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Ammunition
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REGULATIONS
FOR
ARMY ORDNANCE SERVICES
PART II

PAMPHLET No. 8.

(Notified in Army Orders for January, 1934)

1934

**INSTRUCTIONS TO GUIDE THE OPERATIONS OF
SECURING, SEALING AND OPENING LIDS OF
AMMUNITION PACKAGES (EXCEPT THOSE
CONTAINING SMALL ARM AND 1 IN. AIMING
RIFLE CARTRIDGES) AND AFFIXING LABELS
THERE TO.**

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REGULATIONS FOR ARMY ORDNANCE SERVICES

PART II

PAMPHLET No. 8

INSTRUCTIONS TO GUIDE THE OPERATIONS OF SECURING, SEALING AND OPENING LIDS OF AMMUNITION PACKAGES (EXCEPT THOSE CONTAINING SMALL ARM AND 1 IN. AIMING RIFLE CARTRIDGES) AND AFFIXING LABELS THERETO

LUTING, SHELLAC ADHESIVE AND SHELLAC VARNISH

1. Luting, thick, Mk. IV, lead-free, for securing the lids of ammunition packages, will be issued from Woolwich, ready mixed, in tinned-plate cylinders holding 1 lb. each, or in tinned-steel kegs holding 100 lb. each.

2. The luting, before use, will be beaten up with an ordinary wooden mallet until it is of the required consistency.

3. Shellac adhesive and shellac varnish, for securing and coating tapes and labels of cartridge cylinders and boxes, will be issued from Woolwich, ready mixed, in suitable containers in two sizes holding approximately 5 lb. and 35 lb. of adhesive or 5 pints and 2 gallons of varnish. The shellac adhesive or shellac varnish can be thinned, as required, by the addition of methylated spirit, industrial, grade II.

SECURING LIDS OF METAL-LINED AND TINNED- PLATE-LINED POWDER CASES

4. To close the case, fill the recess round the side of the bung with luting, press the bung well home into the bunghole, and fill up the space round the rim of the bung with luting ; then with the thumb smooth it off flush with the top and wipe clean with a piece of cotton waste or rag ; close the lid of the case and screw down the two bolts alternately with the key, giving not more than one turn at a time with each bolt so as to avoid straining the bolts or hinges.

5. To open the case, unscrew the two bolts alternately with the key, giving not more than one turn at a time with either bolt until both bolts are free ; then raise the lid and lift out the bung .

SECURING LIDS OF TINNED-PLATE-LINED BOXES

6. Fill the recess round the top of the lining with luting, place the lining lid in position, press firmly down and smooth off any excess luting. Close and secure the wood lid. Screws, when used, must on no account be hammered in.

SECURING LIDS OF ZINC AND BRASS CARTRIDGE CYLINDERS

7. Before closing the cylinder, see that the bottom wood disc or packing stool and the millboard disc under the lid are in position. Take a piece of white spun yarn of sufficient length to form a complete ring $\frac{1}{4}$ in. thick in the groove of the cylinder. Roughly coat the yarn with luting, by drawing it through some luting held in one hand, and lay it well in the bottom of the groove on the body of the cylinder. Place sufficient luting round the lower outside edge of the lid so as to fill completely the groove when the lid is screwed down. Screw on the lid by hand, and tighten by means of the "bearer, cartridge cylinder," giving the latter a few taps with a wooden mallet until the washer bears hard on the top edge of the cylinder. Smooth off superfluous luting and wipe the cylinder clean.

