

(1) Number of pages 28
(2) Date of repair Jan. 87
(3) Initials of the Referencer bus

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P. W. D. DEPARTMENT

G.O. No.	2658.W.	Press.
B.P. No.		Mis.
Dated	22. 11. 1880	197.

gf

Not to be folded or roughly handled

2658/1

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

22nd November 1880, No. 2,658 W.

Buildings and Roads.
Military Works.

Read the following papers:—

No. 70. From Major-General R. CADELL, C.B., R.A., Inspector-General of Ordnance, to the Secretary to Government, Public Works Department, dated Fort St. George, 5th November 1880, No. G-302.

With reference to paragraph 6 of the "Rules for the guidance of officers in carrying out the manufacture of Blank Cartridges on Morris' system," I have the honor to forward ten copies of the standard pattern received from Bengal of the tables and stools which are ordered to be provided by the Department Public Works, at all stations where no Ordnance establishment exists, for the manufacture of blank ammunition on Morris' system.

No. 70-A. From the same Officer, dated Fort St. George, 17th November 1880, No. G-318.

With reference to your letter, No. 2,482, dated 10th instant, I have the honor to forward a spare copy of the "Rules for the guidance of officers in carrying out the manufacture of Blank Cartridges according to Morris' system," which you said had not been communicated to your office, but which were brought into force in terms of Clause 66, India Army Circulars, dated 30th June 1880.

No. 71. ORDER THEREON, 22nd November 1880, No. 2,658 W.

COMMUNICATED, with drawings and extract paragraph 6 of the Rules, to the officers of the Public Works Department concerned.

(True Extract.)

Major, R.E.,
Under Secy. to Govt., P.W.D.

To Superintending Engineers,
To the Superintendent of Works, Presidency, } with Drawing and Extract of Rules.

Encl. S. T. Austin.
Spare Copies

BUILDINGS AND ROADS.
MILITARY WORKS.

Subt. of (1880) Madras.
PUBLIC WORKS.

To
SUPERINTENDING ENGINEERS.

Dated November, 22nd.

Issued

Recd.

Encl.

G. O., 22nd November 1880, No. 2,056 W.

NOVEMBER.

Nos. 70-71.

Manufacture of Blank Cartridges.—Rules for the guidance of officers carrying out the same according to Morris' system, communicated to the officers of the Public Works Department.

Ordnance Department.

ORDNANCE OFFICE:
Fort Saint George,
5th November 1880.

No. G.
302

From

Major General R. CADELL, C. B.,

Inspector General of Ordnance.

To

The Secretary to Government,

Public Works Department.

Ordered.

Hubbs.

Sir,

With reference to para 6 of the Rules for the guidance of Officers in carrying out the manufacture of Blank cartridges "on Morris' system", I have the honor to forward ten copies of the standard pattern received from Bengal of the Tables and sheets which are ordered to be provided by the Department to the Public Works, at all stations where no Ordnance Establishment exists, for the manufacture of Blank Ammunition on Morris' system.—

I have the honor to be,
Sir,
Your most obedient servant,

R. Cadell, Major General R. P.
Inspector General of Ordnance.—

No 2480
The Inspector General of Ordnance
Sir,

I have the honor to
acknowledge the receipt
of three copies of drawings
of the tables & blocks to be
supplied for the manu-
facture of Blank Ammu-
nition on Morris' system.

2. The rules referred to
herein, under para 6 of
which the articles are ap-
parently to be provided,
do not seem to have been
communicated to this Office.

I have &c
By R. J. Sep 2. 1880
By C. H.

10/10/80

10/10/80

10-11-80

P.W.D.

ENVR80

No 2480

Military {1880} Department.

No.

From
The Inspector General of Ordnance
Fort Saint George.

To
The Secretary to Government,
Military Department,
Ootacamund.

DATED 5th November 1880.
RECEIVED

No. G
302

See serials supplied
of the drawings of tables and blocks
for Morris' Cartridge Filling Machine

Ordnance Department.

ORDNANCE OFFICE:

Fort Saint George,

17 November 1880.

No. G
378

From

Major General R. CADELL, C. B.,

Inspector General of Ordnance.

To

The Secretary to Government,
Public Works Department.

