

## CHAPTER 5

### RIGGING M198, 155-MM HOWITZER WITH ACCOMPANYING AMMUNITION LOAD ON A TYPE V PLATFORM

#### Section I LOW-VELOCITY AIRDROP

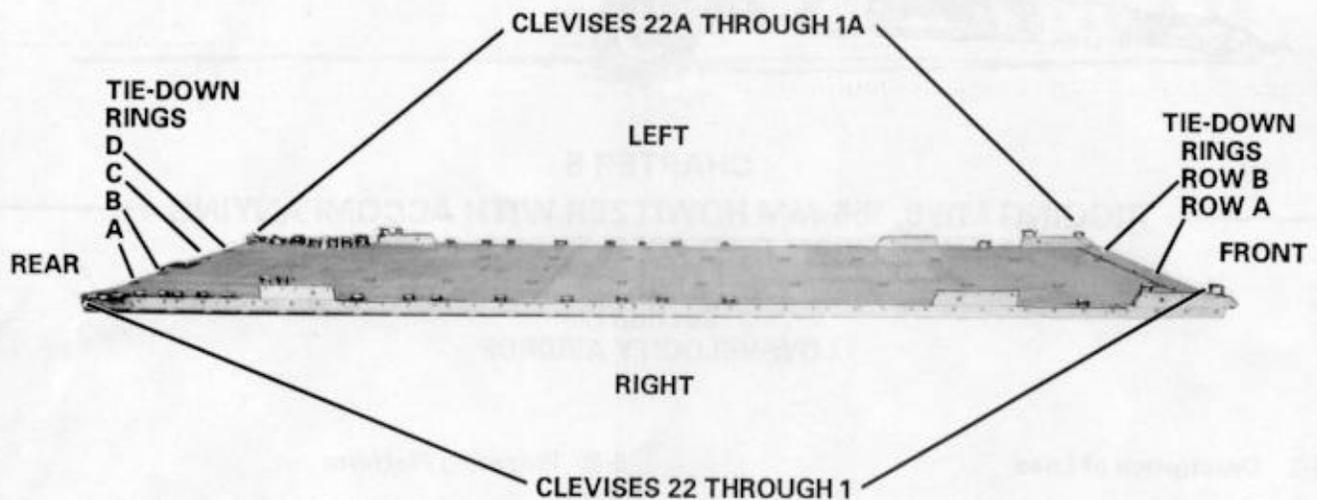
##### 5-1. Description of Load

The M198, 155-mm howitzer is rigged on a 24-foot, type V airdrop platform for low-velocity airdrop from C-130 and C-141 aircraft. The howitzer is dropped with an accompanying load of ammunition, water cans, and gun equipment weighing 1,509 pounds. The load requires five G-11B cargo parachutes.

##### 5-2. Preparing Platform

Prepare a 24-foot, type V airdrop platform using four suspension links, two tandem links, and 48 clevis assemblies as shown in Figure 5-1.

- Notes:*
1. The nose bumper may or may not be installed.
  2. Measurements given in this section are from the front edge of the platform, NOT from the front edge of the nose bumper.



**Step:**

1. Inspect, or assemble and inspect, the platform according to TM 10-1670-268-20&P/TO 13C7-52-22.
2. Install a suspension link in holes 9, 10, and 11 on each platform side rail. Face the flat part of the link to the front of the rail.
3. Install a suspension link in holes 38, 39, and 40 on each platform side rail. Face the flat part of the link to the rear of the rail.
4. Install a tandem link on each platform side rail using holes 1, 2, and 3.
5. Install a clevis on bushings 1 and 4 on each front tandem link.
6. Install a clevis on bushings 3 and 4 on each rear suspension link.
7. Starting at the front of each platform side rail, install clevises on each platform side rail using the bushings bolted on holes 6, 20, 23, 25, 27, 30, 33, 34, 36, 42, 43, 44, 45, and 46.
8. Install clevises in an inverted position on each platform side rail using the bushings bolted on holes 47 and 48. Attach two clevises to each inverted clevis.

Figure 5-1. Platform prepared

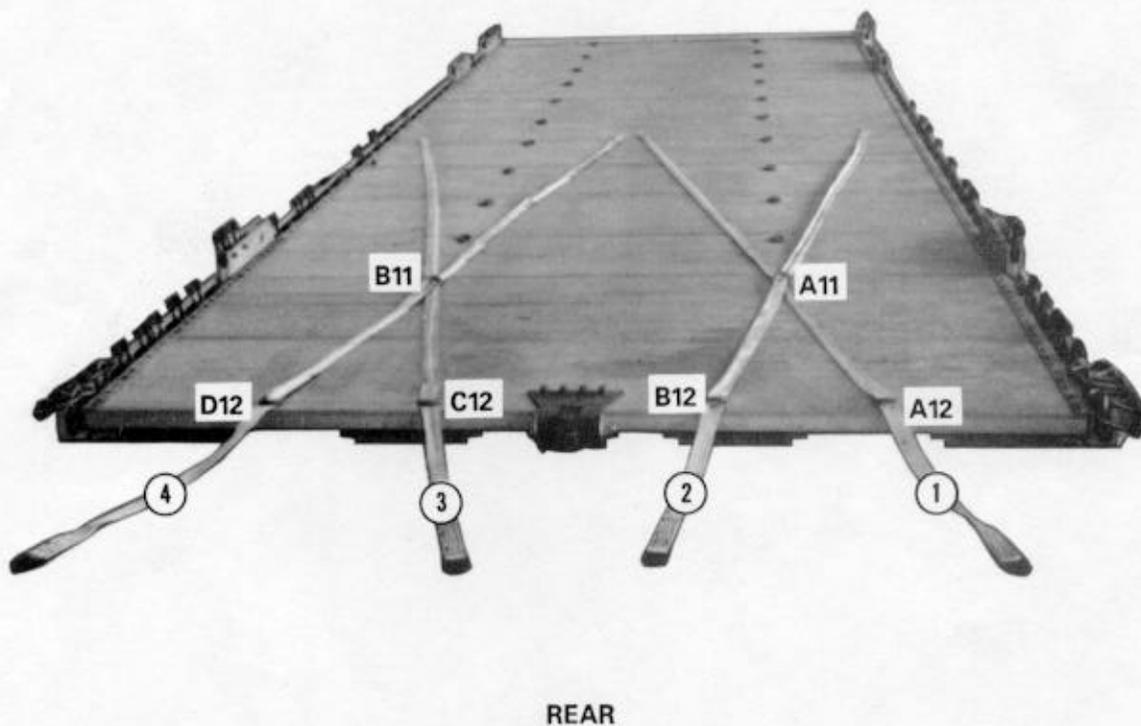
**Note:** When numbering the clevises, disregard the inverted clevises.

9. Starting at the front of each platform side rail, number the clevises bolted to the right side from 1 through 22 and those bolted to the left side from 1A through 22A.
10. Starting at the front of the platform, label the two tie-down rings in the first 11 panels A and B from right to left. Label the four tie-down rings in the last panel A, B, C, and D from right to left. Starting with the first panel, number the tie-down rings 1 through 12.

**Figure 5-1. Platform prepared (continued)**

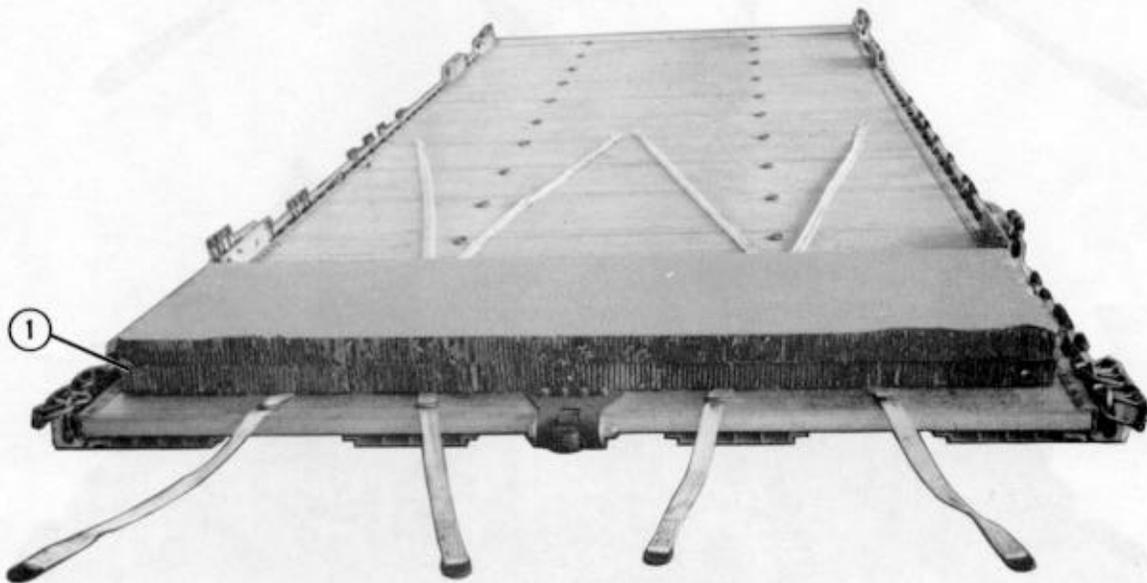
### 5-3. Rigging Accompanying Ammunition Load

Rig the accompanying ammunition load (two groups of eight projectiles each) on the rear of the platform as shown in Figures 5-2 through 5-7.



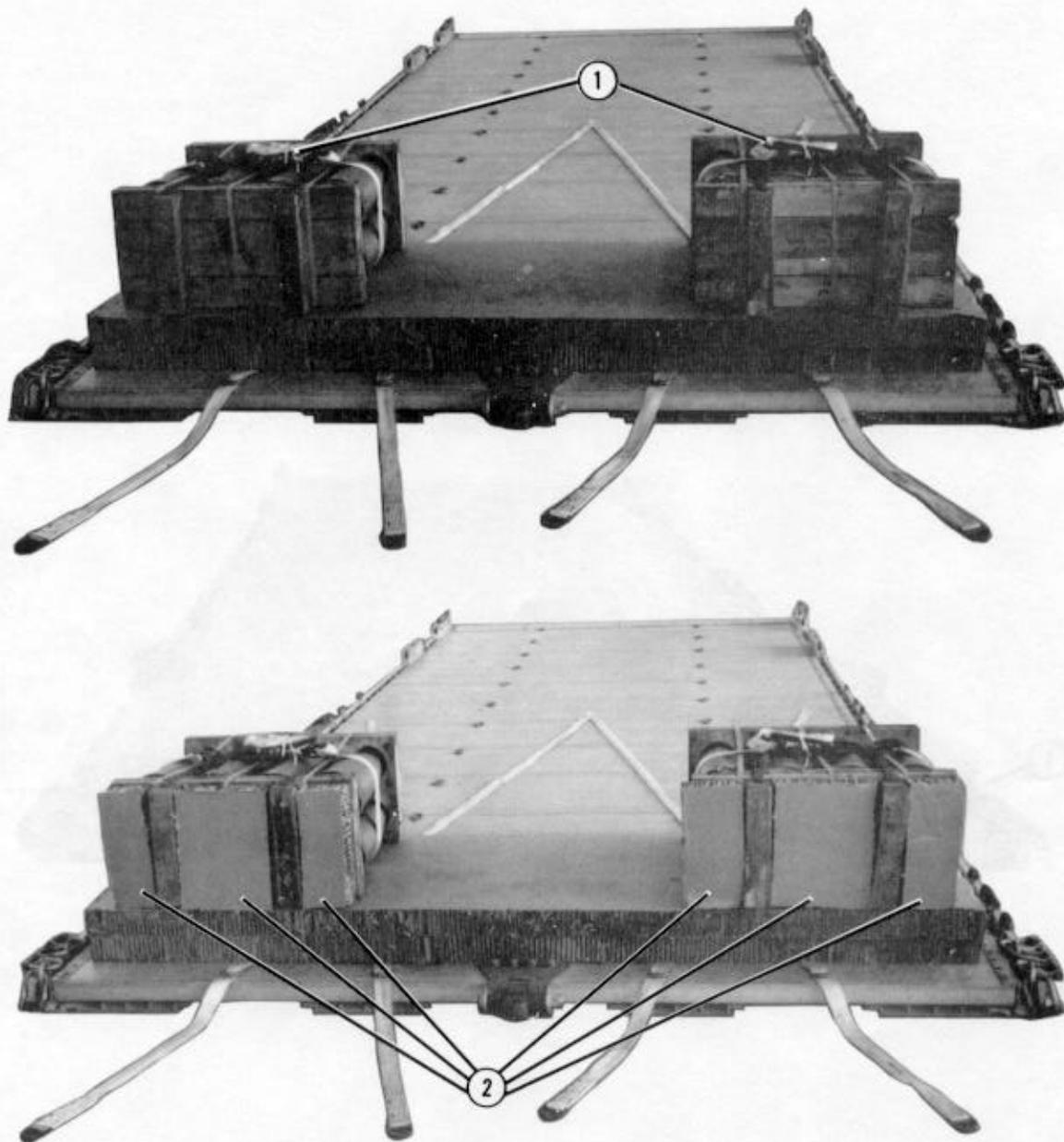
- ① Pass a 15-foot lashing through tie-down rings A12 and A11.
- ② Pass a 15-foot lashing through tie-down rings B12 and A11.
- ③ Pass a 15-foot lashing through tie-down rings C12 and B11.
- ④ Pass a 15-foot lashing through tie-down rings D12 and B11.

Figure 5-2. Lashings positioned



- ① Center two 96- by 31-inch pieces of honeycomb on top of the lashings 6 inches from the rear edge of the platform.

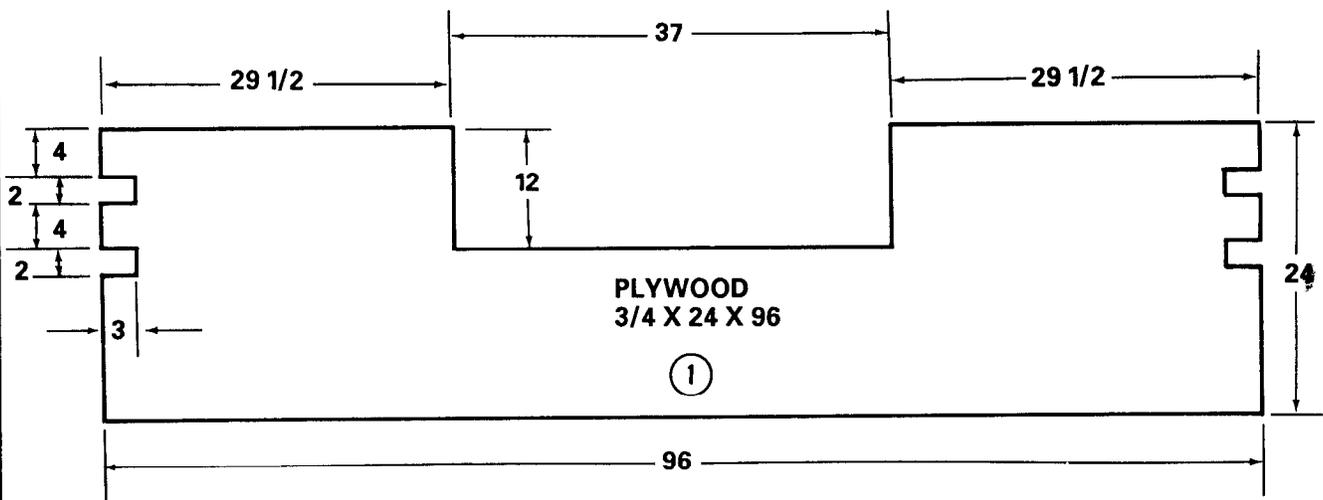
Figure 5-3. Honeycomb positioned



- ① Bind each group of projectiles together with a 15-foot lashing. Place one group of projectiles on each end of the honeycomb 3 inches from each side. Face the base ends of the projectiles to the rear of the platform.
- ② Cut four 5- by 13-inch pieces of honeycomb and two 10- by 13-inch pieces of honeycomb. Place the 10- by 13-inch pieces of honeycomb between the slots at the rear of the projectile groups. Place a 5- by 13-inch piece of honeycomb on each end of the rear of the projectile groups.

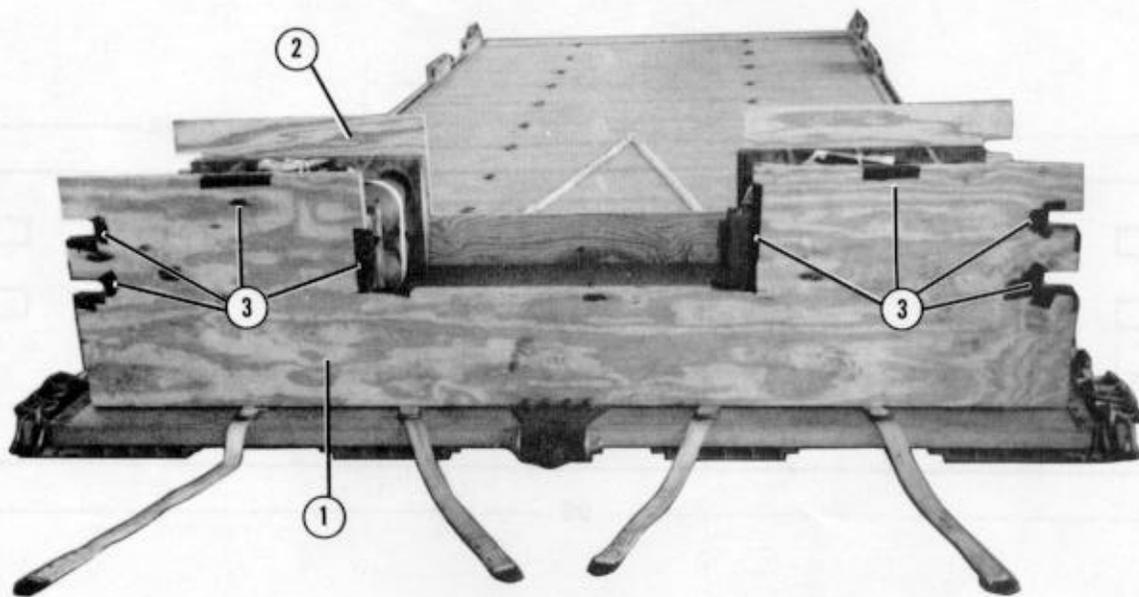
Figure 5-4. Projectiles positioned

- Notes: 1. This drawing is not drawn to scale.  
2. All measurements are given in inches.



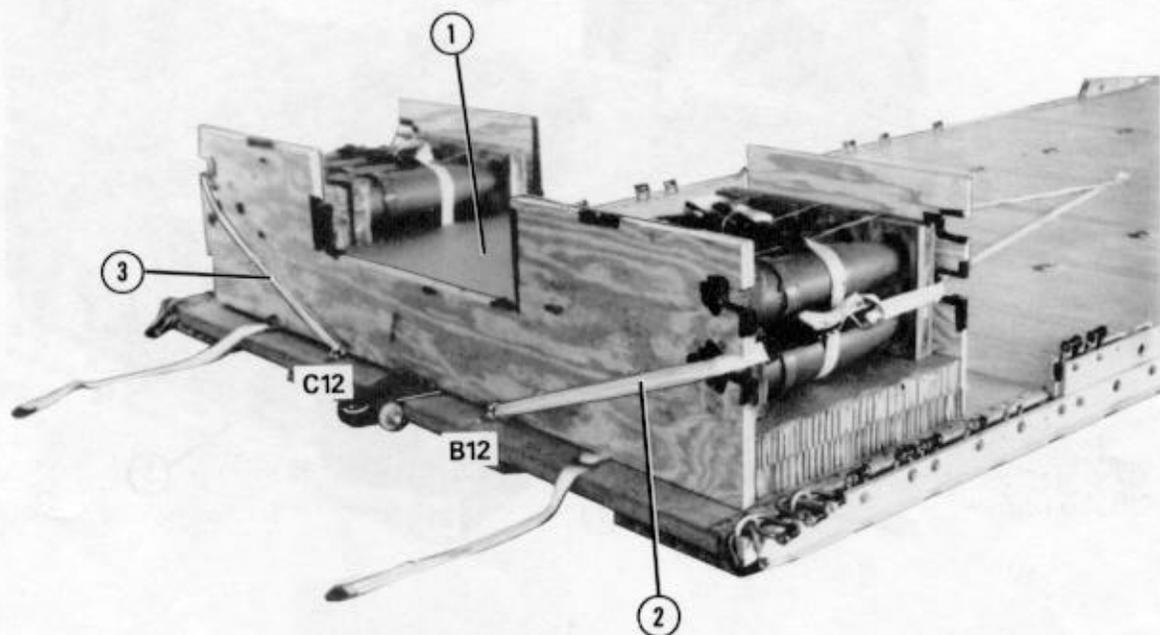
① Cut three endboards as shown.