8. The earlier pattern zinc cylinders may be found which have not been fitted with the cupped ring below the screwed portion on the exterior of the body of the cylinder. To close these cylinders, screw on the lid by hand, from left to right, and tighten by means of the "bearer, cartridge cylinder," giving it a few taps with a wooden mallet until the washer bears hard upon the top edge of the cylinder. Apply a coat of shellac adhesive to the junction of the cylinder and lid, and then encircle the junction with a tape band, $2\frac{1}{8}$ in. wide ($1\frac{1}{4}$ in. tape, if available, may be used for No. 22 cylinders), well coated with shellac adhesive and of sufficient length to overlap about 4 in., the end being turned under to form a loop of about 1 in. The tape should be so treated at least one hour before it is affixed to the cylinder, in order to obtain good adhesion. The tape should be placed so that the edges may be protected as much as possible by being in the hollows of the corrugations. Work the tape, except the loop, well into the corrugations with the hand, and, when set, give it a coating of shellac adhesive, and, when dry, a coating of service colour paint, if available.

9. To open the cylinder, pass the cylinder bearer through the handles, or between the lugs on the lid, and with a smart wrench unscrew the latter. Tapping the lid with a wooden

mallet to facilitate this operation is beneficial. In the case of cylinders closed by the old method the tape band must first be torn off.

SECURING LIDS OF TINNED-STEEL CARTRIDGE CYLINDERS

10. Before closing the cylinder, see that the bottom and top millboard discs and paper cylinder are in position. Place the lid in position on the cylinder, and press firmly down. Apply a coat of shellac adhesive to the junction of the cylinder and lid, and then encircle by a tape band, about 1 in. wide, well-coated with shellac adhesive and of sufficient length to overlap about 4 in., the end being turned under to form a loop of about 1 in. The tape should be so treated at least one hour before it is affixed to the cylinder, in order to obtain good adhesion. When well set, a coating of shellac adhesive should be applied to the outside of the band.

Tape, rubber, primed (1 in.), may be used in lieu of shellacked tape, in which case the end of the tape must not be turned back to form a loop, but must be finished off under one of the tinned-plate "tear-off strips." After fixing, the tape should be given a coat of shellac varnish.

After the cylinder has been sealed, the tinned-plate strip, or strips, should be folded over on to the lid and secured by means of screws, the threads of which should be coated with luting. Care should be taken that the tape band passes *under* and not *over* the "tear-off strips."

SECURING LIDS OF Q.F. BOXES

11. For boxes 12-pr. and above, fitted with a lining, fill the groove round the lining of the lid with luting; place the lid on the box, tap it down and smooth off surplus luting. If the lid is fitted with a locking plate, turn the eccentric moving the plate by means of the key for powder cases, so that the lid is securely locked. If it is fastened by screws or wing nuts, screw them down.

12. To open the box, turn the eccentric with the key, thus unlocking the plate, or remove the screws, and ease the lid by applying the flat end of the handle of the key in the slots at two of the corners on the underside of the lid; then lift off the lid by the twine loops or metal toggle.

13. In the 4-7-in. (Mks. II to IV* Guns) Mk. 1 box there is a separate compartment and zinc lid with a rubber washer for each cartridge, all the washers being compressed by the wood lid of the box when screwed down. In the Mk. II box the lid is secured by four metal brackets with wing nuts and studs let into the top of the box.

14. For boxes 6-pr. and 3-pr. fitted with a lining, fill the groove round the lining with luting ; put on the zinc lid and press it home, smoothing off the luting, close the lid of the box and fasten it with the turnbuckle, tying the latter down with the twine attached to the cleat.

MISCELLANEOUS PACKAGES

15.—(1) Unlined boxes have their lids secured in various ways, as follows :—

- (a) By a wing nut in the lid, which is screwed on to a central bolt.
- (b) By swing clamps, which are held in place by split pins.
- (c) By screws. In some instances these are screwed into metal sockets provided for them, in others directly into the wood sides and ends. On no account must screws be hammered in.
- (d) By wires secured to the lid by staples, the ends of the wires being formed into loops, through which short nails are driven into the sides of the box.

(2) The lids of tinned-plate cylinders, boxes and linings from which soldered tear-off bands, strips, etc., have been removed may be secured and sealed by means of tape bands or strips affixed by shellac adhesive and coated with shellac adhesive.