Sir,

Chepank...

With reference to your letter No. 2482 dated 10th
Instant, I have the honor to forward a fair copy of
the "Rules for the guidance of Officers in carrying out
the manufacture of Blank Cartridges according to
Morris' system", which you said had not been
communicated to your Office, but which were brought
into force in terms of Clause 66. Indian Army
Circulars dated 30th June 1880.

I have the honor to be,
Sir,

Your most obedient servant,

Richard Major Genl. R. J.
Inspector Genl. of Ordnance.

P.W.D.
18 NOV 80

NA

Public Works
~~Public Works~~ {1880} Department.

No.

From

The Inspector General of Ordnance
Fort Saint George.

To

The Secretary to Government,
Public Works Department,

Chepauk.

DATED

RECEIVED

17 November 1880.

No. G
318

Enclosed copy of the
Rules for the guidance of
Officers in carrying out the
manufacture of Blank
Cartridges according to
Morris' system.

No 2658 W. 116 13 488
M. J. works.

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 25th Nov/80

Read the following:—

9658
19

to Nov. 1880)

19th Nov)

Rules for the guidance of Officers in carrying out
the Manufacture of Blank Cartridges ac-
cording to Morris' System.

incated,
and extract
to Rules, to
the P. W.
d.

S
19-11

with 2 copies of
drawing
29-11-80
R. S.

P.W.D.

18 NOV 80

NA

Public Works
Department {1880} Department

No 2658 W. 16

13 48

M. J. Marks

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 22nd Nov/80

Read the following:—

9658
18

9658
9

to Nov. 1880

17th

Rules for the guidance of Officers in carrying out
the Manufacture of Blank Cartridges according
to Morris' system.

The Government of India having been pleased to decide that
blank ammunition for Martini-Henry and Snider arms shall in
future be made up under regimental arrangements, the fired ball
cases being utilized for this purpose, the following instructions are
published for the guidance of all concerned.

2. At all stations where there is an arsenal or depôt, two com-
plete sets of implements, Morris', for preparing and re-filling empty
ball cases (1 for Martini-Henry and 1 for Snider arms), shall be
kept in the arsenal or depôt, under the care of the Ordnance Officer
in charge.

3. In communication with the Ordnance Officer in charge of
the arsenal or depôt, and under the orders of the officer command-
ing the station, the blank cartridges required for the use of the
troops at such station shall be manufactured in the arsenal or
depôt by soldiers of the regiments concerned.

4. At all stations at which there is no arsenal or depôt, one com-
plete set of implements, of the descriptions required for the troops
at the station, shall be issued as station stores and kept in regi-
mental possession, as determined by the officer commanding. The
blank cartridges required for the use of the troops in the station
shall be manufactured by soldiers of the regiment in whose charge
the implements are.

created
and extract

to Rules, to
the P. W.

L.

S
18-11

with 2 copies of
drawing
29-11-80
R. S.

Public Works {1880} Department

(2)

5. The following articles form a complete set of implements for the manufacture of blank ammunition on Morris' system:—

Former, brass	...	2	Special pattern for Martins Henry and for Snider's arms.
Machines, crimping, with cover, complete	...	2	
" " crimping, with cover, complete	...	2	
" " crimping	...	1	
Flacks, wood	...	4	
Box, varnishing	...	1	
Brushes, hair	...	12	
Former for paper	...	1	
Funnel, copper, small	...	1	
Funnel, copper, handled	...	4	
Machines, crimping, with barrel and supports, complete	...	1	
Margine clippers, pairs	...	5	
Measure, copper, 24 drops, No.	...	1	Common to Martins Henry and Snider's arms.
Pawins or powder cloths	...	2	
Sissors, laboratory	...	1	
Stools	...	5	
Table	...	1	
Tool for cleaning dies	...	1	
Trays for cups and nails	...	1	
Trays, wood, large	...	4	
" " small	...	4	
Tray with leather bottom	...	1	
Wrench, large	...	1	
" " small	...	1	

5. At all stations where no arsenal or depot exists, the table and the stools shall be provided by the Department Public Works, and the remaining articles obtained from the Ordnance Department. In arsenals and depôts, all the articles shall be provided by the Ordnance Department.