Figure 5-5. Endboards prepared



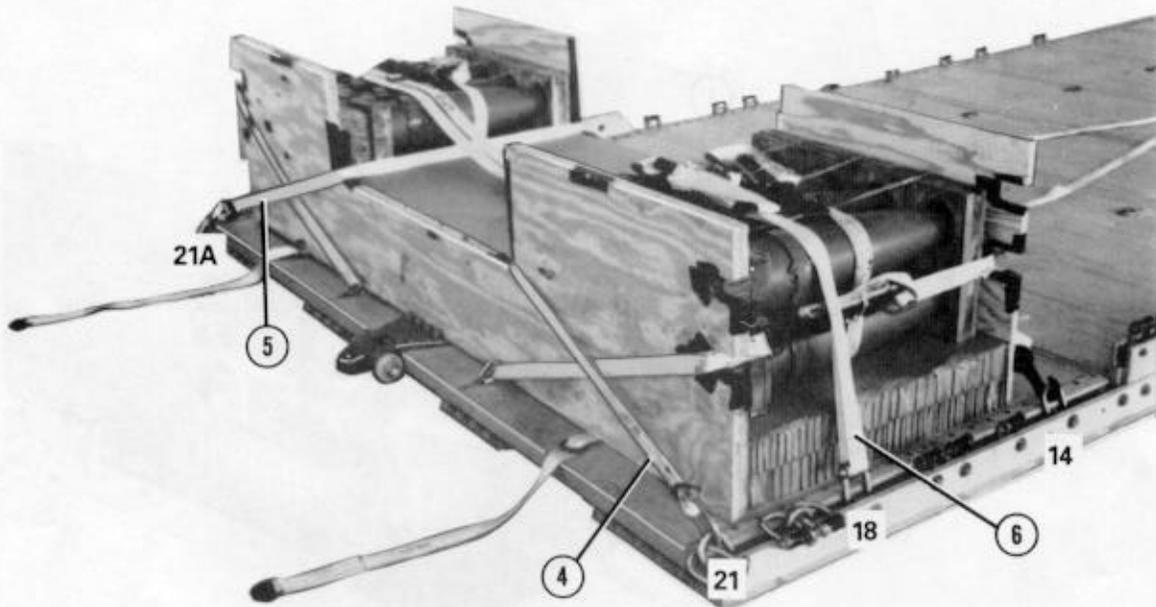
- ① Place two endboards against the rear of the load.
- ② Place one endboard against the front of the load.
- ③ Tape all cutouts and top edge on endboards.

Figure 5-6. Endboards positioned



- ① Place two 36- by 31-inch pieces of honeycomb between the two projectile groups.
- ② Pass the pre-positioned lashing in tie-down rings A11 and B12 through the lower cutouts in the right side of the endboards. Secure the lashing with a D-ring and a load binder on the right side of the projectiles.
- ③ Repeat step 2 for tie-down rings B11 and C12 for the left side of the endboards.

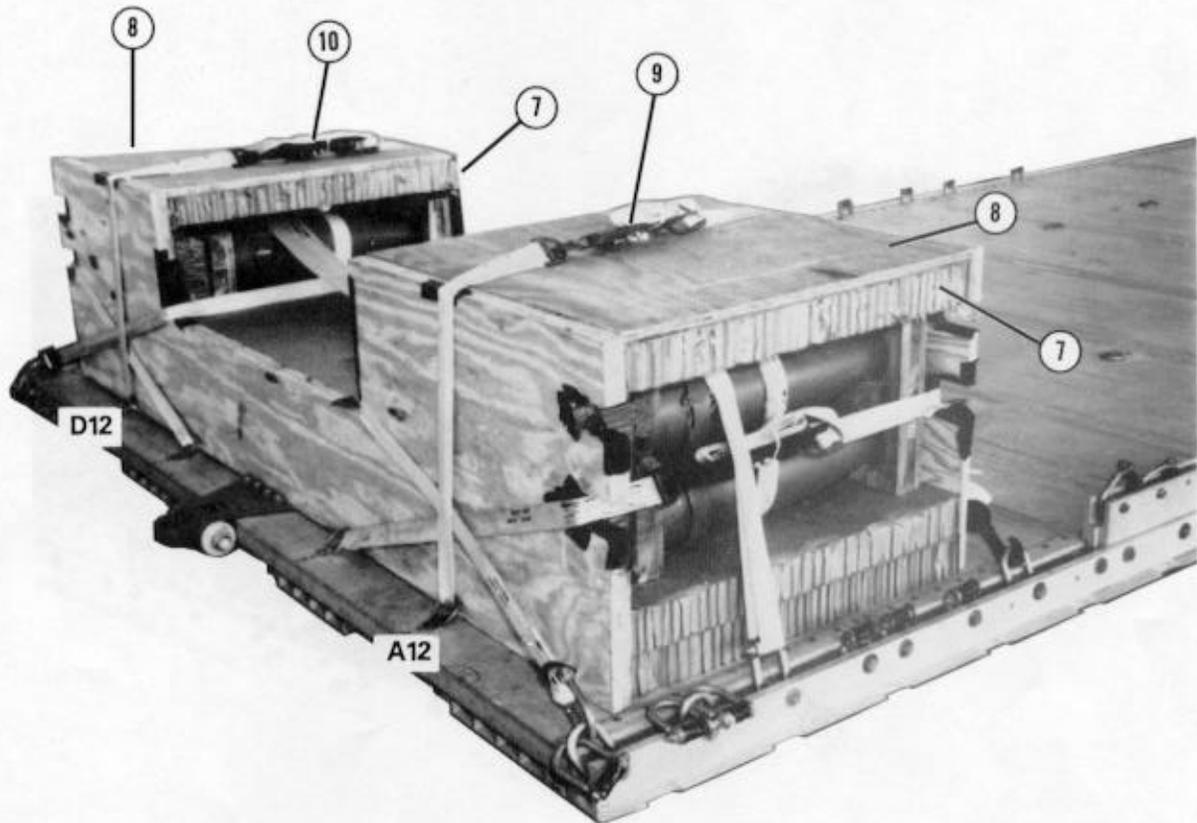
Figure 5-7. Projectiles lashed to platform



- ④ Pass a 15-foot lashing through clevis 21 and through its own D-ring. Pass the lashing around the center cutouts of the endboards. Invert clevis 14, and secure the lashing with a D-ring and a load binder to clevis 14.
- ⑤ Repeat step 4 for clevises 21A and 14A.
- ⑥ Form a 30-foot lashing according to FM 10-500-2/TO 13C7-1-5. Pass one end of the lashing through clevis 18 and the other end through clevis 18A. Secure the ends of the lashing on top of the projectiles with two D-rings and a load binder.

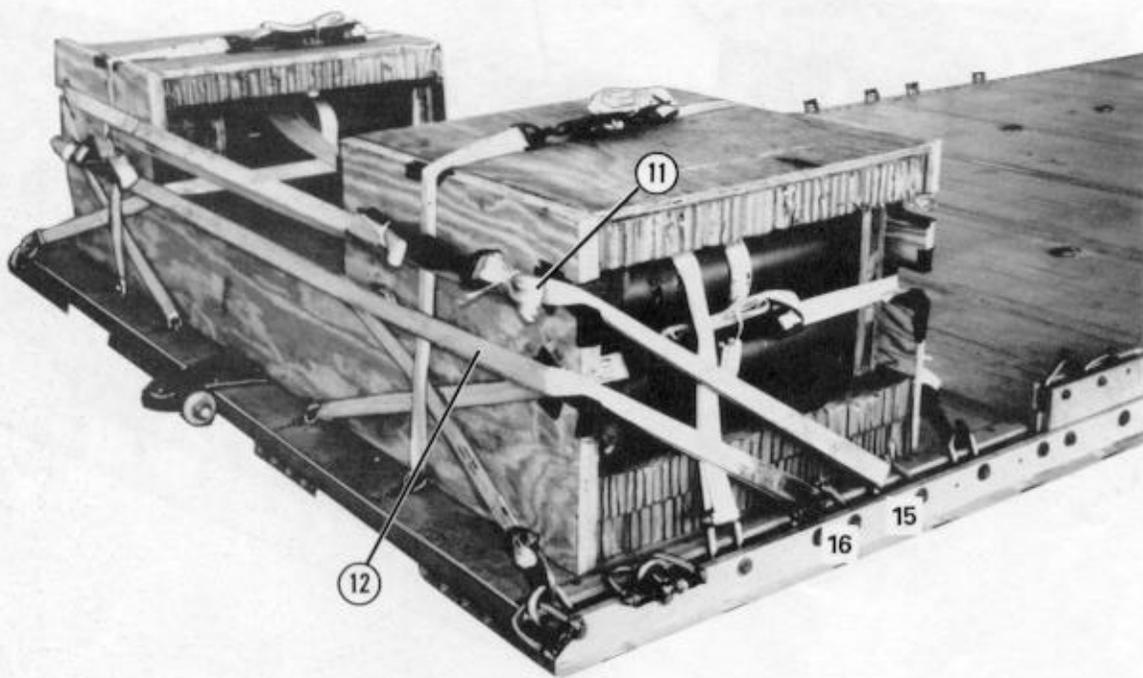
**Note:** Leave a little slack in the lashing. When the howitzer is positioned on the platform, the lashing will tighten itself.

Figure 5-7. Projectiles lashed to platform (continued)



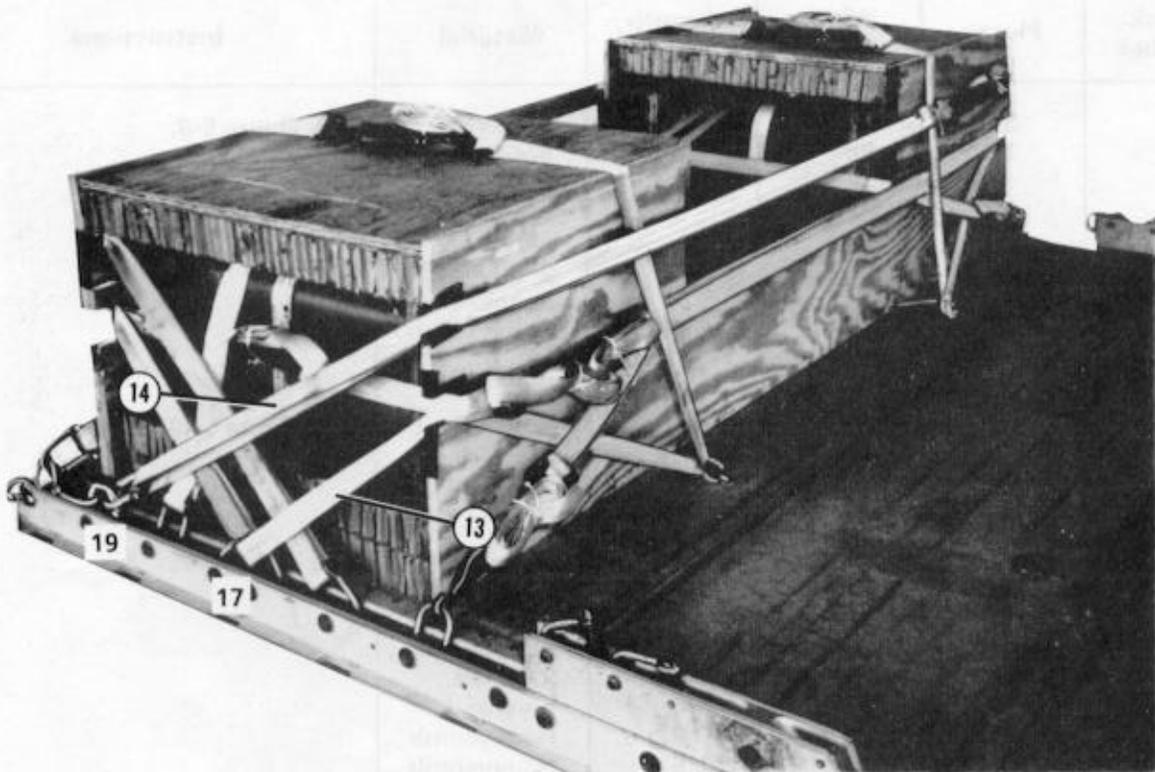
- ⑦ Place a 29- by 31-inch piece of honeycomb flush on top of each projectile group.
- ⑧ Place a 3/4- by 29- by 31-inch piece of plywood on top of each piece of honeycomb placed in step 7.
- ⑨ Pass the pre-positioned lashing in tie-down rings A12 and A11 over the top of the right projectile group. Secure the lashing on top with a D-ring and a load binder.
- ⑩ Repeat step 9 for tie-down rings D12 and B11 for the left projectile group.

Figure 5-7. Projectiles lashed to platform (continued)



- ⑪ Form a 30-foot lashing according to FM 10-500-2/TO 13C7-1-5. Run the lashing through clevises 15 and 15A and through the upper cutouts in the rear endboards. Secure the lashing on the right side of the rear endboards with two D-rings and a load binder.
- ⑫ Form a 30-foot lashing according to FM 10-500-2/TO 13C7-1-5. Run the lashing through clevises 16 and 16A and through the lower cutouts in the rear endboards. Secure the lashing on the left side of the rear endboards with two D-rings and a load binder.

Figure 5-7. Projectiles lashed to platform (continued)



- ⑬ Form a 30-foot lashing according to FM 10-500-2/TO 13C7-1-5. Run the lashing through clevises 17 and 17A and through the lower cutouts in the front endboard. Secure the lashing on the right side of the front endboard with two D-rings and a load binder.
- ⑭ Form a 30-foot lashing according to FM 10-500-2/TO 13C7-1-5. Run the lashing through clevises 19 and 19A and through the upper cutouts in the front endboard. Secure the lashing on the left side of the front endboard with two D-rings and a load binder.

Figure 5-7. Projectiles lashed to platform (continued)

**5-4. Preparing and Positioning Honeycomb Stacks**

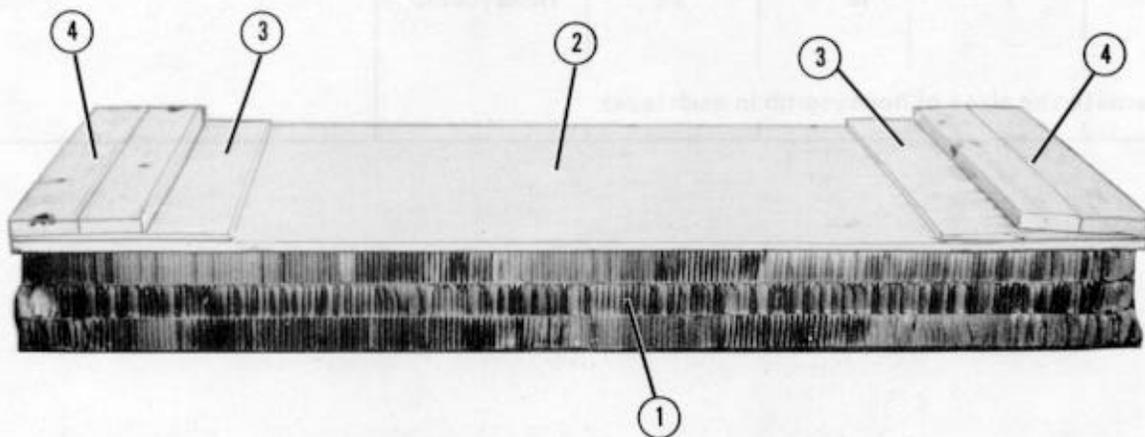
Prepare five honeycomb stacks as shown in Figures 5-8 through 5-11 using the materials listed in Table 5-1. Position the honeycomb stacks on the platform as shown in Figure 5-12.

**Table 5-1. Materials needed to prepare honeycomb stacks**

Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	3	96	36	Honeycomb	See Figure 5-8.
	1	96	36	3/4-inch plywood	
	2	18	36	3/4-inch plywood	
	4	6	36	2- by 6-inch lumber	
	4	58	36	Honeycomb	
2	7	80	30	Honeycomb	See Figure 5-9.
3	12	30	18	Honeycomb	See Figure 5-10.
	1	30	18	3/4-inch plywood	
	2	30	18	Honeycomb	
4	2*	18	96	Honeycomb	See Figure 5-11.
	2*	18	54	Honeycomb	
	1	18	96	3/4-inch plywood	
	1	18	54	3/4-inch plywood	
	3*	18	96	Honeycomb	
	3*	18	54	Honeycomb	
	1	18	88	3/4-inch plywood	
	1	18	48	3/4-inch plywood	
	1	18	96	Honeycomb	
	1	18	54	Honeycomb	
5	2*	18	96	Honeycomb	See Figure 5-11.
	2*	18	54	Honeycomb	
	1	18	96	3/4-inch plywood	
*Alternate the sizes of honeycomb in each layer.					

Table 5-1. Materials needed to prepare honeycomb stacks (continued)

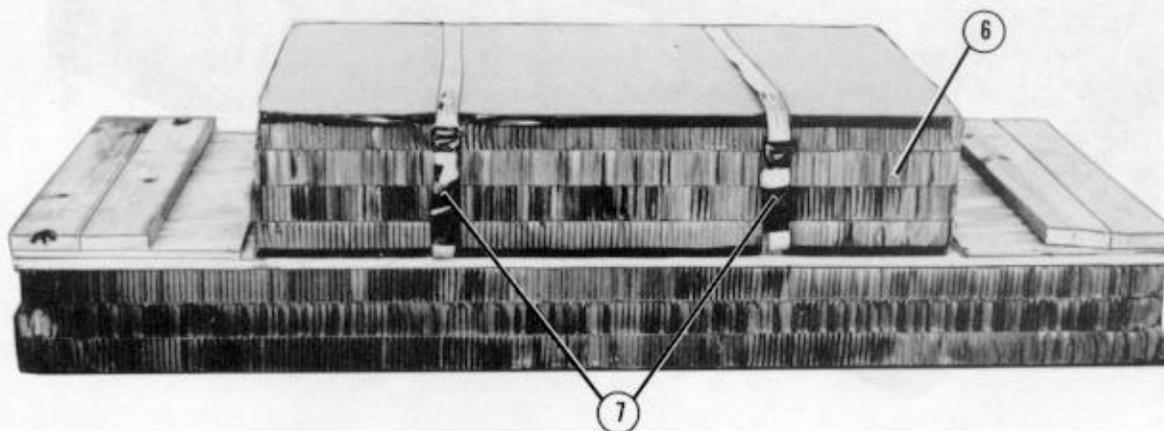
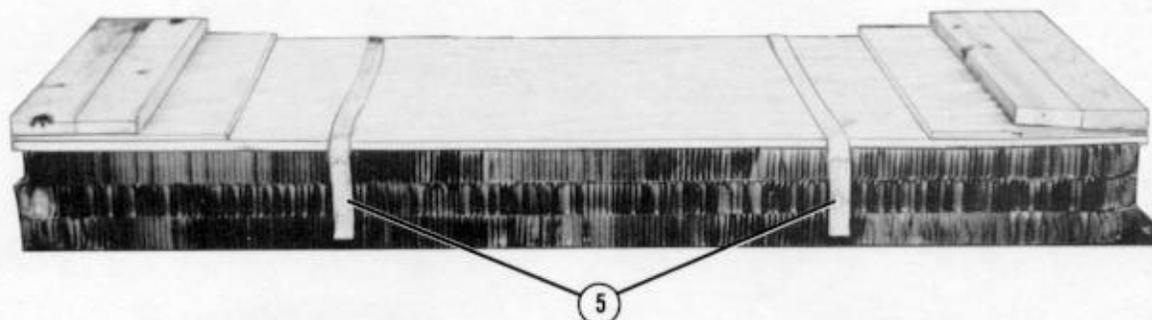
Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
	1	18	54	3/4-inch plywood	
	3*	18	96	Honeycomb	
	3*	18	54	Honeycomb	
	1	18	88	3/4-inch plywood	
	1	18	48	3/4-inch plywood	
	1	18	96	Honeycomb	
	1	18	54	Honeycomb	
*Alternate the sizes of honeycomb in each layer.					



