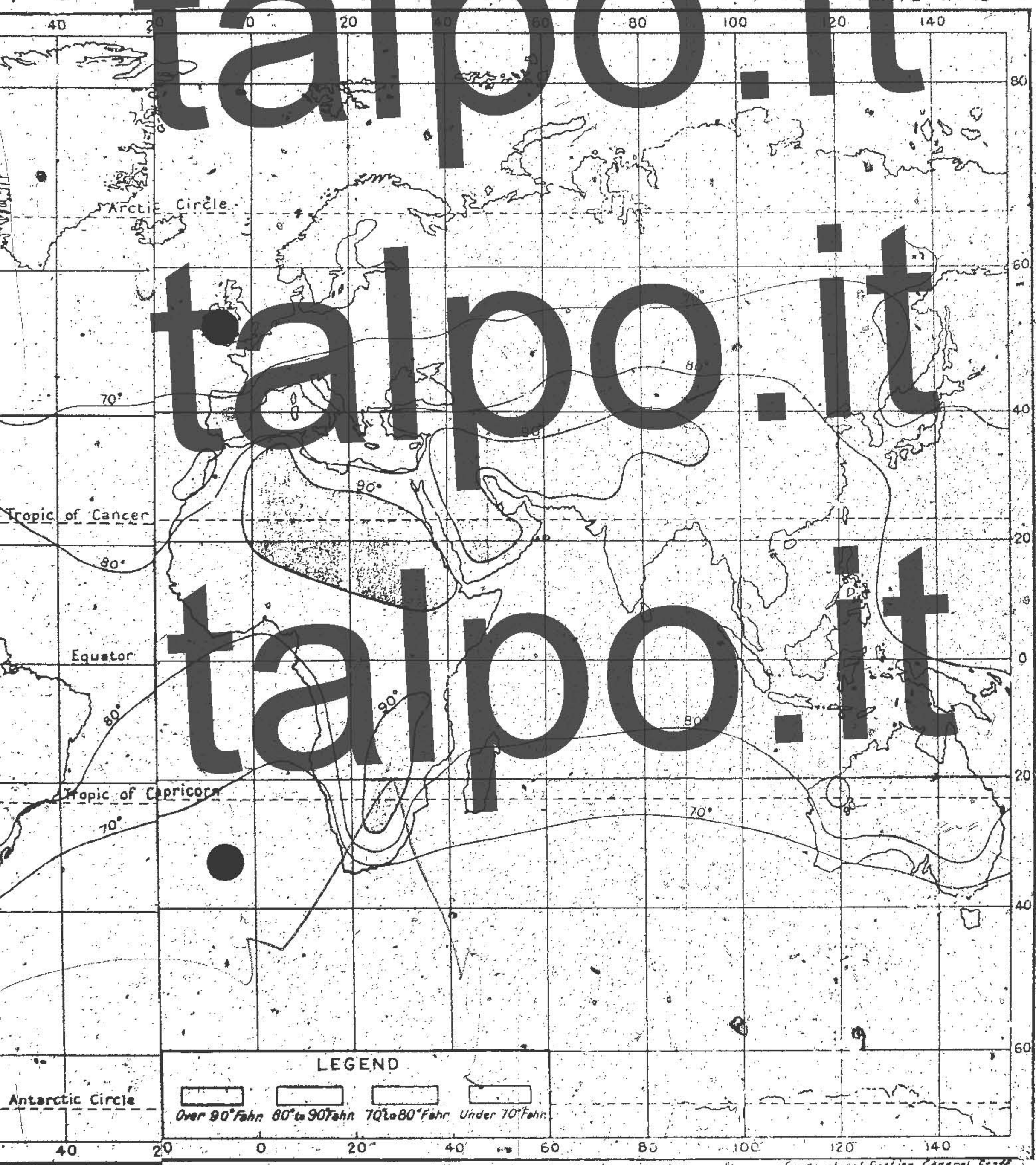
Generator, Chemical, Smoke, No. 20, Mark 1

(22876) 33206/8738 30,000 2/46 K.H.K. Gp. 8.8.

MEAN SHADE TEMPERATURES
FOR
HOTTEST MONTHS

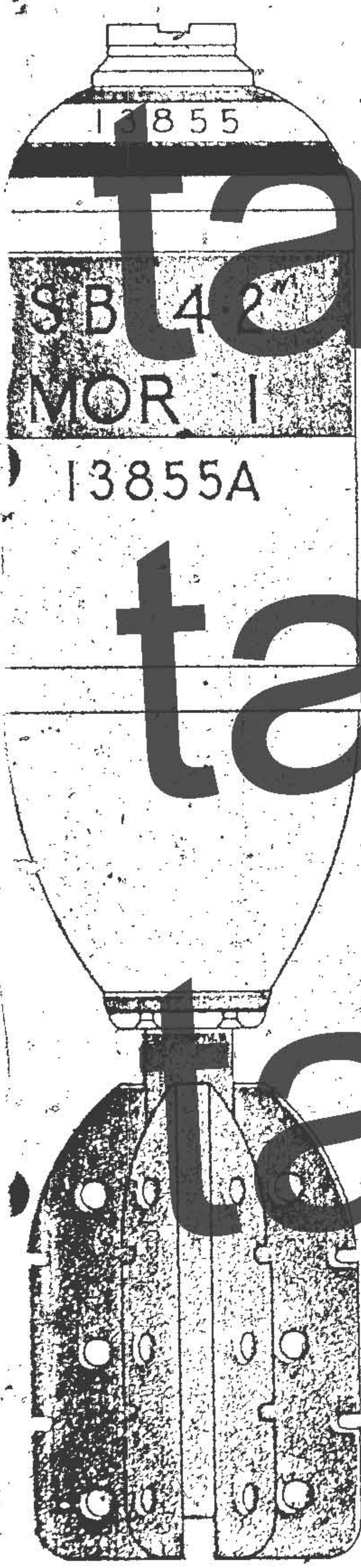
R. 5673.