7. On the 1st July, annually, each regiment shall submit on the annual or depot on which dependent, requisitions for materials required for the manufacture of blank ammunition. These requisitions shall include materials in the following proportions, for the full number of blank cartridges authorized to be supplied annually, viz., 100 rounds per man, and 40 per recruit in addition —

[illegible]

5. Forty full-cases shall be provided by each regiment.

9. The material demanded and passed for the use of troops located at a station at which there is no animal or depot, shall be

No 2658 W. 16

B 42
My work.

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 22nd 4/22/76

Read the following:—

9658

to Nov. 1880)

19th Jan

uncited,
and extract
the Rules, to
the P. W.

d.
S
17-11

kept in deposit in the arsenal or depot, and issued as required, on receipts signed by the officers commanding the respective regiments.

10. At other than arsenal or depôt stations, the stores shall be obtained in the usual manner, and kept in regimental charge.

11. The several stores expended in the manufacture of blank cartridges shall be struck off the books as "expended in manufacture of blank ammunition." The cartridges made shall be received on the books "from manufacture."

12. One Non-commissioned Officer and four men shall be detailed for the duty of carrying out the manufacture of blank ammunition in British regiments, under the supervision of the regimental mucketry staff, and in Native regiments, under an officer specially appointed by the Commandant. Although these officers will be held strictly responsible in every way, their actual presence is imperative only in the third stage of the manufacture, in which alone is there any chance of accident. The number of men may, however, be increased at the discretion of the commanding officer, should a large number of blank cartridges be suddenly required for use.

-13. Only steady men, and those of good character, are to be employed on this duty.

14. One rupee per 1,000 filled cartridges will be granted for this work, and the money thus earned shall be distributed under reciprocal arrangements among the men employed in the manufacture of blank cartridges.

15. Deductions shall, however, be made from this allowance on the following scale for defective cartridges, the result of carelessness in manufacture :—

Below 1	...	...	} percent.	{	2	...	} per 1000	
Above 1	but below 1.5	...			4	...		} for 1000
" 1.5	"	2			8	"		
" 2	"	3			1	...		
" 3	...	...			1	...		

16. To permit of the fines being inflicted on the printer persons, a slip of paper containing the names of those employed in the

Drawing 1
29-11-19

P.W.D.

18 NOV 80

NA

Public Works
Department

{1880} Depa

(4)

manufacture of the cartridges packed in any one box, shall be placed in that box.

17. When other accommodation is not available, a tent may be pitched under the orders of the officer commanding the station in which the work may be carried on.

18. The hours of work shall be regulated by the officer commanding the regiment, but should not exceed six hours daily.

No 2658 W. 1/6

13 40P
My marks

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

Read the following:—

9658
18

9658
19

14 Nov 1880

19 Nov 1880

Instructions for guidance in Manufacture.

1. The empty cases are first examined. Those which are found so much dented, or damaged as to entail much labor in rectifying, are to be rejected; also those which are very much rusted.

2. *The mouth of the case opened.*—The case being held in the left hand, the brass former is inserted with the right, and circled round with a light pressure till the neck of the case is circular, or as near so as possible.

3. *Interior cleaned.*—The case is forced over the brush and turned round with a quick motion two or three times, then withdrawn, and, mouth downwards, tapped on the table to shake out the impurities which have been loosened by the brush.

4. *Oiling.*—The case is wiped with a dry cloth and then with an oiled rag. The entire outer surface of the Martini-Henry case (case, base cups, and base disc) is oiled. With Snider cases it is sufficient to oil the base cups and base disc.

5. *Uncapping.*—The uncapping machine is held in the left hand, palm upwards, with the small end of the machine towards the body. The core is placed in the block mouth upwards. The hammer is held in the right hand. A case is inserted into the machine and pressed in with the thumb of the right hand. The point of the machine is then placed in the cover, and a light blow given with the face of the hammer, followed by two heavy blows. The upper rim of the cover should now be in contact with shoulder of machine, and, on withdrawing the machine from the cover, the base of the case should be flush with the face of the small end of the machine. The butt of the machine is then turned towards

uncated,
and extract
to Rules, to
the P.W.

d.
S
19-11

drawn
1880
19-11

P.W.D.