LABELS

16. A list of labels used on packages containing ammunition or explosives is issued separately.

17. Labels, both interior and exterior, will be affixed to all ammunition packages with shellac adhesive and those on the exterior to be coated afterwards with shellac varnish, applied with a suitable brush.

QUANTITIES OF MATERIALS REQUIRED

18. The approximate quantities of materials required for marking and securing 100 boxes, cases or cartridge cylinders are as follows:—

BOXES AND CASES

Serial number of package and detail of packing	Luting, thick, Mk. IV, lead-free	Paint for stencilling		
		Yellow	Blue	Red
Boxes, cartridge—	lb.	oz.	oz.	oz.
C.1	51			
Cartridges, B.L., 6-in. 26-cwt. howr.	—	2½	1	—
Cartridges, Q.F., blank, 18-pr. or 13-pr.	—	3	—	—
C.2 —				
Cartridges, B.L., 12-in. howr. ...	51	2½	1	—
C.10 —				
Cartridges, Q.F., 6-in. gun ...	42½	3¾	—	—
C.14 —				
Cartridges, Q.F., 4·7-in. Mk. I to IV* guns	39½	3¾	—	—
Converted C.15 —				
Cartridges, Q.F., 4·7-in., Mk. I to IV* guns	40	3¾	—	—
C.19 —				
Cartridges, Q.F., 4·5-in. howr.	—	5	—	½
„ „ blank, 4·5-in. howr.	—	3½	—	—
C.21 —				
Cartridges, Q.F., 4-in. Mk. III & III* guns	36¾	3¾	—	—
C.25 —				
Cartridges, Q.F., 4-in. Mk. III & III* guns	36¾	3¾	—	—
C.27 —				
Cartridges, Q.F., 3·7-in. howr.	—	5½	—	½
„ „ blank, 3·7-in. howr.	—	3½	—	—
C.34 —				
Cartridges, Q.F., 12-pr. 12-cwt.	34½	3¾	—	—
C.41 —				
Cartridges, B.L., 6-in. 26-cwt. howr.	35	2½	1	—
C.59	48	—	—	—
Cartridges, Q.F., 3-in. 20-cwt.	—	5	—	11½
„ B.L., 8-in. Mk. VIII howr.	—	2½	1	—
Cartridges, B.L., 14-in. Mk. VI gun	—	2½	1	—
C.125 —				
Cartridges, B.L., 6-in. 26-cwt. howr.	35	2½	1	—

For affixing labels, 2 lb. of shellac adhesive and ¼ pint of shellac varnish, every 100 boxes, will be required.

BOXES AND CASES—continued

Serial number of package and detail of packing	Luting, thick, Mk. IV, lead-free	Paint for stencilling		
		Yellow	Blue	Red
	lb.	oz.	oz.	oz.
Boxes, cartridge—(continued)				
C.140—				
Cartridges, B.L., 6-in. 26-cwt. howr.	35	2½	1	—
C.141—				
Cartridges, B.L., 8-in. howr. ...	48	2½	1	—
C.160—				
Cartridges, B.L., 14-in. gun ...	49½	2	1	—
C.166				
Cartridges, B.L., 6-in. 26-cwt. howr.	52	2½	1	—
C.179—				
Cartridges, Q.F., blank, 3-pr. 2-cwt.	38½	3	—	—
Boxes, cartridge case—				
C.28—				
Cases for 18-pr. blank ...	—	3	—	—
C.31—				
Cases for 13-pr. blank	—	3	—	—
C.39—				
Cases for 6-pr. blank	—	3	—	—
C.40—				
Cases for 3-pr. blank	—	3	—	—
Boxes, ammunition—				
C.51—				
Cartridges, Q.F., 18-pr. ...	—	8½	—	1½
C.51Z—				
Cartridges, Q.F., 18-pr. ...	—	8½	—	1½
C.52, Mk. I (wood)—				
Cartridges, Q.F., 18-pr. ...	—	8½	—	1½
C.52Y, Mk. I (wood)—				
Cartridges, Q.F., 18-pr. ...	—	8½	—	1½
C.52Z, Mk. I (wood)—				
Cartridges, Q.F., 18-pr. ...	—	4	—	1
C.52, Mk. II (steel)—				
Cartridges, Q.F., 18-pr. ...	—	8½	1½	1½
*C.53—				
Cartridges, Q.F., 13-pr. ...	—	8½	1½	1½
C.85—				
Cartridges, Q.F., 6-pr.	29½	3	—	—
C.89—				
Cartridges, Q.F., 6-pr.	—	3	—	—
C.90—				
Cartridges, Q.F., 3-pr., Sub-calibre	30½	3	—	—
C.147—				
Cartridges, Q.F., 3-in. 20-cwt. ...	—	5	—	11½
C.147A				
Cartridges, Q.F., 3-in. 20-cwt....	—	5	—	11½