PLATE Nº 13

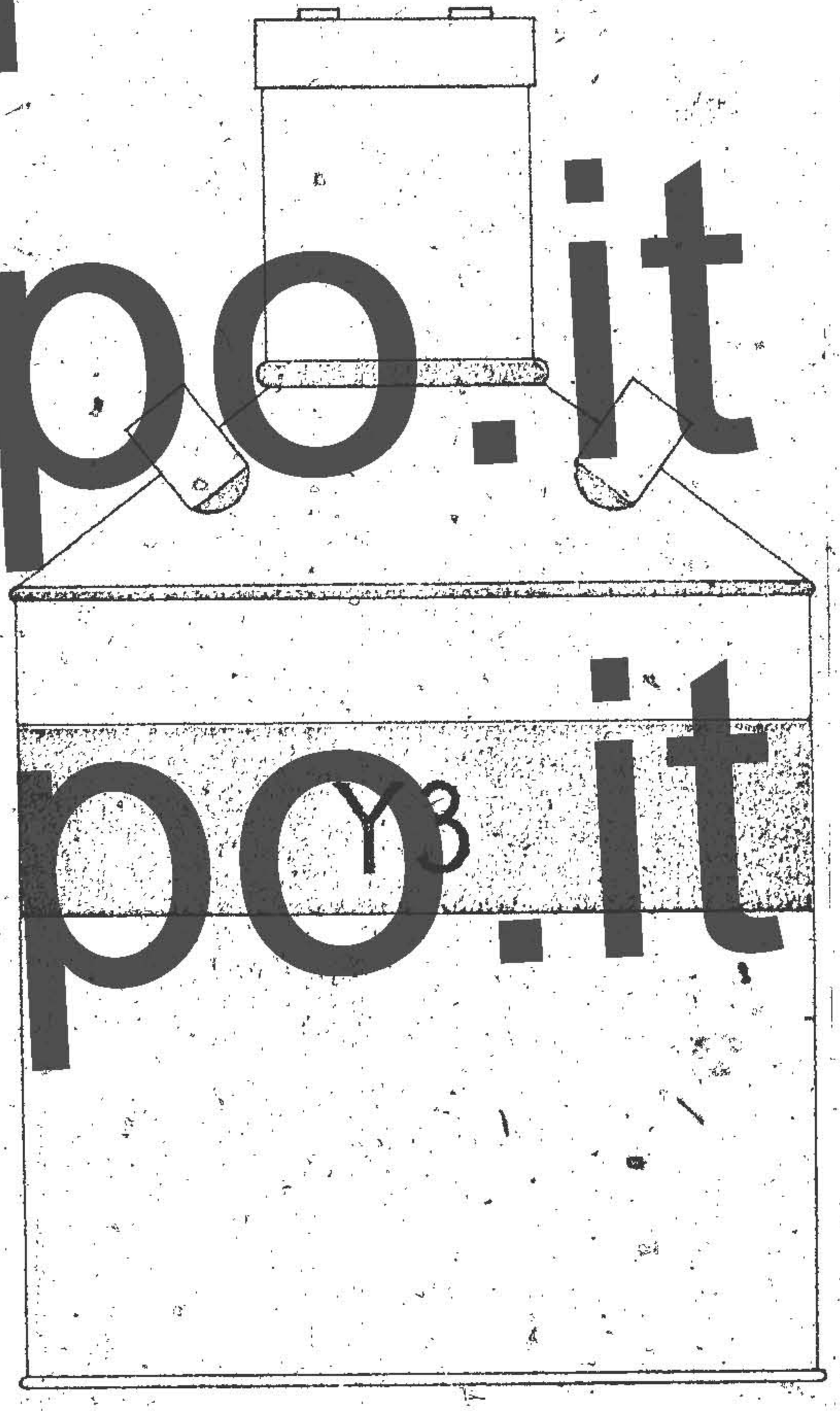


Geographical Section, General Staff

TYPICAL MARKINGS FOR



Typical for Y chargings
Bomb M.L. 4.2" mortar
Y3, Y5, Y13, Y25, Y27, Y29



Mine 'chemical'
Typical for Y3, Y5, Y13, Y29.