18 NOV 80

NA

Public Works
1880

(6)

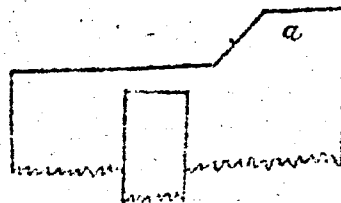
the body by a twist of the wrist, and the case ejected by striking the piston a sharp, but not a heavy blow with the point of the hammer.

6. *Examination.*—The cases are now examined by the Non-commissioned Officer, to ascertain that cap and anvil have been driven out. The case, with the base disc towards the examiner's eye, is held up to the light, when an uncapped case will be at once detected. A touch will often remove a cap that has only partially been driven out.

7. *Rectifying the cap chamber.*—The rectifying machine is used in exactly the same manner as the uncapping machine described in process 5. Care must be taken to distinguish between the uncapping and rectifying machines, as they are very similar in outward appearance. The only differences are that the uncapping machine has a pin in the piston and a hole in the cover, through which the cap when driven out passes; the rectifying machine has no pin in the piston, but one in the cover, which is secured by two nuts outside.

8. *Placing paper lining.*—The paper having been cut to the proper shape, is held in the left hand, and the brass former placed on it, as shown on the annexed diagram. The

paper is wrapped round the brass former with the fingers of the left hand, and the projecting piece of paper (a) turned over the point of the brass former with the fore-finger of the left hand. The former, with paper round it, is then slipped into a case, and the former withdrawn, leaving the paper lining in the case. The cases are then placed in trays mouth upwards.



N 2658 W.

13 40P
Mylwork

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 22nd Nov 1880

Read the following:—

(7)

9. *Examination.*—The tray containing the cases is held at an angle, so that the inside of the cases can be seen. The examiner runs his eye along, to see that the bottom of each case is covered with paper.

10. *Filled with powder.*—The vessel containing the powder is placed on the right side of the operator. The funnel is held in the left hand, and the 2 1/2 dram measure in the right; the tray containing the cases to be filled, on the table in front,—the end furthest from the operator slightly raised. The neck of the funnel is inserted into each case in succession, and the charge of powder poured in.

11. *Examination.*—The Non-commissioned Officer, holding the tray at a slight angle towards the light, ascertains that each case has received a proper charge of powder.

12. *Twisting.*—The case is taken out of the tray with the left hand, the projecting paper lining is pinched between the thumb and fore-finger of the right hand, twisted with the twist of the paper, and pressed down into the case with the point of the fore-finger of the right hand.

13. The former is inserted and the charge lightly pressed down.

14. *Crimping.*—The crimper is held in the right hand opening upwards, a cartridge inserted, and sent home by a sharp blow on the table. The cartridge is then withdrawn with the finger and thumb of the left hand.

15. *Placing caps and anvils.*—A cap is placed mouth upward in each recess of the circular wooden board; and an anvil, point downwards, is inserted into each cap.

16. *Capping.*—Two men are required for this operation—No. 1 sits on the right of the capping machine, with a wooden board containing the caps, with anvils, beside him. No. 2 sits on the left of the machine. No. 1 places the cap and anvil in the machine; No. 2 presses them into the cartridge. The method of working is as follows:—No. 2, holding the lever in his left hand, presses it from him. This opens the barrel, into which he inserts a cartridge. No. 1 meantime places a cap with anvil (crown of the cap to the

2658
10
13
14 Nov 1880

14th

meated,
and extract
to Rules, to
the P.W.

S
19.11

with 2 copies of
drawing
29-11-80
21. 5

P.W.D.

18 NOV 80

MA

Public Works
1880

{1880} D:

(5)

rear) into the recess in the lever, and gives the word "ready." No. 2 then pulls the lever towards him, and, as soon as it is stopped by the guard, presses the cap home into the cartridge by means of the piston in rear, which he works with his right hand. Releasing the piston, which then springs back, he smartly forces the lever from him. The cartridge is thereby extracted, the barrel open for another cartridge, and the lever in position to receive another cap and anvil.

17. *Examination.*—The Non-commissioned Officer then examines each cartridge, to see that all have been properly capped.