- ① Place three 96- by 36-inch pieces of honeycomb as the base.
- ② Place a 3/4- by 96- by 36-inch piece of plywood on top of the base.
- ③ Place one 3/4- by 18- by 36-inch piece of plywood on top of the 3/4- by 96- by 36-inch piece of plywood, flush with each side edge.
- ④ Place two 2- by 6- by 36-inch pieces of lumber side by side. Place them on top of each 3/4- by 18- by 36-inch piece of plywood, flush with each side edge.

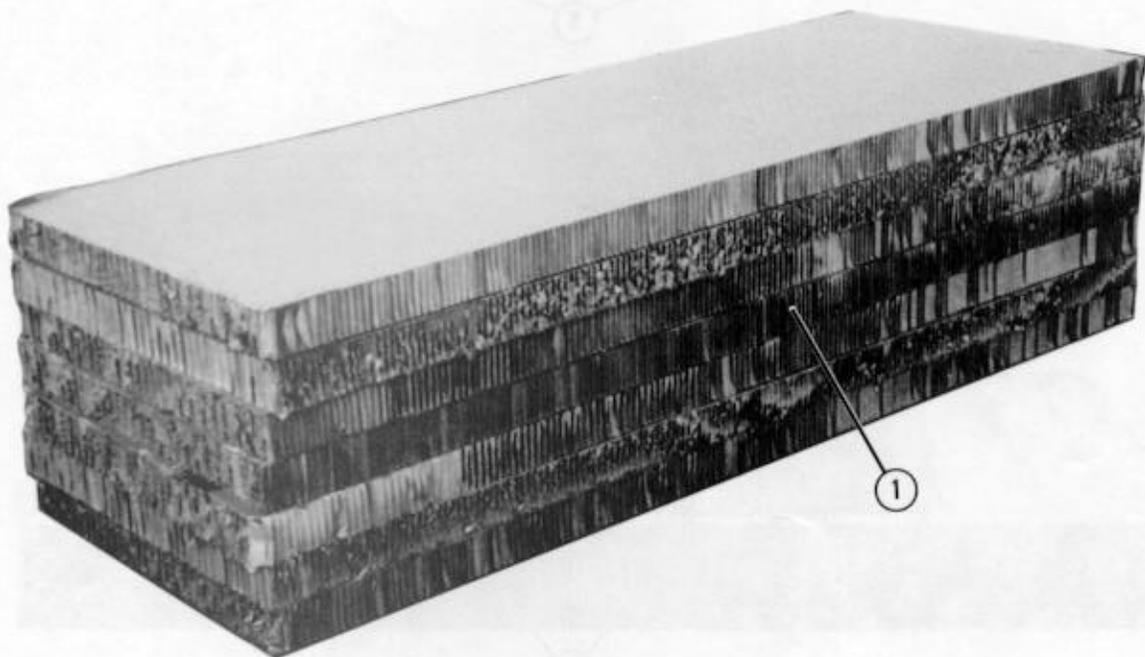
**Note:** Nail the pieces of plywood and lumber together using tenpenny nails.

Figure 5-8. Honeycomb stack 1 prepared



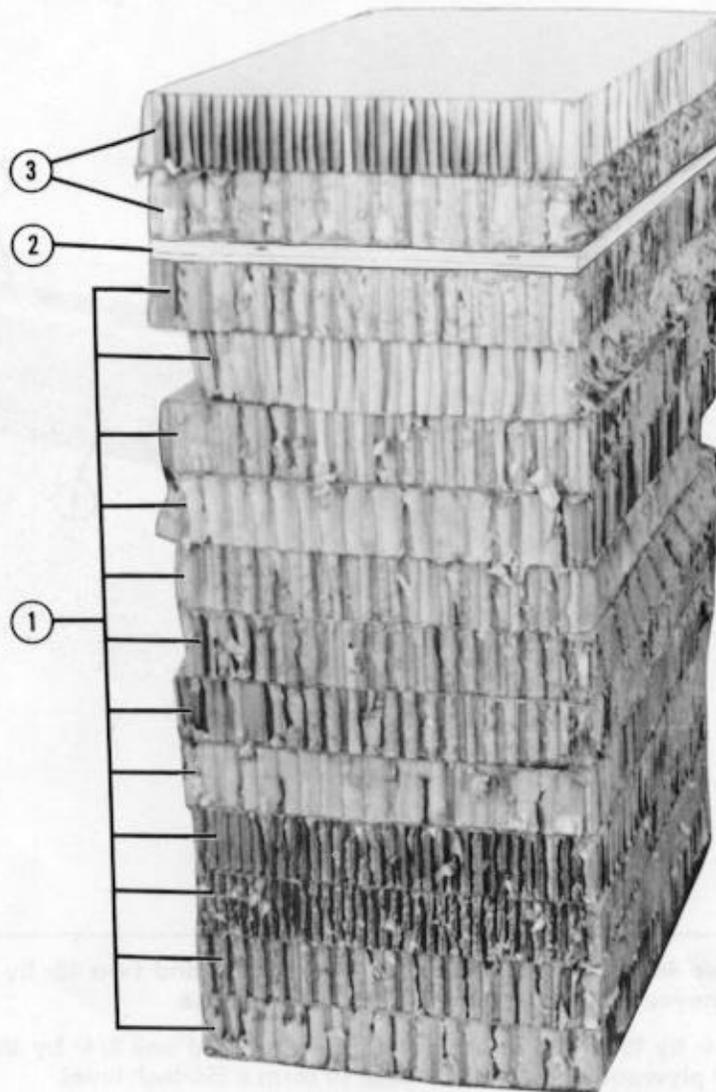
- ⑤ Lay one 15-foot lashing on top of the base stack, 30 inches from each side.
- ⑥ Center four 58- by 36-inch pieces of honeycomb on top of the lashings. Tape the front and rear edges of the top and bottom layers of the 58- by 38-inch honeycomb.
- Note: Do NOT glue the 58- by 36-inch pieces of honeycomb to the plywood.**
- ⑦ Pass both lashings (step 5) over the stack. Pass the free ends through their own D-rings. Pull the lashings tight, and secure them on the front of the stack. Fold and tape the excess lashings.

Figure 5-8. Honeycomb stack 1 prepared (continued)



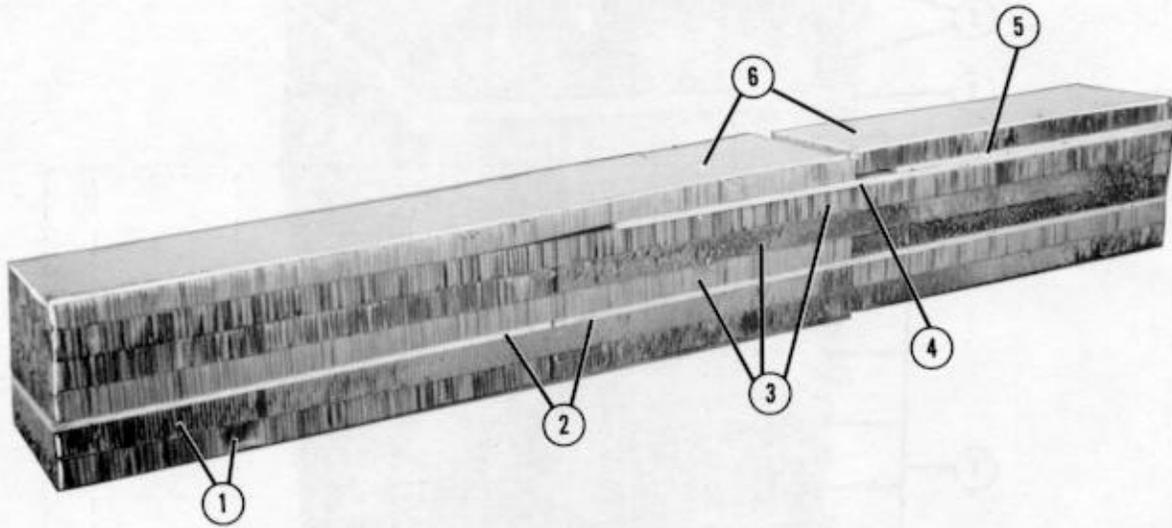
- ① Place seven 80- by 30-inch pieces of honeycomb to form the stack.

Figure 5-9. Honeycomb stack 2 prepared



- ① Place twelve 30- by 18-inch pieces of honeycomb as the base.
- ② Place one 3/4- by 30- by 18-inch piece of plywood on top of the base.
- ③ Place two 30- by 18-inch pieces of honeycomb on top of the plywood.

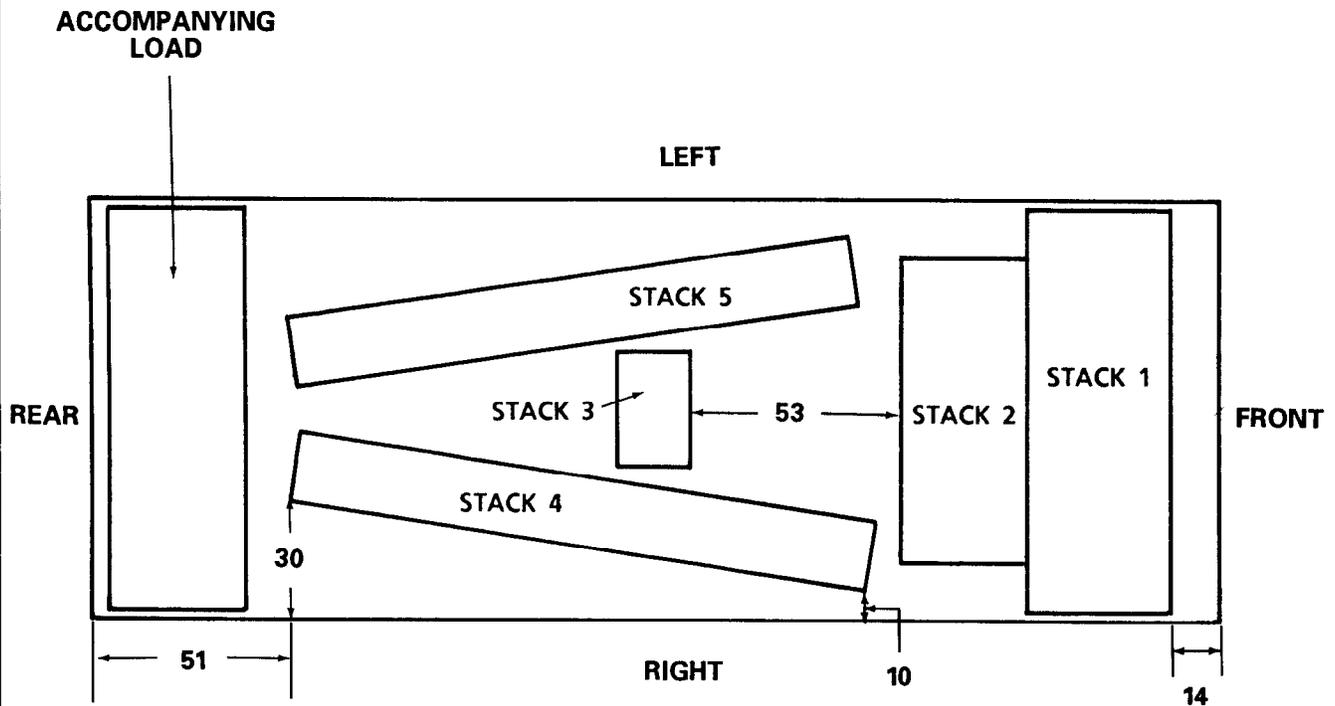
Figure 5-10. Honeycomb stack 3 prepared



- ① Alternate two 18- by 96-inch pieces of honeycomb and two 18- by 54-inch pieces of honeycomb to form a two-layer 150-inch base.
- ② Place one 3/4- by 18- by 96-inch piece of plywood and one 3/4- by 18- by 54-inch piece of plywood on top of the base to form a 150-inch layer.
- ③ Alternate three 18- by 96-inch pieces of honeycomb and three 18- by 54-inch pieces of honeycomb to form three 150-inch layers on top of the plywood.
- ④ Place one 3/4- by 18- by 88-inch piece of plywood on top of the honeycomb flush with the front edge of the stack.
- ⑤ Place one 3/4- by 18- by 48-inch piece of plywood on top of the 3/4- by 18- by 88-inch piece of plywood flush with the front edge of the stack.
- ⑥ Place one 18- by 96-inch piece of honeycomb and one 18- by 54-inch piece of honeycomb on top of the stack to form a 150-inch layer.
- ⑦ Repeat steps 1 through 6 for honeycomb stack 5.

Figure 5-11. Honeycomb stacks 4 and 5 prepared

- Notes: 1. This drawing is not drawn to scale.**  
**2. All measurements are given in inches.**

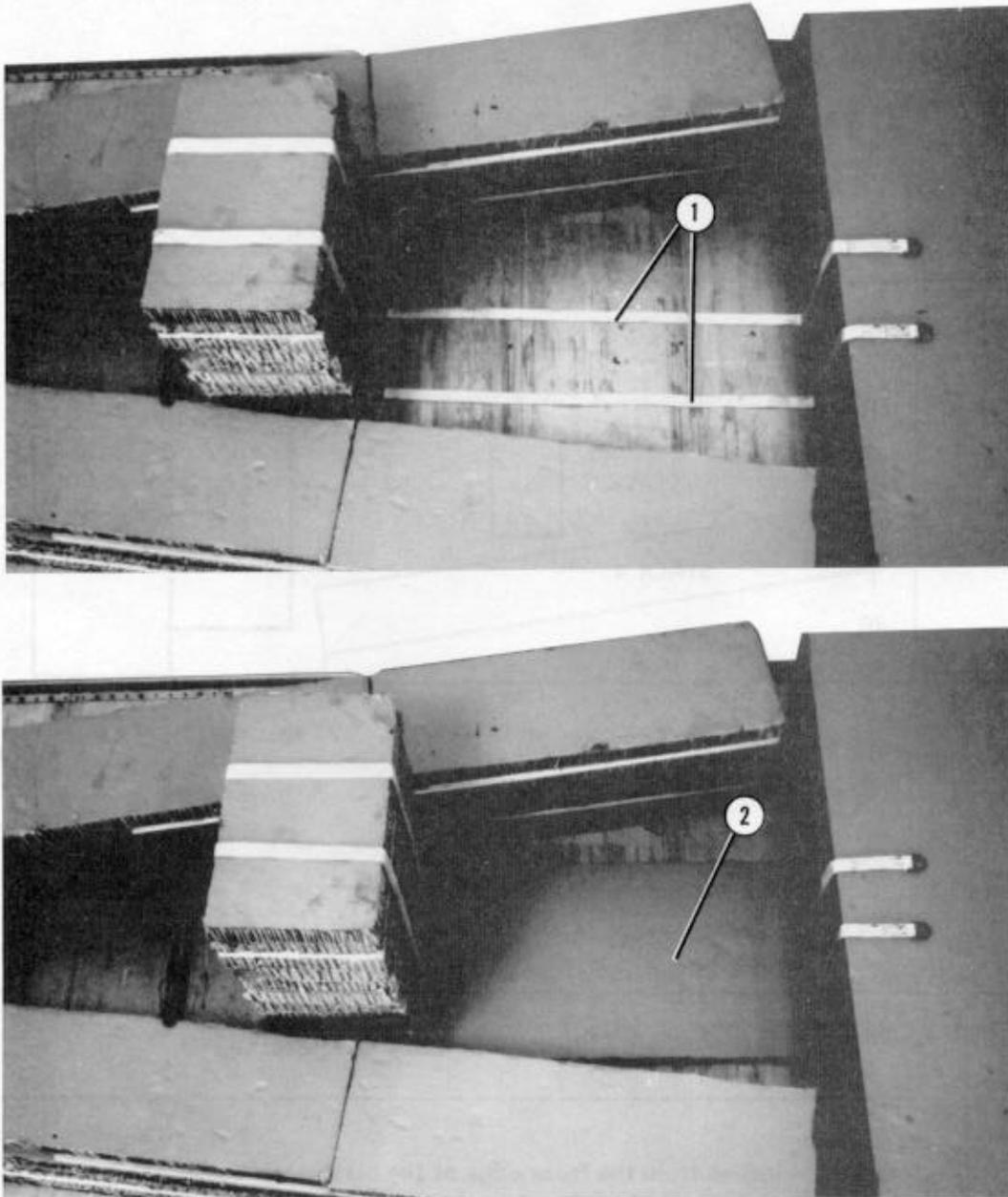


Stack Number	Position of Stack on Platform
1	<p><b>Place stack:</b>                      Centered 14 inches from the front edge of the platform.                      Centered flush against stack 1.                      Centered 53 inches from the rear edge of stack 2.                      51 inches from the rear edge of the platform. Place the front right corner 10 inches from the right rail. Place the rear right corner 30 inches from the right rail.                      51 inches from the rear edge of the platform. Place the front left corner 10 inches from the left rail. Place the rear left corner 30 inches from the left rail.</p>
2	
3	
4	
5	

Figure 5-12. Honeycomb stacks positioned on platform

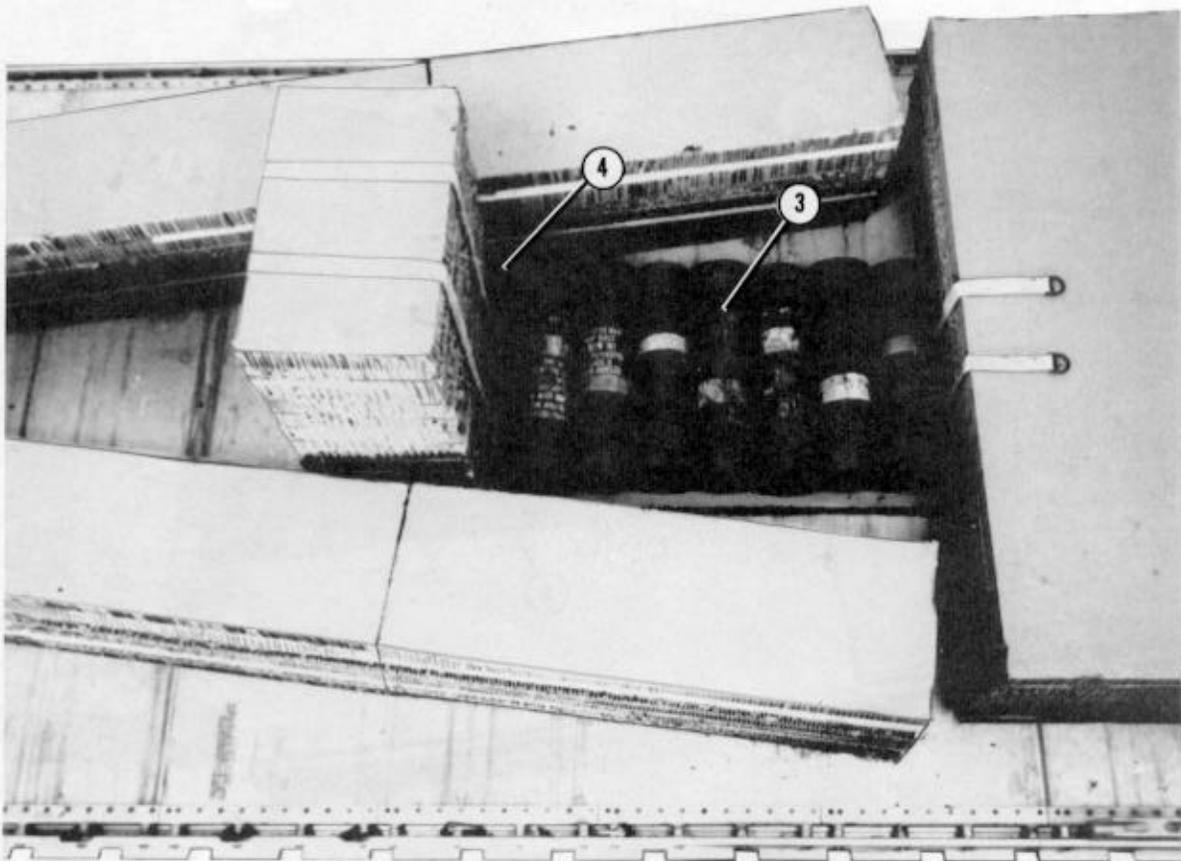
### 5-5. Stowing Accompanying Equipment

Stow the accompanying equipment as shown in Figures 5-13 and 5-14.