* 2-oz. of black paint per 100 boxes will also be required for stencilling.

BOXES AND CASES—*continued.*

Serial number of package and detail of packing	Luting, thick, Mk. IV, lead-free	Paint for sten- cilling		
		Yellow	Blue	Red
	lb.	oz.	oz.	oz.
Boxes, ammunition—(continued)				
C.151—				
Cartridges, Q.F., 18-pr. ...	—	8½	—	1½
C.151A—				
Cartridges, Q.F., 18-pr. ...				
C.151B—				
Cartridges, Q.F., 18-pr. ...	—	8½	—	1½
C.159—				
Cartridges, Q.F., 18-pr. ...	—	8½	—	1½
C.174—				
Complete rounds, H.E., Q.F., 4.5-in. howr. ...	—	7	—	½
C.176B—				
Cartridges, Q.F., 3-pr. 2-cwt....	48	8	—	—
C.178—				
Complete rounds, Q.F., 3.7-in. howr. ...	—	8½	—	½
C.181—				
Cartridges, Q.F., 3-pr. 2-cwt. ...	—	8	—	—
C.182—				
Cartridges, Q.F., 6-pr. ...	—	8	—	—
C.188—				
Cartridges, Q.F., 18-pr. ...	—	4	—	1
C.189—				
Cartridges, Q.F., 3-in. 20-cwt.	—	4	—	1
Boxes, tinfoil, C.152 ...	—	9	—	—
Cases, powder—				
Whole, C.118—	25	—	—	—
Cartridges, B.L., 6-in. gun ...	—	2½	—	—
" " 6-in. gun (re- duced) ...	—	8½	—	—
Cartridges, B.L., 6-in. 26-cwt. howr. ...	—	2½	—	—
Cartridges, B.L., 60-pr. ...	—	2½	—	—
" " 60-pr. (reduced)	—	8½	—	—
" " blank, 8-in. howr. ...	—	2½	—	—
Cartridges, B.L., blank, 6-in. 26- cwt. howr. ...	—	2½	—	—
Cartridges, B.L., blank, 60-pr.	—	2½	—	—
Charges, Q.F., blank, 4.7-in. ...	—	3	—	—
" " " 3.7-in. howr. ...	—	3	—	—
" " " 18-pr. ...	—	3	—	—
" " " 13-pr. ...	—	3	—	—
" " " 12-pr. 12- cwt. ...	—	3	—	—
" " " 6-pr. ...	—	3	—	—