18. *Varnishing.*—The cartridge is held in the right hand, and the base disc pressed against the cotton wad in the varnishing box, and turned round with the finger and thumb.

19. The cartridges are then placed in the trays, and left to dry. When dry, each cartridge is wiped with a dry cloth and packed loose into boxes.

N. B.—If required for immediate use, the cartridges need not be varnished.

No 2658 W. 16 13 42
M. J. Marks

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 27th Nov/80

Read the following:—

9658
13

9658
17

14th Nov 1880

19th Nov 1880

Rules to be observed in carrying out the Manufacture of Blank Ammunition on Morris' system.

1. The manufacture of blank ammunition is not to be carried on unless the Non-commissioned Officer appointed for the duty is present.

2. The manufacture of blank ammunition is not to be carried on within a distance of 450 yards of the magazine.

3. The several operations, as detailed in the "instructions for guidance in manufacture," may be divided into four groups. The first group includes paragraphs 1 to 4; the second, paragraphs 5 to 7; the third, paragraphs 8 to 14; and the fourth, paragraphs 15 to 19. As a general rule, each group of operations should be carried out on separate days; but on no account is any other work to be allowed to be done at the same time, in the same place, while the operations included in the third group are being carried on.

4. Not more than 50 lbs. of gunpowder are to be drawn at one time from the magazine; and of this quantity, only 1 lb. shall at any one time be exposed in the tray with leather bottom used in filling the cartridges. The Non-commissioned Officer shall be responsible that the barrel containing the powder is kept covered with a tarpaulin or powder cloth, and shall himself issue the small quantities of powder as required.

5. Spilt gunpowder must be immediately swept up and put into a bucket of water, kept for the purpose. It is on no account to be returned into the barrel or used for filling cartridges.

6. The Non-Commissioned Officer shall satisfy himself, and be responsible, that during the operations included in groups 3 and 4 no one present has on his person any dangerous articles, such as matches, razors, &c., or articles made of iron or steel. Smoking during the process is strictly prohibited.

7. A pavina shall be spread on the floor when filling the cartridges with powder, and magazine clippers shall be worn by the men employed during this process.

8. The Non-commissioned Officer is never to be absent while work is going on, unless duly relieved. He shall be responsible for the strict observance of all the rules herein laid down.

created,
and extract

to Rules, to
the P. W.

d.

S
19-11

with 2 copies of
drawing
19-11-80

P.W.D.

18 NOV 80

NA

Public Works
Department

{1880} 7

P.W.D.

18 NOV 80

NA

No 2658 W. 16

13 48P
M. J. works

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 25th Nov 1880

Read the following:—

2658
18

From

The Insp. Genl. of } (H.C. No. 9 of 5th Nov 1880)
Ordnance }

do do (G 318 17th)

Communicated,
with drawings and extract
para. 6 of the Rules, to
the officers of the P. W.
Dept. concerned.

S
17-11

Supp. Engineers } with drawing 21-21-11
S. W. Presidency } and extract
of rules. 6 8.
x with 2 copies of 21. 5
drawing
29-11-80
E. Ed.

P.W.D.

18 NOV 80

NA

Public Works
Department

{1880} D

P.W.D.

18 NOV 80

NA

No 2658 W. 16

15 4/12
M. J. works

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 27th Nov 1880

Read the following:—

g658
18

From

The Insp. Genl. of } (H.C. No. 9 of 5th Nov 1880)
Ordnance }

do do (G. 318 of 19th Nov 1880)

Communicated,
with drawings and extract
para: 6 of the Rules, to
the officers of the P. W.
Dept. concerned.

S
17-11

Supp. Engineers } with drawing 21-21-16
S. W. Presidency } and extract
of rules. 6
x with 2 copies of
drawing 21.
29-11-80
G. E. S.

9658
11

7314

Cabl. of 1870: 300000.

PUBLIC WORKS.

To

Dated

Issued

Recd.

Recd.

G. O. 22nd Nov 1880 No. 26686

Nov 1880

Manufacture of
Blank Cartridges

Rules for the guidance
of officers carrying
out the ——— according
to Major's Order
Command to the Officers
of the P.W. Dept.