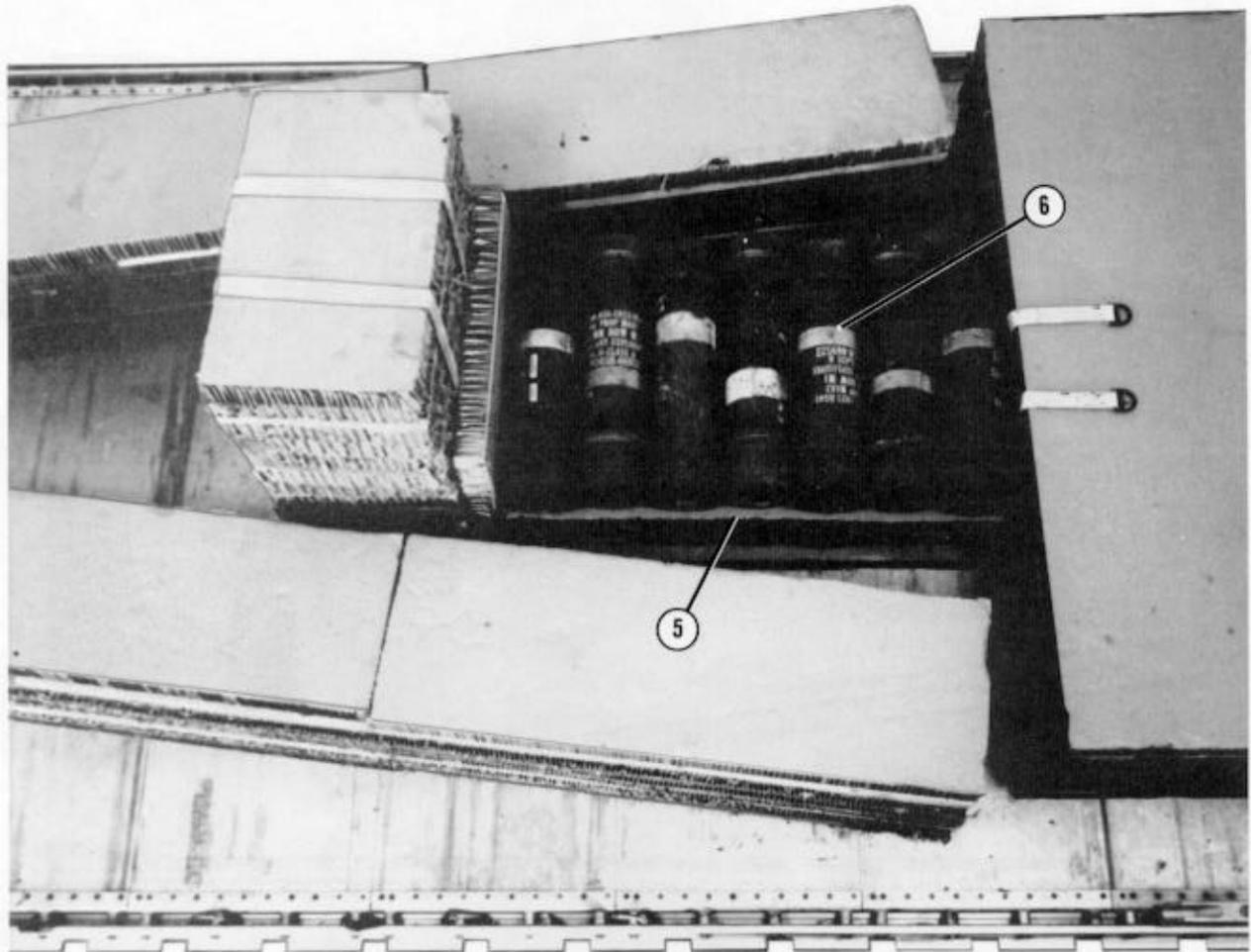
- ① Center two 15-foot lashings 18 inches apart between honeycomb stacks 2 and 3.
- ② Place one 30- by 53-inch piece of honeycomb on top of the lashings.

Figure 5-13. Accompanying equipment stowed



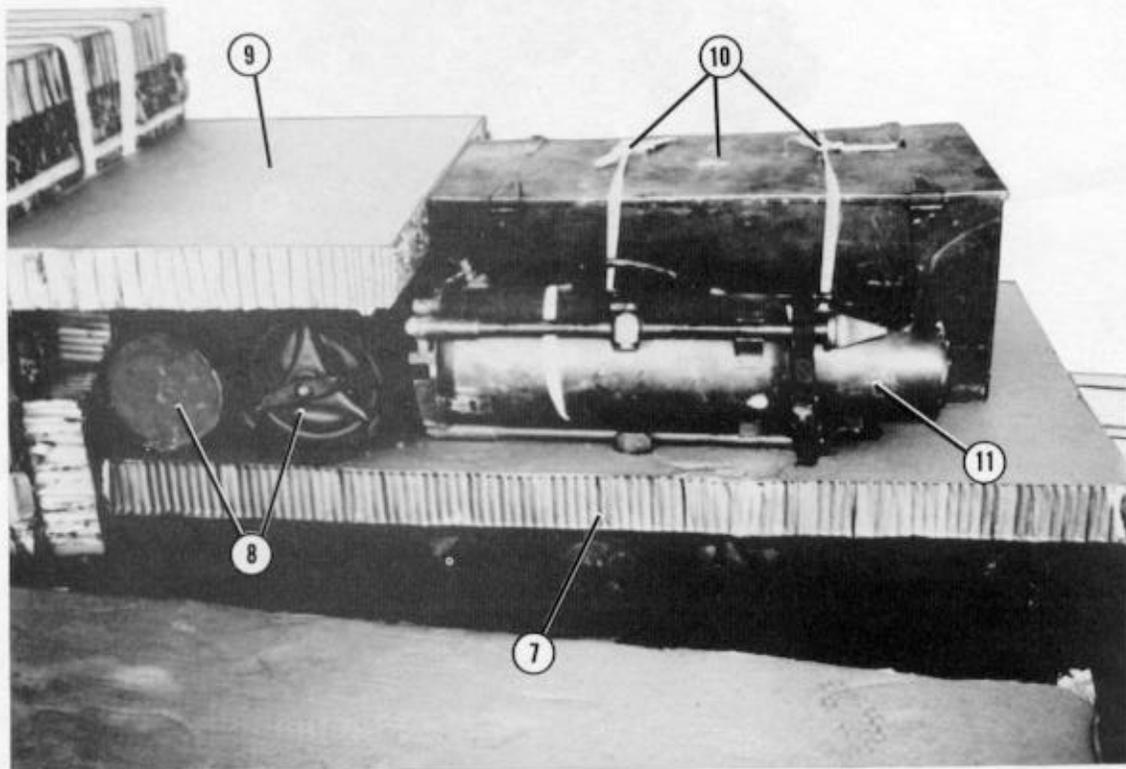
- ③ Place seven powder canisters on top of the honeycomb.
- ④ Wedge a 30- by 30-inch piece of honeycomb on its edge between the rear of the powder canisters and the front edge of honeycomb stack 3.

Figure 5-13. Accompanying equipment stowed (continued)



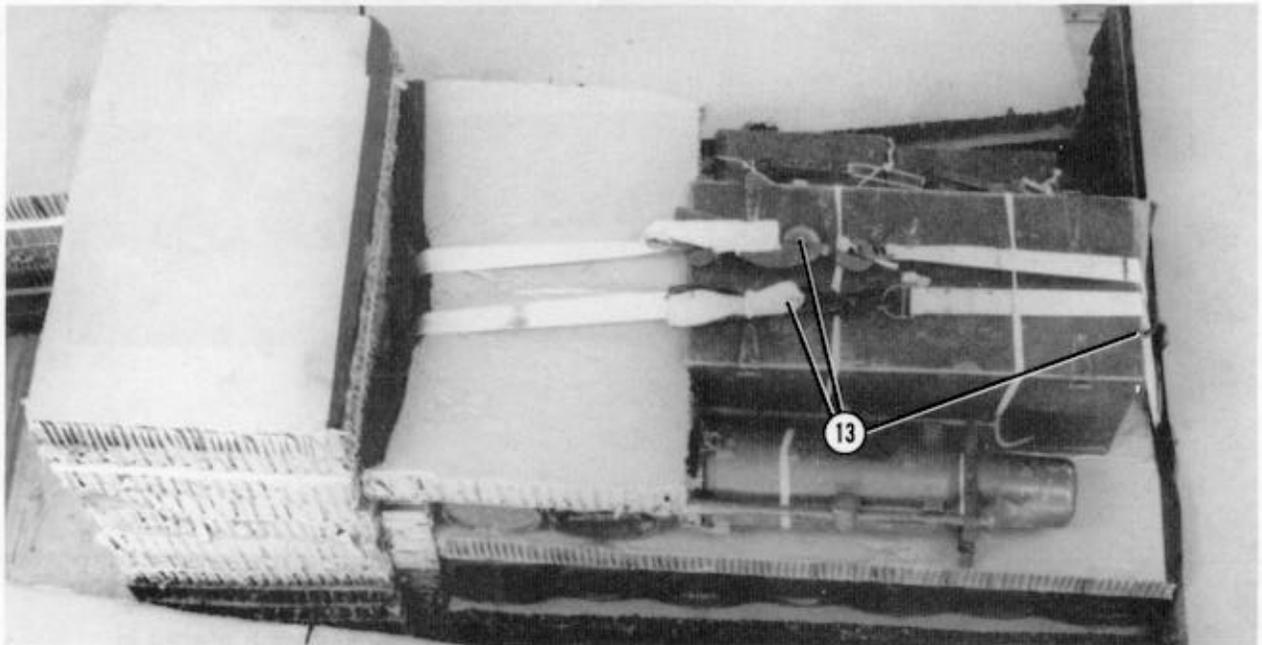
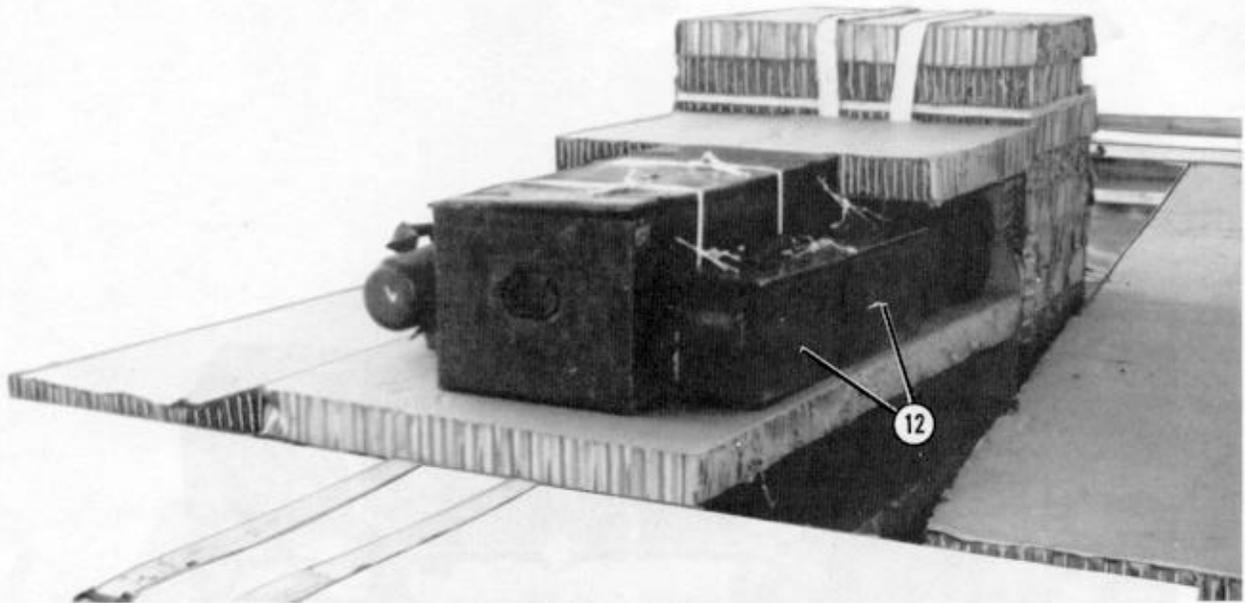
- ⑤ Place a 30- by 50-inch piece of honeycomb on top of the seven powder canisters.
- ⑥ Place seven powder canisters on top of the honeycomb.

Figure 5-13. Accompanying equipment stowed (continued)



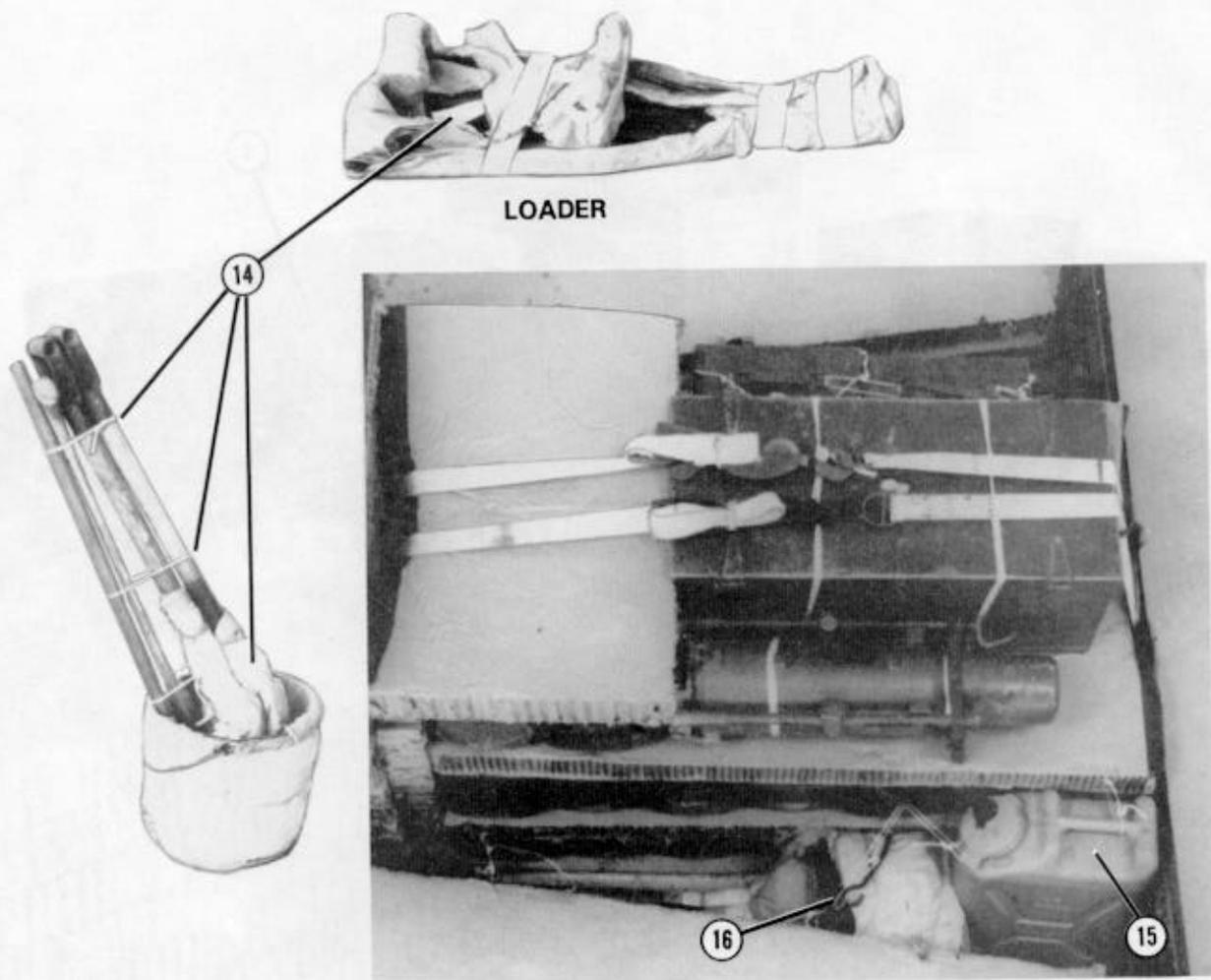
- ⑦ Place a 30- by 50-inch piece of honeycomb on top of the seven powder canisters.
- ⑧ Place two powder canisters side by side against the honeycomb placed in step 4.
- ⑨ Place a 20- by 30-inch piece of honeycomb on top of the two powder canisters.
- ⑩ Tie the section chest closed with two lengths of 1/2-inch tubular nylon webbing. Center the section chest against the honeycomb placed in step 9.
- ⑪ Tie the collimator to the ties on the right side of the section chest with 1/2-inch tubular nylon webbing.

Figure 5-13. Accompanying equipment stowed (continued)



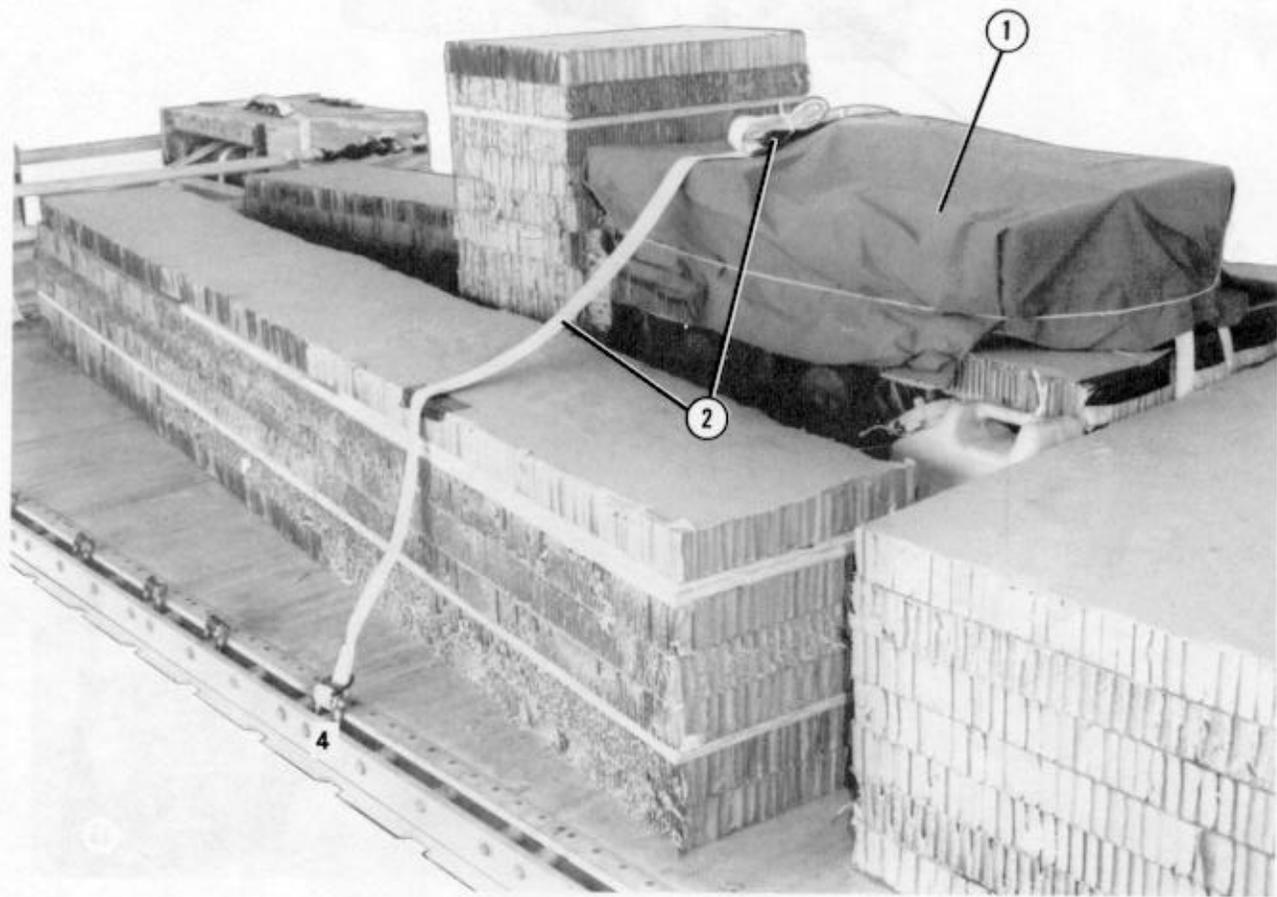
- ⑫ Place two fuse boxes to the left of the section chest. Tie the handles of the fuse boxes together with type III nylon cord. Tie the fuse boxes to the section chest latches with type III nylon cord.
- ⑬ Pass the 15-foot lashings (step 1) through the handles on the front of the section chest. Secure the lashings on top of the section chest with D-rings and load binders.