BOXES AND CASES—*continued.*

Serial number of package and detail of packing	Luting, thick, Mk. IV, lead-free	Paint for sten- cilling		
		Yellow	Blue	Red
	lb.	oz.	oz.	oz.
Cases, powder—(continued)				
Whole, C.118—(continued)				
Cartridges, S.B., blank, 24-pr....	—	2½	—	—
" " " 12-pr....	—	2½	—	—
" " " 6-pr. ...	—	2½	—	—
" " 4½-in. howr. ...	—	2½	—	—
" R.M.L., 7-pr. ...	—	2½	—	—
Puffs, powder	—	7½	—	—
Spare igniters	—	9	—	—
Half, C.119	20½	—	—	—
Cartridges, B.L., blank, 60-pr.	—	2	—	—
Charges, Q.F., blank, 4·7-in. ...	—	2½	—	—
" " " 18-pr. ...	—	2½	—	—
" " " 13-pr. ...	—	2½	—	—
" " " 12-pr. 12-	—	—	—	—
cwt.	—	2½	—	—
" " " 6-pr. ...	—	2½	—	—
" " " 3-pr. ...	—	2½	—	—
Cartridges, S.B., 4½-in. howr. ...	—	2	—	—
" R.M.L., 7-pr. ...	—	2	—	—
Puffs, powder	—	7	—	—
Spare igniters	—	9	—	—
Quarter, C.121	11	—	—	—
Cartridges, B.L., blank, 60-pr.	—	2	—	—
Charges, Q.F., blank, 4·7-in. ...	—	2½	—	—
" " " 18-pr. ...	—	2½	—	—
" " " 13-pr. ...	—	2½	—	—
" " " 12-pr. 12-	—	—	—	—
cwt.	—	2½	—	—
" " " 6-pr. ...	—	2½	—	—
" " " 3-pr. ...	—	2½	—	—
Cartridges, S.B., 4½-in. howr. ...	—	2	—	—
" R.M.L., 7-pr. ...	—	2	—	—
Puffs, powder	—	7	—	—
Spare igniters	—	9	—	—

Where symbols are applied to packages containing gun or howitzer cartridges, additional paint (colour as authorized) will be required. About 8 oz. per 100 symbols should suffice.

Where the group letter and number are to be applied, additional paint of the necessary colour will be required, about 2½ oz. per 100 being sufficient.

Where the letters "O.D." are also to be stencilled, a further ½ oz. of paint per 100 packages will be required.

CYLINDERS, CARTRIDGE

Serial number	Luting thick, Mk. IV, lead-free	With cupped ring	Without cupped ring				Paint for stencilling		
		Yarn, spun, white	Shellac, adhesive	Shellac, varnish	Tape un-bleached, 2½-in.	Tape, un-bleached, 1-in.	Yellow	Blue	Red
No. 16	27½	1½	4½	1½	115	—	4½	1½	1½
No. 22	24½	1½	4	1½	100	—	4½	1½	1½
No. 28, 28A and 36	25	1½	4	1½	105	—	4½	1½	1½
No. 34	20½	1½	3½	1½	90	—	4½	1½	1½
No. 38									
No. 38A									
No. 42	9	—	3	1½	—	130	4½	1½	1½
No. 43	8	—	2	1½	—	100	4½	1½	1½
No. 44	4½	—	1½	1½	—	80	4½	1½	1½
No. 46	8	—	2	1½	—	90	4½	1½	1½
No. 49	8½	—	2½	1½	—	105	4½	1½	1½
No. 50, 50A, 50C, 50D and 50E	8½	—	2	1½	—	96	4½	1½	1½
No. 52, 52A and 52C	8	—	2	1½	—	90	4½	1½	1½
No. 56	—	—	—	—	—	—	4½	1½	1½

Where symbols are applied to packages containing gun or howitzer cartridges, additional paint (colour as authorized) will be required. About 8 oz. per 100 symbols should suffice.

Where the group letter and number are to be applied, additional paint of the necessary colour will be required, about 2½ oz. per 100 being sufficient.

19. The foregoing details should be taken as a guide in demanding materials for the various operations. Where packages of natures not detailed above are on charge, the quantity of material laid down for the package which most nearly resembles such packages should guide the preparation of demands, as may be necessary.

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