Figure 5-13. Accompanying equipment stowed (continued)



- ⑭ Tape cellulose wadding around the shovels, ax, sledgehammer, pail, and loader. Place the shovels, ax, and sledgehammer inside the pail. Secure them together with type III nylon cord.
- ⑮ Tape a piece of honeycomb (not shown) to the bottom of two water cans. Place one filled water can on each side of the powder canisters flush against honeycomb stack 2. Secure the water cans to the powder canisters with type III nylon cord.
- ⑯ Place the shovels, ax, sledgehammer, and pail between the powder canisters and honeycomb stack 4. Secure them to the powder canisters with type III nylon cord.
- ⑰ Place the loader between the powder canisters and honeycomb stack 5. Secure the loader to the powder canisters with type III nylon cord (not shown).

Figure 5-13. Accompanying equipment stowed (continued)



- ① Place a 60- by 60-inch canvas cover over the equipment. Secure it with type III nylon cord.
- ② Pass a 15-foot lashing through clevis 4 and through its own D-ring. Pass another 15-foot lashing through clevis 4A and through its own D-ring. Secure the lashings on top of the load with two D-rings and a load binder.

**Note:** Leave a little slack in the lashings. When the howitzer is positioned on the platform, the lashings will tighten themselves.

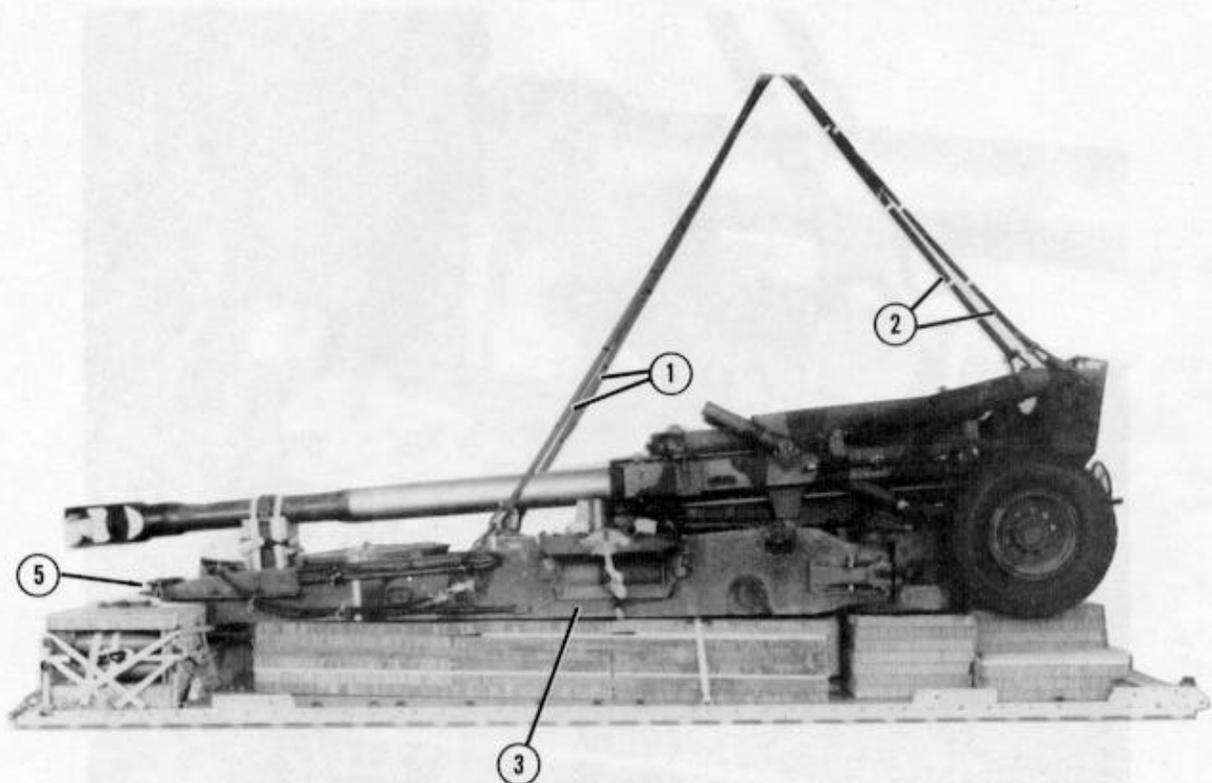
Figure 5-14. Accompanying equipment lashed to platform

### 5-6. Preparing Howitzer

Prepare the howitzer as shown in Figures 4-8 through 4-16.

### 5-7. Installing Lifting Slings and Positioning Howitzer

Install lifting slings and position the howitzer on the platform as shown in Figure 5-15.



① Bolt a 12-foot (4-loop), type XXVI nylon webbing sling to the lifting clevis on each trail with a large suspension clevis.

② Bolt a 9-foot (4-loop), type XXVI nylon webbing sling to each top carriage hoisting link with a large suspension clevis.

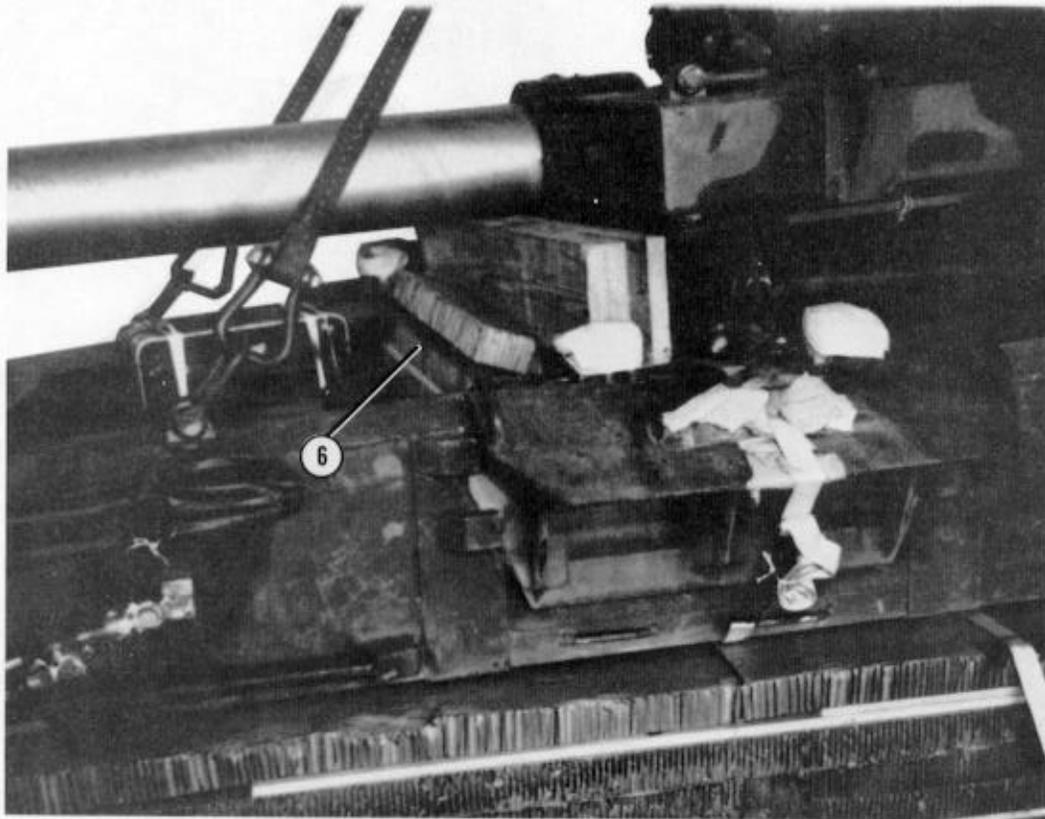
**Note:** Raise the wheels when the howitzer is lifted off the ground. Lock the wheels in the UP position.

③ Center the right trail on honeycomb stack 4.

④ Center the left trail on honeycomb stack 5 (not shown).

⑤ Let the lunette overhang the rear of the platform by 5 inches.

Figure 5-15. Howitzer positioned

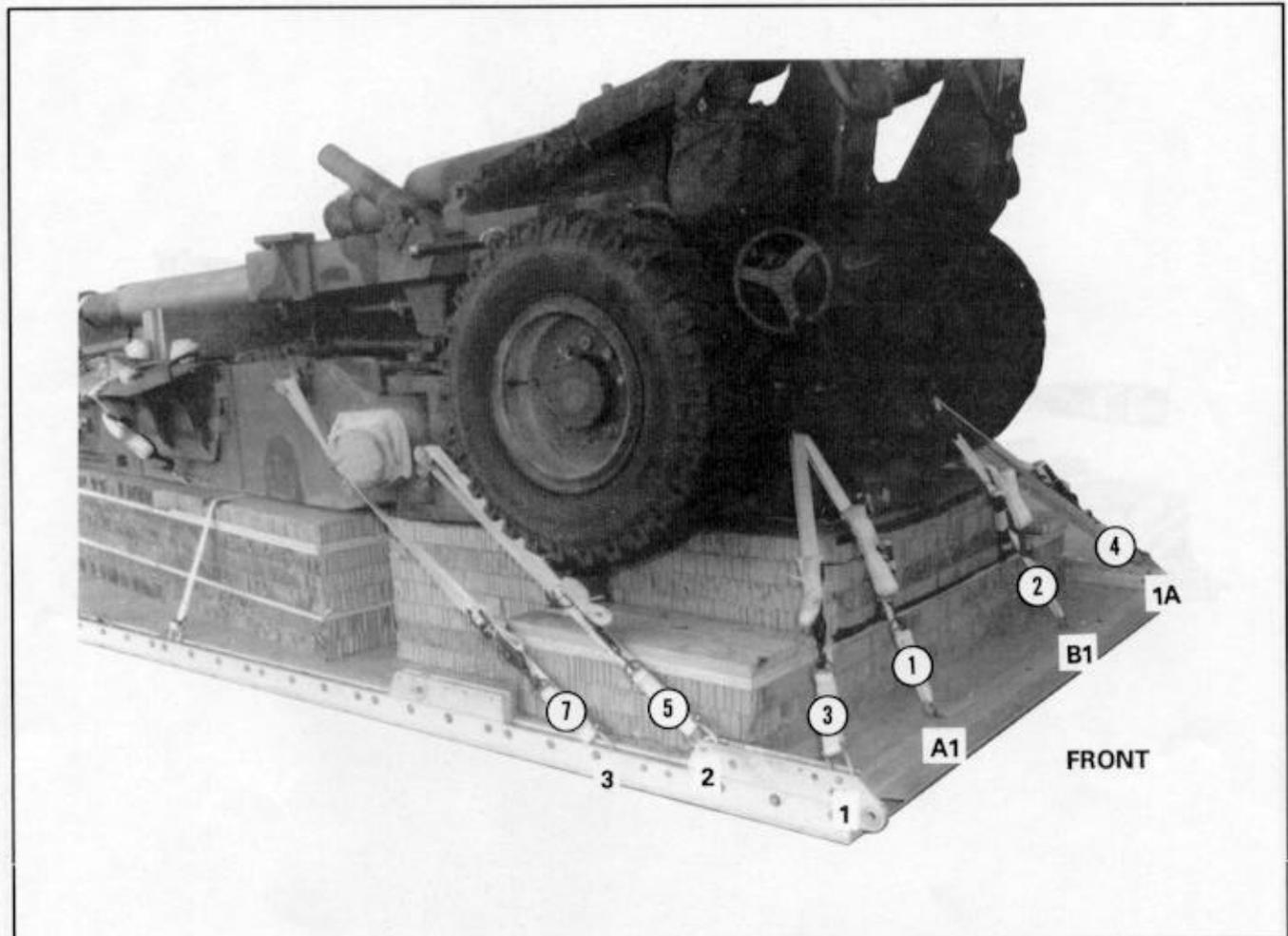


- ⑥ Ensure the rear tube support blocks are resting solidly on honeycomb stack 3.
- ⑦ Remove the lifting slings (not shown).

Figure 5-15. Howitzer positioned (continued)

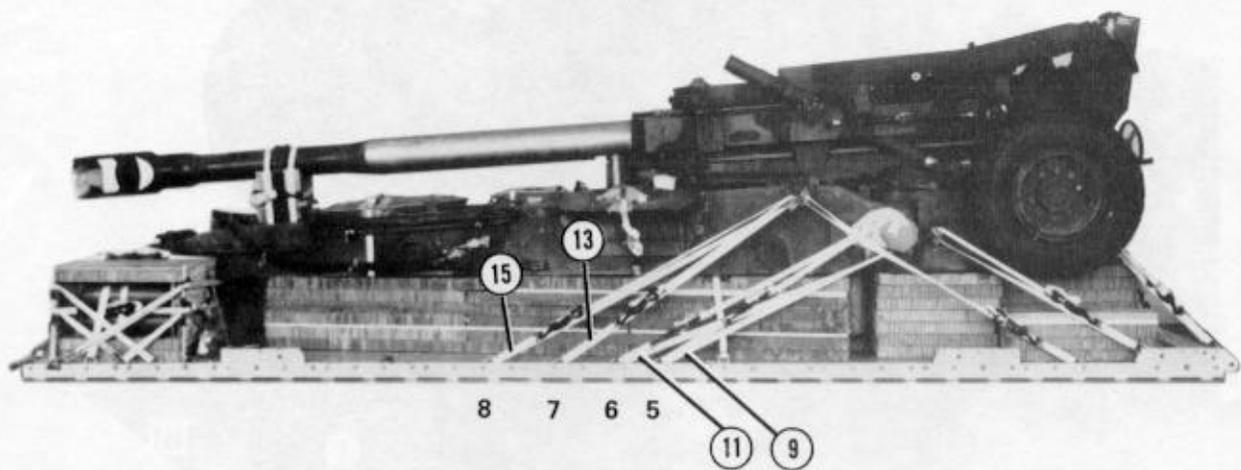
### 5-8. Lashing Howitzer

Lash the howitzer to the platform using thirty-two 15-foot tie-down assemblies. Install the lashings as shown in Figures 5-16 through 5-20.



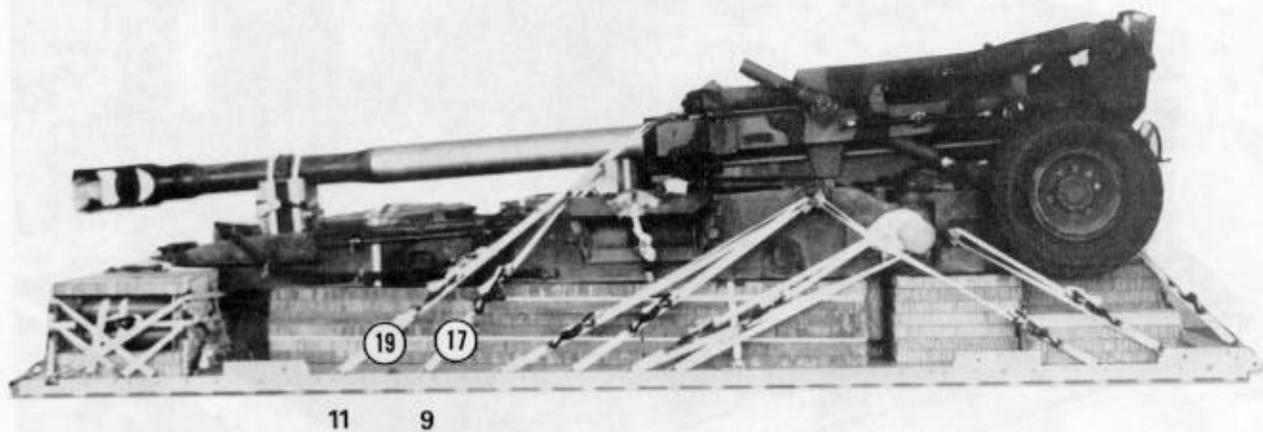
Lashing Number	Tie-down Ring/Clevis Number	Instructions
1	A1	<b>Pass lashing:</b> Through right front tie-down provision on lower carriage. Through left front tie-down provision on lower carriage. Through right front tie-down provision on lower carriage. Through left front tie-down provision on lower carriage. Through right locking plug hole on lower carriage. Through left locking plug hole on lower carriage. Through tie-down provision on right trail. Through tie-down provision on left trail.
2	B1	
3	1	
4	1A	
5	2	
6	2A	
7	3	
8	3A	

Figure 5-16. Lashings 1 through 8 installed



Lashing Number	Tie-down Clevis Number	Instructions
9	5	Pass lashing:
10	5A	Around trail lock on right trail.
11	6	Around trail lock on left trail.
12	6A	Around trail lock on right trail.
13	7	Around trail lock on left trail.
14	7A	Through tie-down provision on right trail.
15	8	Through tie-down provision on left trail.
16	8A	Through tie-down provision on right trail.

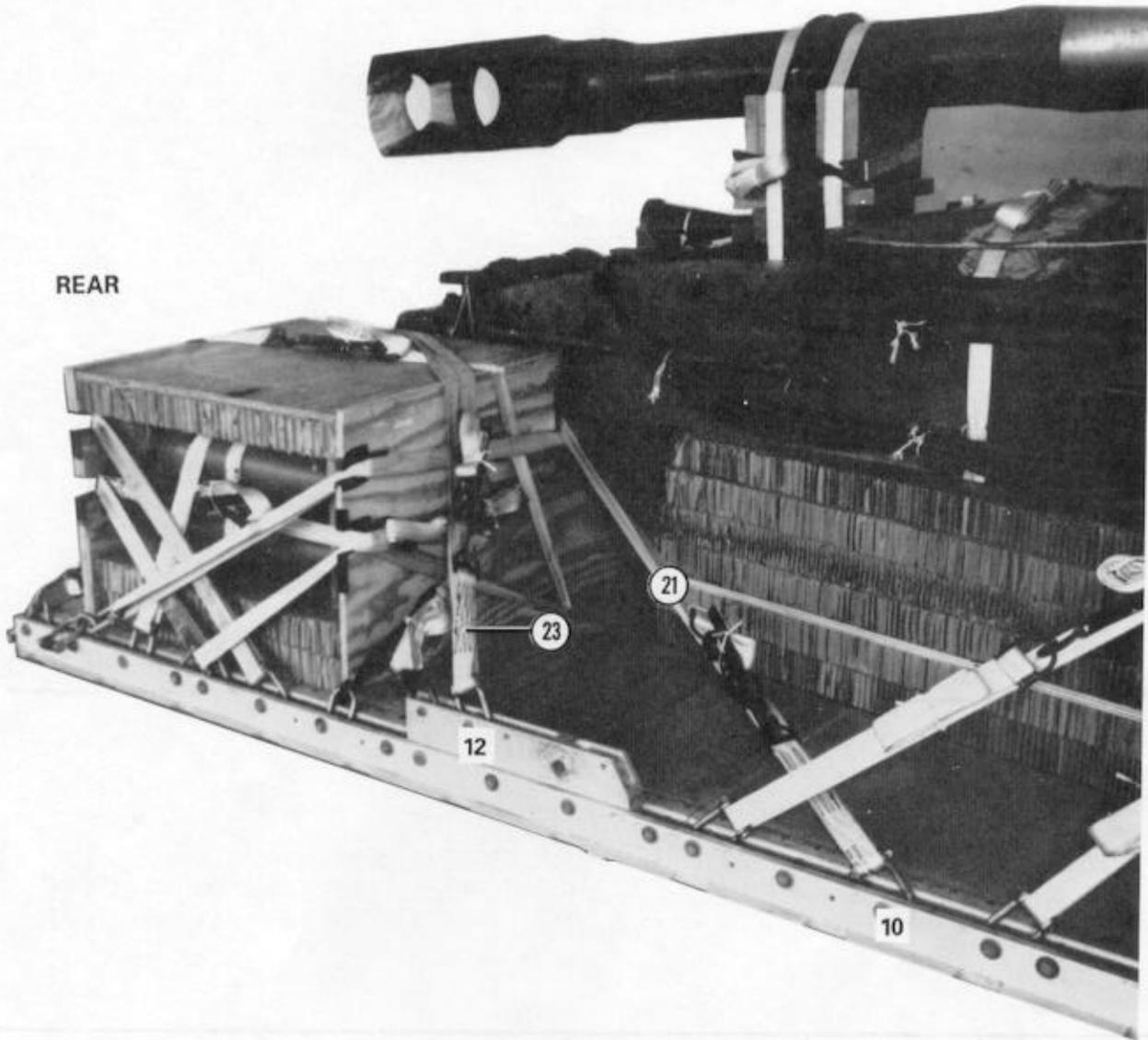
Figure 5-17. Lashings 9 through 16 installed



Lashing Number	Tie-down Clevis Number	Instructions
17*	9	Pass lashing: Through clevis on right corner of cradle assembly. Through clevis on left corner of cradle assembly. Through clevis on right corner of cradle assembly. Through clevis on left corner of cradle assembly.
18*	9A	
19*	11	
20*	11A	
*30-foot lashing		

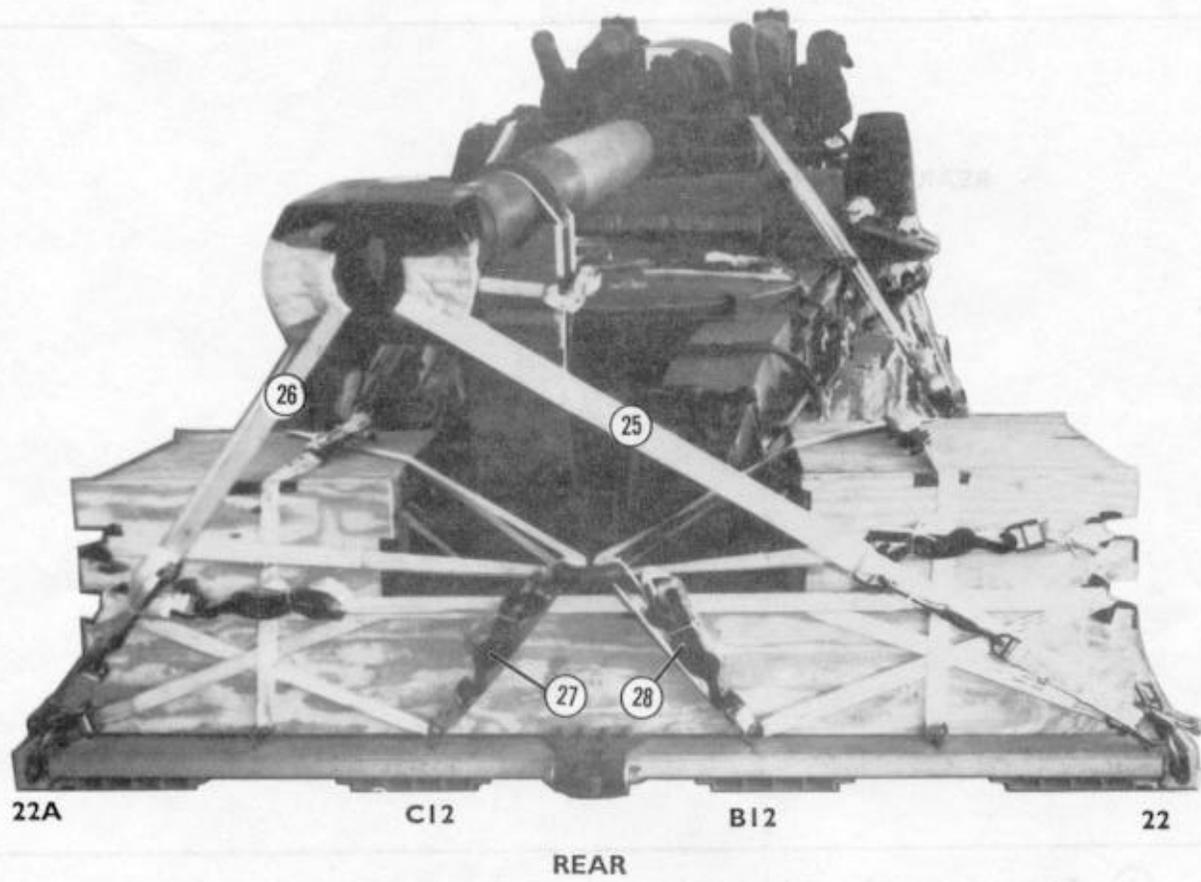
Figure 5-18. Lashings 17 through 20 installed

REAR



Lashing Number	Tie-down Clevis Number	Instructions
21	10	Pass lashing: Through tie-down provision on right trail. Through tie-down provision on left trail. Over ammunition load and through lunette. Over ammunition load and through lunette.
22	10A	
23	12	
24	12A	

Figure 5-19. Lashings 21 through 24 installed

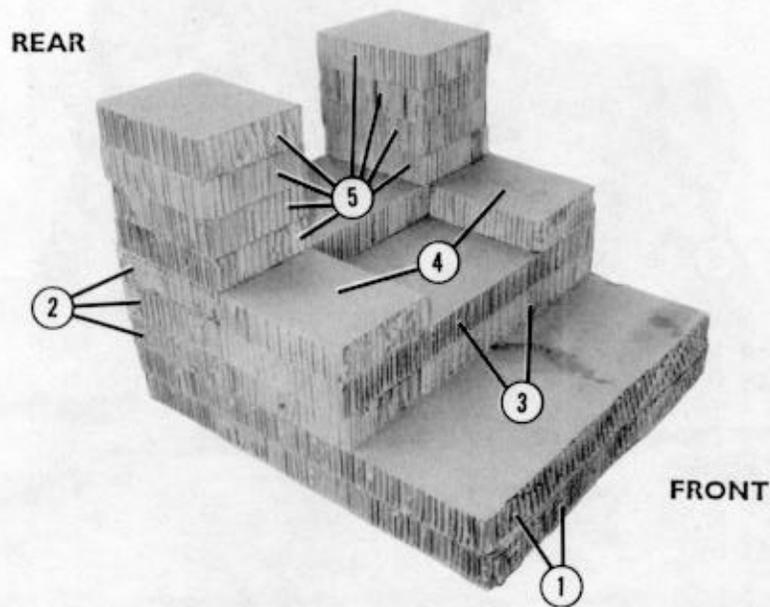


Lashing Number	Tie-Down Clevis/Ring Number	Instructions
25	22	Pass lashing: Through muzzle brake. Through lunette.
26	22A	
27	B12	
28	C12	

Figure 5-20. Lashings 25 through 28 installed

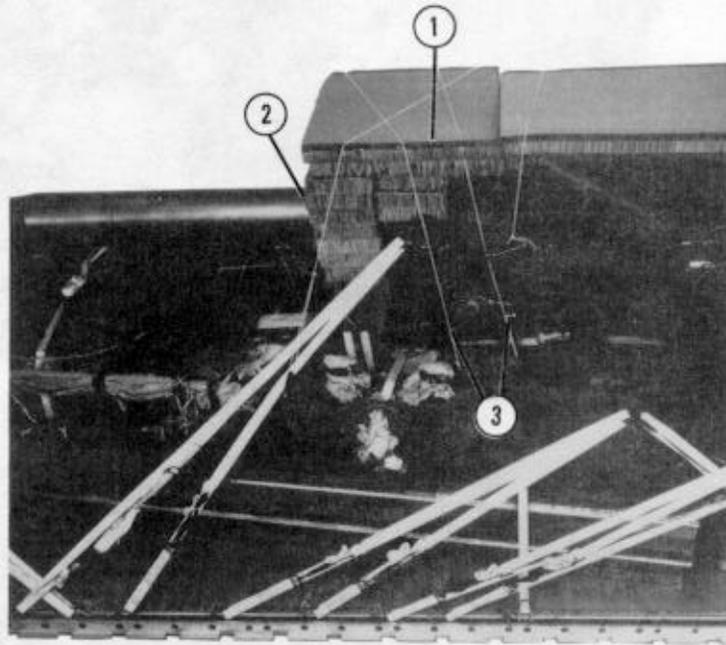
### 5-9. Building and Installing Release Stowage Platform

Build the release stowage platform as shown in Figure 5-21. Install the release stowage platform as shown in Figure 5-22.



- ① Form a base with two 34- by 36-inch pieces of honeycomb.
- ② Glue three 34- by 12-inch pieces of honeycomb flush with the rear of the base stack.
- ③ Glue two 34- by 12-inch pieces of honeycomb flush with the front of the third and fourth layers of honeycomb.
- ④ Glue a 10- by 12-inch piece of honeycomb flush with each corner of the fourth layer of honeycomb.
- ⑤ Glue two stacks of four 10- by 12-inch pieces of honeycomb. Place them flush with the left and right rear corners of the fifth layer of honeycomb.
- ⑥ Allow the platform to dry after it has been glued together.

Figure 5-21. Release stowage platform built

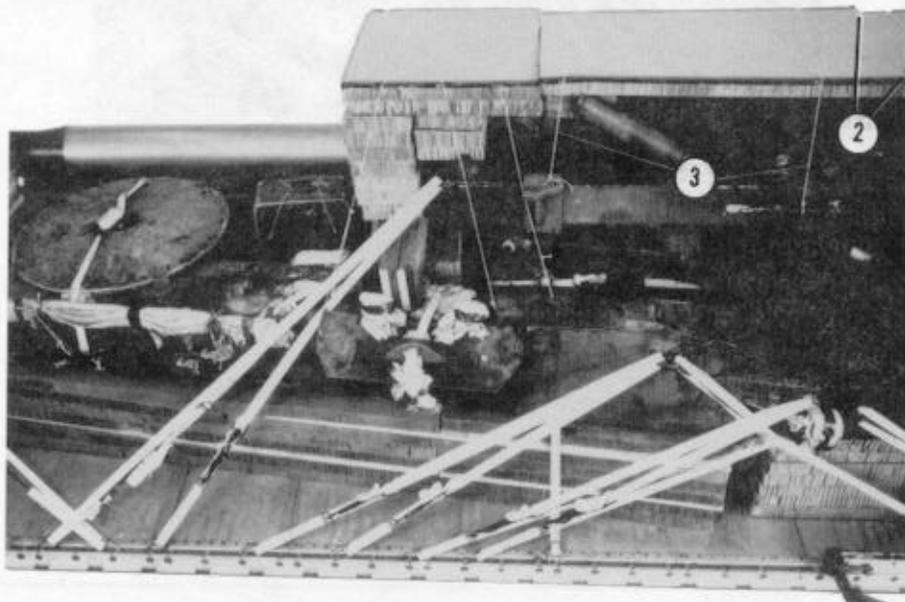
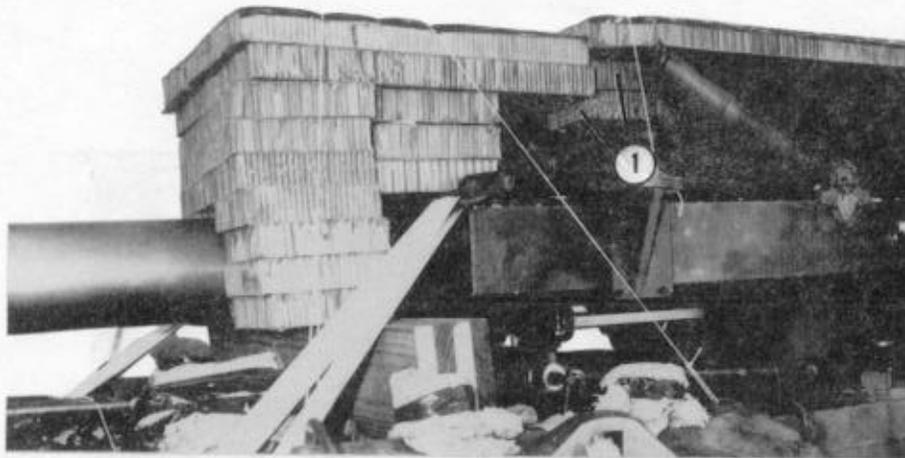


- ① Invert the platform. Place pressure-sensitive tape on the left and right top sides of the platform.
- ② Place the platform over the top of the gun tube, flush with the tube support lumber.
- ③ Secure the stowage platform to the load with type III nylon cord at convenient points on the load.

Figure 5-22. Release stowage platform installed

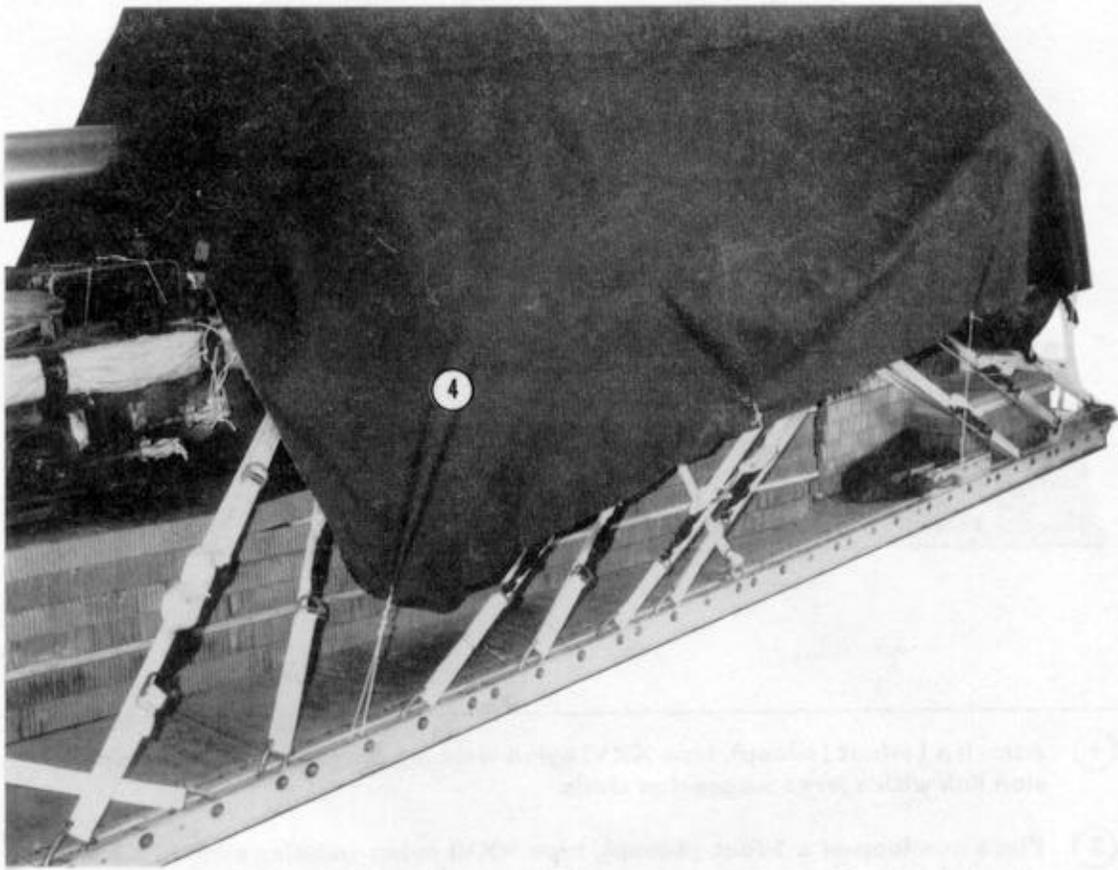
### 5-10. Covering Load

Cover the load as shown in Figure 5-23.



- ① Center two 12- by 18-inch pieces of honeycomb over the recoil tube.
- ② Make a 3- by 36-inch cutout in each front corner of a 36- by 96-inch piece of honeycomb. Place pressure-sensitive tape along the sides of the honeycomb. Set the honeycomb on the cradle assembly as shown.
- ③ Tie the 36- by 96-inch piece of honeycomb in place with type III nylon cord.

Figure 5-23. Load covered

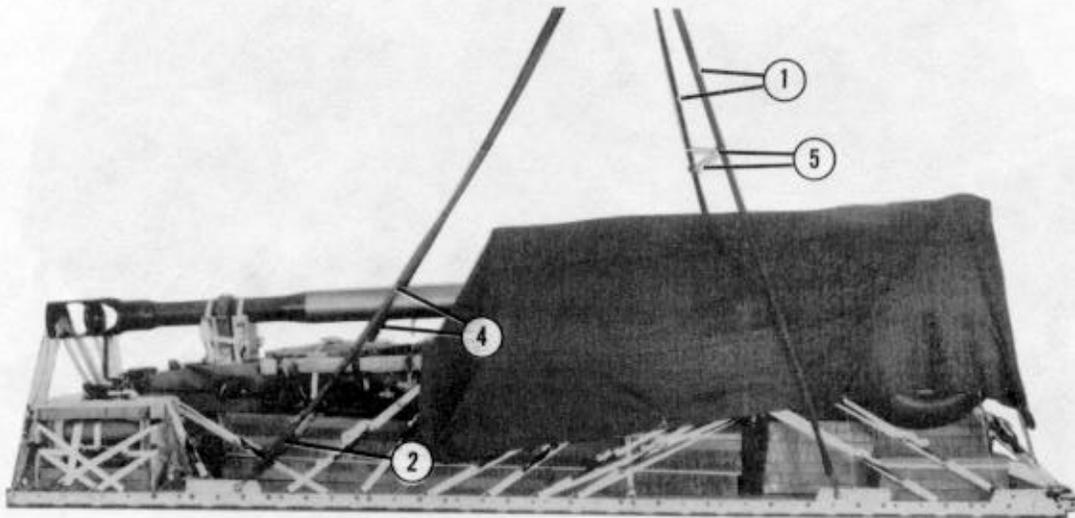


- ④ Tie a 15- by 16-foot piece of cotton duck cloth over the load with type III nylon cord. Tie the cord under the gun tube and to convenient points on the load.

Figure 5-23. Load covered (continued)

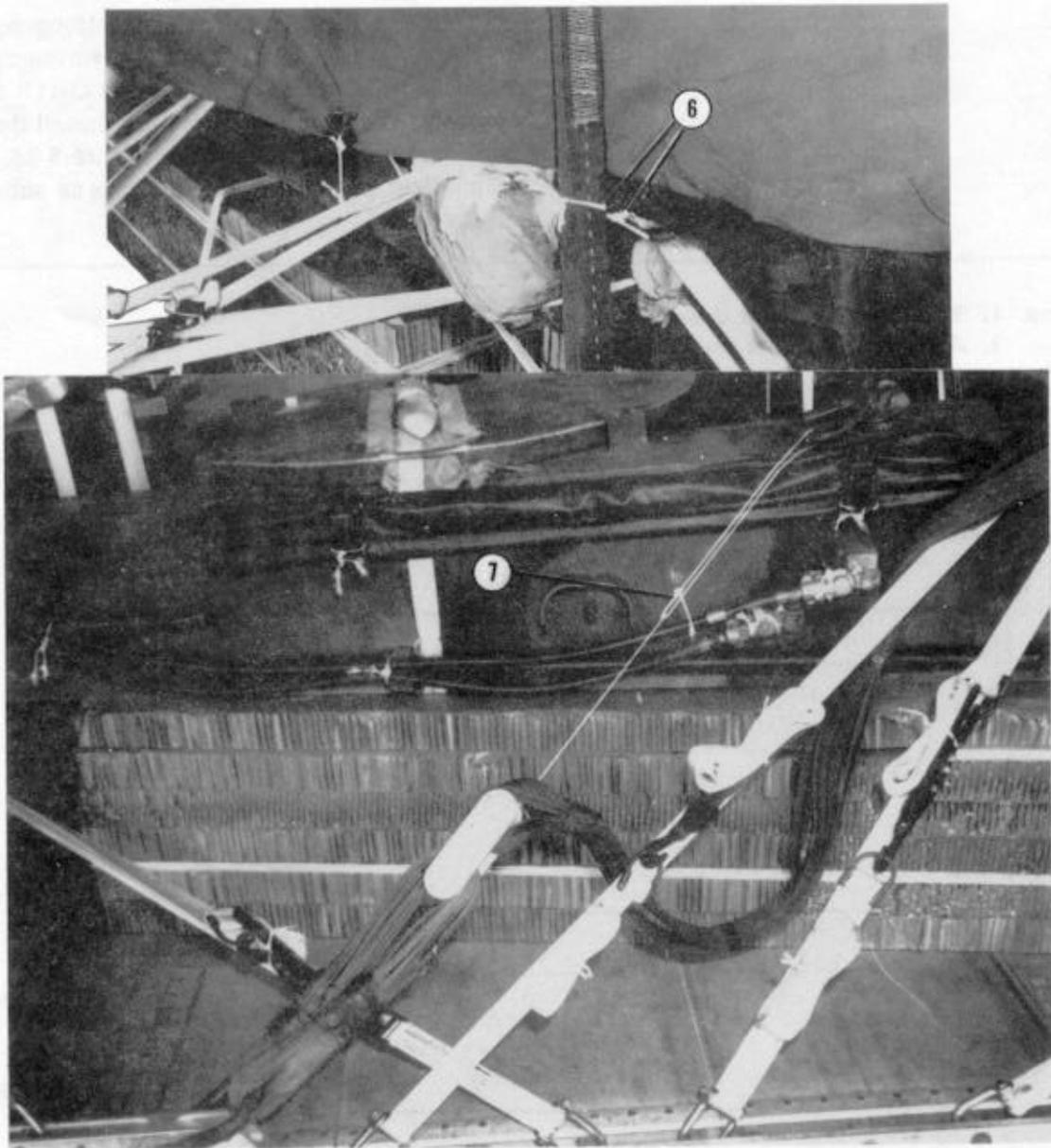
### 5-11. Installing Suspension Slings and Deadman's Tie

Install the suspension slings and the deadman's tie as shown in Figure 5-24.



- ① Attach a 16-foot (4-loop), type XXVI nylon webbing sling to each front suspension link with a large suspension clevis.
- ② Place one loop of a 3-foot (4-loop), type XXVI nylon webbing sling in a large suspension clevis. Pass the free end of the sling through a 5 1/2-inch, two-point link assembly. Place the remaining loop of the 3-foot sling into the large suspension clevis. Bolt the large suspension clevis to the right rear suspension link.
- ③ Repeat step 2 for the left rear suspension link (not shown).
- ④ Attach a 16-foot (4-loop), type XXVI nylon webbing sling to each 5 1/2-inch, two-point link assembly on the rear.
- ⑤ Raise the suspension slings. Install the deadman's tie according to FM 10-500-2/TO 13C7-1-5.

Figure 5-24. Suspension slings and deadman's tie installed



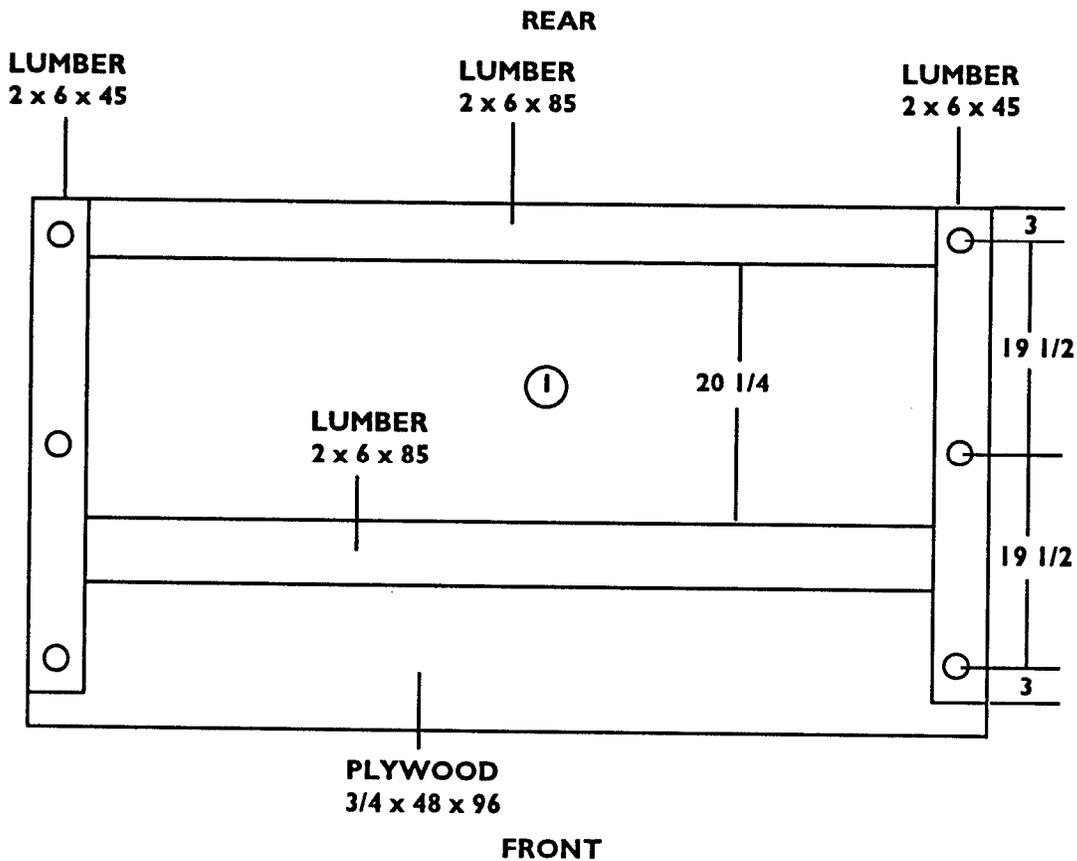
- ⑥ Run a length of 1/2-inch tubular nylon webbing through each trail lock. Safety the front suspension slings to the 1/2-inch tubular nylon webbing with type I, 1/4-inch cotton webbing.
- ⑦ Lower the suspension slings. Tie each 5 1/2-inch, two-point link assembly on the rear suspension slings to the lifting provision on the howitzer trail with type III nylon cord.

Figure 5-24. Suspension slings and deadman's tie installed (continued)

### 5-12. Stowing Cargo Parachutes

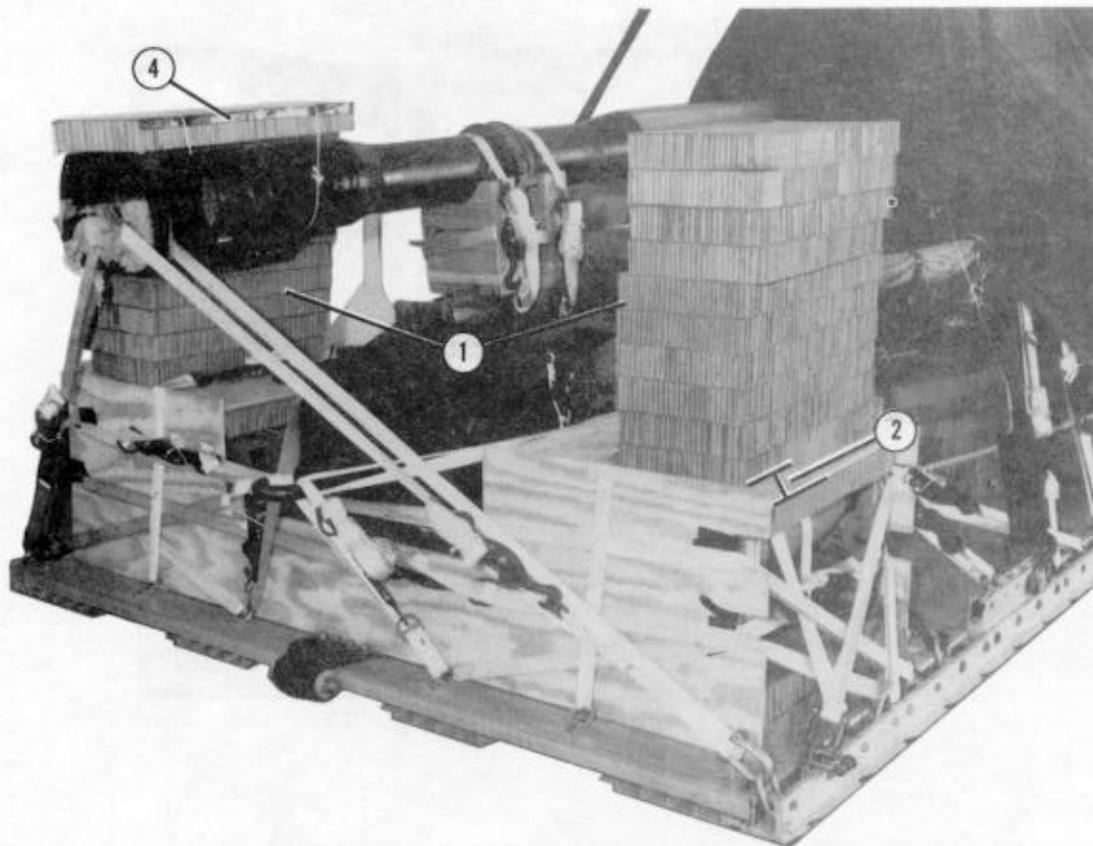
Build the parachute stowage platform as shown in Figure 5-25. Install the parachute stowage platform as shown in Figure 5-26. Stow five G-11B cargo parachutes as shown in Figure 5-27. Install the parachute restraint straps as shown in Figure 5-28. Install the multicut parachute release straps as shown in Figure 5-29.

- Notes: 1. This drawing is not drawn to scale.  
 2. All measurements are given in inches.



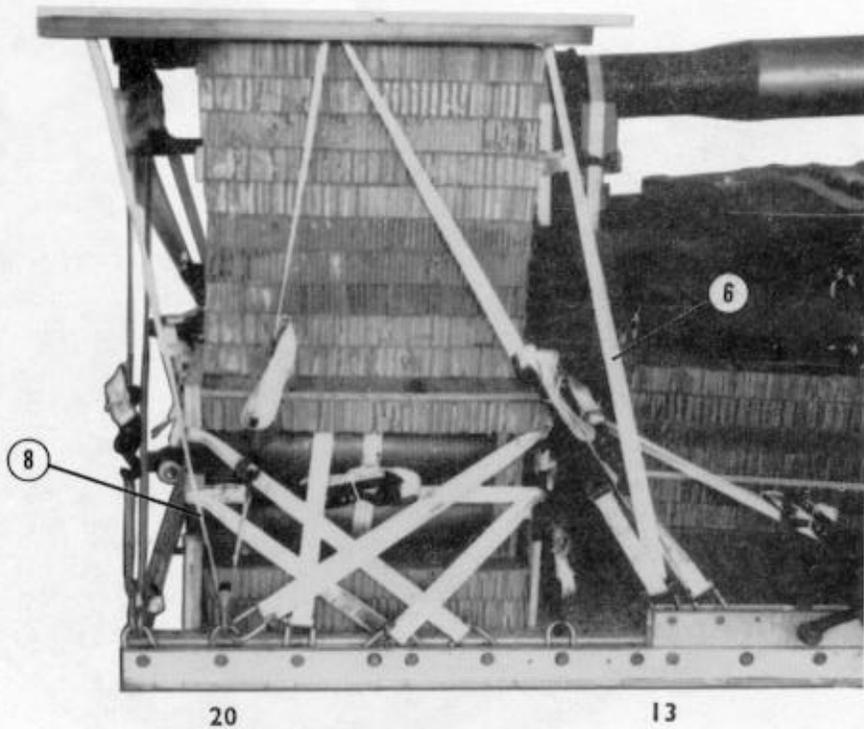
- ① Build the parachute stowage platform as shown using eightpenny nails. Drill 2-inch holes through the plywood and the end pieces of 2- by 6-inch lumber as shown.

Figure 5-25. Parachute stowage platform built



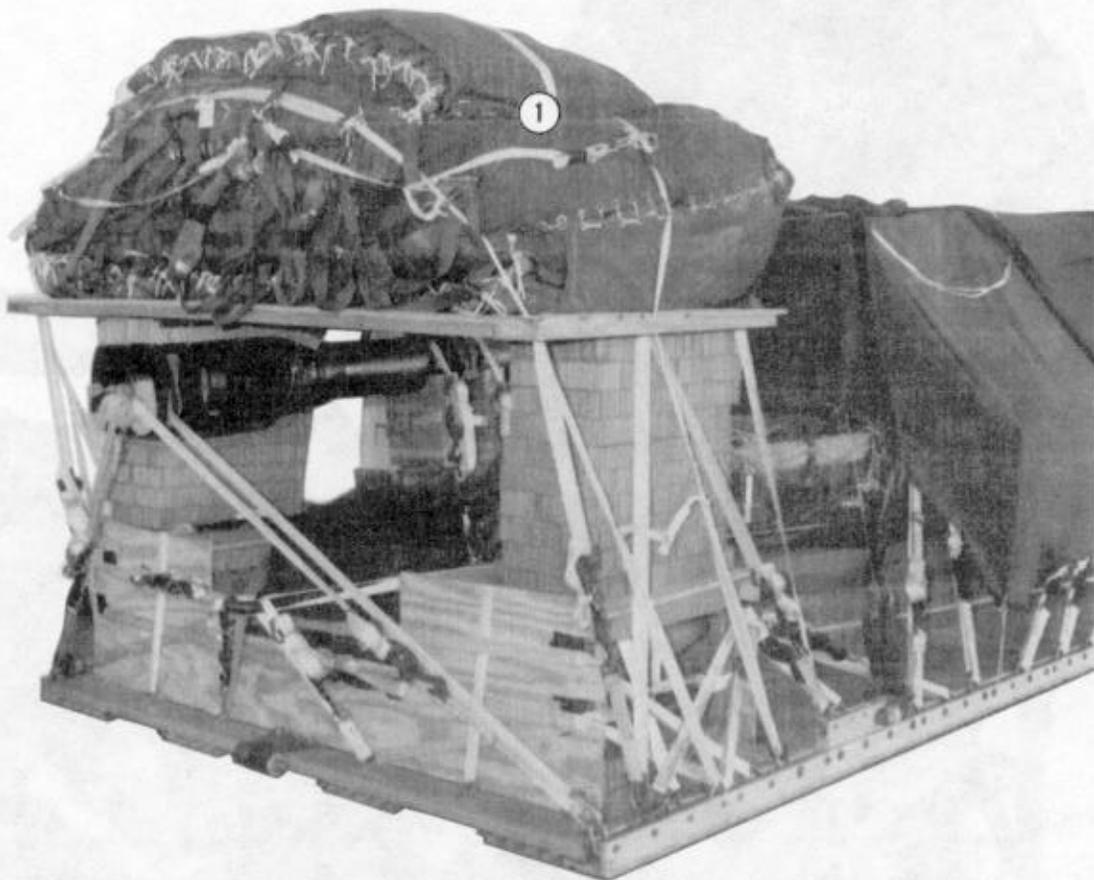
- ① Make two 10-layer honeycomb supports using twenty 12- by 29-inch pieces of honeycomb.
- ② Place one honeycomb support 5 inches from the right side and flush with the rear edge of the ammunition load.
- ③ Repeat step 2 for the left side.
- ④ Place a 14- by 29-inch piece of honeycomb on top of the muzzle brake. Tape the edges of the honeycomb where type III nylon cord will cross. Secure the honeycomb in place with two lengths of type III nylon cord.

Figure 5-26. Parachute stowage platform installed



- ⑤ Center the parachute stowage platform on top of the honeycomb supports with the rear edge of the parachute storage platform flush with the rear edge of the platform.
- ⑥ Pass a 15-foot lashing through clevis 13, up through the right front hole, and down through the right center hole of the parachute stowage platform. Secure the ends of the lashing with a D-ring and a load binder.
- ⑦ Repeat step 6 using clevis 13A (not shown) for the left side.
- ⑧ Pass a 15-foot lashing through clevis 20, up through the right rear hole, and down through the right center hole of the parachute stowage platform. Secure the ends of the lashing with a D-ring and a load binder.
- ⑨ Repeat step 8 using clevis 20A (not shown) for the left side.

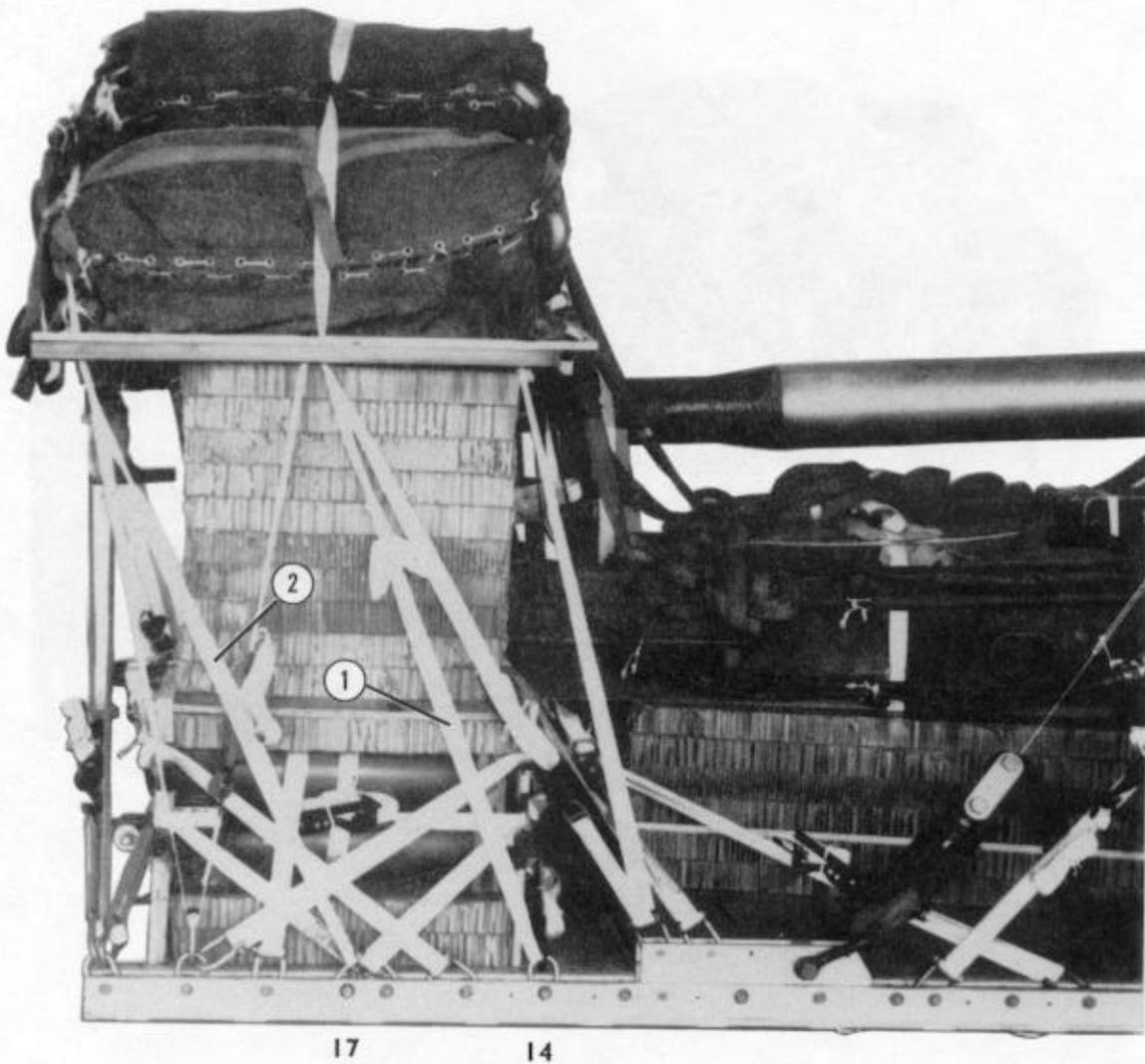
Figure 5-26. Parachute stowage platform installed (continued)



- ① Prepare and stow five G-11B cargo parachutes on the parachute stowage platform according to FM 10-500-2/TO 13C7-1-5.

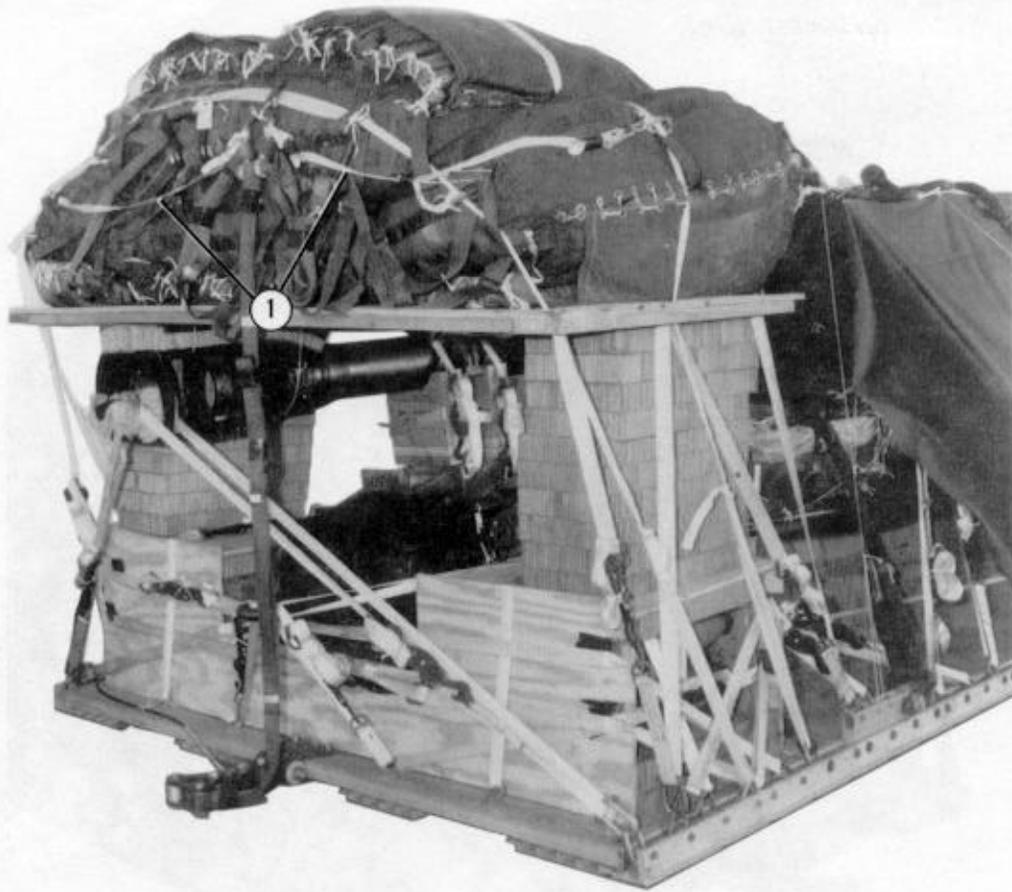
**Note:** Unstow two of the riser extension stows on each parachute.

Figure 5-27. Cargo parachutes stowed



- ① Install the first parachute restraint strap through the center holes of the parachute stowage platform and to clevises 14 and 14A.
- ② Install the second parachute restraint strap through the rear holes of the parachute stowage platform and to clevises 17 and 17A.

Figure 5-28. Parachute restraint straps installed



- ① Install two multicut parachute release straps according to FM 10-500-2/  
TO 13C7-1-5.

Figure 5-29. Multicut parachute release straps installed

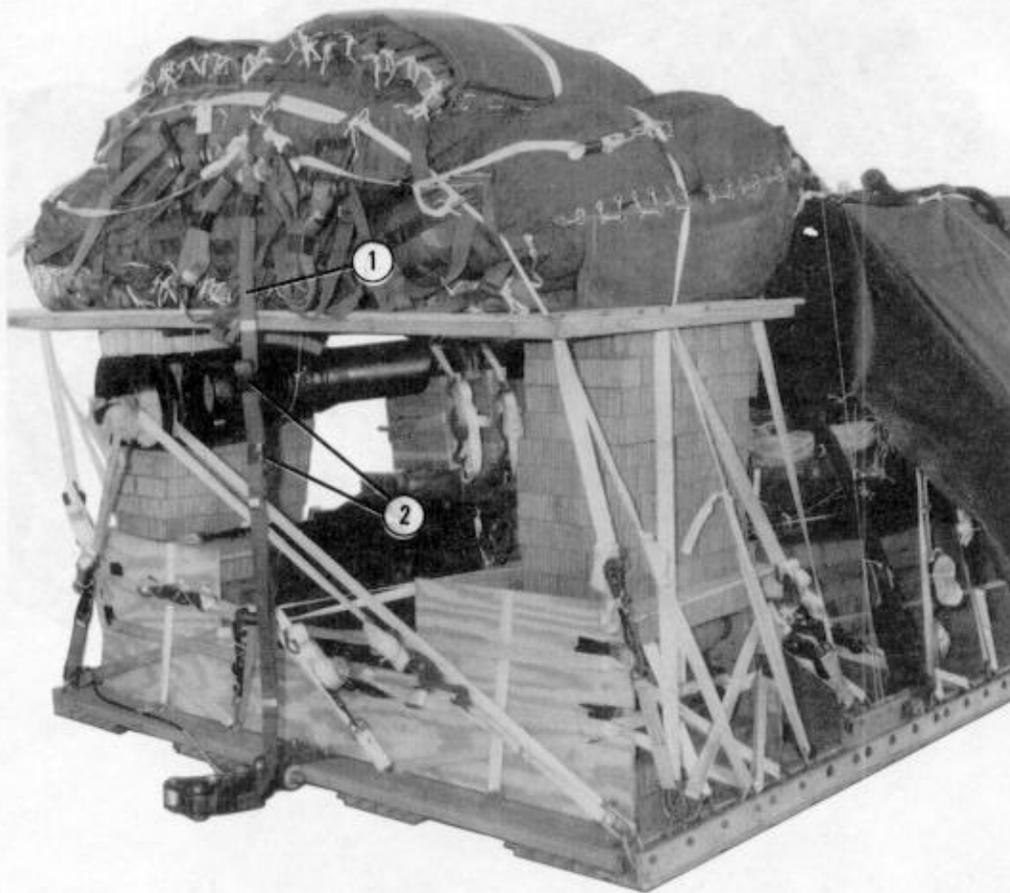
### 5-13. Installing Extraction System

Install the EFTC extraction system according to FM 10-500-2/TO 13C7-1-5 and as given below.

*a.* Install the actuator brackets to the rear mounting holes on the left platform side rail.

*b.* Attach a 24-foot cable to the actuator. Run the cable toward the rear of the load. Safety the cable to convenient points on the platform and to tie-down ring D12 with type I, 1/4-inch cotton webbing.

*c.* Install a deployment line as shown in Figure 5-30.

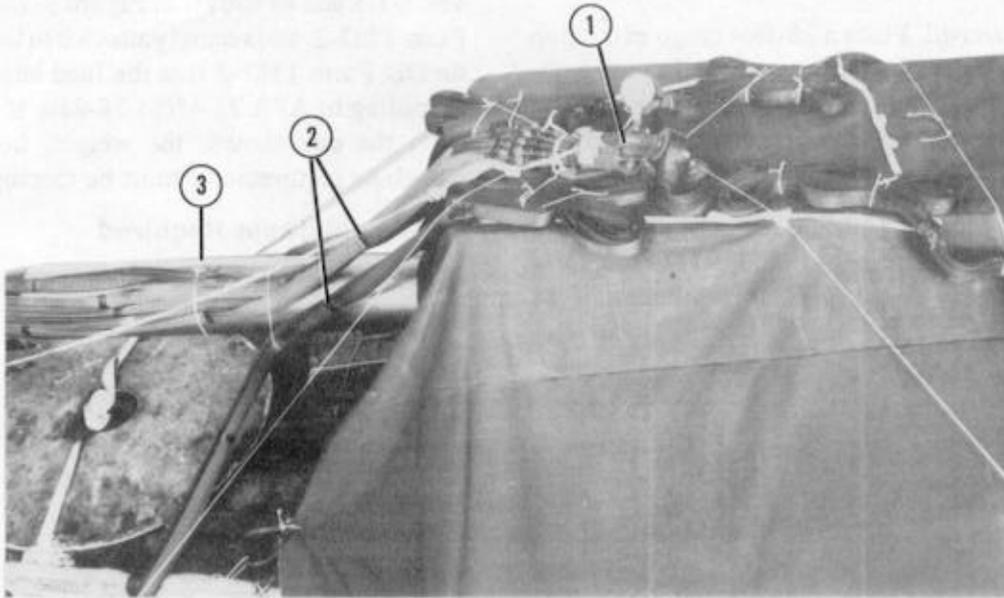


- ① Install a 9-foot (2-loop), type XXVI nylon webbing sling as the deployment line.
- ② S-fold the deployment line. Tape or tie the fold in two places with type I, 1/4-inch cotton webbing.

Figure 5-30. Deployment line installed

### 5-14. Installing Release System

Install an M-2 cargo parachute release according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 5-31.



- ① Place the M-2 release on top of the load cover at the rear edge of the release storage platform. Attach the suspension slings and parachute riser extensions according to FM 10-500-2/TO 13C7-1-5.

#### CAUTION

The M-2 release requires a 25-foot arming wire lanyard when it is used on this load.

- ② Group and tie the parachute rigger extensions with type I, 1/4-inch cotton webbing.
- ③ Tie the parachute riser extensions to the gun tube with type I, 1/4-inch cotton webbing.

Figure 5-31. M-2 release installed

### **5-15. Installing Provisions for Emergency Restraints**

Install the provisions for the emergency restraints on the load according to FM 10-500-2/TO 13C7-1-5.

### **5-16. Placing Extraction Parachute**

Place the extraction parachute as described below.

*a. C-130 Aircraft.* Place a 28-foot cargo extraction parachute; a 60-foot (3-loop), type XXVI nylon webbing extraction line; and a 5 1/2-inch, two-point link assembly on the load for installation in the aircraft.

*b. C-141 Aircraft.* Place a 28-foot, heavy-duty cargo extraction parachute; a 140-foot (3-loop), type XXVI nylon webbing extraction line; and a 5 1/2-inch, two-point link assembly on the load for installation in the aircraft.

*c. C-5 Aircraft.* See FM 10-500-2/TO 13C7-1-5 for extraction parachute requirements.

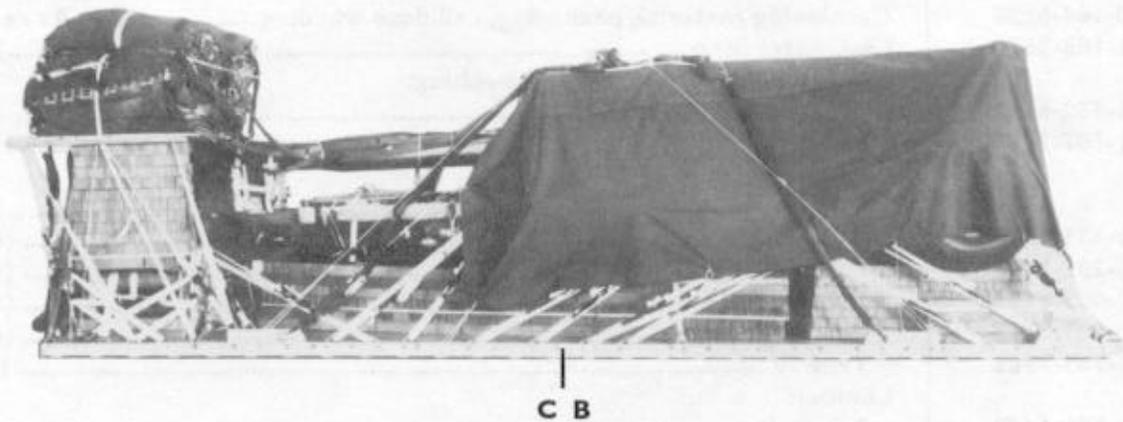
### **5-17. Marking Rigged Load**

Mark the rigged load according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 5-32. Complete DD Form 1387-2, and securely attach it to the load. Indicate on DD Form 1387-2 that the load has been prepared according to AFR 71-4/TM 38-250. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

### **5-18. Equipment Required**

Use the equipment listed in Table 5-2 to rig this load.

**CAUTION**  
 Make the final rigger inspection required by FM 10-500-2/  
 TO 13C7-1-5 before the load leaves the rigging site.



**RIGGED LOAD DATA**

<b>Weight:</b>	Load shown.....	23,400 pounds
	Maximum load allowed.....	24,000 pounds
<b>Height</b> .....		94 inches
<b>Width</b> .....		109 1/2 inches
<b>Length</b> .....		311 inches
<b>Overhang: Front</b> .....		0 inches
	Rear.....	0 inches
<b>CB (from front edge of platform)</b> .....		128 inches
<b>Extraction system</b> .....		EFTC

Figure 5-32. M198, 155-mm howitzer with accompanying ammunition load rigged on a type V platform for low-velocity airdrop

**Table 5-2. Equipment required for rigging the M198, 155-mm howitzer with accompanying ammunition load on a type V platform for low-velocity airdrop**

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive, paste, 1-gal .....	As required
	Clevis, suspension:	
4030-00-678-8562	3/4-in (medium) .....	4
4030-00-090-5354	1-in (large) .....	8
8305-00-242-3593	Cloth, cotton duck, 60-in .....	As required
4020-00-240-2146	Cord, nylon, type III, 550-lb .....	As required
1670-00-434-5782	Coupling, airdrop, extraction force transfer w 24-ft cable .....	1
1670-00-360-0329	Cover, link assembly, type IV .....	16
8135-00-664-6958	Cushioning material, packaging, cellulose wadding .....	As required
1670-01-183-2678	Leaf, extraction .....	2
	Line, extraction, XXVI nylon webbing:	
1670-01-062-6313	60-ft (3-loop) (for C-130) .....	1
1670-01-107-7651	140-ft (3-loop) (for C-141) .....	1
	Link assembly:	
	Two-point: .....	3
5306-00-435-8994	Bolt, 1-in diam, 4-in long .....	(6)
5310-00-232-5165	Nut, 1-in, hexagon .....	(6)
1670-00-003-1954	Plate, side, 5 1/2-in .....	(6)
5365-00-007-3414	Spacer, large .....	(6)
1670-00-783-5988	Type IV .....	14
	Lumber:	
	2- by 6-in:	
	12-in .....	4
	45-in .....	2
	36-in .....	4
	45-in .....	2
	85-in .....	2
5510-00-220-6448	2- by 10-in:	
	12-in .....	6
	57-in .....	4
	Nail, steel wire, common:	
5315-00-010-4659	8d .....	As required
5315-00-010-4661	10d .....	As required
5315-00-064-5121	20d .....	As required
1670-00-753-3928	Pad, energy-dissipating, honeycomb,	
	3- by 36- by 96-in: .....	40 sheets
	5- by 13-in .....	(4)
	6- by 10-in .....	(6)
	10- by 12-in .....	(10)
	10- by 13-in .....	(2)
	10- by 26-in .....	(1)
	12- by 18-in .....	(2)
	12- by 29-in .....	(20)
	12- by 34-in .....	(5)
	12- by 96-in .....	(20)

**Table 5-2. Equipment required for rigging the M198, 155-mm howitzer with accompanying ammunition load on a type V platform for low-velocity airdrop (continued)**

National Stock Number	Item	Quantity
	14- by 29-in .....	(1)
	18- by 54-in .....	(12)
	18- by 96-in .....	(12)
	20- by 30-in .....	(1)
	29- by 31-in .....	(2)
	30- by 18-in .....	(14)
	30- by 30-in .....	(1)
	30- by 50-in .....	(2)
	30- by 53-in .....	(1)
	34- by 12-in .....	(5)
	34- by 36-in .....	(2)
	34- by 96-in .....	(2)
	36- by 31-in .....	(2)
	58- by 36-in .....	(4)
	80- by 30-in .....	(7)
	96- by 31-in .....	(2)
	96- by 36-in .....	(4)
	<b>Parachute:</b>	
1670-01-016-7841	<b>Cargo, G-11B .....</b>	<b>5</b>
1670-00-040-8135	<b>Cargo extraction, 28-ft .....</b>	<b>1</b>
	<b>Platform, AD, type V, 24-ft: .....</b>	<b>1</b>
	<b>Bracket:</b>	
1670-01-162-2375	<b>Inside EFTA .....</b>	<b>(1)</b>
1670-01-162-2374	<b>Outside EFTA .....</b>	<b>(1)</b>
1670-01-162-2372	<b>Clevis assembly .....</b>	<b>(48)</b>
1670-01-162-2376	<b>Extraction bracket assembly .....</b>	<b>(1)</b>
1670-01-247-2389	<b>Suspension link .....</b>	<b>(4)</b>
1670-01-162-2381	<b>Tandem link (multipurpose) .....</b>	<b>(2)</b>
5530-00-128-4981	<b>Plywood, 3/4-in:</b>	
	18- by 36-in .....	2
	18- by 48-in .....	2
	18- by 54-in .....	2
	18- by 88-in .....	2
	18- by 96-in .....	2
	24- by 96-in .....	3
	29- by 31-in .....	2
	30- by 18-in .....	1
	48- by 96-in .....	1
	96- by 36-in .....	1
1670-01-097-8817	<b>Release, cargo parachute, M-2 .....</b>	<b>1</b>
	<b>Sling, cargo airdrop, type XXVI nylon webbing:</b>	
	<b>For deployment line:</b>	
1670-01-062-6304	<b>9-ft (2-loop) or .....</b>	<b>1</b>
1670-01-062-6305	<b>9-ft (4-loop) .....</b>	<b>1</b>

**Table 5-2. Equipment required for rigging the M198, 155-mm howitzer with accompanying ammunition load on a type V platform for low-velocity airdrop (continued)**

National Stock Number	Item	Quantity
	<b>For lifting:</b>	
1670-01-062-6305	9-ft (4-loop) or .....	2
1670-01-432-2501	9-ft (4-loop) .....	1
1670-01-062-6307	12-ft (4-loop) .....	2
	<b>For riser extension:</b>	
1670-01-062-6311	120-ft (2-loop) .....	7
	<b>For suspension:</b>	
1670-01-062-6306	3-ft (4-loop) .....	2
1670-01-062-6308	16-ft (4-loop) .....	4
1670-00-040-8219	Strap, parachute release, multicut (comes w 3 knives) .....	2
8305-00-074-5124	Tape, adhesive, 2-in .....	As required
1670-00-937-0271	Tie-down assembly, 15-ft .....	66
	<b>Webbing:</b>	
8305-00-268-2411	Cotton, 1/4-in, type I .....	As required
	<b>Nylon:</b>	
8305-00-082-5752	Tubular, 1/2-in, natural .....	As required
8305-00-263-3591	Type VIII .....	As required

## GLOSSARY

<b>AD</b>	airdrop	<b>HQ</b>	headquarters
<b>AFB</b>	Air Force base	<b>in</b>	inch
<b>AFR</b>	Air Force regulation	<b>LAPE</b>	low-altitude parachute extraction
<b>AFTO</b>	Air Force technical order	<b>LAPES</b>	low-altitude parachute extraction system
<b>attn</b>	attention	<b>lb</b>	pound
<b>C</b>	change	<b>mm</b>	millimeter
<b>CB</b>	center of balance	<b>no</b>	number
<b>CL</b>	center line	<b>NSN</b>	national stock number
<b>d</b>	penny	<b>para</b>	paragraph
<b>DA</b>	Department of the Army	<b>qty</b>	quantity
<b>DC</b>	District of Columbia	<b>rqr</b>	required
<b>DD</b>	Department of Defense	<b>SL/CS</b>	static line/connector strap
<b>diam</b>	diameter	<b>TM</b>	technical manual
<b>EFTA</b>	extraction force transfer actuator	<b>TO</b>	technical order
<b>EFTC</b>	extraction force transfer coupling	<b>TRADOC</b>	United States Army Training and Doctrine Command
<b>fig</b>	figure	<b>US</b>	United States
<b>FM</b>	field manual	<b>w</b>	with
<b>ft</b>	feet/foot	<b>yd</b>	yard
<b>gal</b>	gallon		

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